

Diet Quality and Nutrition in South Asia

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IFPRI

8th August 2024



Malnutrition rates remain high and NCDs are rising in South Asia

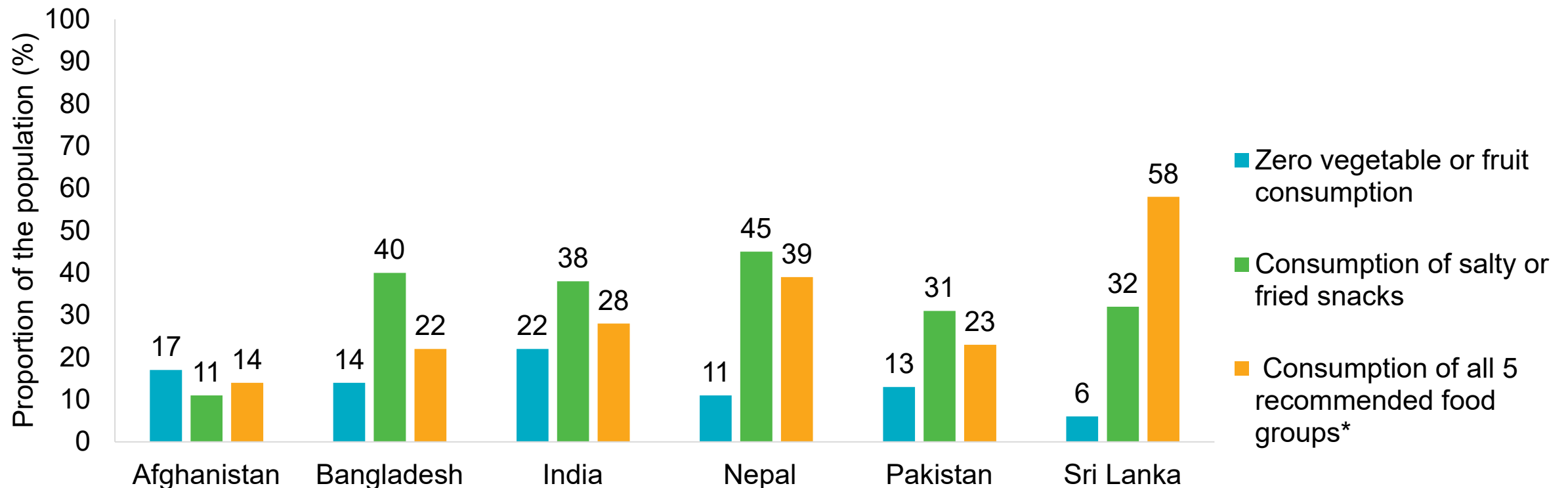
Country	Prevalence of undernourishment (%)		Prevalence of stunting in children under 5 years (%)		Prevalence of overweight in adults (%)		Prevalence of raised blood pressure in adults (%)		Prevalence of diabetes in adults (%)	
	2011	2021	2011	2016–2019	2006	2016	2011	2015	2011	2014
Afghanistan	19.7	30.1	40.4 (2013)	38.2 (2018)	14.4	18.1	30.3	30.6	11.1	11.9
Bangladesh	16.1	11.2	41.3	28.0 (2019)	12.9	17.1	25.2	24.7	9.2	9.8
India	15.4	16.6	38.7 (2012)	34.7 (2017)	12.9	16.4	25.7	25.7	8.5	8.7
Nepal	9.1	5.4	40.1	31.5 (2019)	13.8	17.6	29.1	29.6	10.0	10.6
Pakistan	14.9	18.5	43.6	37.6 (2018)	17.0	20.6	30.2	30.4	11.6	12.4
Sri Lanka	14.0	5.3	14.6 (2012)	17.3 (2016)	14.8	18.6	21.9	22.3	6.9	7.4

Source: Based on data from the Food Systems Dashboard, accessed January 2024. www.foodsystemsdashboard.org/indicators

Note: “Prevalence of undernourishment” is the percentage of the population whose habitual food consumption is insufficient to provide the dietary energy levels required to maintain a normal active and healthy life. For data on the prevalence of stunting, numbers in parentheses indicate the year data were collected.

Poor diet quality is a major reason for poor nutrition outcomes

Share of population (%) consuming no vegetables or fruits, salty or fried snacks, or all 5 recommended food groups, in 2021-22



Reasons for poor diets



Poor Availability: Low crop diversity



Low Affordability: Low per capita incomes + high relative prices of nutrition dense foods

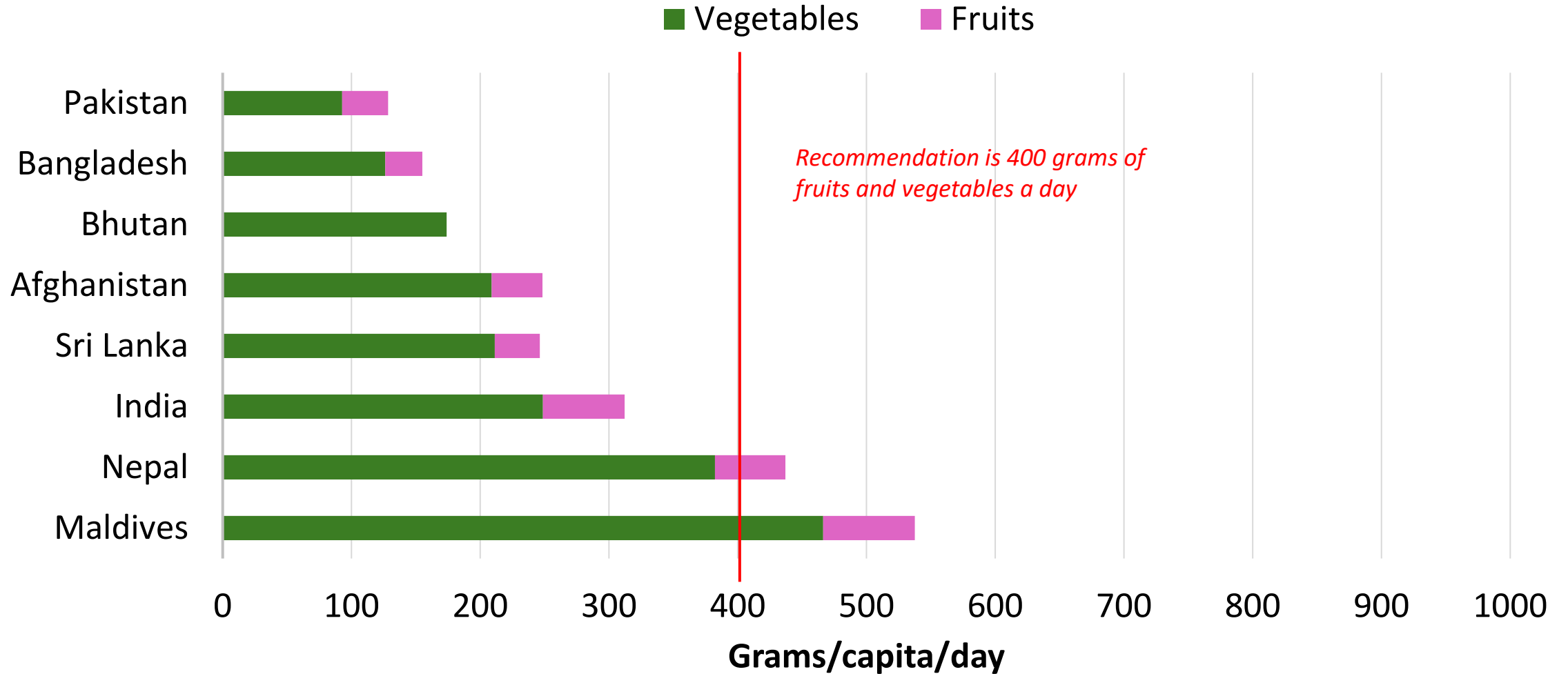


Accessibility: Inefficient, underdeveloped markets and value-chains



Desirability: Easy access to highly processed foods; aggressive promotion;

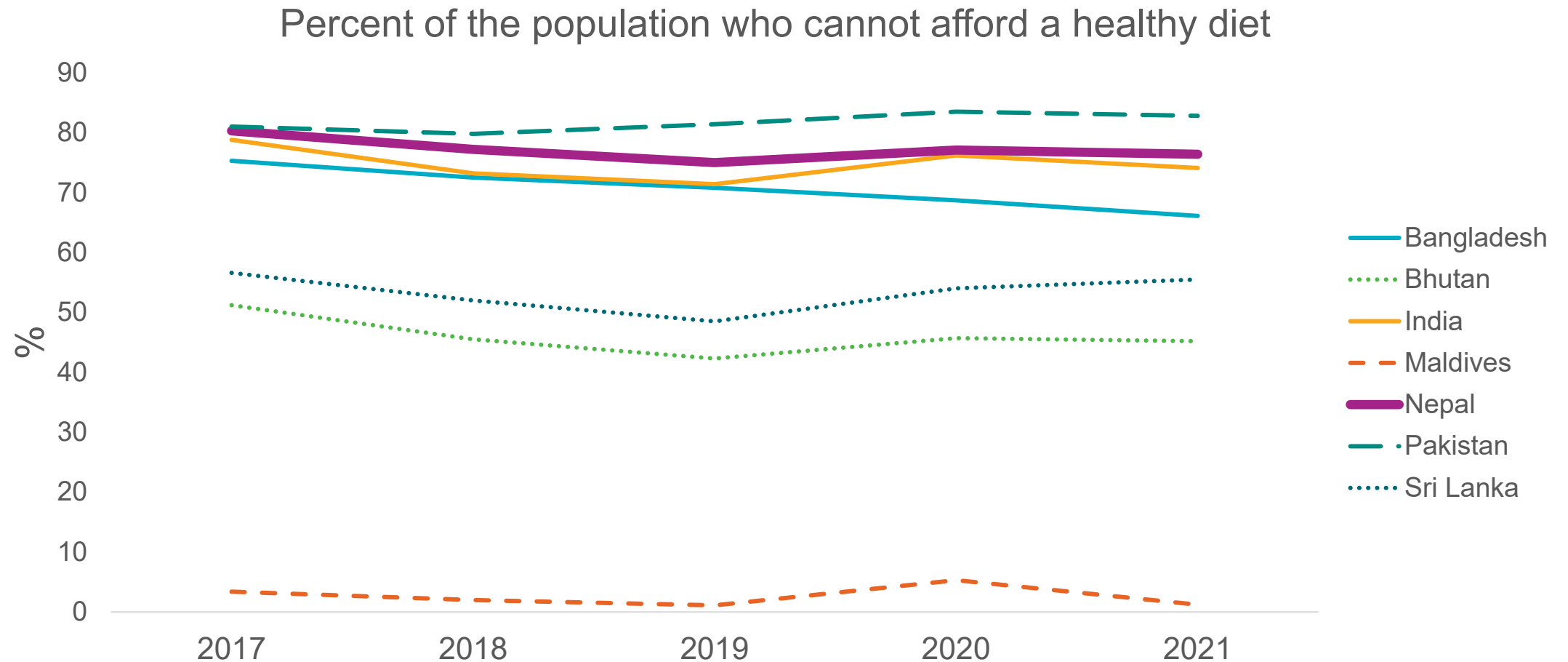
The availability of fruits and vegetables in South Asia is limited



Source: Based on data from the Food Systems Dashboard, accessed February 2024. www.foodsystemsdashboard.org

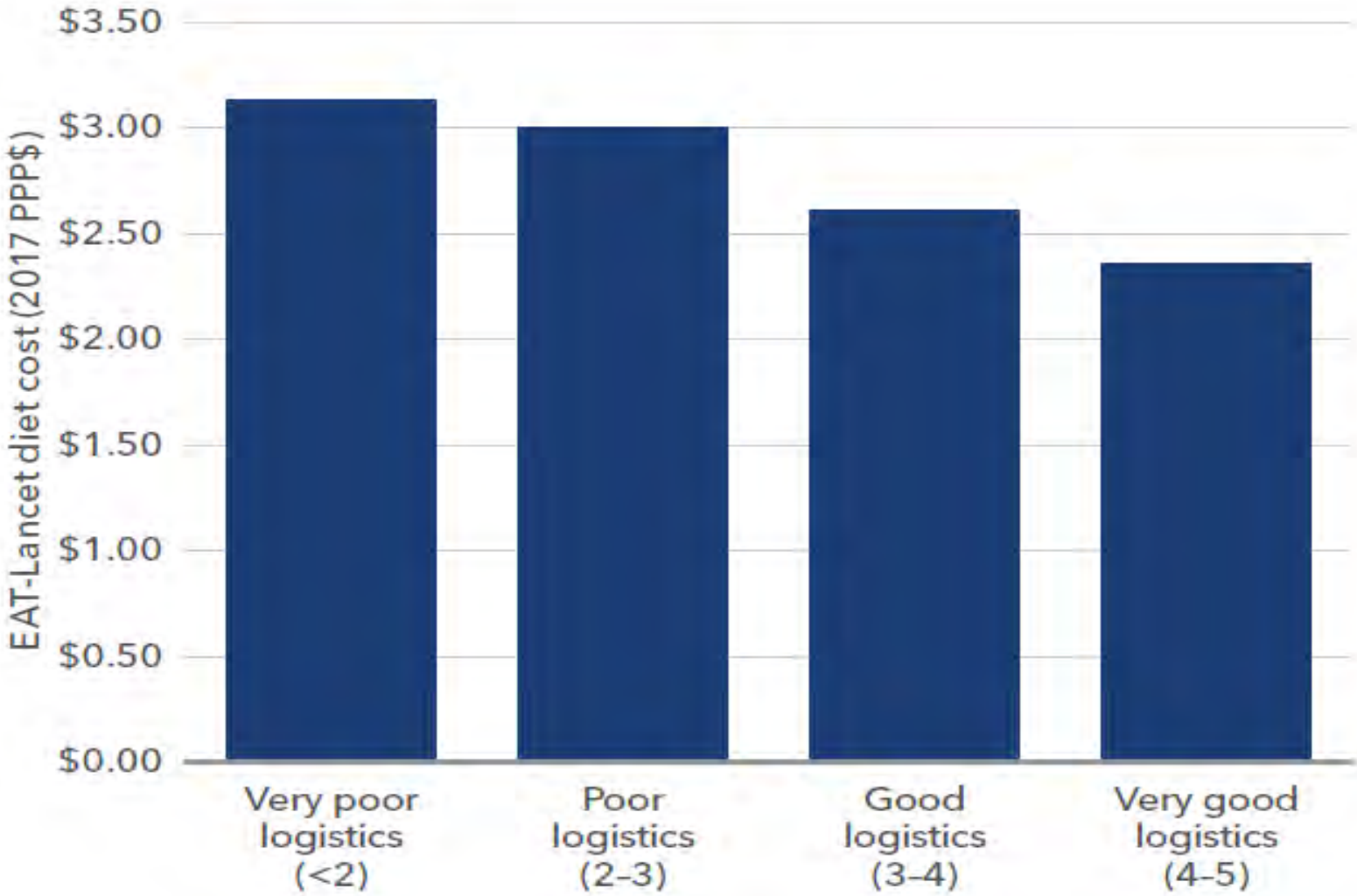
Note: Recommendation is 400 grams of fruits and vegetables a day. Amount available is calculated as the sum of production, imports, and net stocks minus exports, food manufacturing, feed, seed, waste, and other uses.

Nearly half of the 2+ billion people worldwide who cannot afford a healthy diet reside in South Asia



Source: Food system dashboard. [Percent of the population who cannot afford a healthy diet – FSD \(foodsystemsdashboard.org\)](https://foodsystemsdashboard.org) (accessed on August 2024).

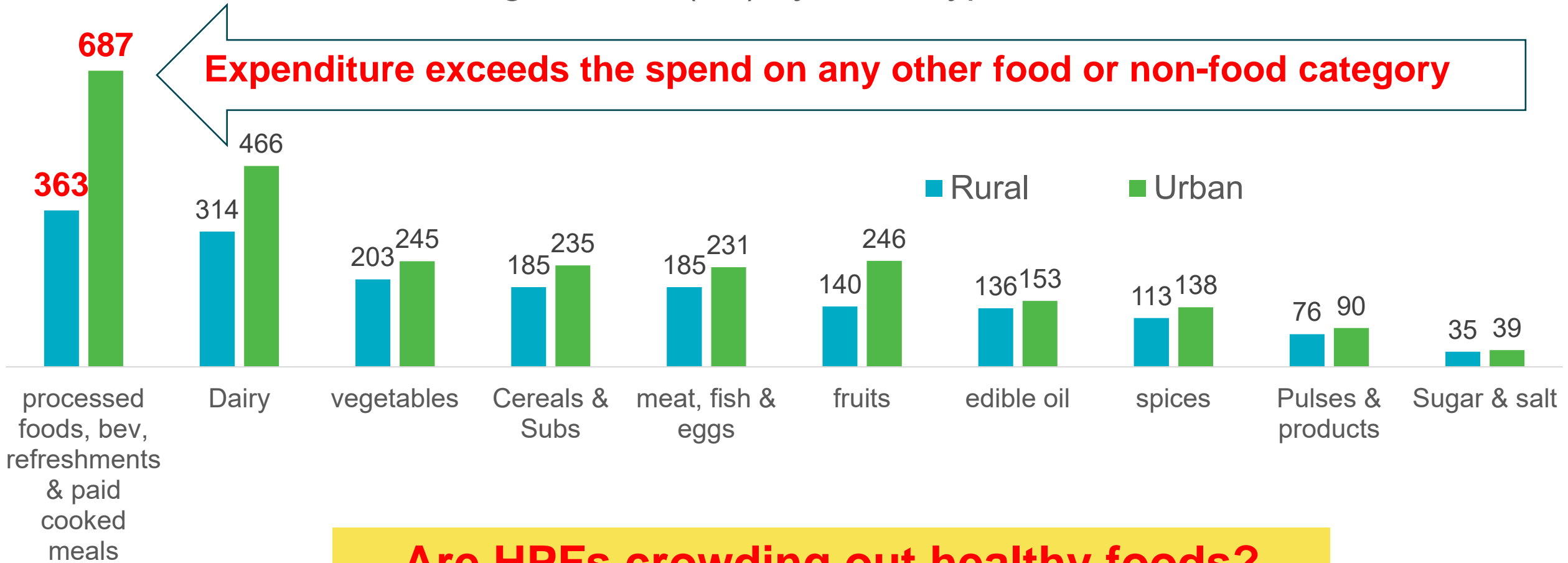
Healthy food costs more in countries with poorer infrastructure and logistics



High expenditure on processed foods & paid meals

Average MPCE (Rs) by Food Types in India

Expenditure exceeds the spend on any other food or non-food category



Are HPFs crowding out healthy foods?

Food system drivers and challenges

Affordability constraints:



- More than 10 percent of the population live in extreme poverty (at or below \$2.15/capita/day)
- 44 percent live below the poverty line for lower-middle-income countries (\$3.65/day)
- The cost of healthy diet exceeding the daily incomes of 38.4% and too expensive for 75% of the population

Cereal-centric agriculture and food policies



- Agriculture and food policies prioritize keeping starchy staples like rice, wheat, and sugarcane affordable
- Contributes to low crop diversity
- Resources are disproportionately allocated to supporting major staples rather than to improving diet diversity.

Behavioral and cultural preferences



- Many people practice vegetarianism
- Late introduction of solid foods to infants,
- All segment of the society (even the wealthiest households) consume less than the recommended quantity of vegetables and spend a large share of their food budgets on processed and ultra-processed foods.
- Food environments that favor calorie-dense foods.

Climate change and biodiversity loss



- Climate change affects crop yields and nutrient levels due to increased carbon dioxide levels.
- Loss of genetic diversity
- Rising temperatures lead to higher levels of heavy metals in crops and disrupt ecosystems

Agenda to improve diet quality

- Pro-poor economic growth
 - Nutrition-sensitive safety nets + food & nutrition education
- Promote agricultural diversity
 - Realign agricultural policies & investments—from calories to nutrition
- Build infrastructure and efficient supply chains
 - Investment in markets, logistics systems, and producer organizations
- Generate & support demand for healthy diets
 - Behavior change communication, consumer awareness, honest labeling of packaged foods



Delivering for Nutrition 2024: Connecting the dots across systems, 3-5 December 2024, Colombo, Sri Lanka and online

COLOMBO, SRI LANKA & ONLINE

D4N 2024

DECEMBER 3-5, 2024

Delivering for Nutrition in South Asia

Connecting the Dots Across Systems

CALL FOR ABSTRACTS

Deadline: August 16, 2024; 11:59 PM GMT

#D4N2024

Conference structure

3 days hybrid conference

12 thematic areas

Day 1: Pre-conference workshops

Day 2 & 3

10 thematic sessions

4 plenary sessions

1 award ceremony



Call for Abstracts Open

Deadline: Aug 16, 2024

Seeking **research** and **implementation** abstracts from 8 SAARC countries

SCAN ME



2024

**GLOBAL
FOOD POLICY
REPORT**

FOOD SYSTEMS
FOR HEALTHY DIETS
AND NUTRITION

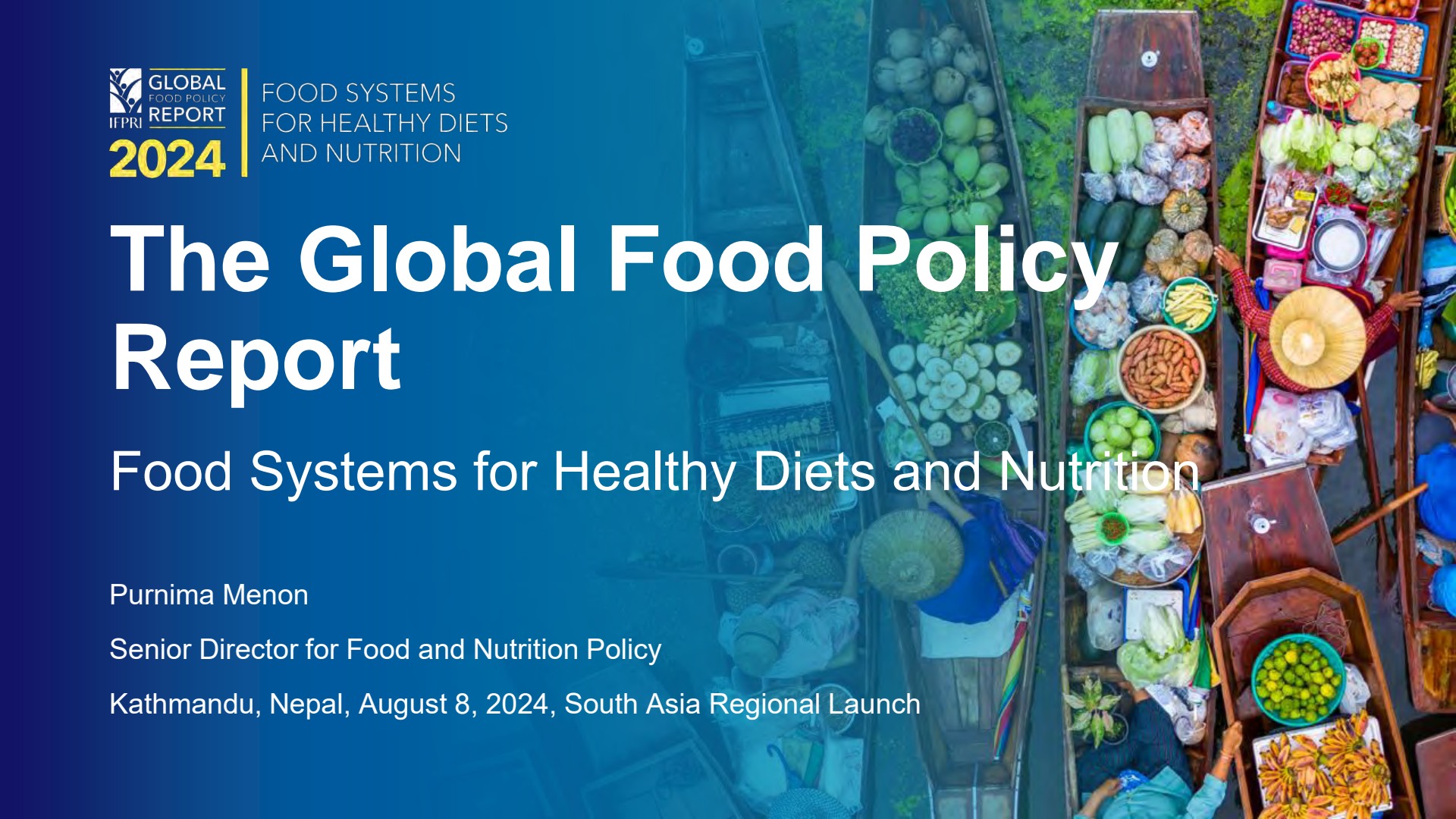
The Global Food Policy Report

Food Systems for Healthy Diets and Nutrition

Purnima Menon

Senior Director for Food and Nutrition Policy

Kathmandu, Nepal, August 8, 2024, South Asia Regional Launch



Nutrition, diets, and health

2.0 Billion

People are affected by micronutrient deficiencies.

148 Million

Children < 5 are stunted.

48 Million

Children < 5 are wasted.

2.2 Billion

People are overweight or obese (40% of all men & women).

1.2 Billion

People have increased blood pressure.

0.5 Billion

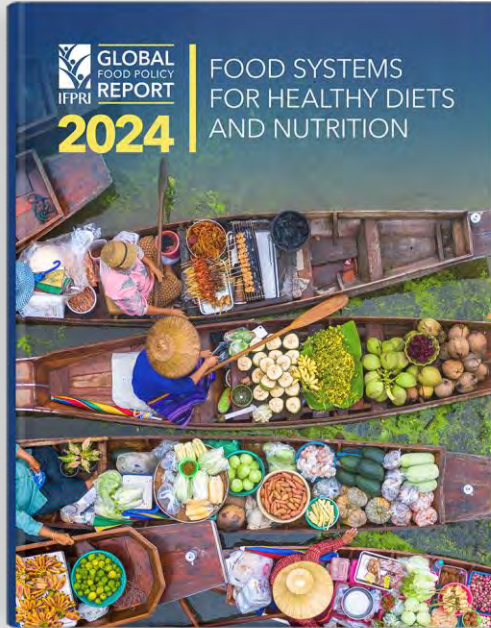
People have diabetes.

Poor quality diets are the **primary contributor to all forms of malnutrition** and the **leading cause** of disease worldwide.

1 in 5 

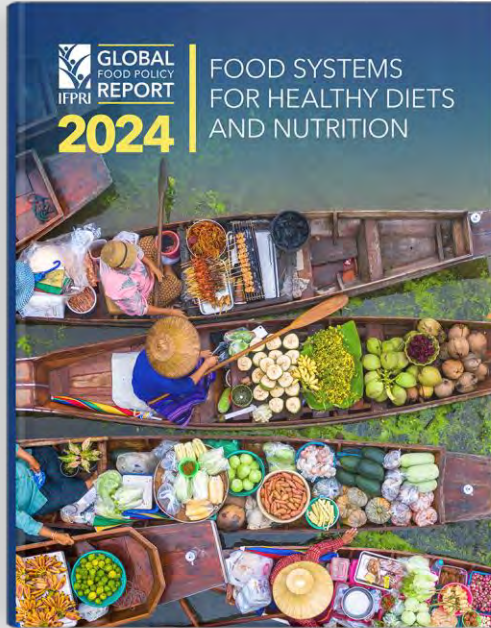
Lives could be saved each year by improving diets

2024 GFPR: A Timely Contribution



- **Global commitment to improving nutrition has risen** in recognition of the potential of healthy diets to improve human *and* planetary well-being.
- The 2024 GFPR examines **approaches to addressing poor diets and nutrition** from the demand and supply sides and through better governance.
 - It **brings together many years of work** from IFPRI and partners on nutrition, providing a basis for moving forward.
 - It delivers **evidence on policies and interventions**, especially those promoting inclusion and equity for vulnerable groups.
- When tailored to specific contexts, these recommendations can promote a **shift toward sustainable healthy diets**.

2024 GFPR: Table of Contents



1. **Advancing Nutrition:** Food System Policies and Actions for Healthy Diets
2. **Diets and Nutrition:** The Potential of a Food Systems Approach
3. **Demand-Side Approaches:** Supporting Healthier Food Choices
4. **Diet Affordability:** Understanding the High Cost of Healthy Diets
5. **Food Environments:** Improving Their Healthfulness
6. **Plant-Source Foods:** Leveraging Crops for Nutrition and Healthy Diets
7. **Animal-Source Foods:** Their Role in Sustainable Healthy Diets
8. **Improved Governance:** Creating Supportive Environments for Diet and Nutrition Policies



+ **Six Regional Chapters**

Thanks to our authors

Chapter 1: Purnima Menon and Deanna Olney

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Sustainable healthy diets

- Increase in the double burden of malnutrition coupled with climate change have brought global attention to the need to transform food systems to support sustainable healthy diets.
- Healthy diets provide the nutrients needed for an active, healthy life.
- Sustainable healthy diets further take into account the environmental impacts of diets.
- Diets in low- and middle-income countries (LMICs), which are often heavily cereal-based, are rapidly evolving to:
 - Include higher consumption of ultra-processed foods.
 - Overconsumption of animal source foods (ASFs) — although many vulnerable populations who could benefit from increased intake of ASFs still have inadequate access.



Challenges to sustainable healthy diets

1 Desirability

Food choices are driven by a complex interplay of a person's cognition, environment, and behavior. Thus, even when diverse, healthy foods are available, accessible, and affordable, people often do not choose healthy diets.

2 Affordability

Low income + high costs of safe and diverse foods (especially fruits, vegetables, and animal-source foods) make healthy diets unaffordable for at least 2 billion people worldwide.

3 Accessibility

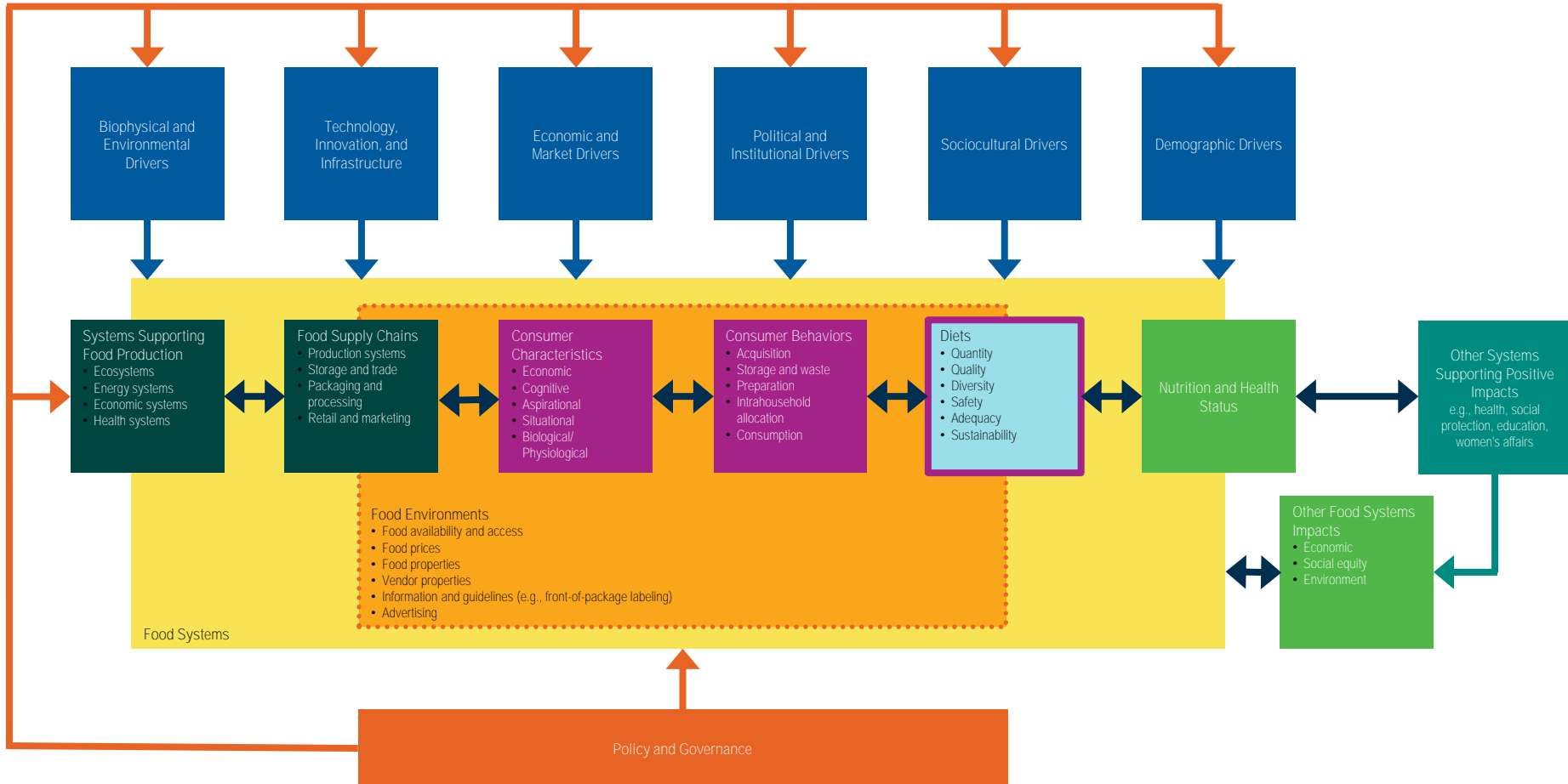
Consumers are often not close enough to safe sources of diverse, healthy, and affordable foods for intake to be convenient or possible on a regular basis.

4 Availability

Insufficient year-round availability of diverse fruits and vegetables means high costs and hard-to-find sources.

Policy and Governance

A consumer-focused food systems framework



Food systems approaches for sustainable healthy diets: **Demand**

- Approaches to increase demand must start with increased **understanding of dietary patterns and their drivers.**
- Strategies for **increasing demand and desirability** can include the use of:
 - Food-based dietary guidelines
 - Social and behavior change communications
 - Multisectoral programs linked to complementary systems such as nutrition-sensitive social protection programs, school-based health and nutrition programs, and inclusion of women's empowerment actions
 - Strategies to address affordability of healthy diets

Food systems approaches for sustainable healthy diets: **Food environments**

- Food environments connect supply and demand and, thus, play a central role in leveraging food systems for sustainable healthy diets.
- Food environments are undergoing rapid and dramatic transformation.
- Urgent actions are needed to support healthy food environments:
 - Increasing access to safe, diverse, healthy, and affordable foods.
 - Addressing the increasing desire for convenience foods.
 - Utilizing regulations and policies to reduce intake of ultra-processed foods.
 - Leveraging retail, marketing, and advertising strategies to support healthy food environments and, in turn, sustainable healthy diets.



Affordability of healthy diets: Opportunities to address this critical challenge

- **Between 2 and 3 billion people cannot afford a healthy diet.**
- Poverty is a primary factor limiting diets, especially in Asia and Africa.
 - Nutrient-dense foods are relatively expensive compared with calorie-dense foods.
 - This is partly because agricultural policies and consumer subsidies **favor staple crops**.
 - Healthy diet costs are higher with poor transport, storage, and logistics infrastructure.
- To shift actual diets toward healthy diets, we need to:
 - Improve national and subnational **monitoring of healthy diet affordability**.
 - Accelerate **equitable economic growth**
 - Scale and strengthen **nutrition-sensitive social protection**.
 - **Repurpose agricultural policies** toward nutritious foods and infrastructure.

Food systems approaches for sustainable healthy diets: **Supply**

- Supply-side innovations can help limit negative environmental impacts of food systems while meeting demand for sustainable healthy diets.
- Approaches to strengthen food supplies by leveraging food crops for better nutrition:
 - Investing in crop diversity, such as through intercropping.
 - Increasing the use of “orphan crops” – locally produced crops that have been neglected in breeding programs and/or underutilized.
 - Fortification and biofortification of staple crops.
- Ensuring the availability, affordability, and safety of sustainably produced animal-source foods (ASFs):
 - In many LMICs, ASF consumption needs to increase, particularly among infants and young children and pregnant women.
 - In other regions, excess ASF consumption needs to be addressed.
 - In all regions, consideration of safety issues and their environmental impacts need to be considered.

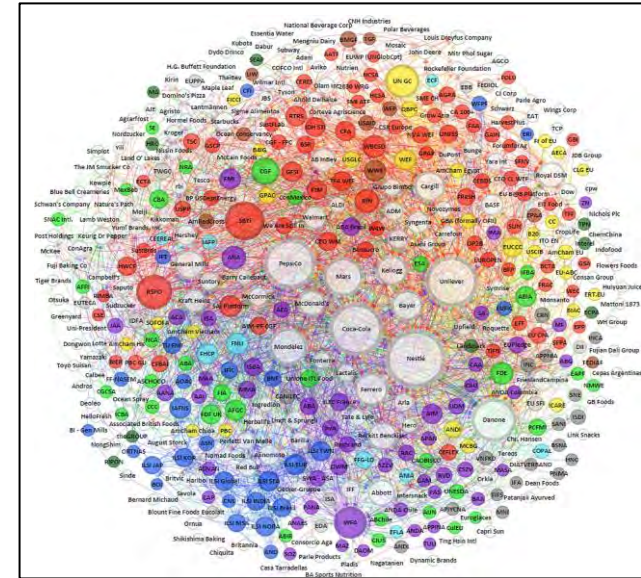
Food systems approaches for sustainable healthy diets: **Enabling environments**

- Enabling environments for food system approaches for sustainable healthy diets and nutrition must include:
 - Capacity to develop policies, implement and enforce laws and regulations, deliver public services, manage trade-offs, and mobilize funds for investment.
 - Management of trade-offs across nutrition goals and other objectives.
 - Ability to positively address corporate influence.
 - Support for citizens' agency to play a transformative role in leveraging food systems for sustainable healthy diets.

Navigating corporate influence is a key ingredient for food systems transformation

- **Corporate influence in food systems recognized as key challenge to better diets and nutrition**
 - “Big Food” shaping the narrative, providing campaign finance, fragmenting opponents, co-opting credible professionals, threatening legal actions (*Mialon et al. 2015; Gómez 2023; Slater et al. 2024*).
- **Corporate influence and state institutions often intersect**
 - Metrics such as the Corporate Financial Influence Index show financial leverage higher in more autocratic systems (*Allen et al. 2022*).
- **Yet, private sector is not homogenous**
 - Ongoing efforts at self-regulation through scorecards.
 - Greater accountability efforts from civil society and international organizations (e.g., Food & Agriculture Corporate Transparency Index, Zero Hunger Pledge).

Complex network of ultra-processed food industries



Source: Slater et al. (2024)

Conclusion

No single intervention, approach, or policy can accomplish the change we need.

To achieve sustainable healthy diets, context-relevant actions must be people-focused, interlinked across the food system *and* supported by good governance to address evolving desirability, affordability, accessibility, and availability constraints.





The Healthy Diet Affordability Problem in South Asia: What is it and what to do about It?

Derek Headey

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The International Food Policy Research Institute (IFPRI)

8th of August 2024

Cost & Affordability of Healthy Diets

- Food security monitoring & policy often narrowly focused on calories, even though 1996 World Food Summit defined food security as
 - “all people, at all times, having physical and economic access to sufficient safe & nutritious food that meets their dietary needs and food preferences for an active and healthy life.”
- Now, new metrics of healthy diet affordability developed in past few years, adopted by UN agencies (SOFI reports) and even some governments
- Two steps to measuring a healthy diet:
 - Diet costing: Cost of diet richer in non-staples - fruits, vegetables, pulses/nuts, animal sourced foods
 - “Income” comparisons: How does diet cost compare to incomes, expenditure, food budgets or wages?
- Over time, diet affordability is a race between inflation and income growth

How many South Asians cannot afford a healthy diet?

4 takeaways from the 2024 SOFI report estimates...

1. 64% of South Asians diet poor in 2017

2. 53% of South Asians diet poor in 2022

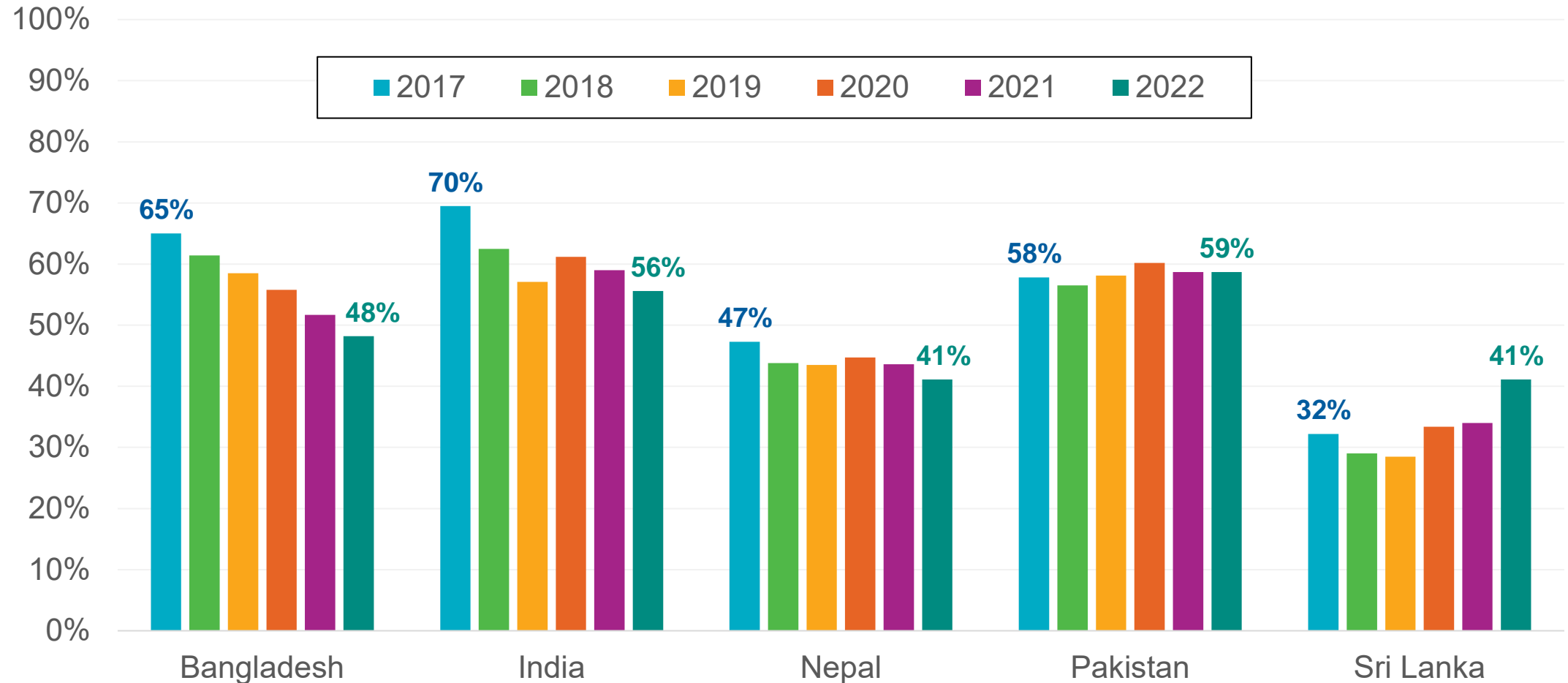
		2017	2018	2019	2020	2021	2022	Change
Prevalence of "diet poor"	WORLD	40%	38%	36%	38%	36%	35%	-5%
	South Asia	64%	59%	55%	58%	56%	53%	-11%
Number of "diet poor" (millions)	WORLD	3,062	2,916	2,823	2,968	2,876	2,826	-236 million
	South Asia	1221	1128	1068	1141	1111	1111	-111 million
South Asia's share of WORLD	Share	40%	39%	38%	38%	39%	39%	47%

3. South Asia accounts for 40% of World share in 2017 and that has not really changed over time

4. 47% of the global improvement is due to improvement in South Asia

But diverse trends within the region....

Share of population unable to afford a healthy diet

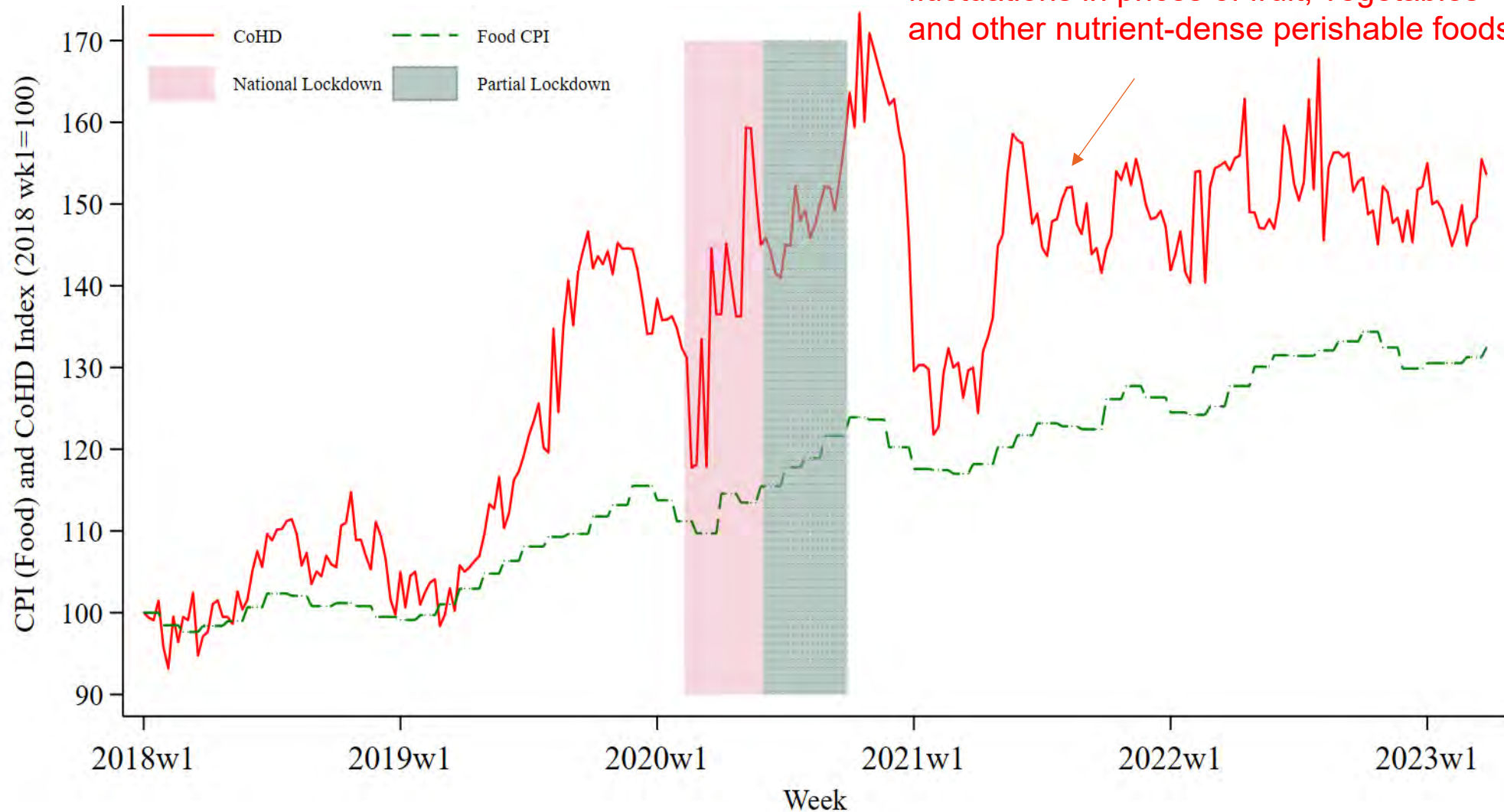


Beyond SOFI, to national level monitoring

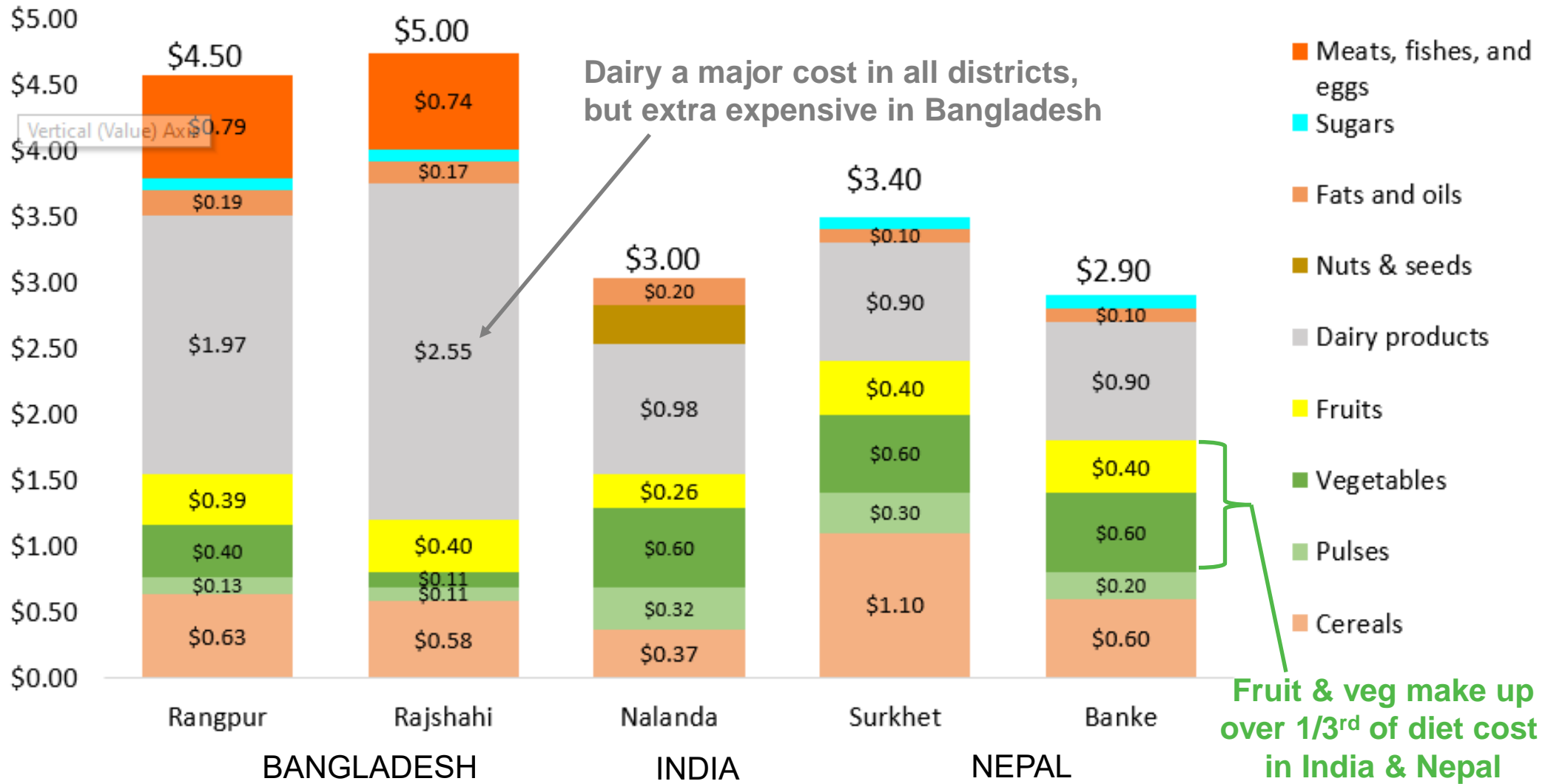
- Annual, national data points not enough – need high frequency data:
 - In Sri Lanka, real wages fell by 30% in just 2 months during the 2022 economic crisis!
- Tracking affordability for “all people at all times” requires:
 - **High frequency data** on food prices and wages/incomes
 - **Subnational data:** South Asia has big countries with big inequalities
 - **Frequent reporting & analysis**, ideally led by national institutions
- Some examples
 - IFPRI is leading high frequency healthy diet costing in India
 - IFPRI is working on healthy diet affordability monitoring in Sri Lanka, where real wages fell by 20-30%
 - IFPRI & partners leading surveys of rural food systems in Nepal, India, Bangladesh (TAFSSA)
 - Tufts working with FAO on healthy diet costing in Pakistan

Weekly district-level Cost of Health Diet (CoHD) vs Food CPI in India

Health diet costs more volatile than CPI due to fluctuations in prices of fruit, vegetables and other nutrient-dense perishable foods



Healthy diet costing can also shed light on “food system” problems



What be done?

1. Improve healthy diet monitoring & reporting
2. Accelerate pro-poor economic growth
3. Realign agricultural policies & investments toward nutritious foods
4. Scale up investment in transportation, infrastructure & logistics for food systems
5. Scale up nutrition-sensitive social protection
6. Scale up “double duty” interventions to **increase demand for healthy foods** and **decrease demand for unhealthy foods**



Food choice behavior and the food environment in Nepal

Evidence from Transforming
Agrifood Systems in South Asia

Samuel Scott

Research Fellow, Nutrition, Diets & Health Unit
IFPRI

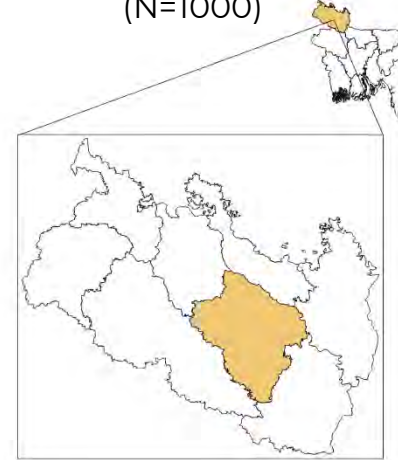
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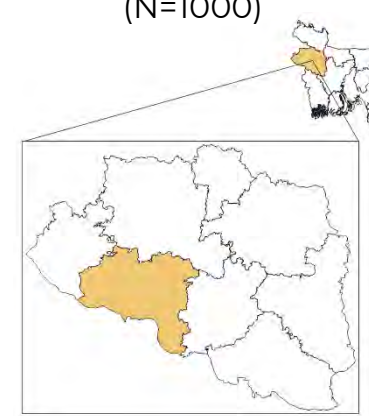
TAFSSA district food system assessment

- **5 districts** selected
 - hotspots for issues related to poverty, climate, gender, social inclusion, and malnutrition; and with existing CGIAR staff presence
- Villages/wards were selected from national census data using PPS sampling → district representative
- N=4000 households total
- Interviewed 3 individuals per household
 1. **Adult male** aged 20+ years
 2. **Adult female** aged 20+ years
 3. **Adolescent** aged 10-19 years (oldest in household; male or female)
- Data collection: Feb-April 2023

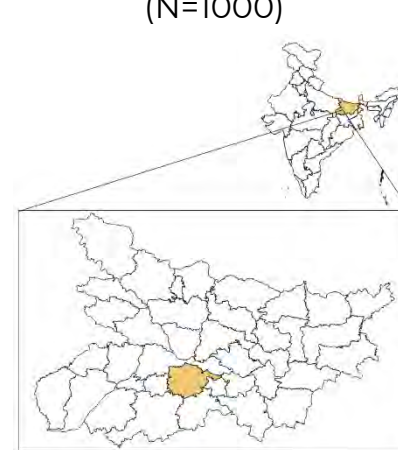
Rangpur, Bangladesh
(N=1000)



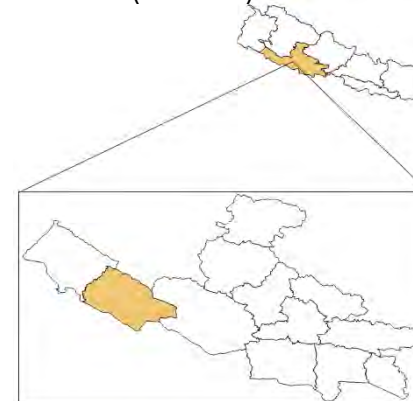
Rajshahi, Bangladesh
(N=1000)



Nalanda, India
(N=1000)



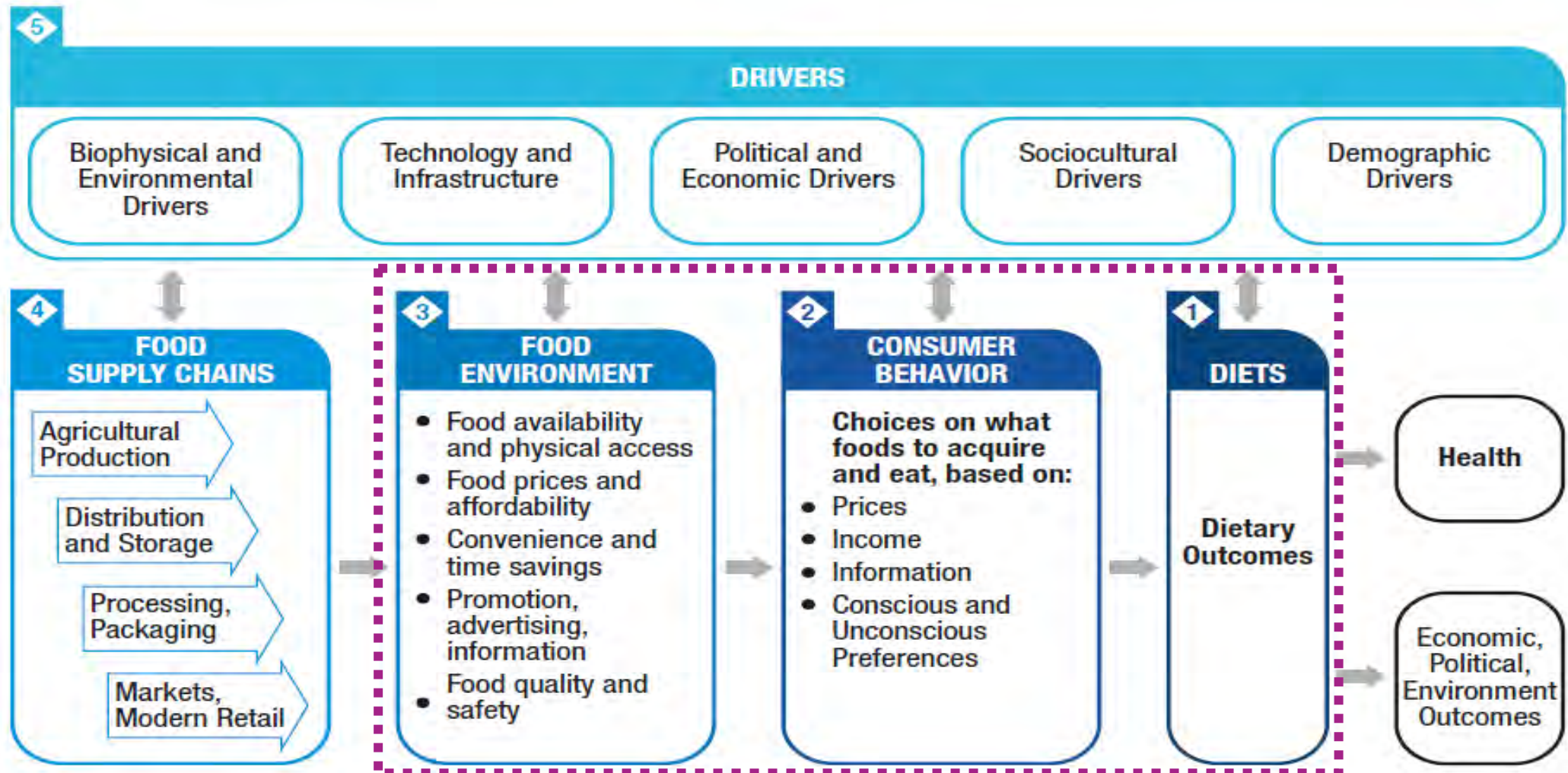
Banke, Nepal
(N=500)



Surkhet, Nepal
(N=500)

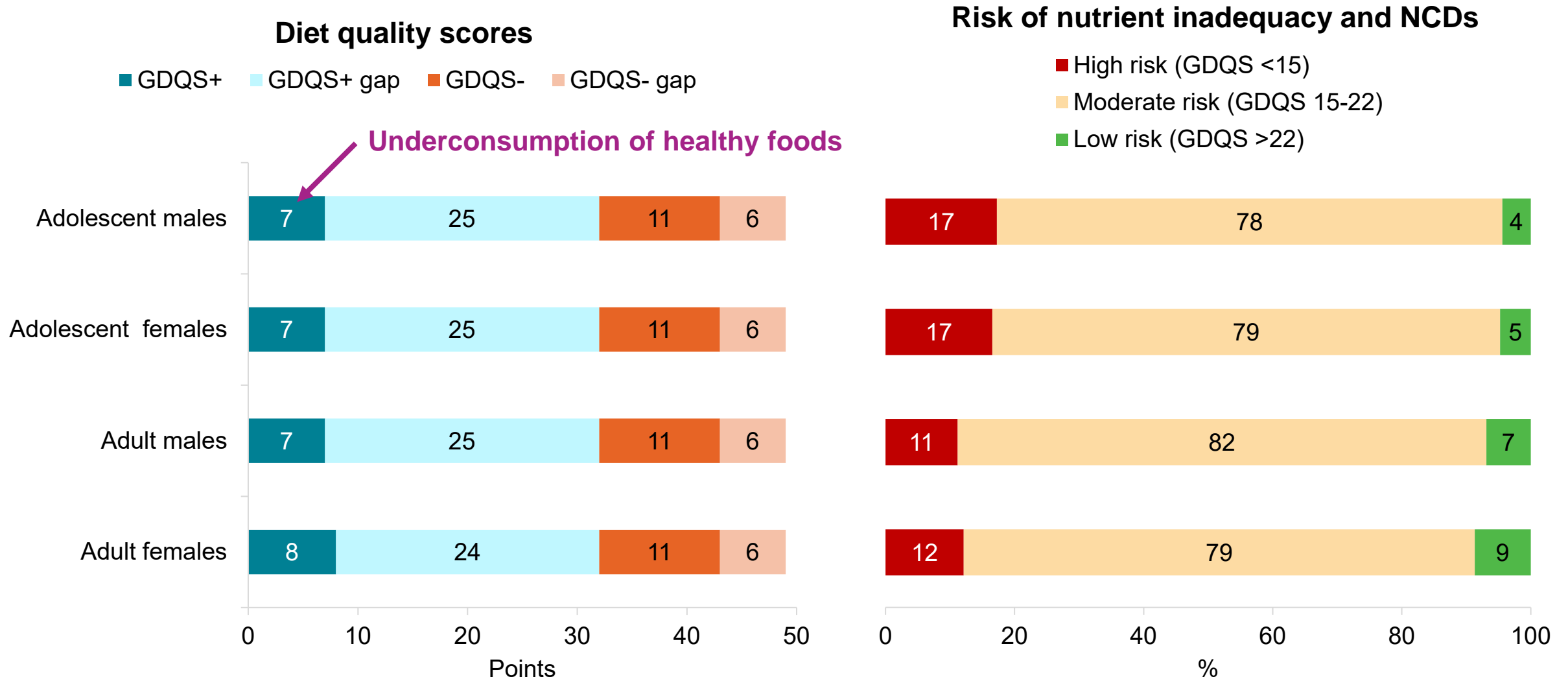


TAFSSA's survey included measures across the HLPE framework

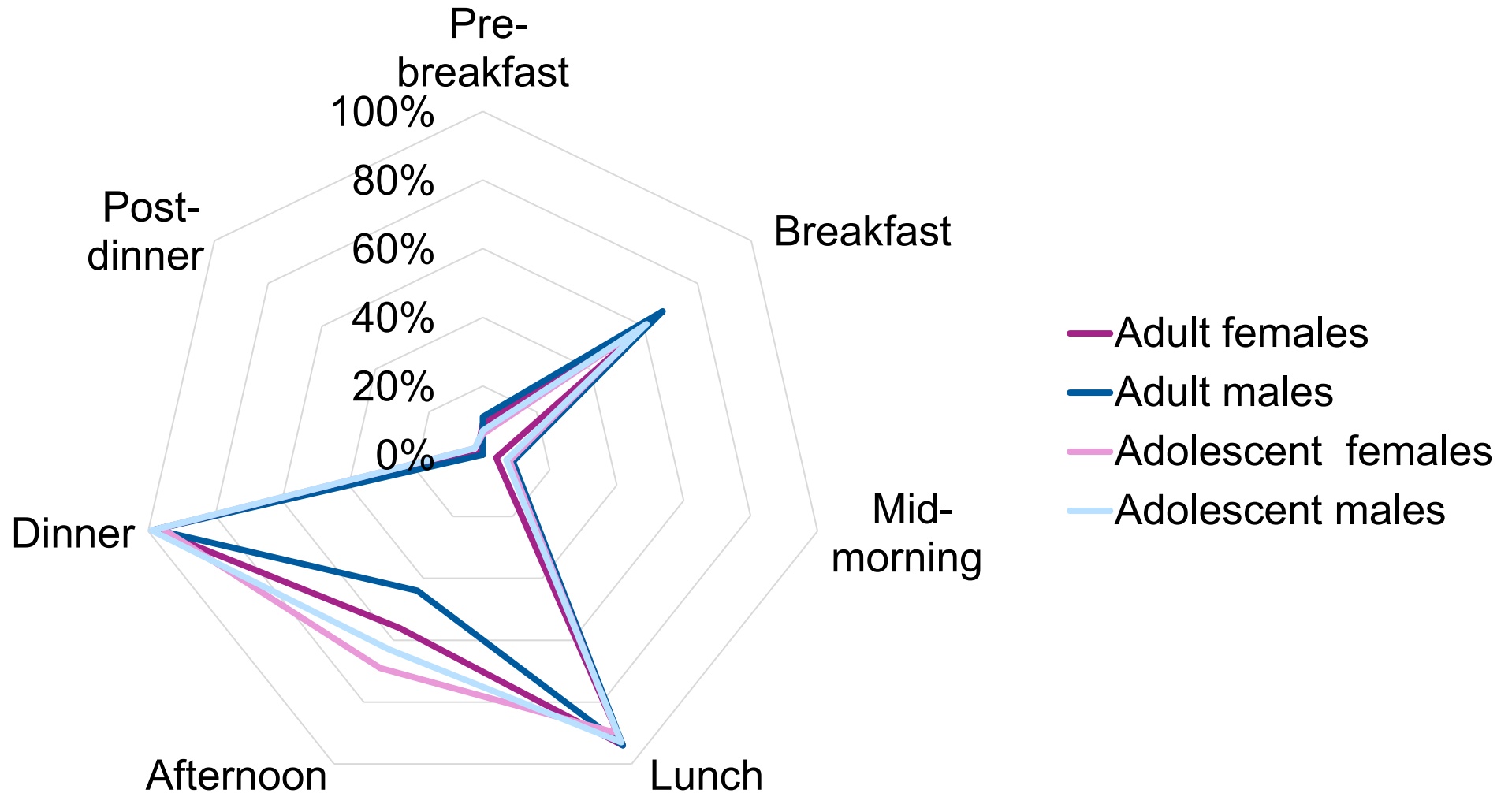


Source: Kennedy, G. L., Rota Nodari, G., Trijsburg, L., Talsma, E., de Haan, S., Evans, B., Hernandez, R., Achterbosch, T., Mekonnen, D., Brouwer, I.D. (2020). Compendium of Indicators for Food System Assessment. Bioversity International. Rome, Italy.

Current diets predict moderate-high risk of nutrient deficiencies and NCDs

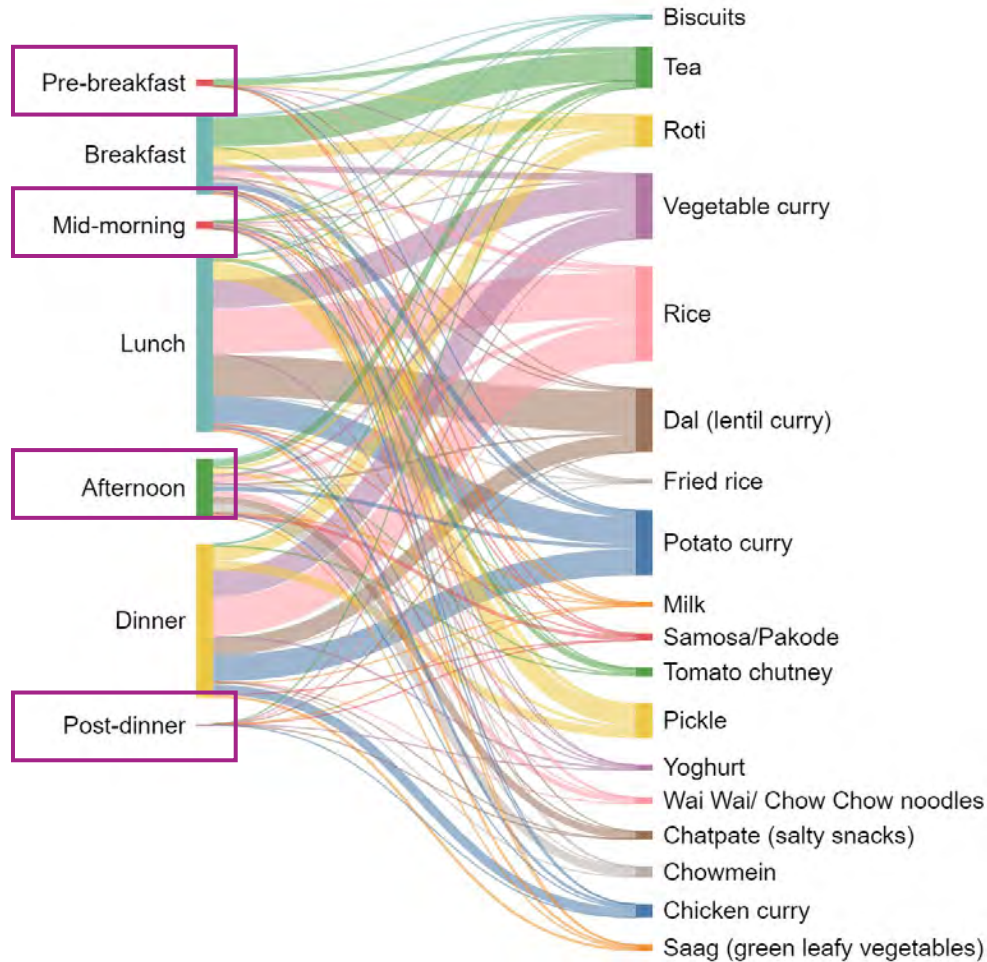


Many people skip breakfast; afternoon snacking is common

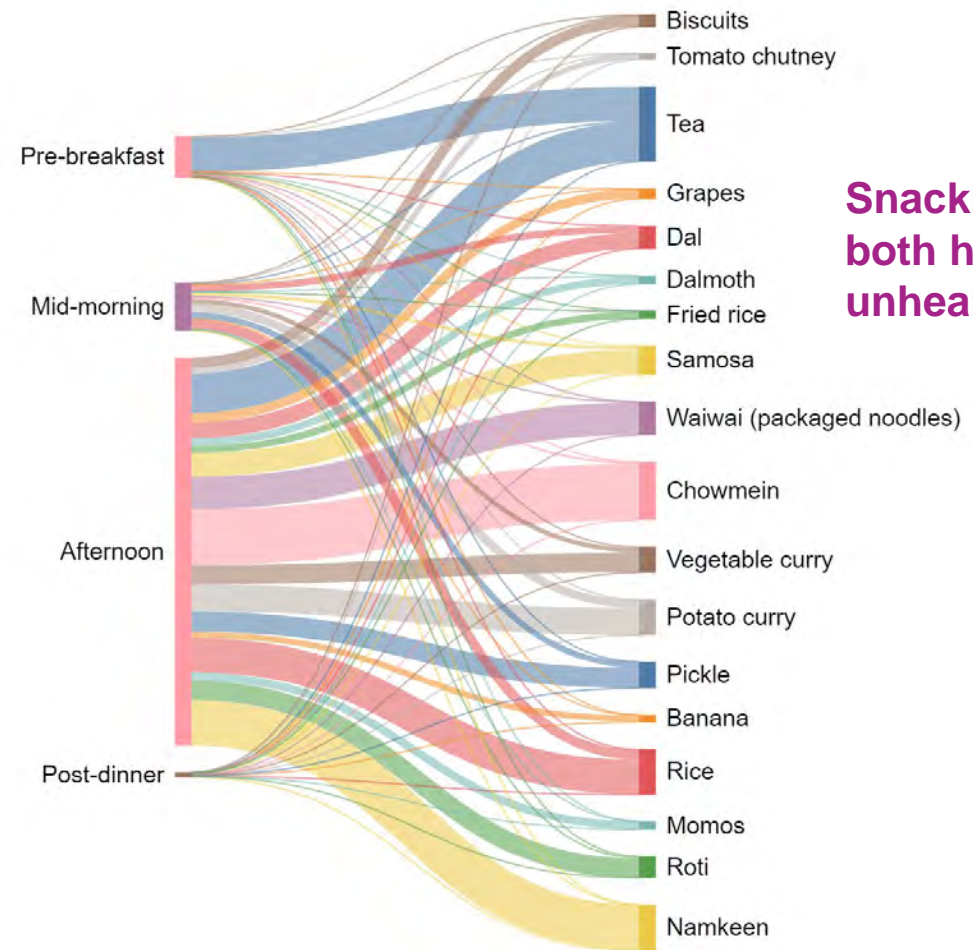


New findings on dietary habits reveal potential entry points for interventions

What is eaten throughout the day



Zooming in on snacking occasions



Snacking includes both healthy and unhealthy foods

Biscuits are instant noodles are affordable and convenient



I know of at least one vendors/shop who sells ____

96

96

96

97

99

96

99

____are safe to eat

98

84

99

96

43

37

32

It is easy to acquire ____close to where I spend most of my time

90

89

83

73

99

76

97

Given my income, ____ are not too expensive.

11

19

39

26

56

25

39

____ are fast and easy to prepare, in general

82

88

91

96

96

64

96

I like the taste of ____

91

84

97

95

63

76

69

____ fills my stomach

64

49

64

74

44

64

59

____are nutritious

96

91

99

96

44

37

32

My family enjoys eating ____

93

89

92

96

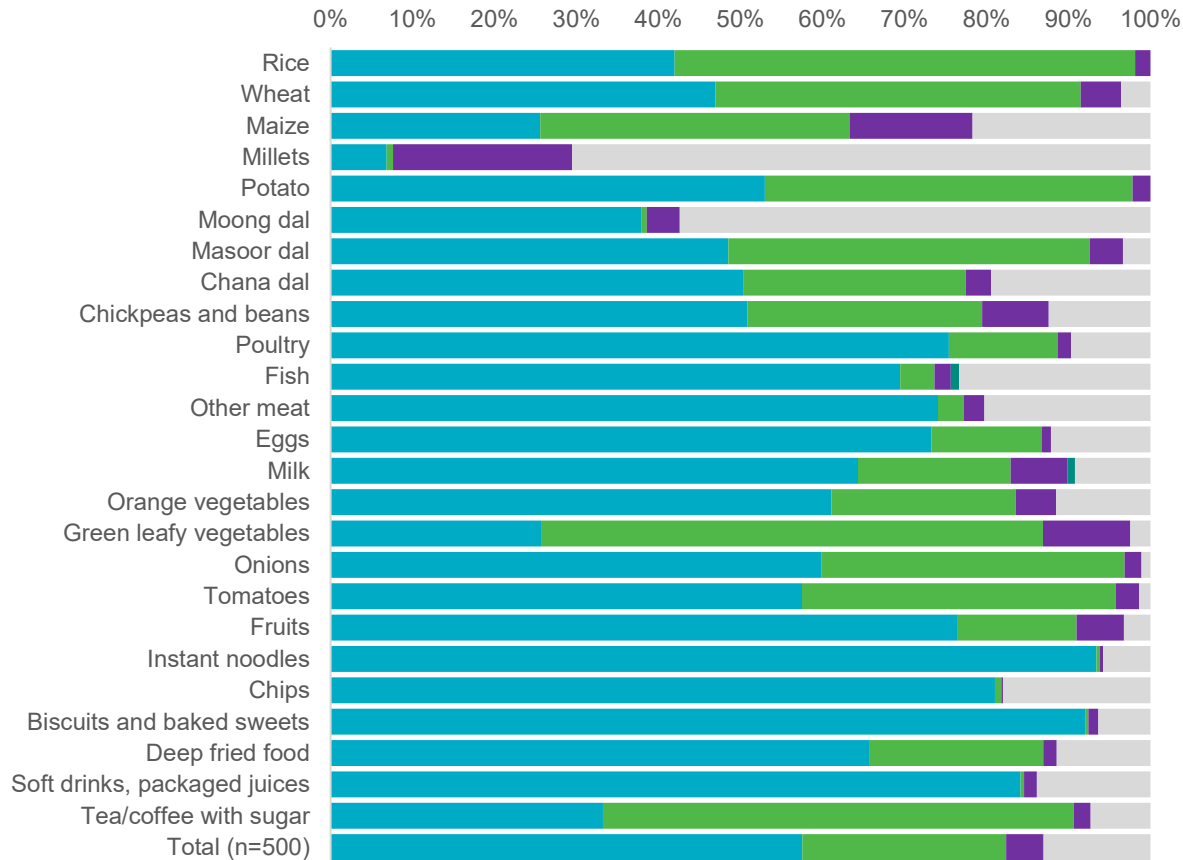
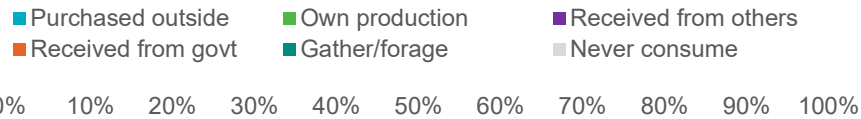
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87

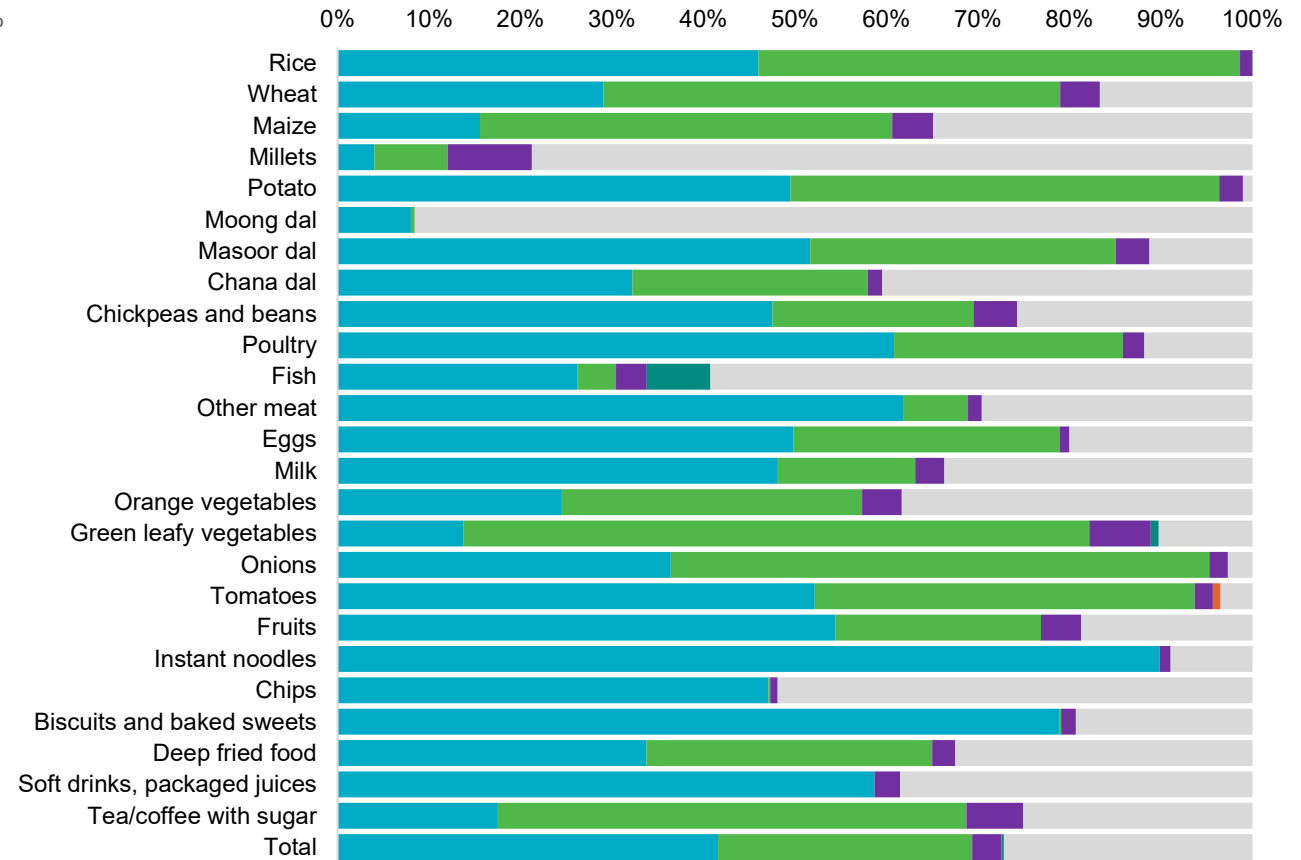
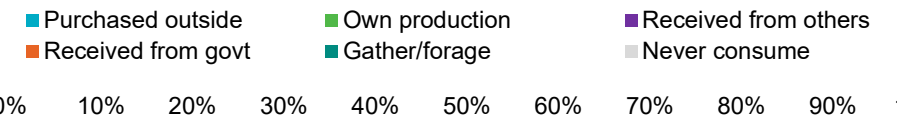
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Farming households purchase most of their food from markets

Where households get their food (Banke)

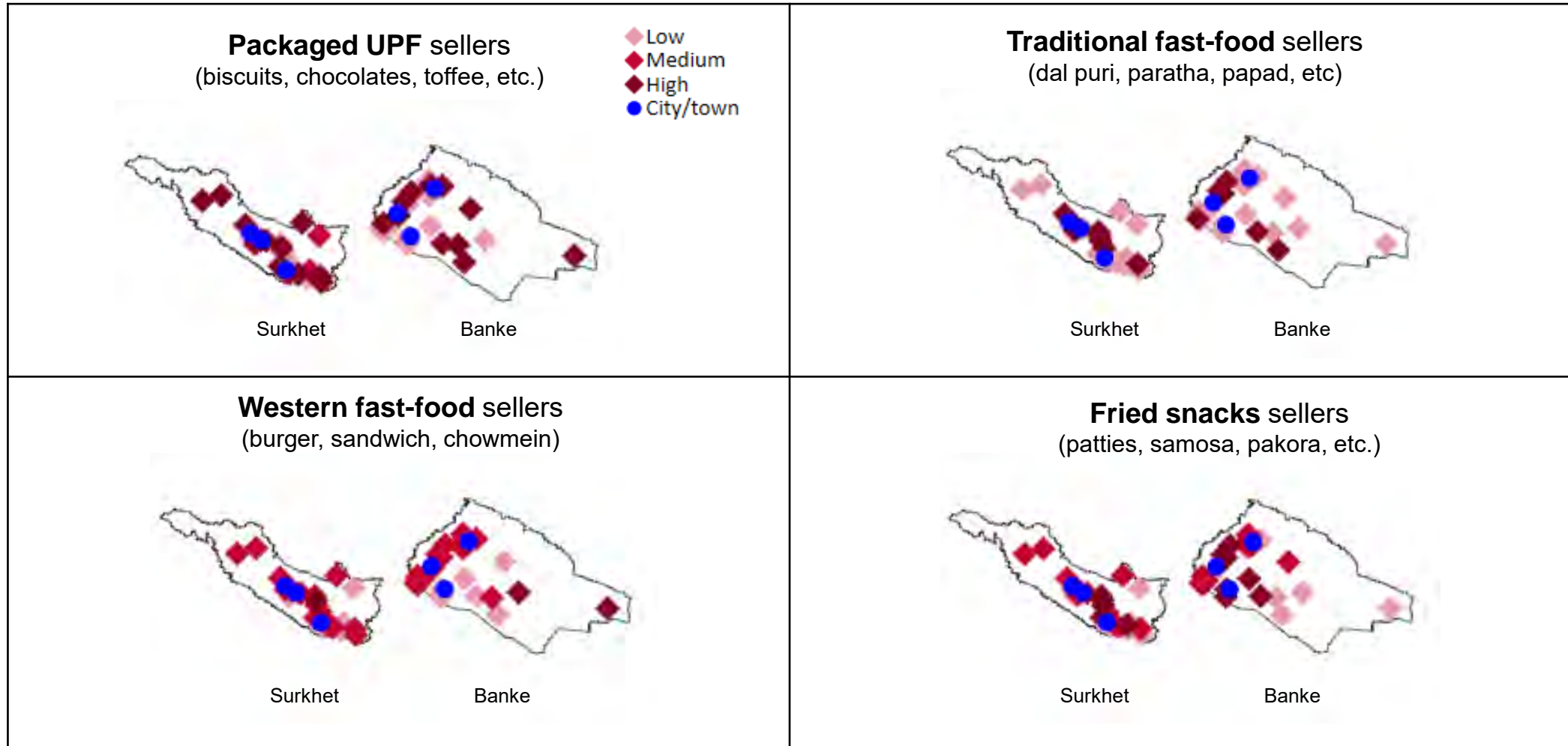


Where households get their food (Surkhet)



Unhealthy food retailers are common in Nepal

(relative to other TAFSSA districts)



Policy implications

- Understanding dietary behavior and constraints to healthy diets can help reveal entry points for interventions
 - E.g. education on importance of breakfast, healthy snacking, fruit subsidy
- Cheap unhealthy foods everywhere pose a huge challenge for healthy diets
 - Food industry profits by creating food that activates pleasure pathways in brain
 - Desirability is hard to override
 - Need to intervene on supply and demand side to make healthy foods more available, accessible, affordable, and desirable (and opposite for unhealthy foods)



FOOD SYSTEMS
FOR HEALTHY DIETS
AND NUTRITION

Thank you!

samuel.scott@cgiar.org



Scan to access
TAFSSA data notes
and open access
dataset

Who does what within the household?

Evidence from district assessment in Nepal

Neha Kumar

Senior Research Fellow, Nutrition, Diets and Health
IFPRI

August 8, 2024



Motivation

- Division of labor within the household follows traditional patterns (Irani & Vemireddy 2020, Hyde et al 2020)
 - Men and women have different but complementary roles
 - Domestic chores performed disproportionately by women
 - Women work longer hours than men
 - This pattern begins in childhood and carries forward
- Women's "triple work burden" has implications for their own wellbeing and the community's (Grassi et al 2015)
- Women's time poverty is linked to nutrition but not sufficiently studied (Seymour et al 2019)
- Current evidence focuses on one or two individuals (usually spouses) within the household, which gives an incomplete picture

Research questions

- We develop a simple and novel tool to assess the allocation of household tasks across different members within the household.
- We use this tool to answer the following research questions:
 1. To what extent do men (boys) and women (girls) contribute to different household tasks?
 2. How do task allocation patterns vary among tasks related to agriculture, food preparation, and caregiving?
 3. How does task allocation differ in households with and without adult males?

About the tool

TAFSSA assessment innovation: We developed a novel tool to capture how household tasks are shared

Tool development informed by fieldwork: Consultative visits across Bangladesh, India, and Nepal guided the development of our task allocation tool

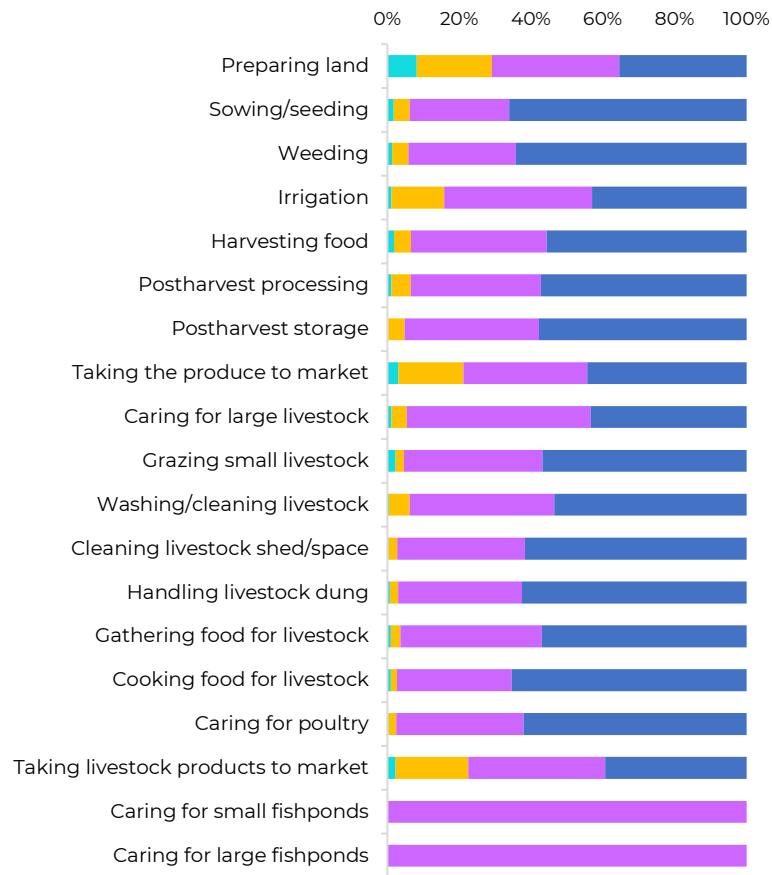
Beyond gender dichotomy: Fieldwork revealed the complexity of task sharing within households, highlighting the importance of female member contributions

Data on task sharing: This year-round tool tracks household task allocation among members and hired help, noting both primary and secondary (equally shared) task performers, with data reported by primary adult females

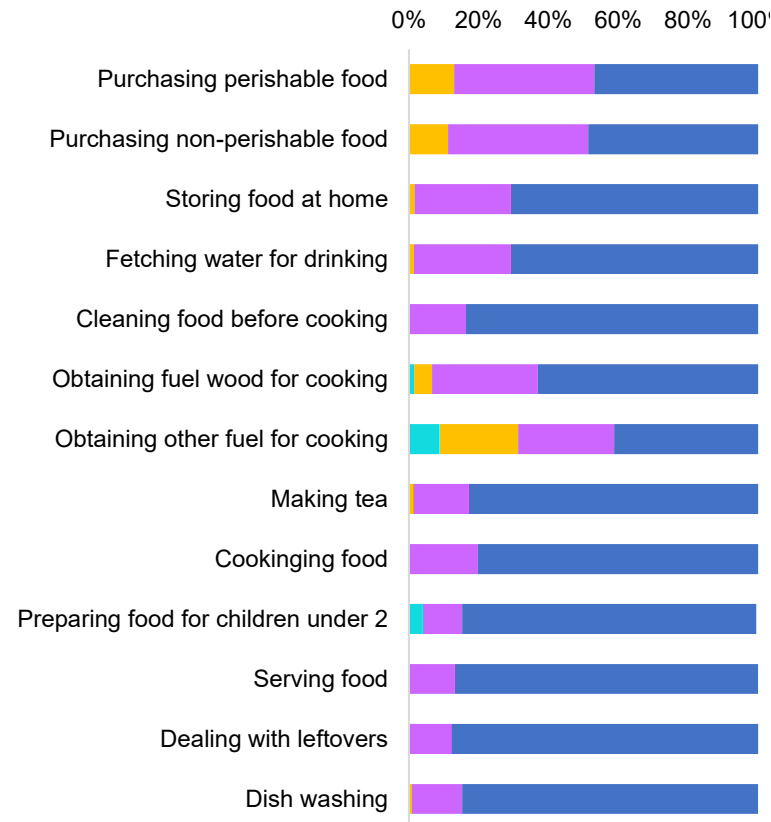
Understanding household dynamics: The data collected provides insights into division of labor within households

Who does what in Nepali households...

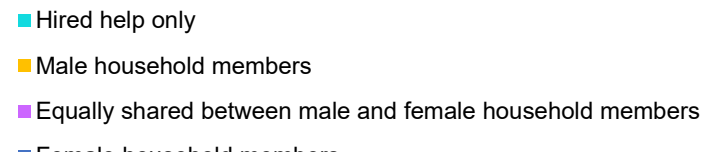
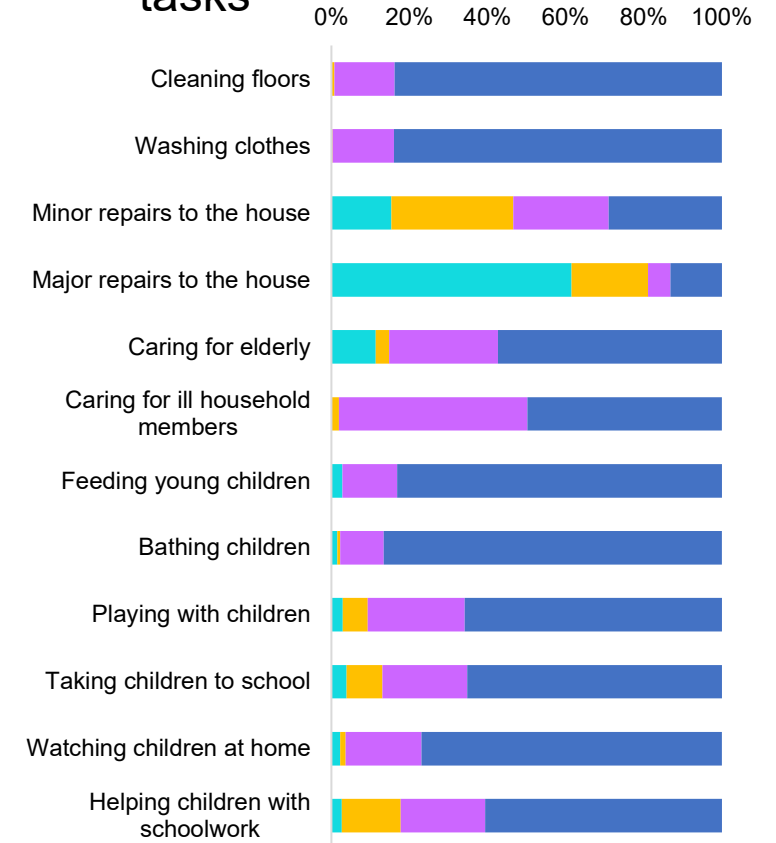
Agriculture tasks



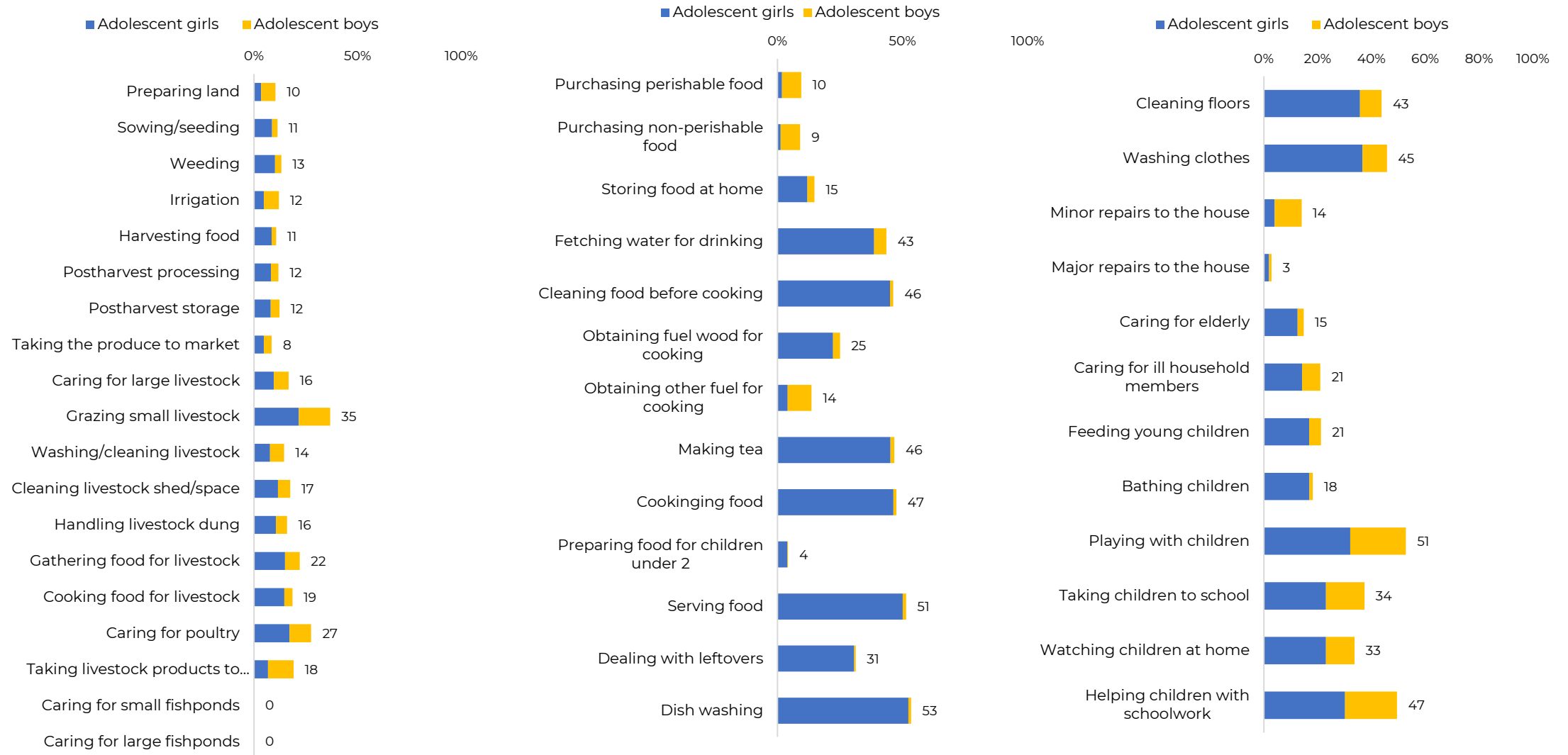
Food prep tasks



Maintenance and care tasks

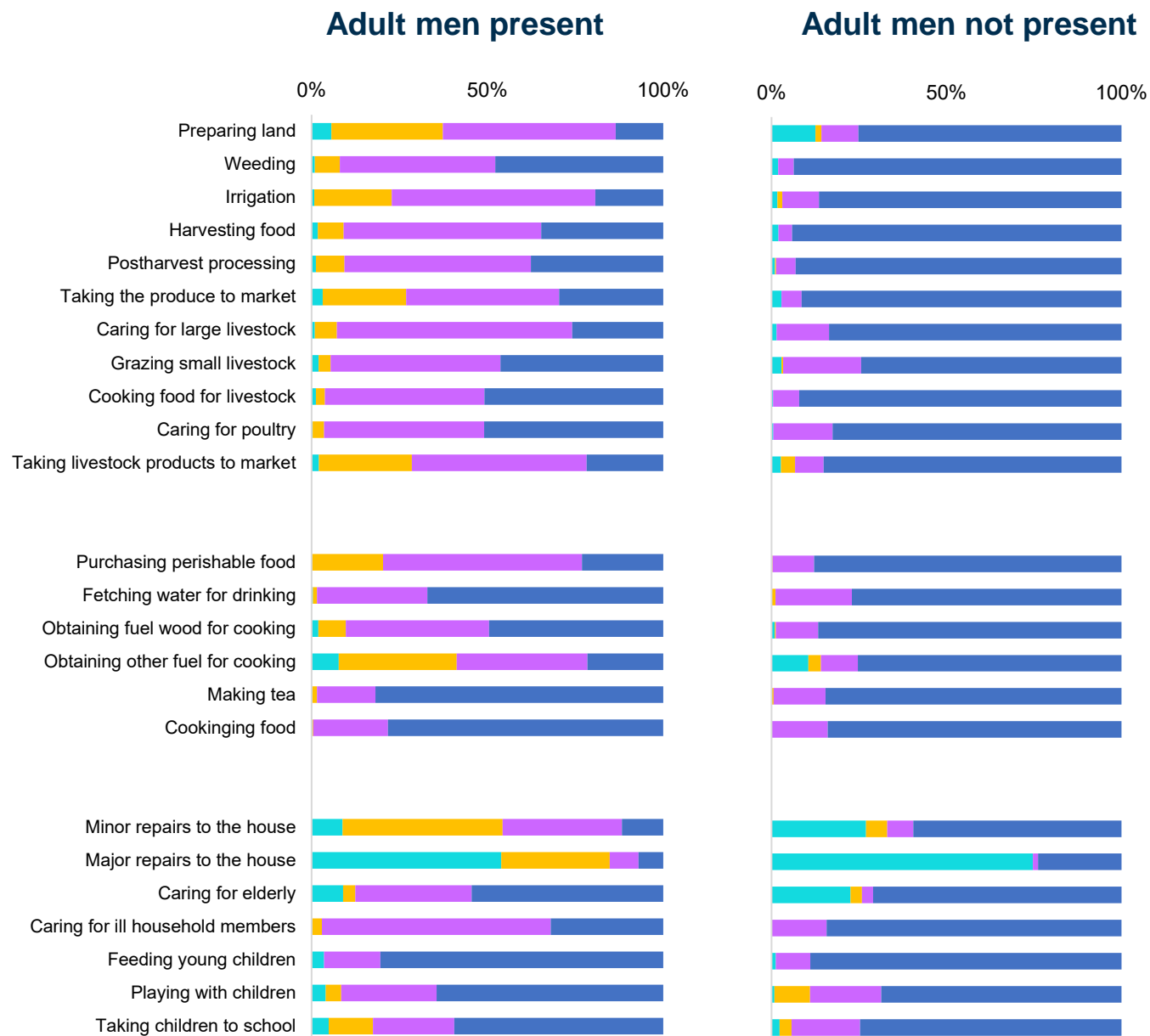


Gendered division of labor starts early in life...



Absence of adult male members changes task allocation patterns...

- Significant increase in female agricultural workload and greater overall reliance on adolescents, particularly adolescent boys
- Increased reliance on adolescent boys for external purchases
- Significant reliance on hired help, particularly for on-farm and home repair activities.



Implications

- While sharing of tasks is highly prevalent, food preparation related tasks are done solely by women.
 - The value of an empirical view of what is “accepted” as social or cultural “realities”
- Policy and program design must take the task burdens and different household compositions into account.
- Great potential for adapting, scaling and using the tool more widely to:
 - Understand gender dynamics throughout the agrifood system
 - Evaluate the impact of gender-transformative interventions and programs
 - Evaluate the impacts of engaging men (an important but understudied topic)

Trade, consumer choices and food safety

A photograph of a market stall. In the foreground, a white mesh bag filled with several red and yellow apples sits on a white digital scale. The background is filled with various other fruits and vegetables, including yellow and green produce, all slightly out of focus. The overall scene is brightly lit, suggesting an outdoor market environment.

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Devesh Roy

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Trade and food choices are everywhere from time immemorial forever

- Lets start with staples
- Staple is a food that makes up dominant part of a population's diet, eaten regularly—and supply a major proportion of energy and nutritional needs.
- Three constitute the bulk (over half)
- Corn (originated thousands of years ago and then spread to world through **trade**- staple for large part of Africa, greater demand as feed with nutrition transition, greatest calorie contribution in world)
- Rice- Originating in India and east, south east Asia- most important staple for poor
- Wheat- originating in middle east- Big producers US, India, China, Russia
- Other staples of the world – roots and tubers (cassava), sweet potatoes, soybeans (may be most striking yield growth), plantains
- Sugar and derived products nearly 11% of calories- how significantly traded, be it empty calories

Oil Palm — the World's Most Hated Crop

New plantation Myanmar



Harvested fruit



Major Differences Among Crops in Participation in World Markets (Byerlee 2012)

	Maize	Wheat	Rice	Sugar	Soy	Palm oil
Per capita food (kg)	18	65	53	21	5	7
% used for feed	60	21	7	0	86	0
% used for biofuel	17			19	12 (oil)	12
Top 3 producers	US, CH, BR	CH, IN, RU	CH, IN, IND	BR, IN, CH	BR, US, AR	IND, MAL
% output traded	13	26	7	30	64	75

Source: Calculated from USDA PSD and FAOSTAT



Projections and nutrition transition

- global food demand will increase but may be less than the growth in last few decades- differentiated by region
- this growth will be attributable mainly to lower-middle-income and low-income countries;
- The structure of global food demand may also change, with a much greater demand for animal-based calories and a much smaller increase in demand for starchy staples; and
- the analysis of a range of population and income projections reveals important uncertainties
- Even in times ahead there will be need for trade
- Imagine the food systems if edible oils trade were not feasible or not liberalized enough India pre 1992 and our region- tribes in India's northeast
- Policy driven GVC – Nepal and the region

Plus- New Source of Demand: Biofuels



**240 kg of maize
(100 liters of ethanol)
to fill one SUV tank**

Points of order

We take the case of food safety but it applies generally to host of non-price attributes

Delivering these attributes often involve fixed costs- it can lead to loss of variety (in new trade theory sense)- the welfare loss needs to compare with health and/or nutrition benefits

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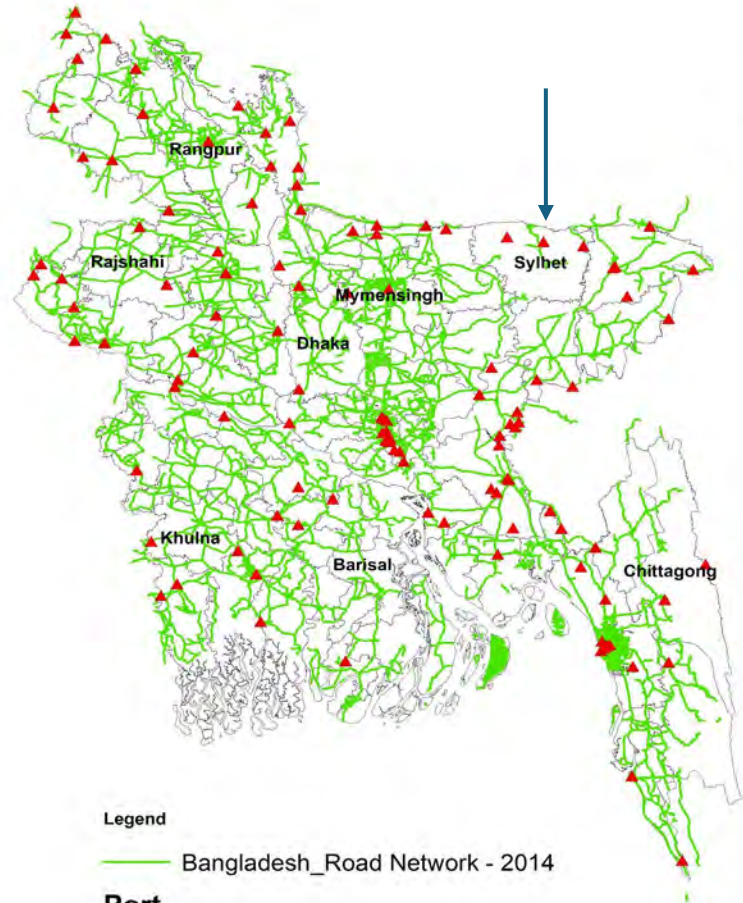
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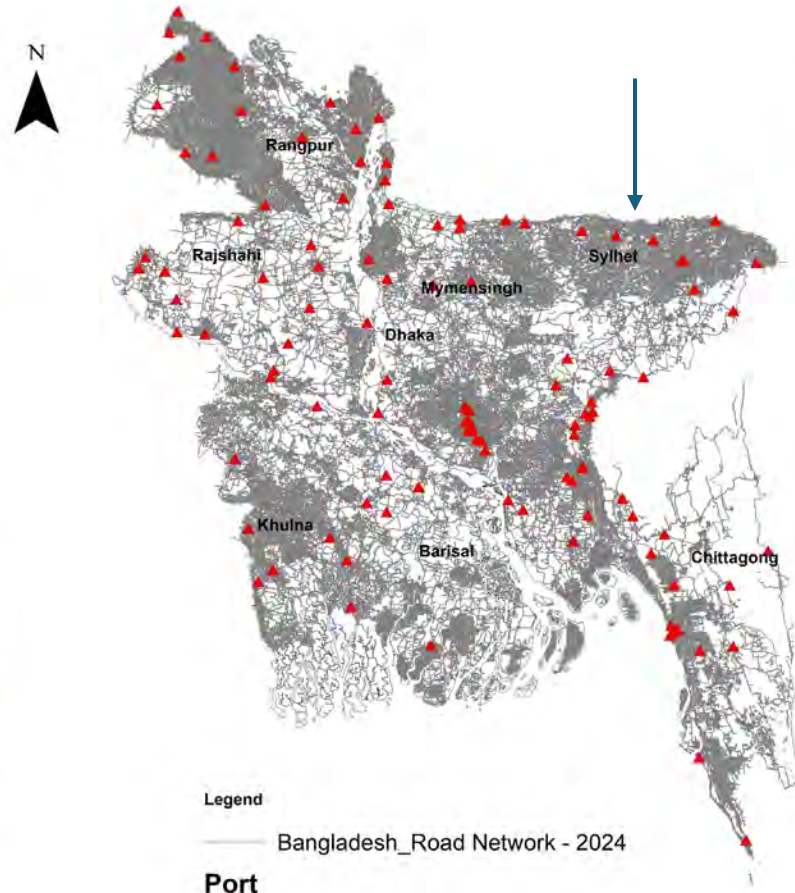
Bangladesh Ports and OSRM

2014 – Road Network



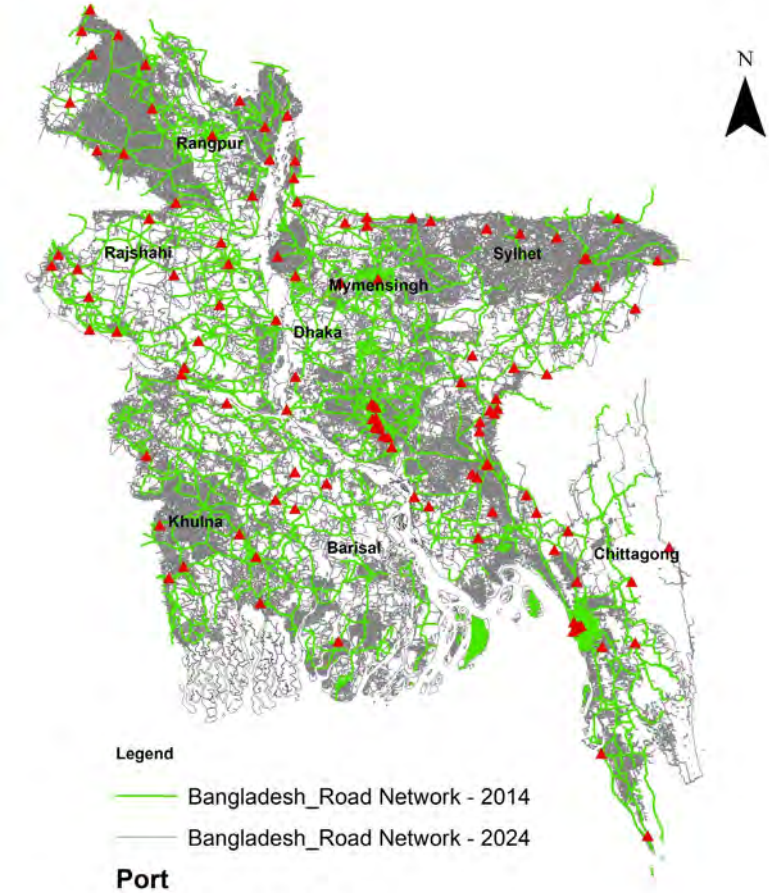
Legend
— Bangladesh_Road Network - 2014
Port
▲ Bangladesh Ports

2024 – Road Network



Legend
— Bangladesh_Road Network - 2024
Port
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2014 - 2024 Road Network



Legend
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Conclusions

- Trade is an essential part of food choices
- Trade is both a determinant and determined by non-price attributes like food safety
- It is not a north problem
- It is well spread to south
- Domestic standards a steppingstone else much longer bridge to cross
- Non-price attributes a value creator with nutrition and health attributes- awareness, credible certification, labeling a precursor

Role of gender in healthy food choices

Yamuna Ghale, PhD

Senior Research Fellow

Institute for Integrated Development Studies (IIDS)

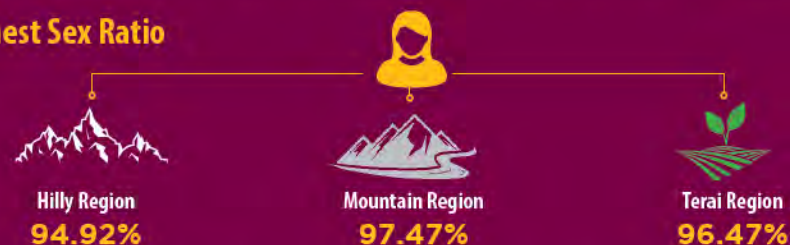
08 August 2024



Nepal in figure

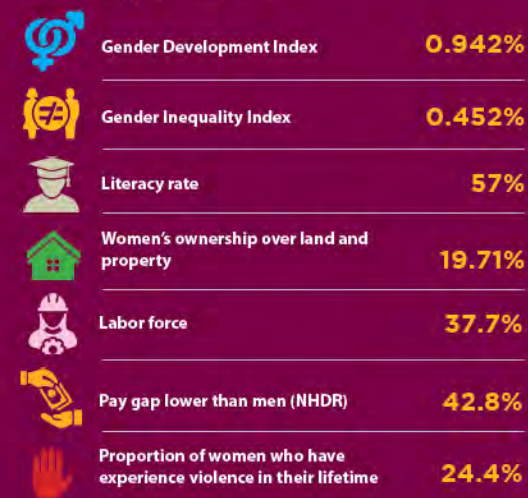


Highest Sex Ratio

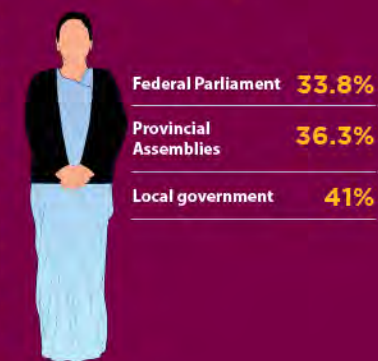


While the female population is higher than male in Nepal, their ratio is lower than male in terms of participation and representation in public sphere including politics and decision-making level.

Gender gaps for Nepal



Women leadership



Entry!

Whose perspective counts!

- Duty bearers
- Responsibility bearers
- Rights holders

Whose needs and demands!

- Needs
- Demands
- Choices

Who decides and controls!

- State
- Market
- Producers
- Bread earner



Constitutional provisions

Status



Article 36.1-“Each citizen shall have the Right to Adequate Food”

Article 36.2-“Every citizen shall have the right to be protected from a state of starvation, resulting from lack of food stuffs”

Article 36.3-“Every citizen shall have the Right to Adequate Food sovereignty as provided for in law” (CA Secretariat, 2015; P. 15)

Article 42.2-Right to social justice to those Citizens who are economically very poor and communities on the verge of extinction on food among other needs (CA Secretariat, 2015; P. 18)

Article 44.1-“Each consumer shall have the right to quality foodstuffs and services” (CA, 2015; P. 18)

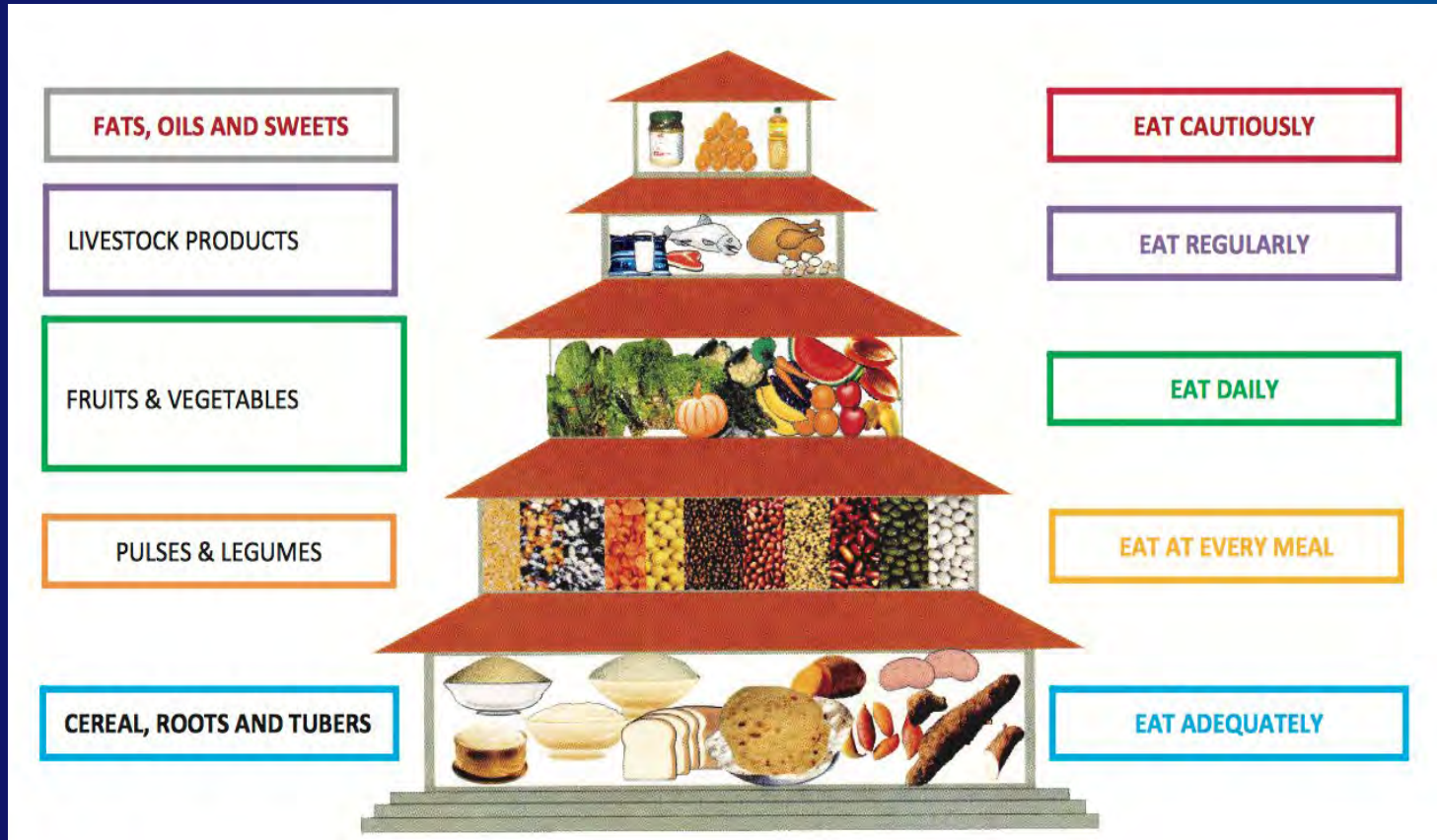
Article h12, part 4 under the Directive Principles, Policies and Responsibilities of the state-supportive measures to enhance productivity for the ensuring the food sovereignty (CA, 2015; P. 27).

Reality

- Medium status with 15 score in the Global Hunger Index;
- Provincial, ecological belt, age, gender, religion-wise variations;
- 13% of the population experienced moderate or severe food insecurity;
- Karnali Province, with 36% of the rural population in this province facing moderate or severe food insecurity
- Minimum Dietary Requirement specific status;
 - Only 56% women of 15-49 years women have access to MDRs;
 - Muslim women eat less green vegetables;
 - Madheshi women consume less meat and dairy products;
 - Urban (60%) and Rural (46%) have access to MDRs;
 - DAG (35%), uneducated (39%) and rich (84%);
- High dependency on food imports;
- External impacts: Pandemic, war and conflict, climate change;
- Leading to food crisis

Provision for healthy food

Reality



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High dependency on food imports;
External impacts: Pandemic, war and conflict, climate change;
Leading to food crisis

Gender matters!



Managing kitchen as aushadhalaya (medical hub) with focus on:

Soil based production and supplies

Kitchen management knowledge and skills

Supporting five pillars of food security

Access to means of production and services

Access to employment, market, fair price

Ensuring inclusion, Rights and Sovereignty

Inclusion: space, voice and influence

Rights: protect, promote and fulfil

Sovereignty: producer control over food system

Way forward: localize inclusive food system



Localization with inclusive policies, provisions and resources is the solution!

Promote nutrient dense crops, livestock and foods

Support to develop culturally adaptive food system

Invest in climatically resilient inputs & technologies

Innovate product diversification options

Thank you for your kind attention!

Yamuna Ghale, PhD
yamunaghale@gmail.com
977-9851065738

E-Commerce, Product Labelling Trends and Nutrition

Dr. Arpita Mukherjee

Professor
ICRIER

August 8 & 9, 2024





India's Agri-Food Production

India's Advantage in Agri-Food Sector

- India is among the fastest-growing economies in the world, with a projected **real GDP growth of 7% in 2024** (FY, 2025) [International Monetary Fund, July 2024].
- India is the **world's largest** producer of **milk, pulses, and spices** [FY 2023-24].
- India **ranks 2nd** in **rice, wheat, sugarcane, vegetables, and fruit** production [FY 2023-24].
- India **ranked 3rd** in **global egg production**, and **5th** in **meat production** in 2021 [FY 2023-24].
- India is the **3rd** **largest fish-producing country**, accounting for around **8%** of global production [FY 2023-24].
- **India has the world's 6th** largest 'food and grocery' market [APEDA 2024].
- Majority of the food production and distribution is in the informal sector.
- New channels like e-commerce are picking up.
- India was in the **top 10** ranking of countries in the global trade of agricultural products in 2022 (World Trade Statistical Review, 2023). The country has a positive trade balance in this sector.
- India exports agri-food products to over **70 countries in the world**. The USA, UAE, and the EU, are some of the key export markets while the trade with South Asian countries is less than 5%.

India's milk production in FY 2022-23 was around 230.6 MT.

In FY 2022-23, food grain production hit 329.7 MT, and oilseeds reached 41.4 MT.

The food processing industry accounts for around 32% of the total food market in the country.

India in FY 2023-24 produced around 3.6 MT of certified organic products, which includes fruits, vegetables, oilseeds, millets, processed foods.

The total fish production has increased to 17.54 MT in FY 2022-23.

Farmed shrimp production in India has grown by 3.57% from 142000 tonnes in 2010 to 650000 tonnes in 2020.

What is Nutritious Food and what is HFSS Foods?

Processed food: Food products manufactured by industry in which salt, sugar, fat and/or other culinary ingredients have been added to unprocessed or minimally processed foods to preserve them or make them more palatable. Processed food products are derived directly from natural foods and are recognized as a version of the original foods. The processes used in the manufacturing of these food products may include different methods of preparation, cooking, preservation and, in the case of cheeses and breads, nonalcoholic fermentation. Food-grade additives may be used to preserve the sensory properties and safety of these products.

Processed food and beverage items can be classified as:

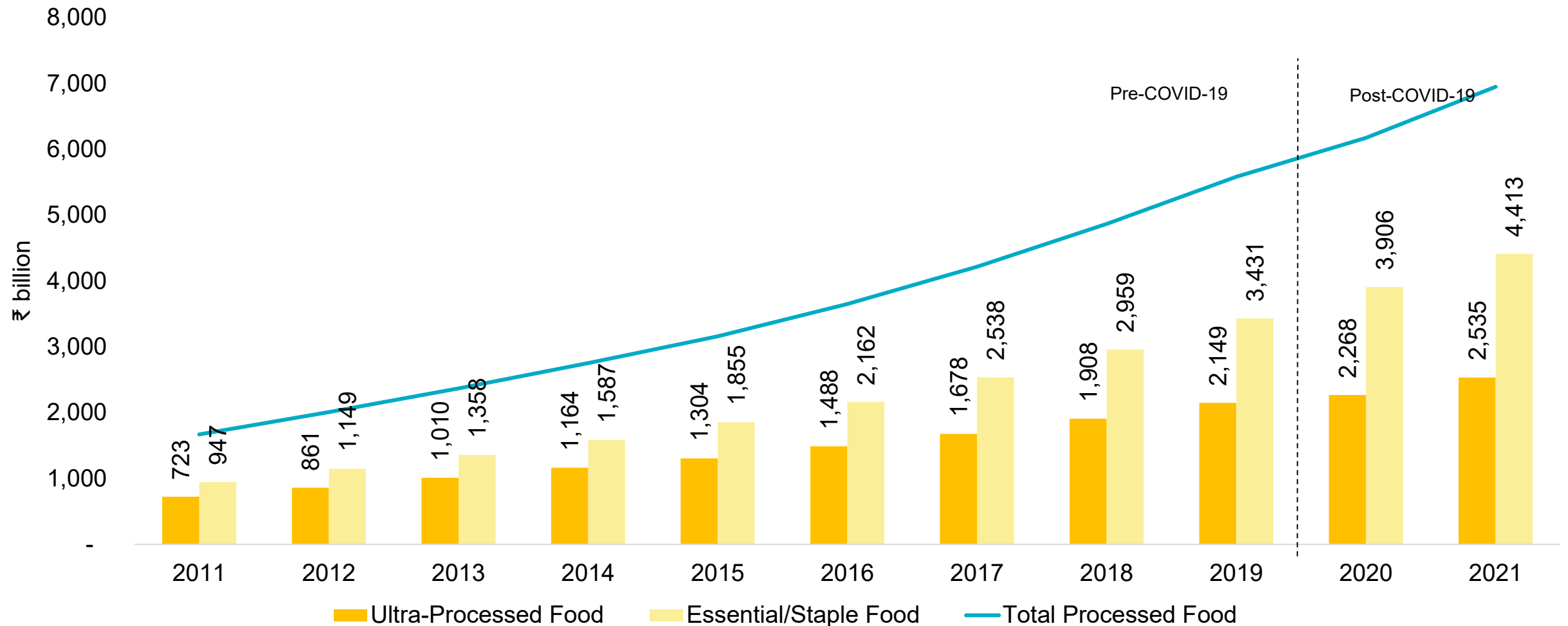
- *Essential/Staple Food - Food that is more likely to be a part of a healthy diet*
- *Ultra-processed/ HFSS Food - Food which may contribute to excess consumption of energy, saturated fats, trans fats, sugar or salt*

- WHO South-East Asia Region (SEAR) model

HFSS foods may be defined as foods (any food or drink, packaged or non-packaged) which contain low amounts of proteins, vitamins, phytochemicals, minerals and dietary fibre but are rich in fat (saturated fatty acids), salt and sugar and high in energy (calories) that are known to have negative impact on health if consumed regularly or in high amounts.

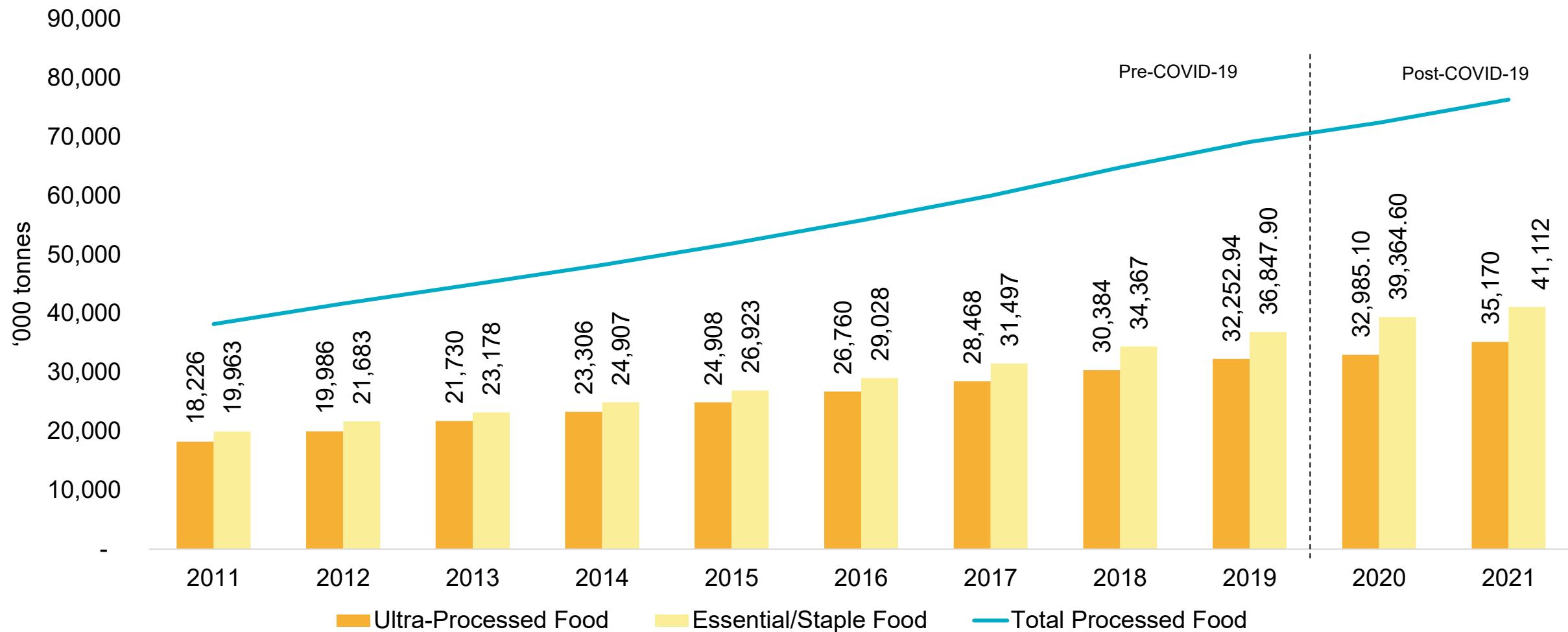
- Ministry of Women and Child Development (MoWCD),
Government of India

Sales of Processed Food (in Value) in India: 2011 to 2021 (in INR billion)



Source: Compiled from Euromonitor database

Sales of Processed Food (in Volume) in India: 2011 to 2021 (in '000 tonnes)

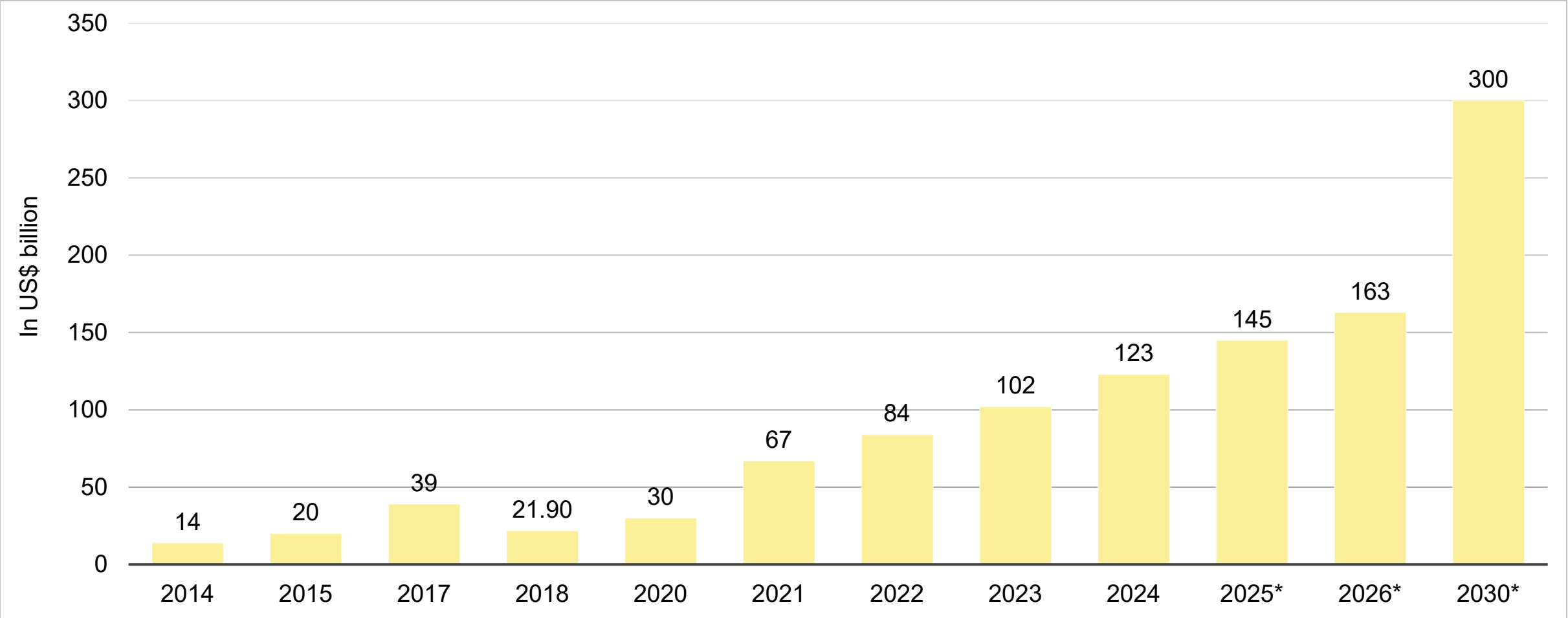


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E-Commerce – The Upcoming Distribution Channel



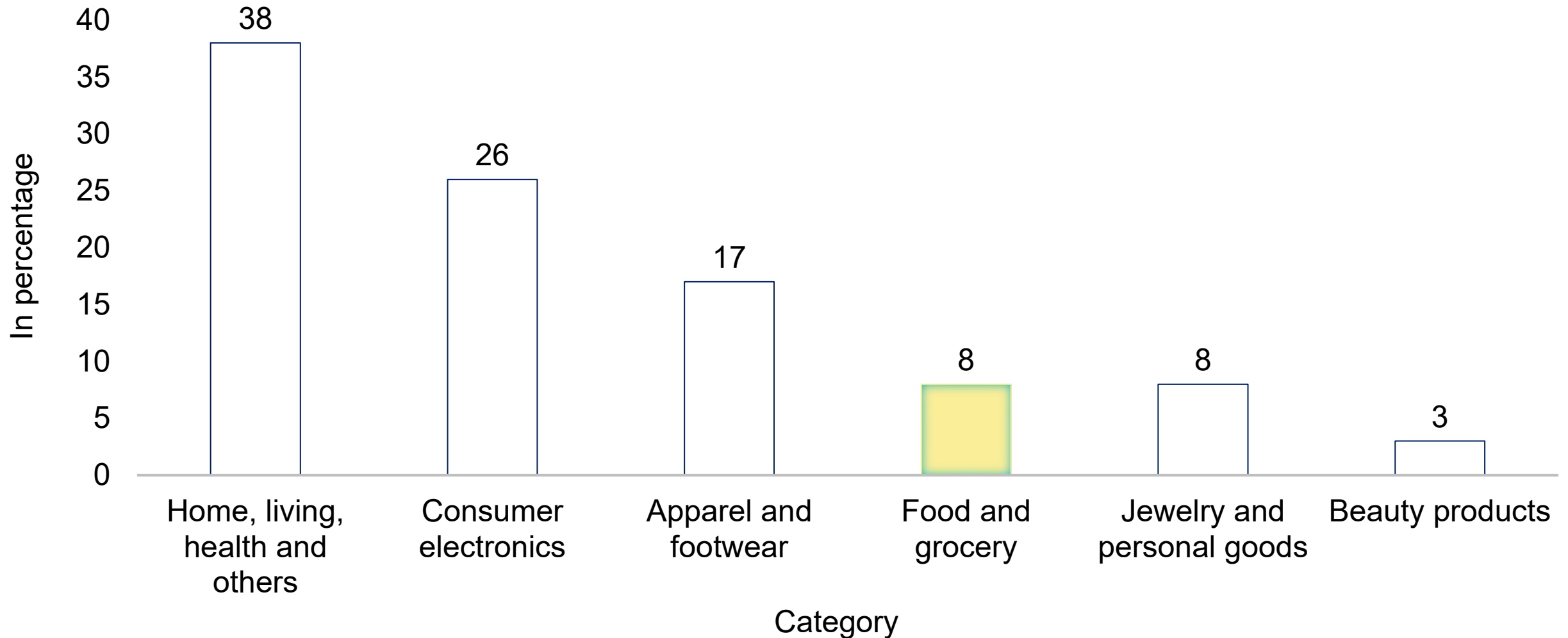
Market Size of E-Commerce Sector in India: 2014 to 2024, with forecasts until 2030 (in billion U.S. dollars)



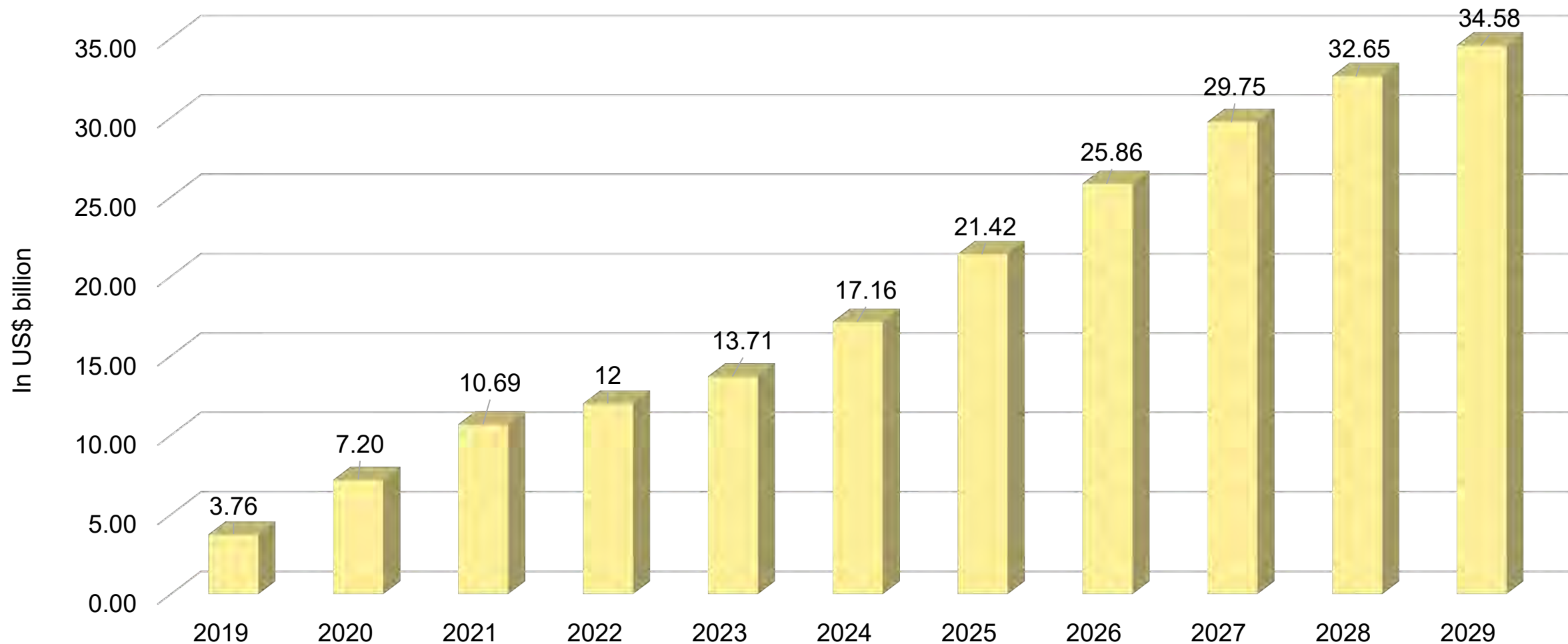
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India is among the fastest growing markets for E-Commerce

Share of E-Commerce Retail Sales in India 2022, by category

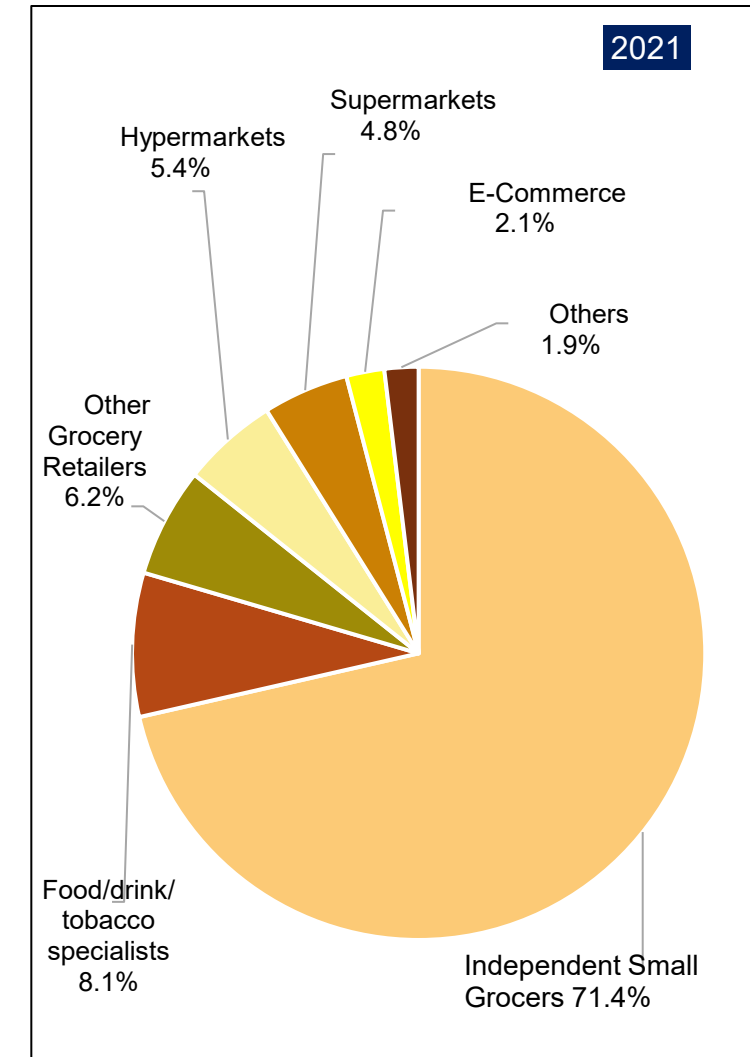
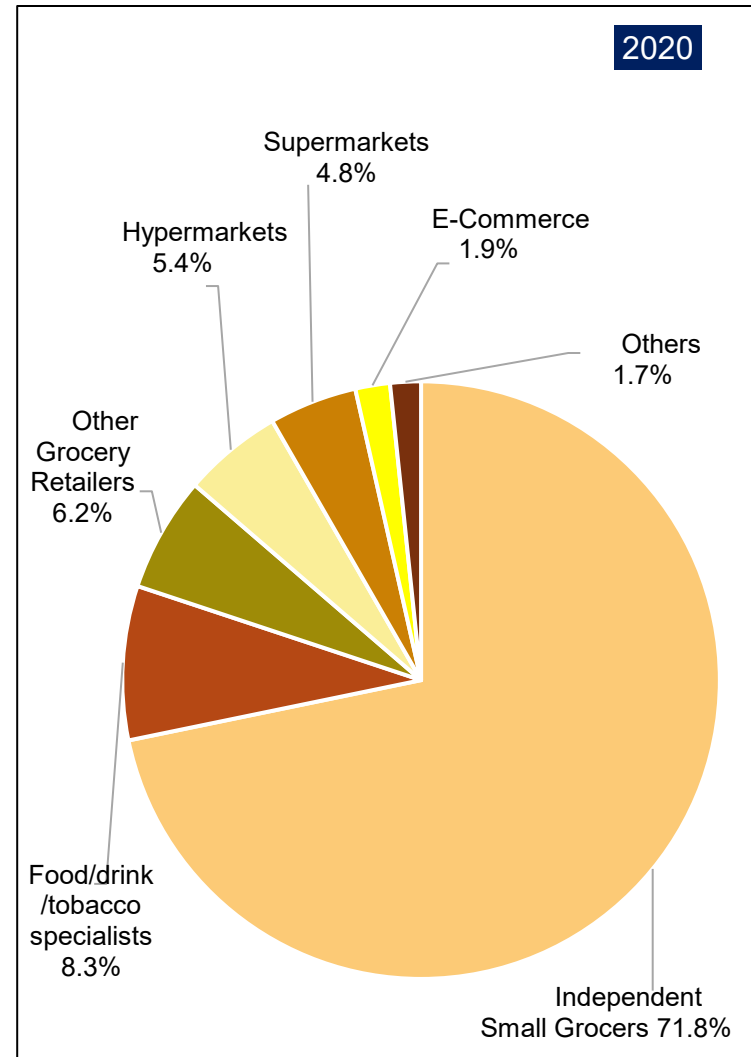
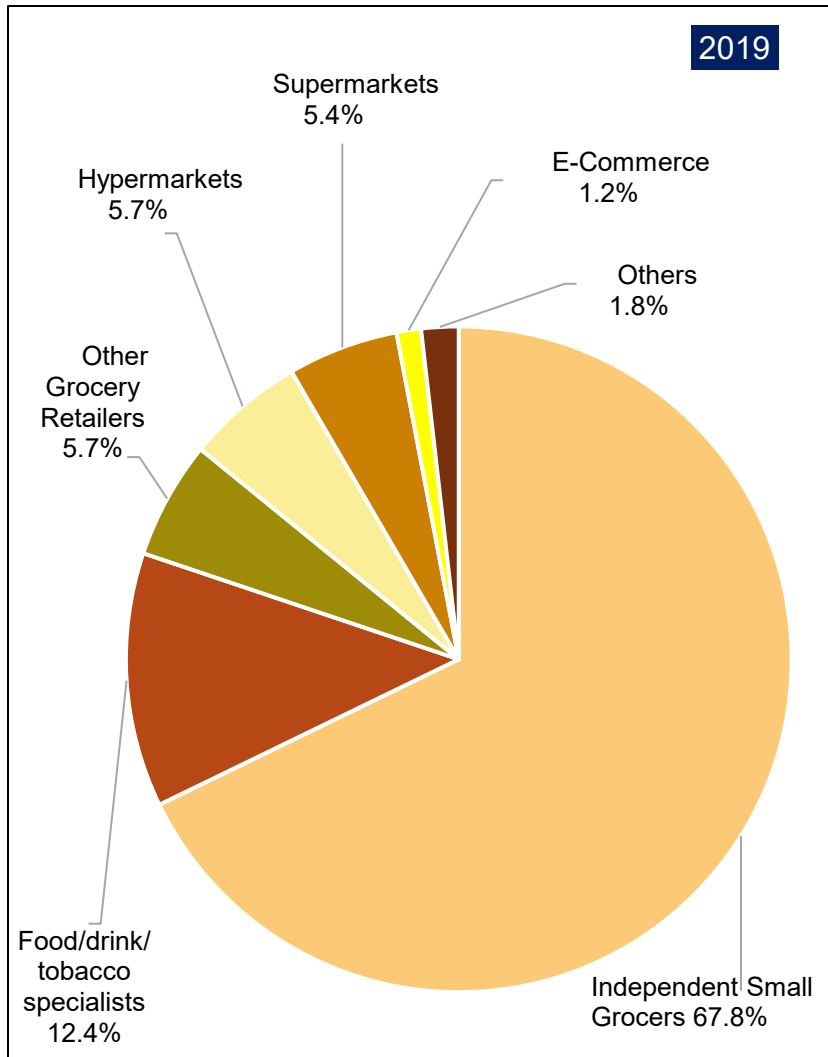


Revenue in the Food Segment of the E-Commerce Market in India from 2019 to 2029 (in billion U.S. dollars)



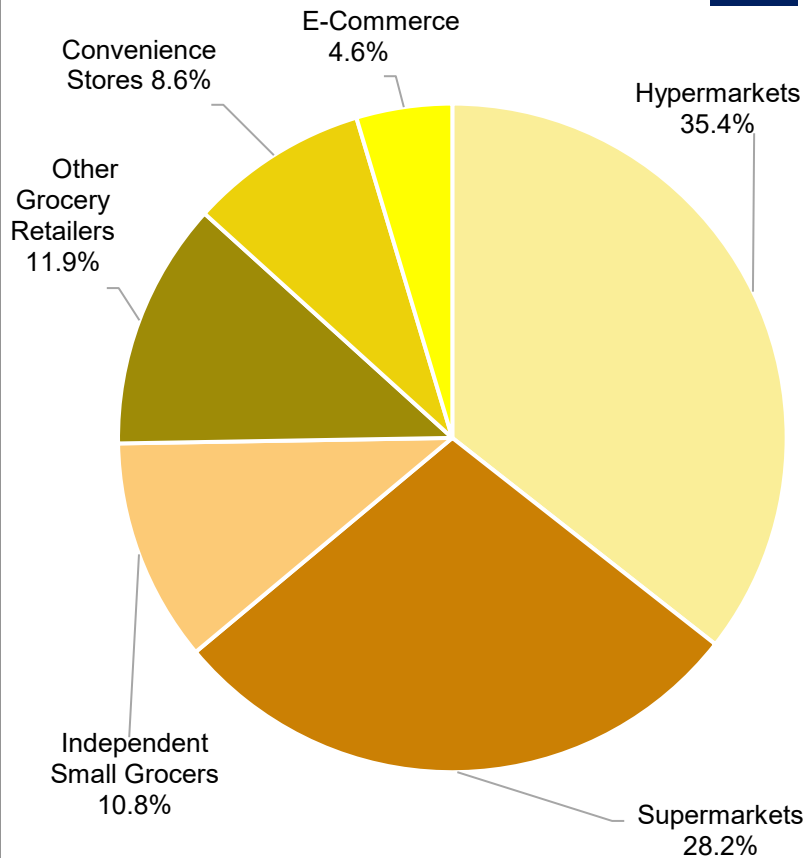
Source: Statista Market Insights

Retail Sales Channel for Chocolate and Sugar Confectionery: 2019 v/s 2020 v/s 2021

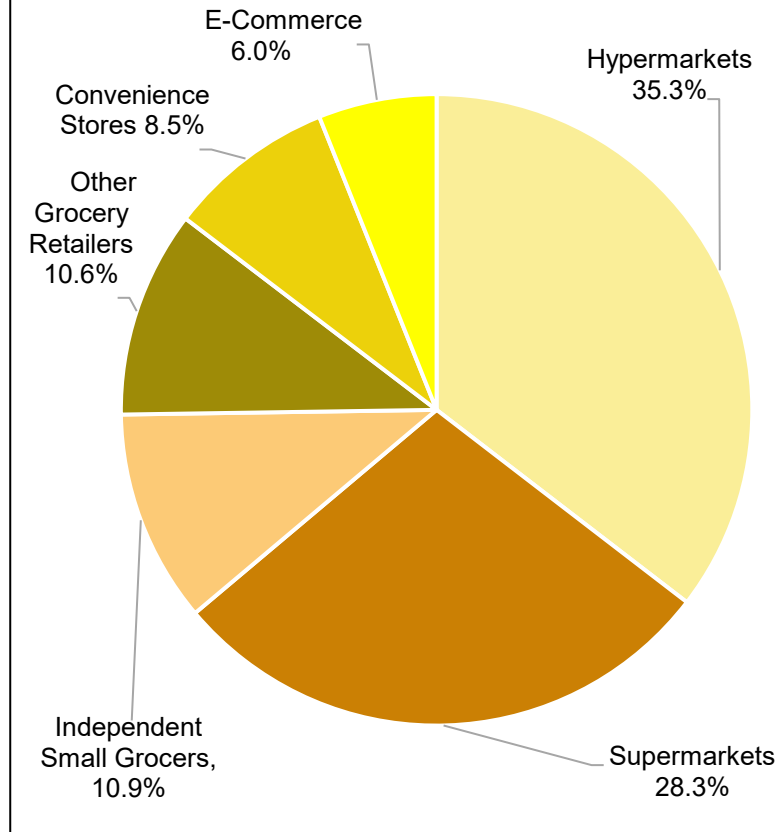


Share of Retail Sales Channel for Ready-Made and Convenience Food

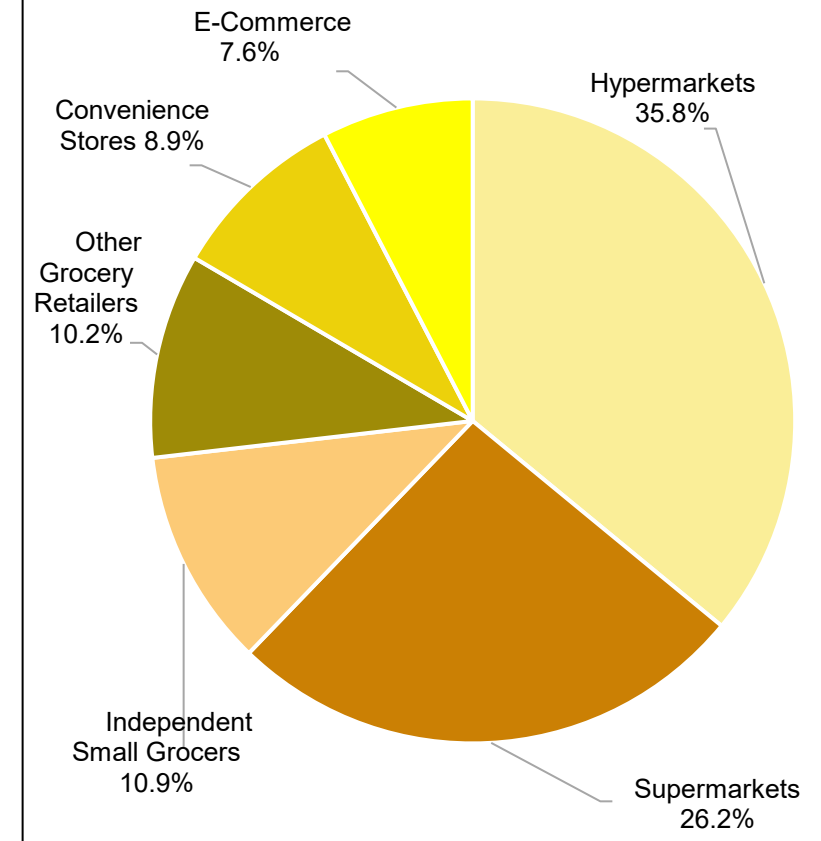
2019



2020



2021



Source: Compiled from Euromonitor Database

Still, the majority of Food & Grocery is in the informal sector, and E-Commerce is entering into new segments like Ready-to-Eat and Breakfast Cereals

Product Labelling and Nutrition



Why Nutrition?

- With a large population, India continues to face widespread hunger and malnutrition on the one hand, and on the other hand, there is a rising incidence of overnutrition-related diseases.
- According to the Food and Agriculture Organization (FAO) 2024, the average prevalence of undernourishment in the Indian population, between 2021-23, is 13.7%.
- Indian Council of Medical Research –India Diabetes (ICMR-INDIAB, 2023) – found that in 2021, an estimated 101 million people in India were diabetic while an estimated 136 million people were pre-diabetic.
- Huge Rejections in Export Markets: The data from the Rapid Alert System for Food and Feed (RASFF) of the European Union (EU) shows that between 2019-2024, fruits and vegetables from India faced 119 notifications, out of which 78 faced border rejection notifications due to high residues of unauthorised pesticides, and failure to meet the EU food security standards.

Product Labelling and Nutrition

- Food Safety and Standards Authority of India (FSSAI), under the Ministry of Health and Family Welfare (MoHFW), is the nodal agency for food safety and nutrition.
 - Its mandate covers domestic market and imports (farmers and exports are excluded. There are other agencies like APEDA for exports)
- The FSSAI, over the years, have tried to align Indian food safety standards with global standards such as the Codex Alimentarius.
- It has also initiated campaigns such as the “ Eat Right”.
- It is now coming up with the Health Star rating (1/2 star for least healthy food to 5 stars for healthiest food)/Front of the Pack Nutrition Labelling (FOPNL), which will rank packaged food items based on sodium, sugar, and fats printed on the front of the package. The rating system grants positive and negative points. For example, positive points are awarded for fruit and vegetable (FV), nuts, legumes and millets (NLM), fibre and protein being part of the product. Negative points are awarded to products constituting high amounts of energy, sugar, salt and fat.

ICMR-NIN Dietary Guidelines (2024)

- An individual should consume 2000 kcal by eating approximately 250 grams of cereals, 400 grams of vegetables, 100 grams of fruits, 85 grams of pulses, eggs, or flesh meals, 35 grams of nuts and seeds, and 27 grams of fat or oils per day in order to consume 2000 kcal.
- It is recommended limiting the amount of cereal consumed to 45% of total energy, which is currently between 50 and 70%.
- According to ICMR, vegetarians should consume foods high in n-3 polyunsaturated fatty acids, such as chia seeds, flax seeds, and other similar foods, since it can be difficult for them to obtain adequate B12.
- The ICMR stated that Indians consume a lot of grains since pulses and meat are expensive, which leads to a deficiency in important micronutrient consumption. Eating a range of foods was advised because “no single food item contains all essential nutrients.”

Issues and Way Forward

- Micronutrient Deficiency are rising – One in 5 Indian are Vitamin D Deficient.
- Nutritious food is expensive – Need for Nutrition-linked, Schemes Taxes and Subsidies.
- Around 52 different policies on Sustainable Food System (SFS) under ten ministries, yet no Vision Document or Roadmap for SFS.
- Policies are evolving in a piecemeal manner by multiple government bodies at the Centre and between the Centre and states.
- Lack of awareness, collaboration, sharing of best practices and partnerships.
- How to cover the Informal sector?
- FDI Restrictions like the one on Inventory-based e-commerce model.
- Need for data-based policy – the ICMR-National Institute of Nutrition (NIN) - ‘Diet and Biomarkers Survey (DABS-I)’ 2024.
- Linking Government Procurement to Nutrition.
- Need to move from “Food Security” to “Nutrition Security”.

Cost of Healthy Diet						
Regions/Subregions/ Countries/Territories	Cost of a healthy diet (PPP dollars per person per day)					
	2017	2018	2019	2020	2021	2022
Southern Asia	3.28	3.35	3.45	3.59	3.84	4.28
Bangladesh	3.03	3.13	3.18	3.22	3.37	3.64
Bhutan	4.07	4.26	4.38	4.66	4.96	5.28
India	2.86	2.87	2.92	3.01	3.11	3.36
Iran (Islamic Republic of)	3.01	3.21	3.64	3.60	4.17	5.13
Maldives	3.45	3.50	3.53	3.72	3.95	4.36
Nepal	3.30	3.34	3.41	3.52	3.69	3.97
Pakistan	2.92	2.91	2.97	3.16	3.34	3.76
Sri Lanka	3.58	3.58	3.54	3.79	4.13	4.77



FOOD SYSTEMS
FOR HEALTHY DIETS
AND NUTRITION

Thank You

Arpita Mukherjee | arpita@icrier.res.in

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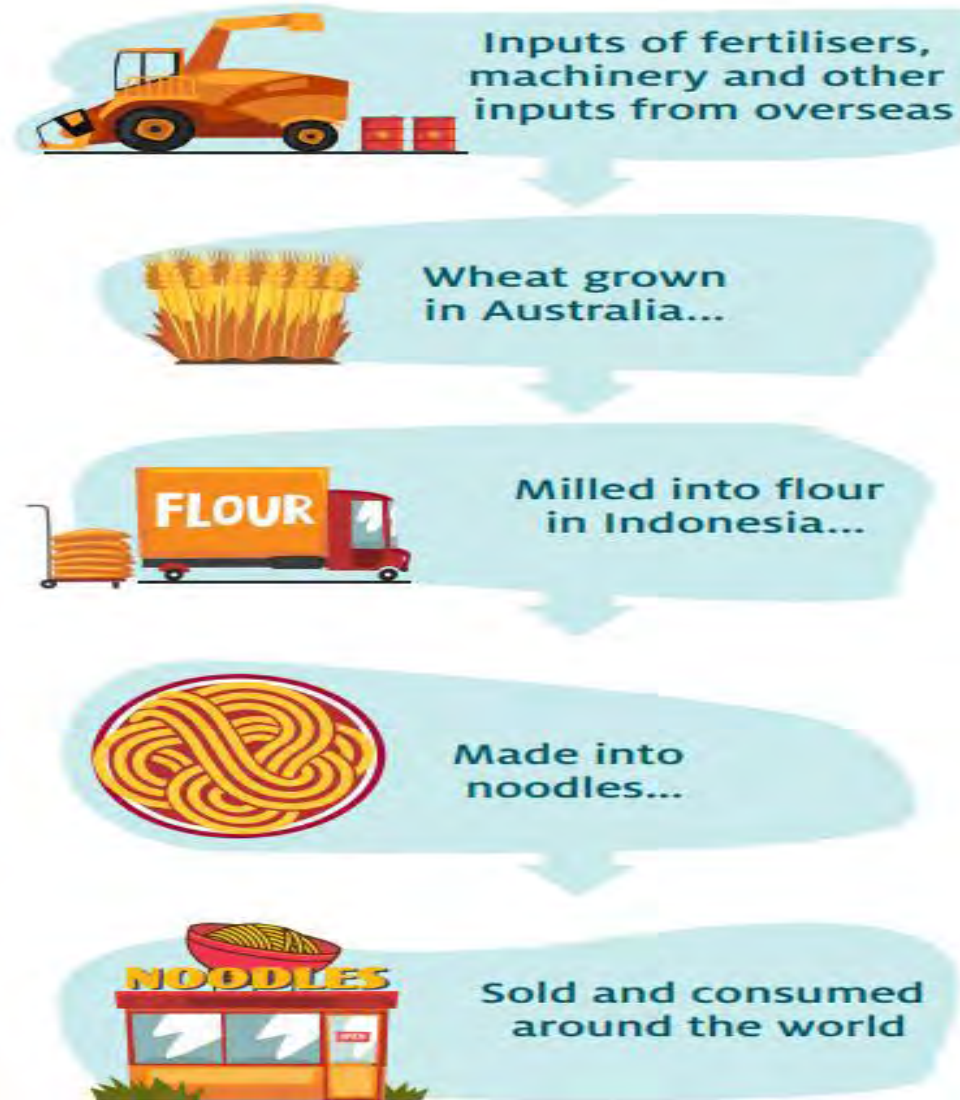
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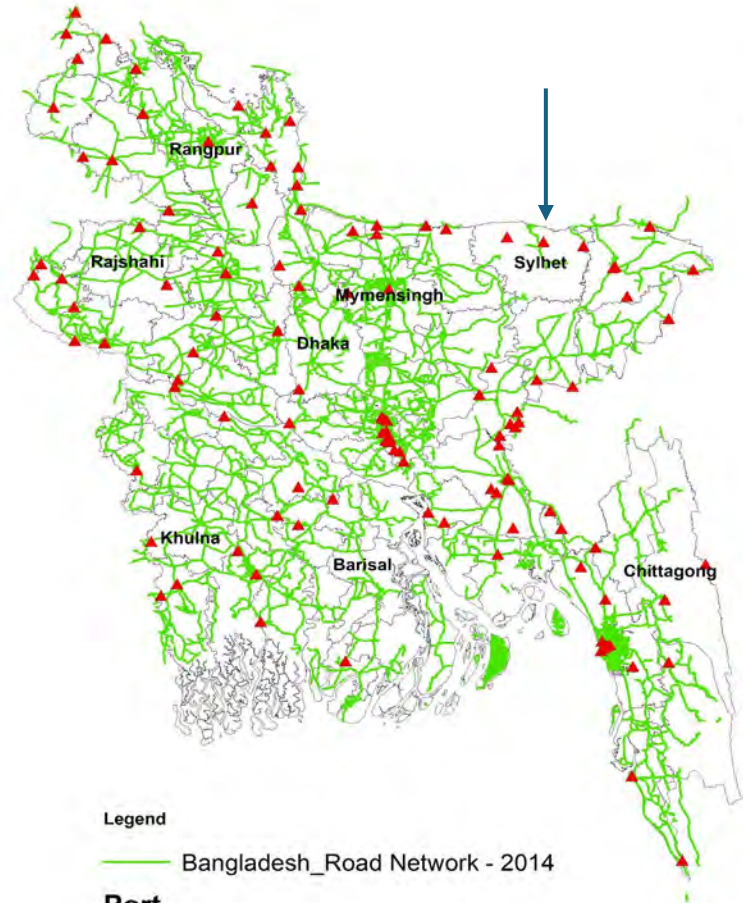
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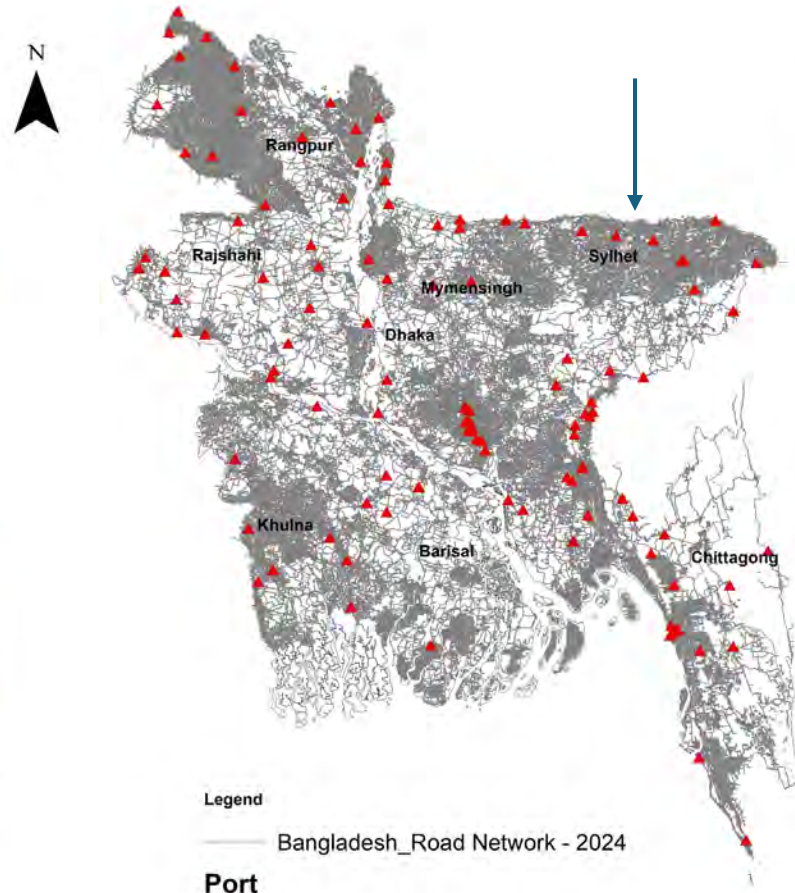
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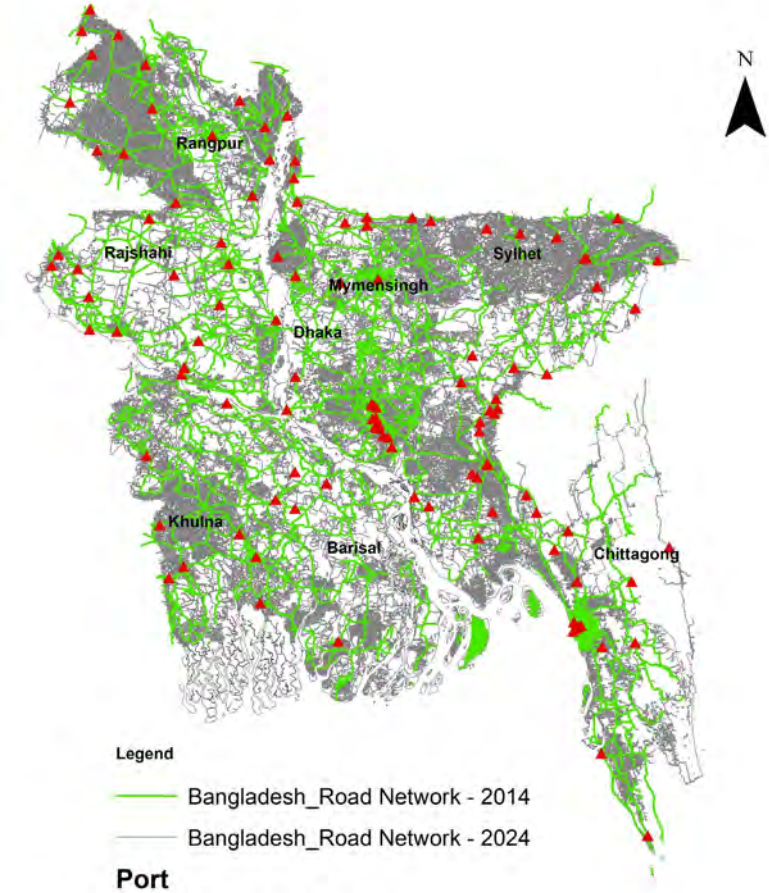
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- Port
- ▲ Bangladesh Ports

2014 - 2024 Road Network



- Legend
- Bangladesh_Road Network - 2014
 - Bangladesh_Road Network - 2024
- Port
- ▲ Bangladesh Ports



Conclusions

- Trade is an essential part of food choices
- Trade is both a determinant and determined by non-price attributes like food safety
- It is not a north problem
- It is well spread to south
- Domestic standards a steppingstone else much longer bridge to cross
- Non-price attributes a value creator with nutrition and health attributes- awareness, credible certification, labeling a precursor

Diet Quality and Nutrition in South Asia

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I. The inaugural session

1 Desirability

Food choices are driven by a complex interplay of a person's cognition, environment, and behavior. Thus, even when diverse, healthy foods are available, accessible, and affordable, people often do not choose healthy diets.

2 Affordability

Low income + high costs of safe and diverse foods (especially fruits, vegetables, and animal-source foods) make healthy diets unaffordable for at least 2 billion people worldwide.

3 Accessibility

Consumers are often not close enough to safe sources of diverse, healthy, and affordable foods for intake to be convenient or possible on a regular basis.

4 Availability

Insufficient year-round availability of diverse perishable foods (incl. fruits and vegetables) means high costs and hard-to-find sources.

II. Supporting healthy food choices in S. Asia

- Understanding dietary behavior and constraints to healthy diets can help reveal entry points for interventions
 - Cheap unhealthy foods everywhere pose a huge challenge for healthy diets
- Regular tracking of cost & affordability of healthy diet is both doable and worth doing
 - It is not the same as tracking food price inflation
- Transforming food systems is not only a technical issue, it's also political
 - Need for accountability and transparency: collecting and sharing the data is one way to do it
 - Need to strengthen local links & protect the interests of the poor
- Private sector is a key interest group in the transformation process
 - Business needs to be regulated; it also needs to be in the room
- प्रमुख संदेशहरूलाई नेपाली भाषामा अनुवाद गर्नुहोस् | यी संदेशहरू संसदसदस्यहरू र स्थानीय सरकारहरूसँग साझा गर्नुहोस्।

III. Role of women across agrifood systems and food choices in S. Asia

- ✦ Women's time poverty is linked to nutrition but not sufficiently studied
 - ✦ Data collected using a new tool shows that gender divisions exist;
 - ✦ they start early in life; and
 - ✦ large-scale male migration → increased burdens
- ✦ Gender matters!
 - ✦ Constitutional guarantees are far from met
 - ✦ Women should get access to means of production, markets, fair prices, ownership of assets: Not keeping up with the increasing feminization of food production in Nepal
- ✦ Get boys & men involved across the entire food system, including in domestic spaces and tasks
- ✦ Need for better communication between science and policy

IV. Strengthening markets for healthy diets and nutrition

- Why trade? Most food that comes into our food environments/markets is coming from some form of trade (local, national, regional, global)
- Trade is an essential component of food systems
 - Non-price attributes are important! Everywhere!!
 - Local & international trade are entwined with each other
 - Time to trade and cost to trade are the key barriers
- Rapid growth in e-commerce in India, but not uniform
- Separate standards for domestic markets, imports, and exports hurt all three
 - Regulatory flipflops; unfunded programs, inconsistencies in tax regime are common in the region
- Open trade may be good for sustained growth but inclusive recovery after a macroeconomic crisis needs a more nuanced view
- Economic growth in S. Asia has been pro-poor, but not pro-nourishment

Where next?

- CGIAR Research Portfolio 2025-30 - with 8 Science Programs – has an entire science program on Better Diets and Nutrition
- The updated program builds on the GFPR framework and prior research and partnerships on diets and nutrition
- We anticipate strong linkages between the Better Diets and Nutrition Science Program and our ongoing work on diets and nutrition in South Asia, including TAFSSA, POSHAN, SANI and other programs
- IFPRI@50 – nutrition will remain a strong priority for us as we look to our future!

A reminder that to improve diets for all, a consumer-oriented food systems view is essential

