



**ICAR-National Institute of Agricultural Economics and Policy Research**



# **From Plate to Plough: Implications of Emerging Trends in Fruit Consumption**

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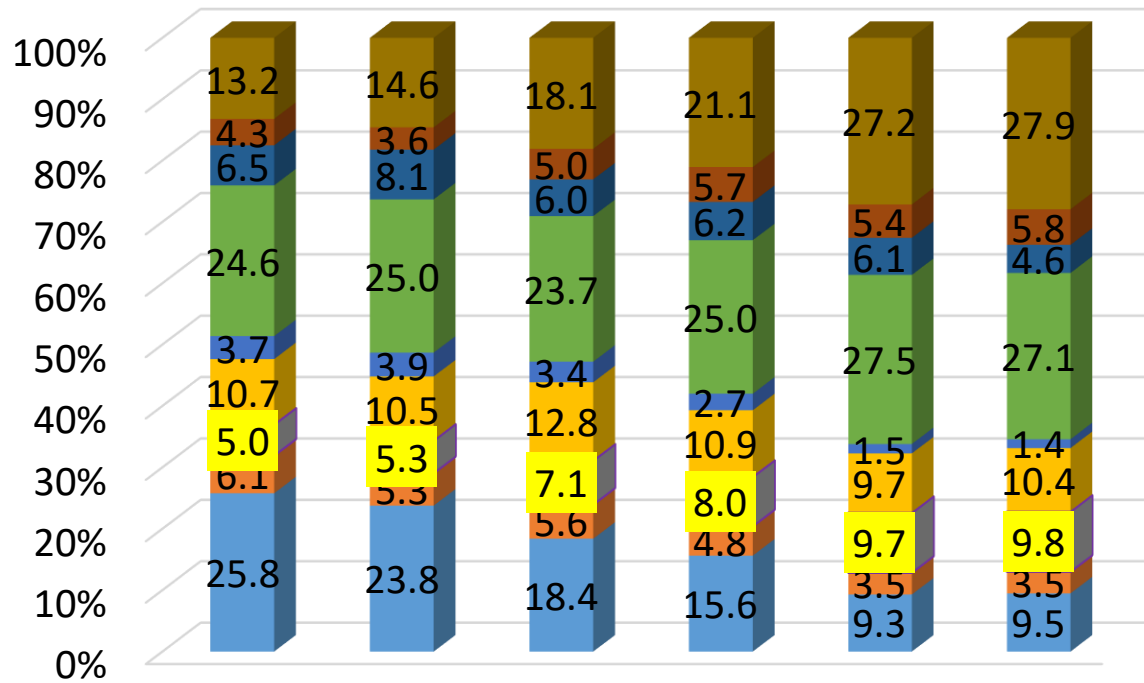
**ICAR-National Institute of Agricultural Economics and Policy Research**

**New Delhi**

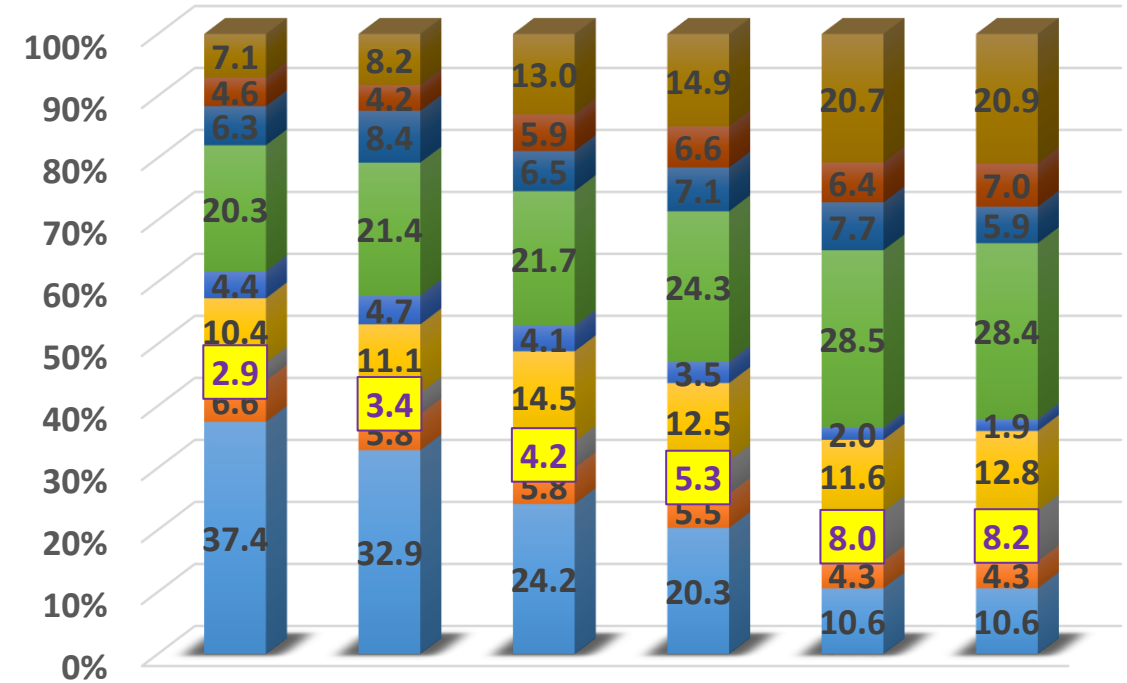
# Changes in consumption and demand

# Increasing Share of Fruits in Food Expenditure

## Urban



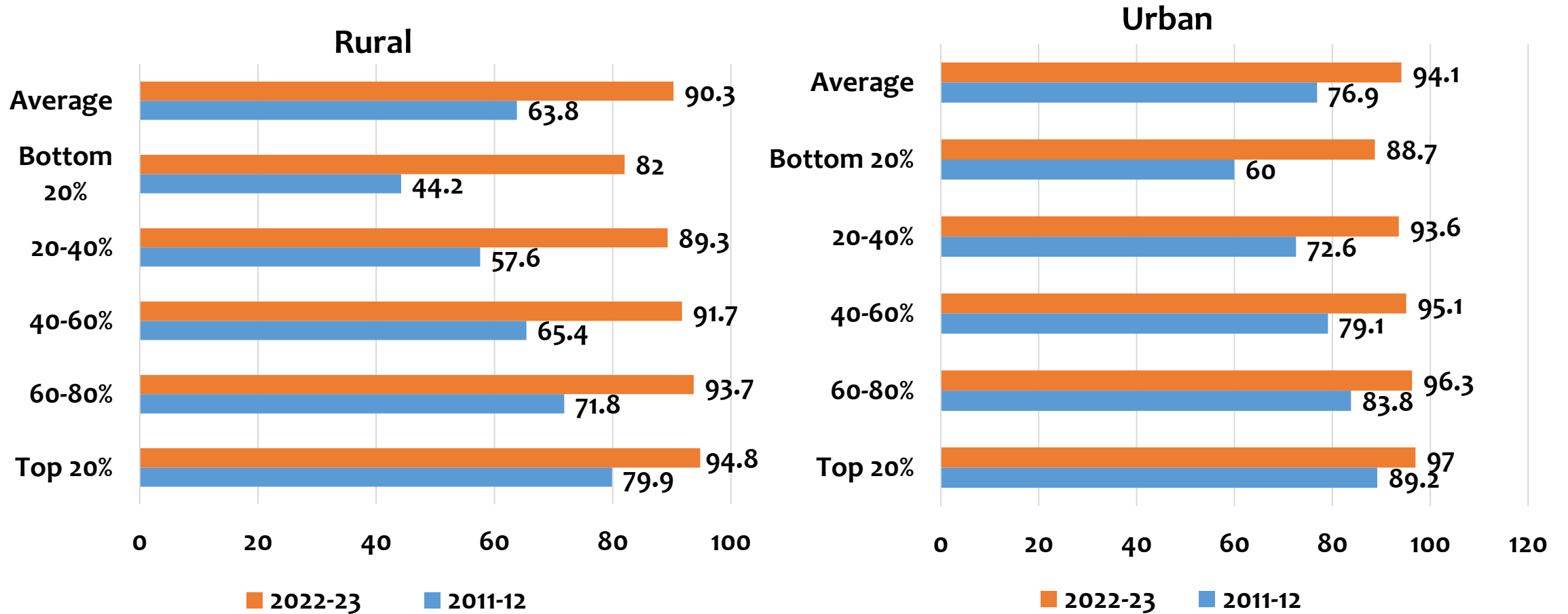
## Rural



- Cereals & substitutes
- Fruits (fresh & dry)
- Sugar
- Edible oil
- Pulses & products
- Vegetables
- Animal source food
- Spices

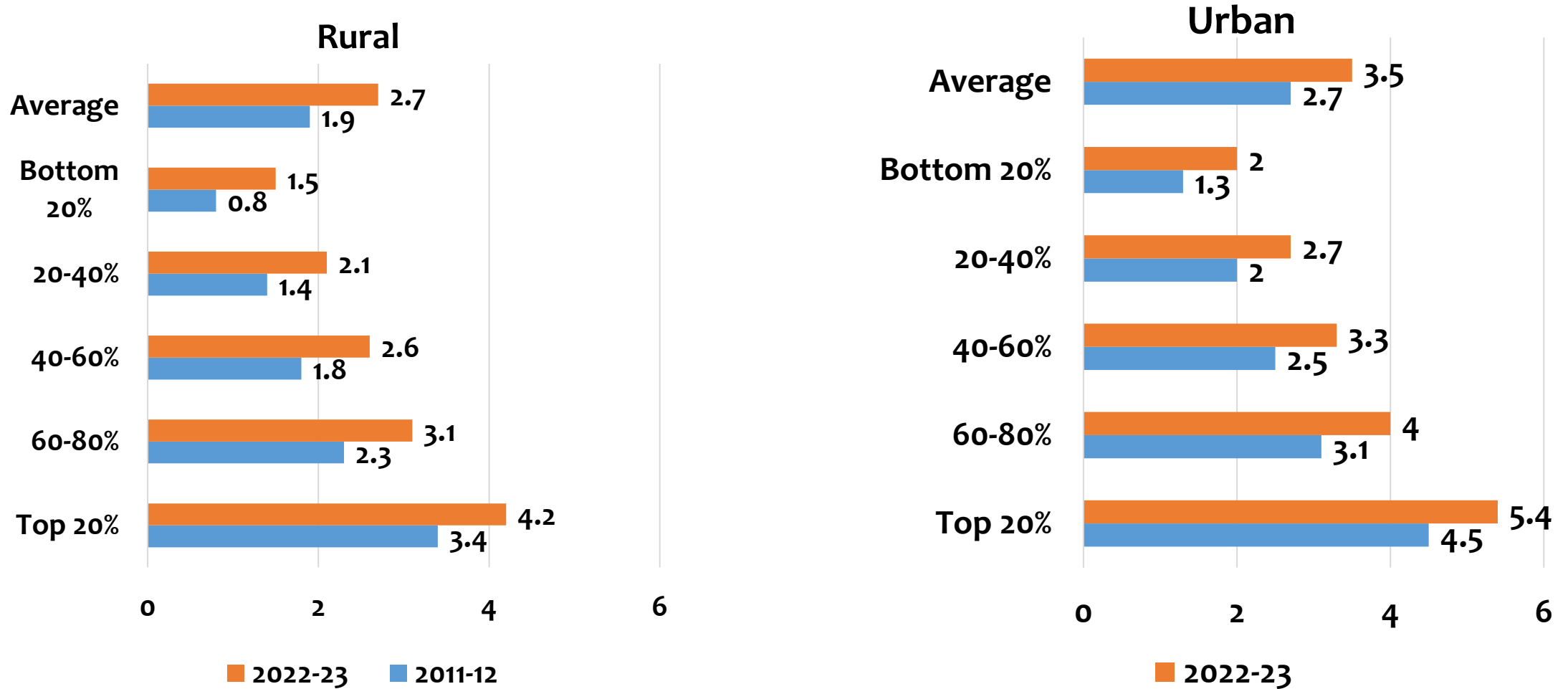
- Cereals & substitutes
- Fruits (fresh & dry)
- Sugar
- Edible oil
- Pulses & products
- Vegetables
- Animal source food
- Spices

# % households consuming fresh fruits



Source: EAC - P M / W P / 3 0 / 2 0 2 4

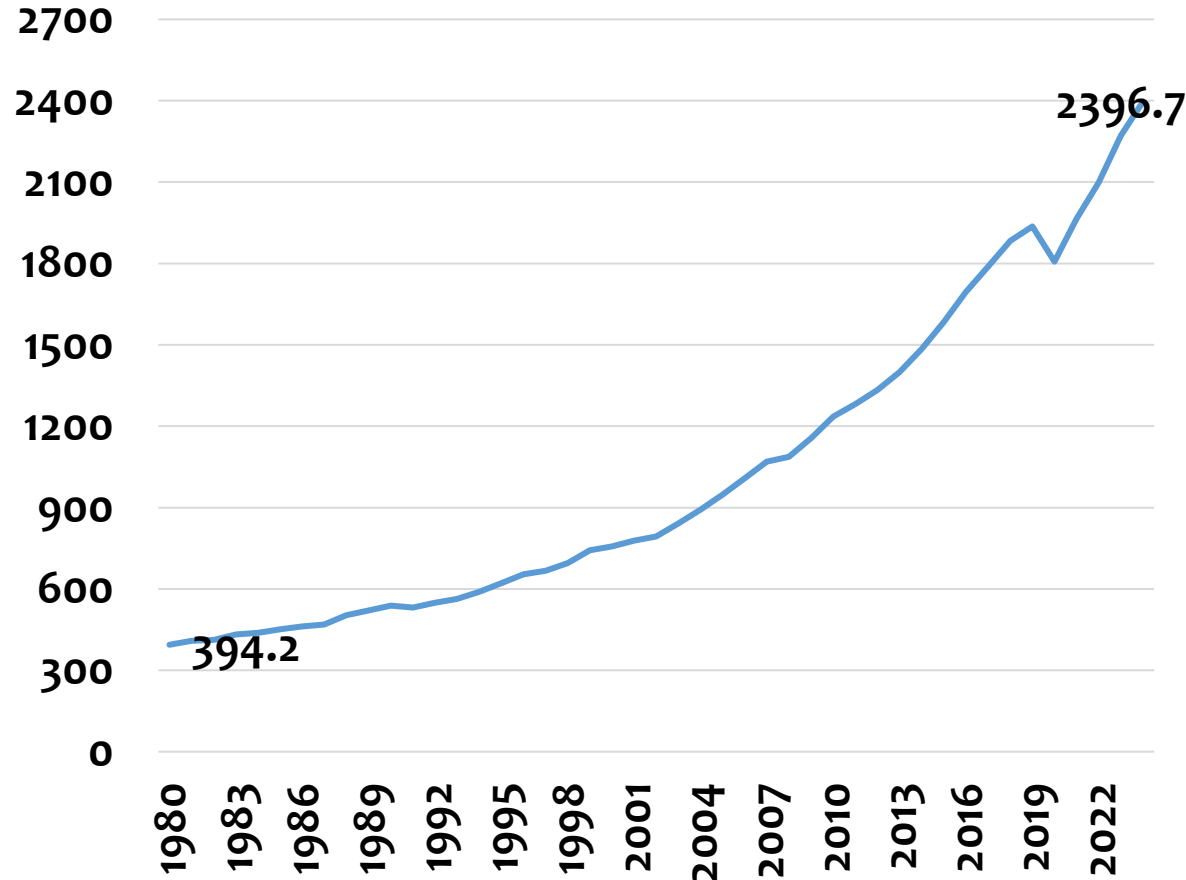
# Per Capita Consumption of Fresh Fruits (Kg/per adult female eq.)



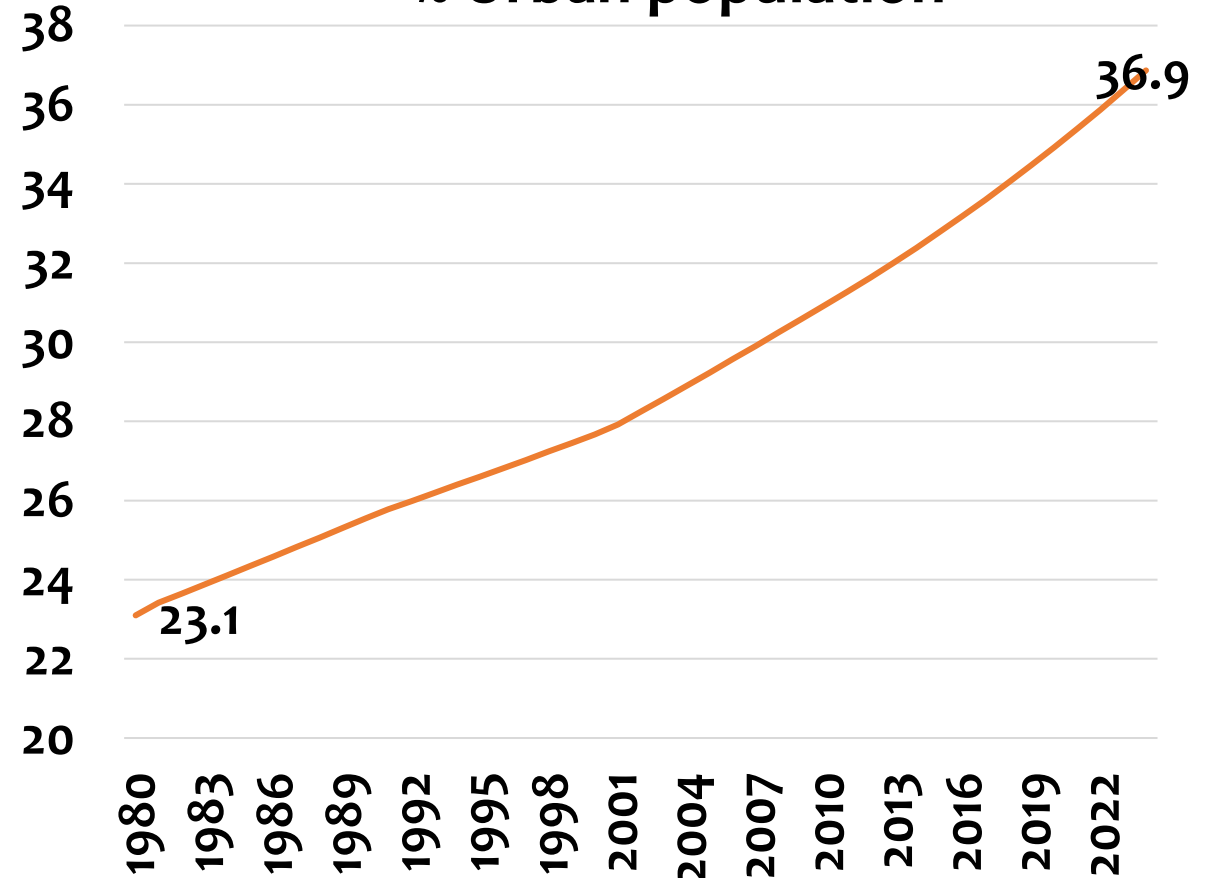
Source: EAC -PM/WP/30/2024

# Drivers of Changes in Food Consumption Patterns

## GDP per capita (constant 2015 US\$)



## % Urban population

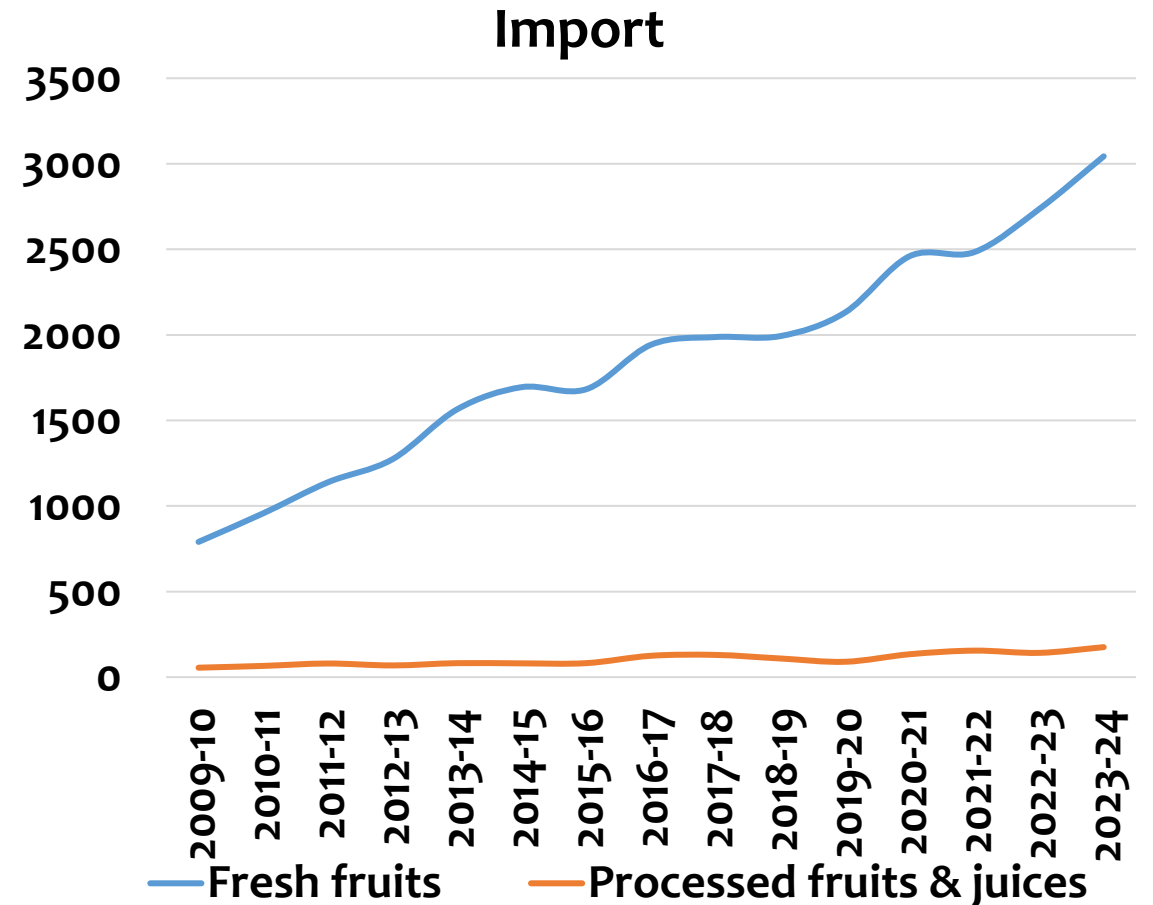
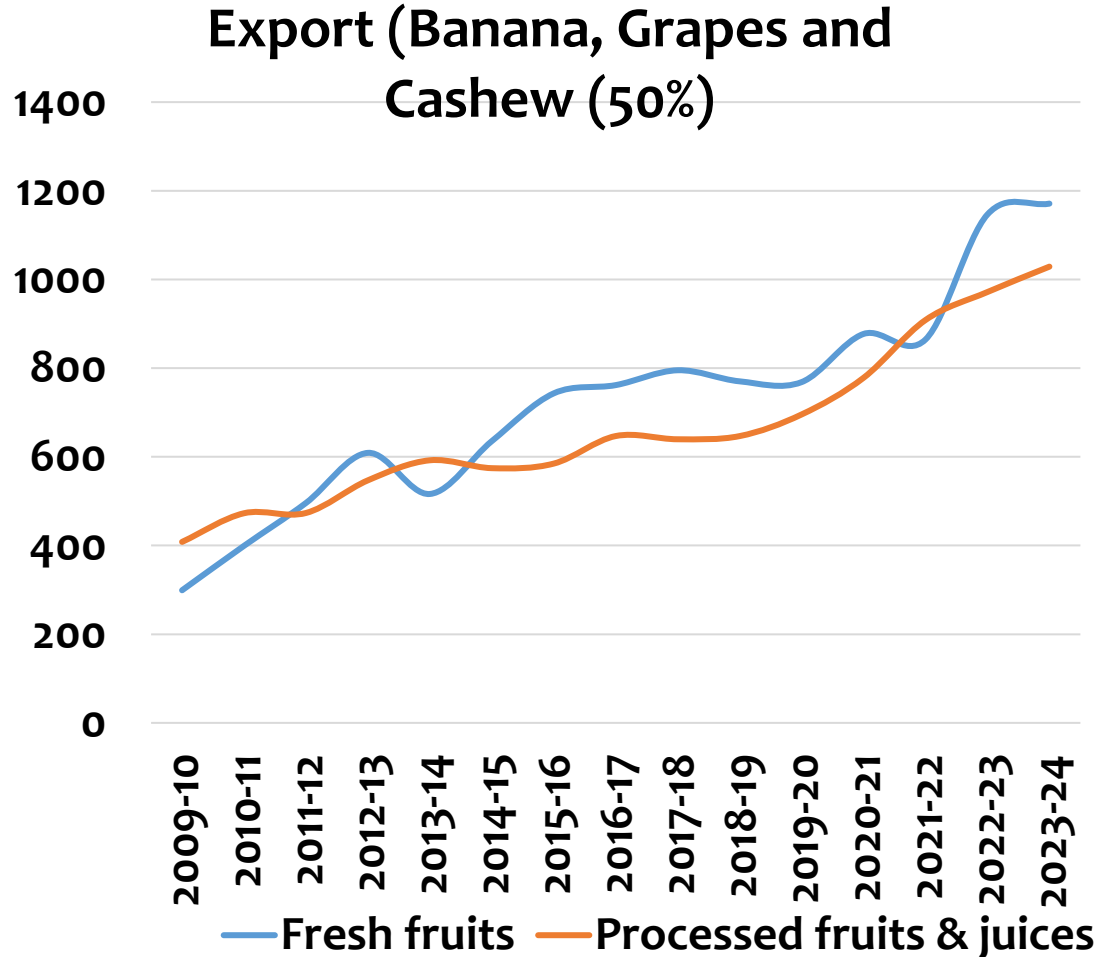


Data Source: World Bank

# Food demand to 2047

	2019-20	2047-48	2047-48	2047-48
	6.34%	6.34%	7%	8%
Rice	103	114	114	113
Wheat	100	119	119	120
Nutri-cereals	19	29	31	33
Maize	27	86	94	109
Pulses	26	49	52	57
Sugar	34	44	45	45
Edible oil	22	31	32	33
Vegetables	199	365	385	417
Fruits	108	233	252	283
Milk	186	480	527	606
Meat, Eggs, Fish	24	74	83	98

# India's Export and Import of Fruits, fresh and processed (Million US\$)



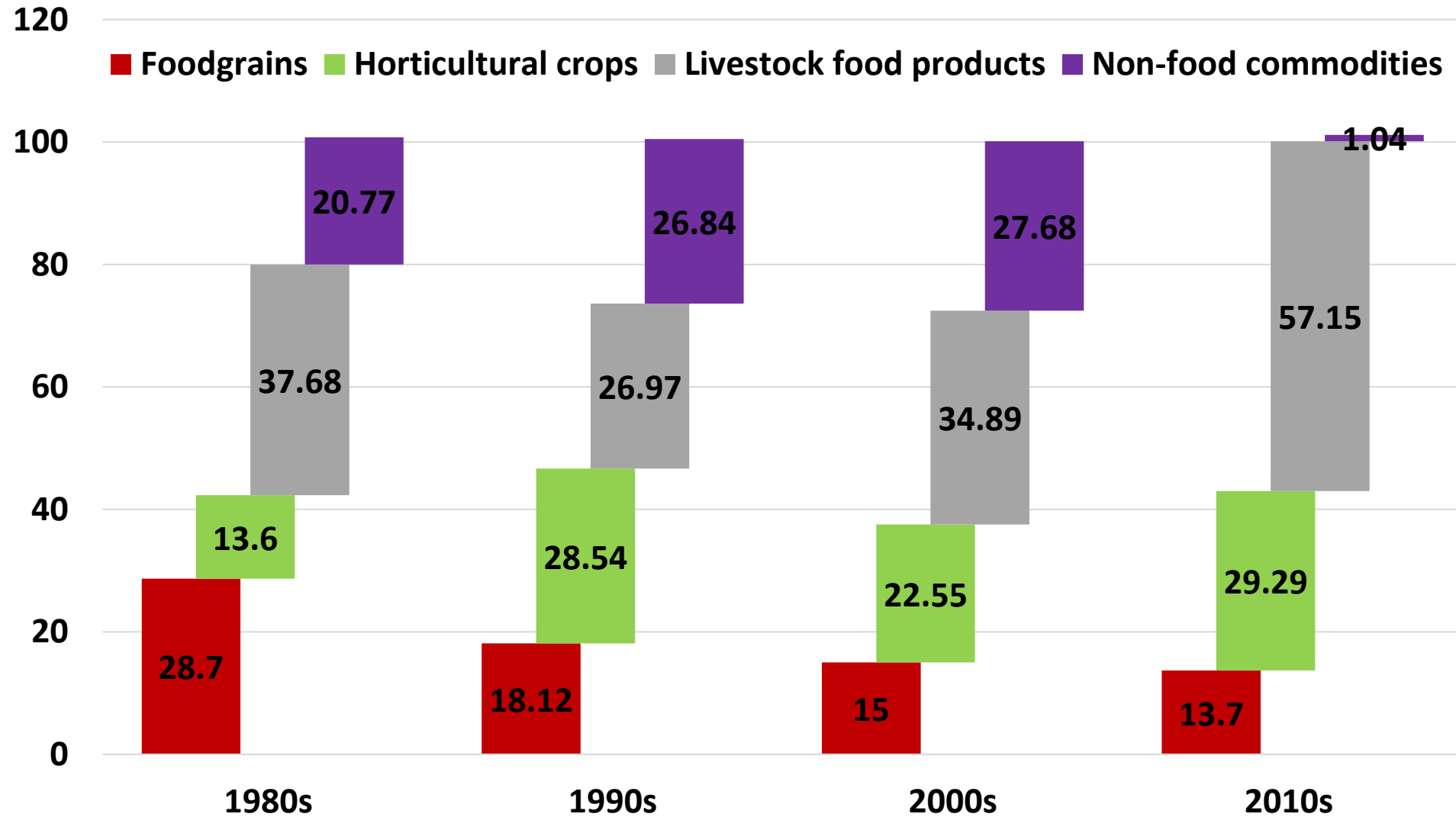
# Implications

- **Agricultural growth**
- **Climate resilience**
- **Labor Market**
- **Poverty and Nutrition**
- **Markets, Prices, Supply Chains**
- **Processing and value addition**
- **Financing**
- **Research**

# Growth in agricultural value of output

Commodities	1980s	1990s	2000s	2010s	Overall
Agriculture	2.84	3.26	2.85	3.13	3.00
Non-food	1.63	2.60	2.43	0.11	2.19
Food	3.54	3.59	3.04	4.34	3.38
Cereals	2.89	2.25	1.72	1.62	1.87
Pulses	1.54	0.83	1.94	3.95	1.54
F & V	2.27	6.00	3.47	4.03	4.19
Species	4.71	5.11	3.44	6.46	4.41
Milk	5.47	4.28	3.73	5.64	4.36
Meat	6.62	3.10	4.96	8.09	5.06
Egg	7.92	4.12	5.80	5.50	5.23

# Contribution to agricultural growth (%)



# Agricultural growth, and poverty

- Higher and sustainable growth;
- Enhance resilience to income shocks
- Higher and regular stream of outputs
- Labour-intensive;
- Smallholders; more area to HVCs
- Inverse size-productivity relationship;
- Higher income elasticity
- Reduce inequality and poverty

# Agricultural Markets

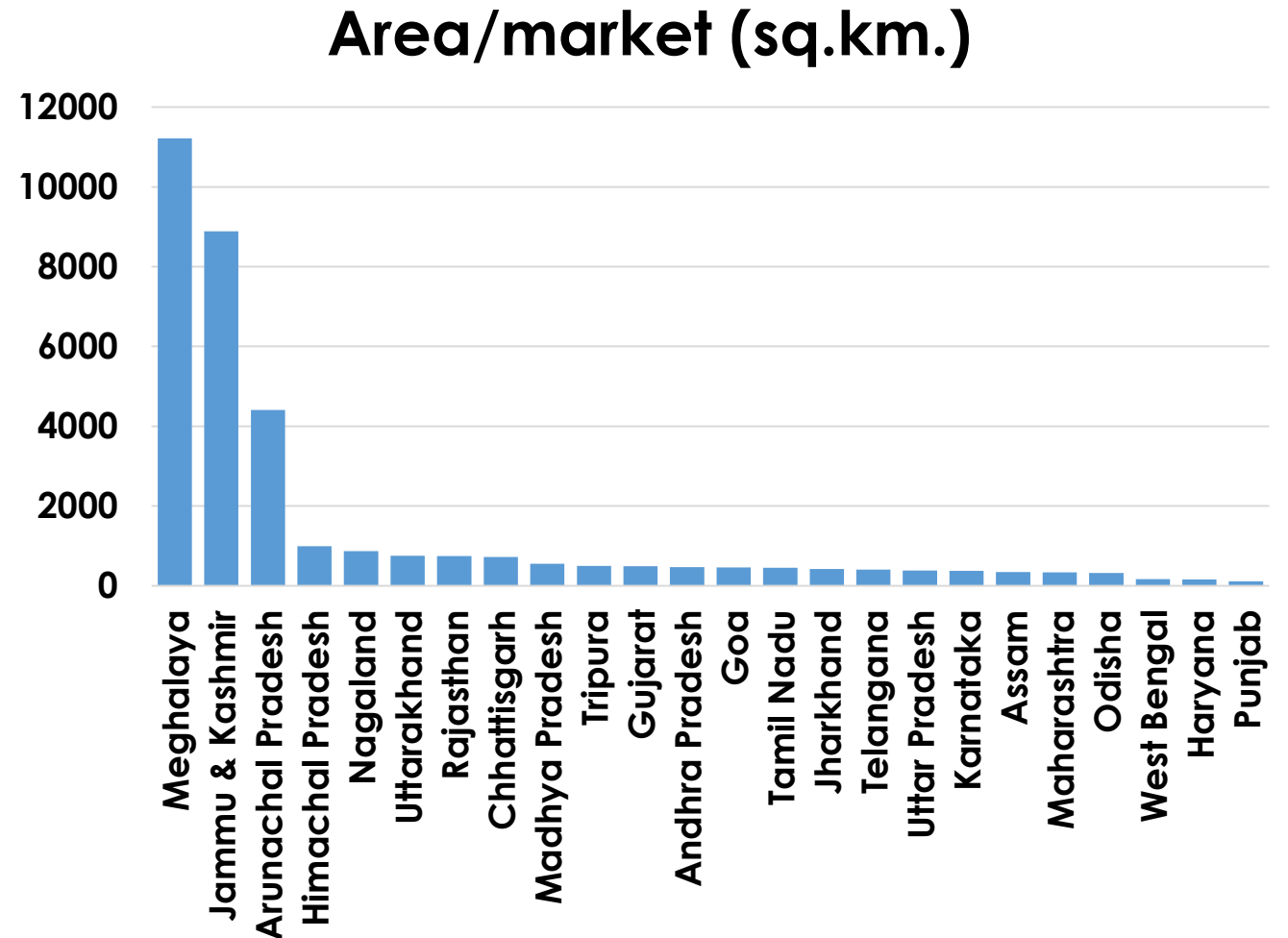
Regulated markets' coverage ranges from 61 km<sup>2</sup> in Puducherry to 11,215 km<sup>2</sup> in Meghalaya, with an **all-India average of 473 km<sup>2</sup>**

**E-NAM: 1389 mandis**

**: 209 commodities.**

**: 176 lakh farmers**

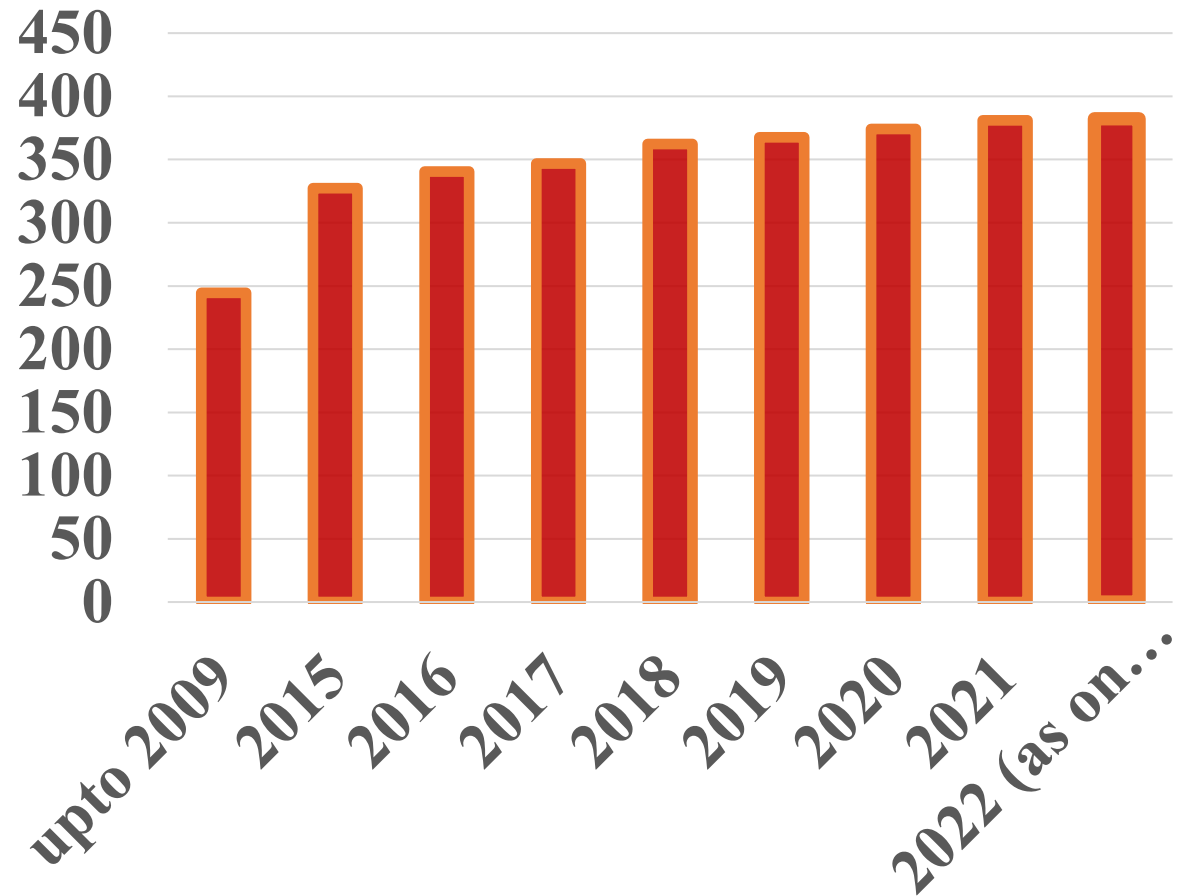
**: Trade in HVCS is more than in other commodities**



# Cold storage capacity

- Capacity: 38.2 million t
- 70% for potatoes
- 70% in Gujarat, Punjab, AP, UP, Bihar, MP and Maharashtra.
- Lack of other infrastructure such as refrigerated vans (612), pack houses (75), pre-cooling units (187), ripening chambers (415), etc.

Cold storage capacity (lakh t)



# Market reforms: deregulation of F&V from APMC Act

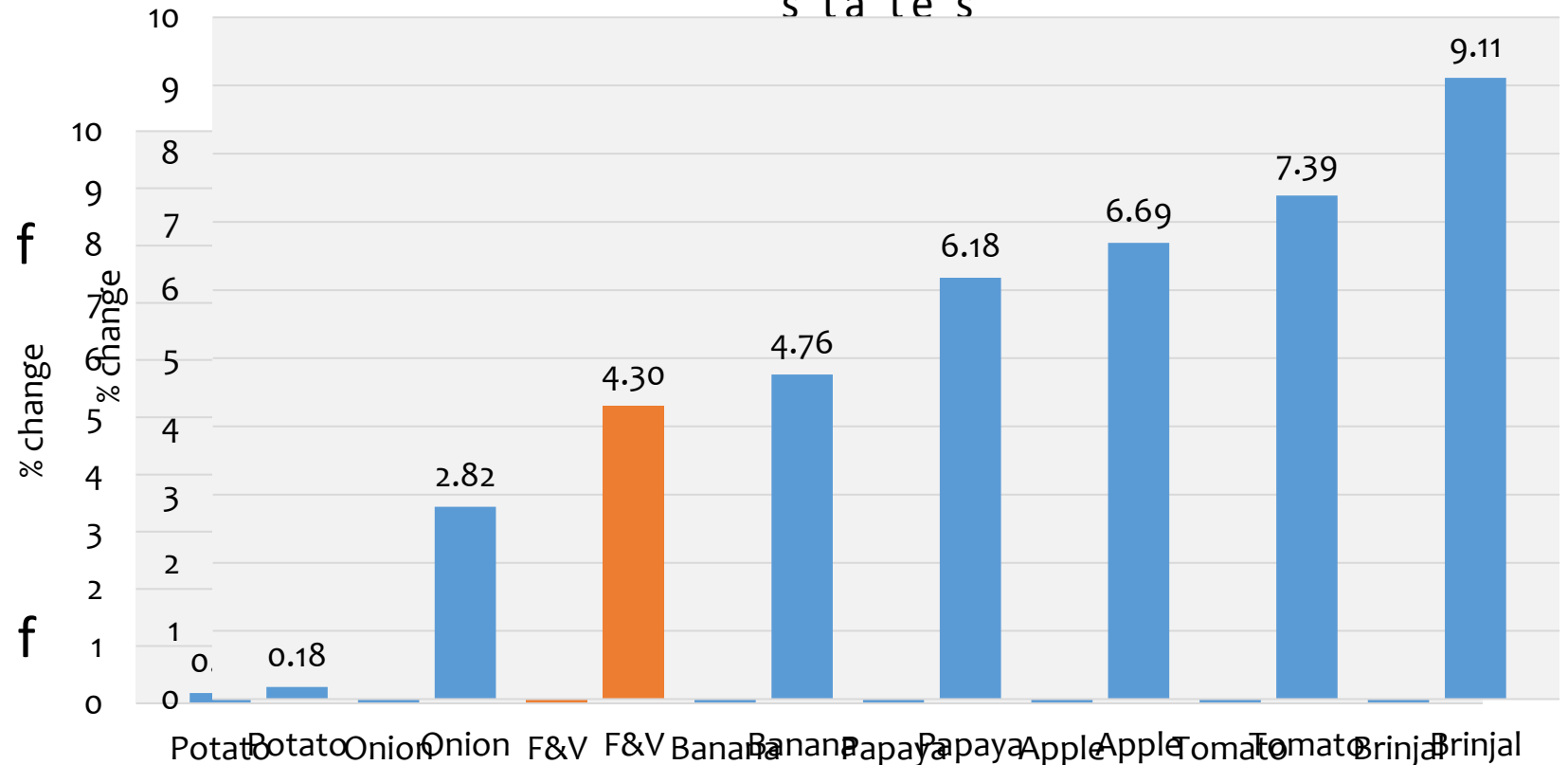
2003 Modal  
APMC Act

2010: NHM  
reform-linked  
financial  
assistance

(i) Direct sale of fruits and vegetables outside regulated markets, (ii) exemption of market fee improved the market price

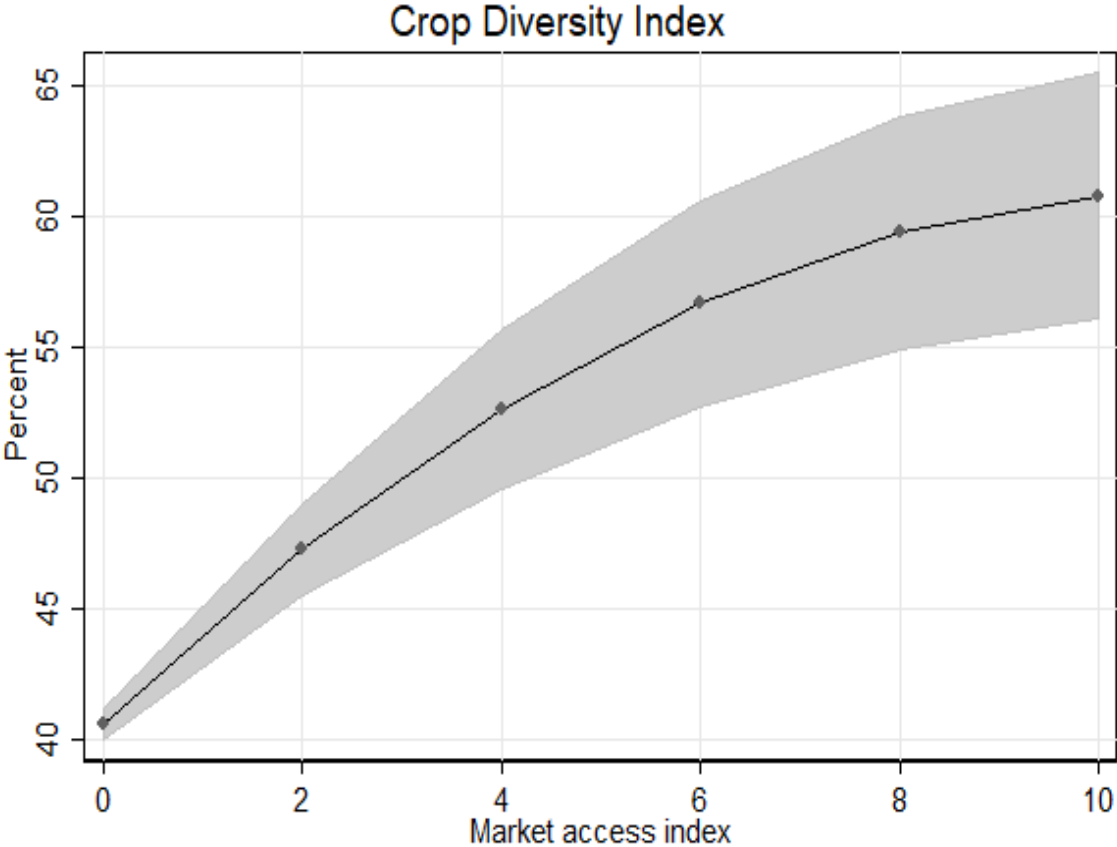
## APMC Act

Estimated price difference between deregulated and non-deregulated states



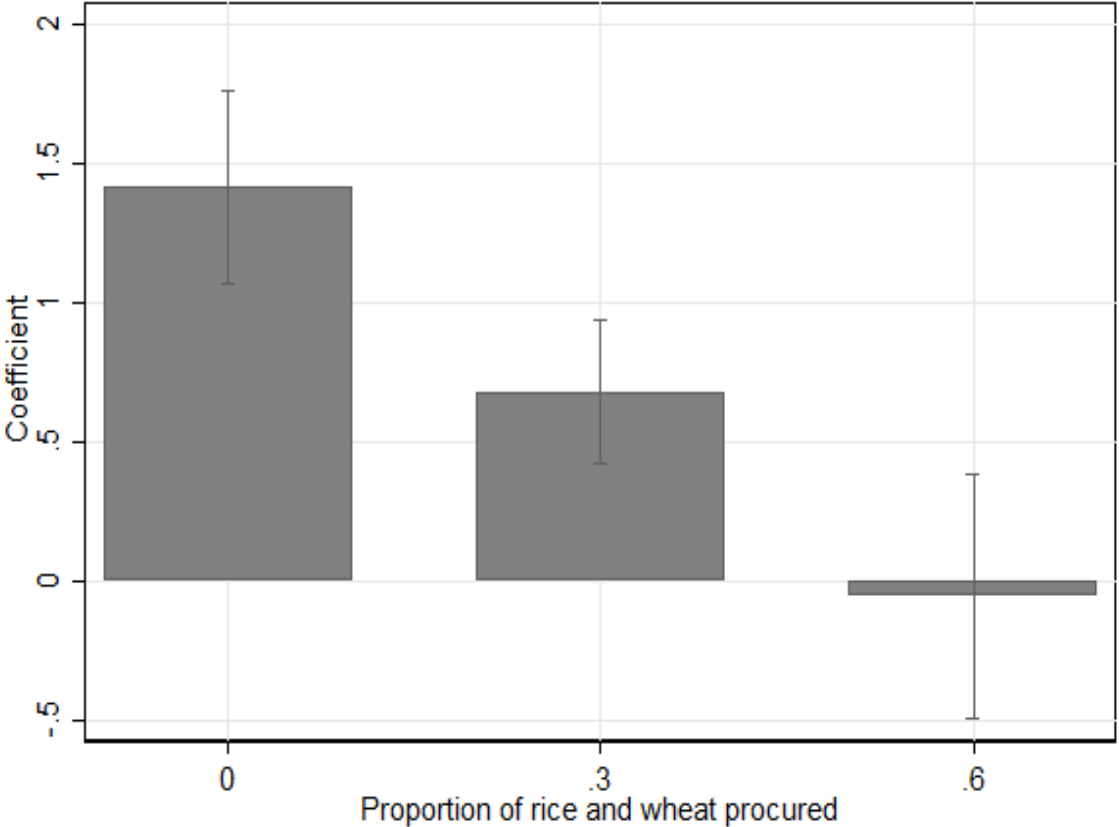
# Diversification, Markets and Procurement

## Market-Diversification



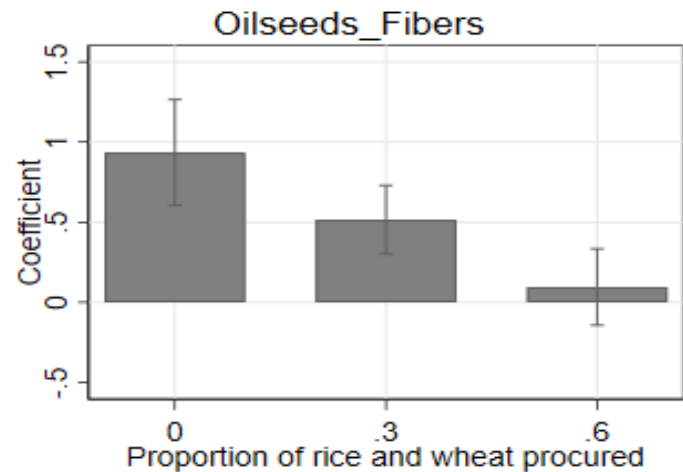
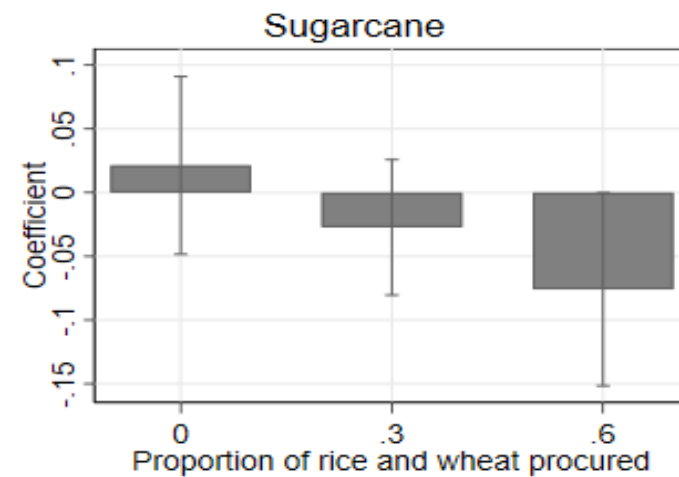
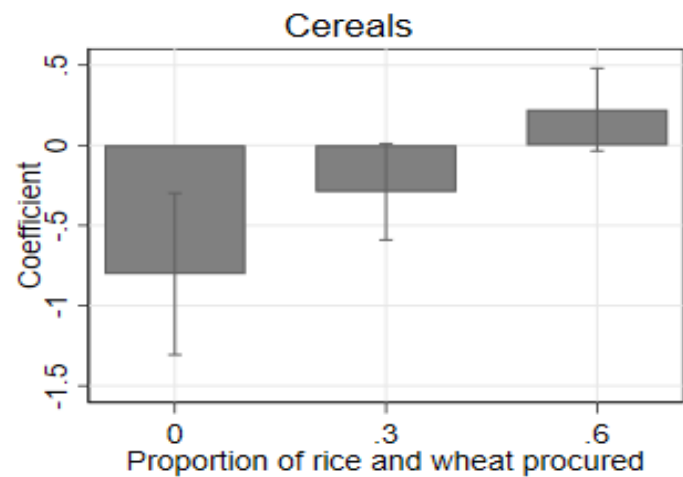
Note: Shaded region denotes 95% confidence interval.

## Procurement - diversification



Note: With 95% confidence intervals.

# Crop Choice, Market Access and Procurement



Note: With 95% confidence intervals.



Thank you