

Food and Nutrition Security in Nepal: Status, Trends and Challenges

Anjani Kumar
Praduman Kumar
Ramesh Sharma
P. K. Joshi

International Food Policy Research Institute
South Asia Office, New Delhi

Outline

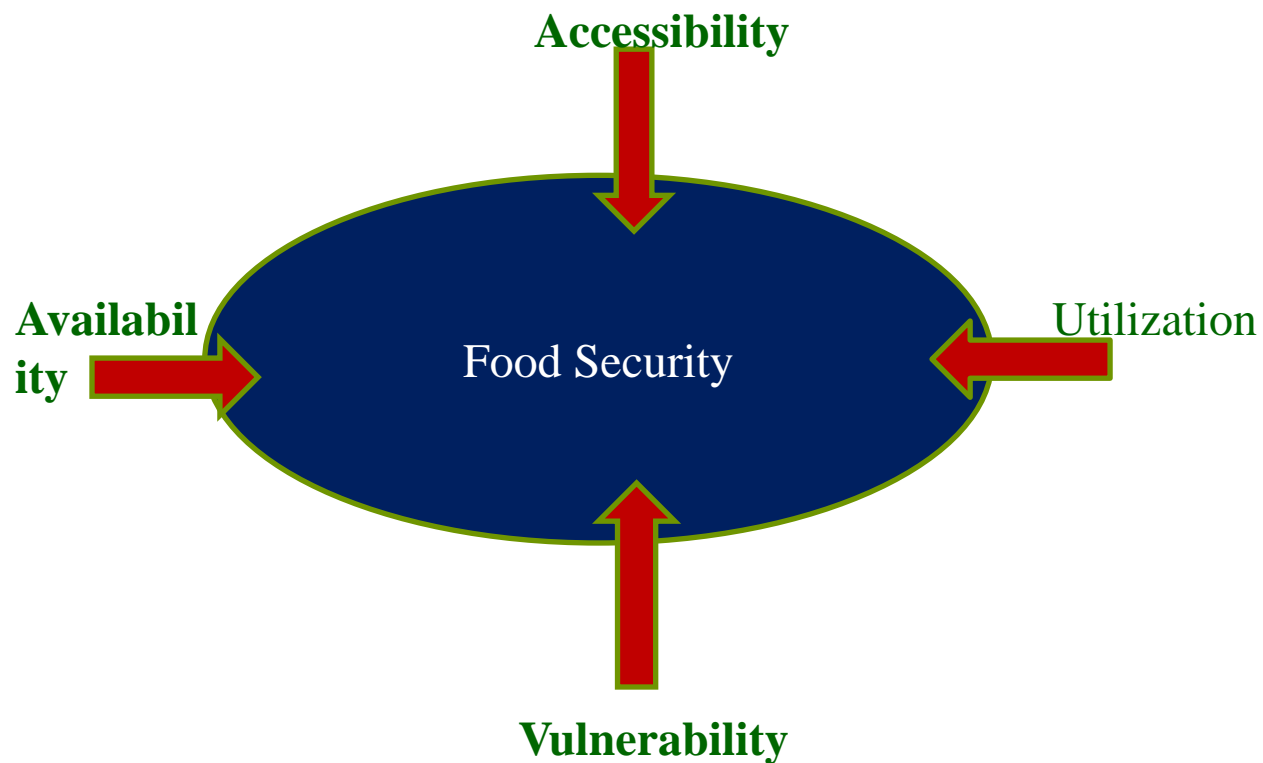
□ Trends and patterns

- *Share of food*
- *Consumption of food items*
- *Deficiency in energy and protein*

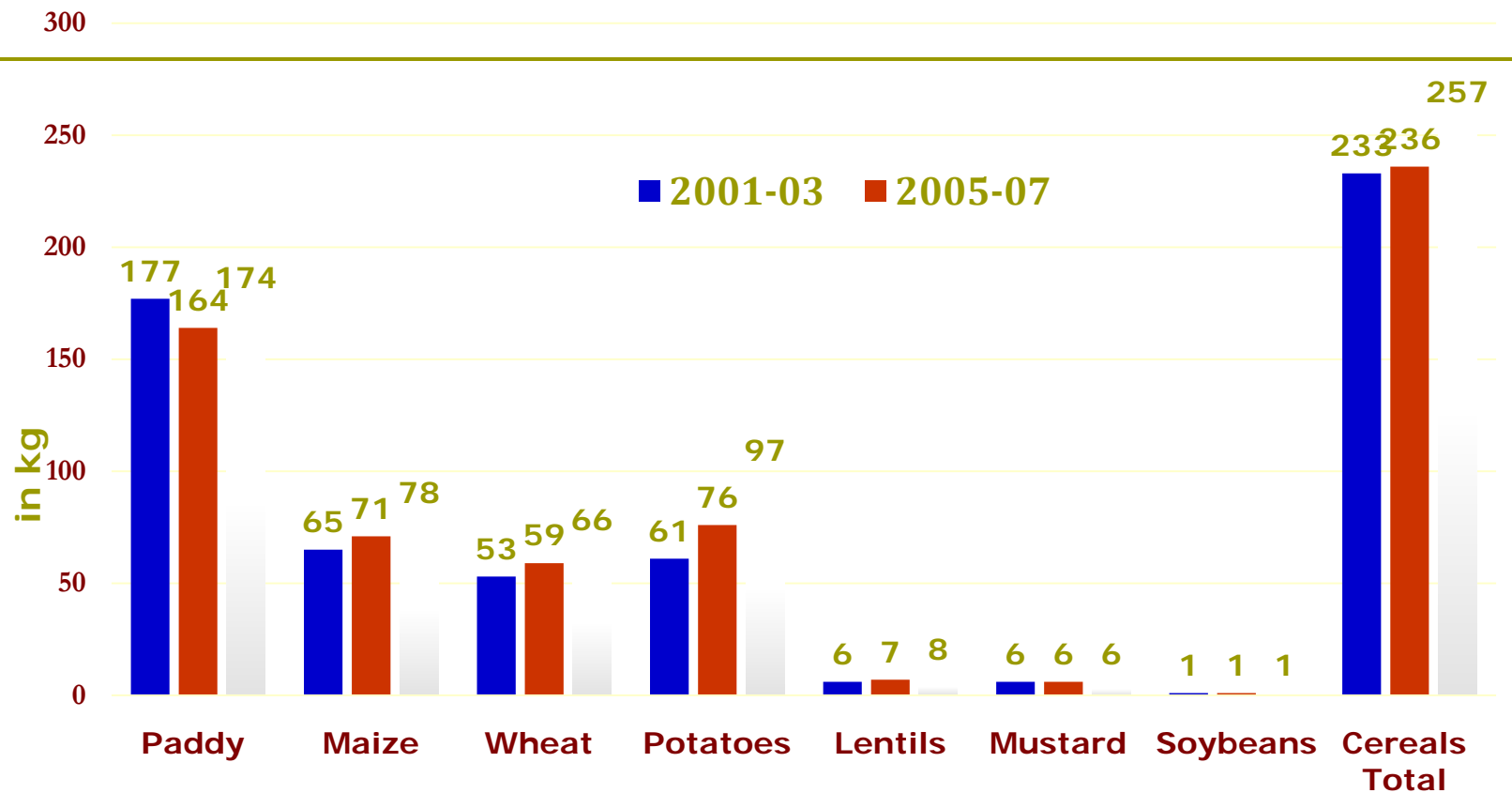
□ Level of analysis

- *Newly formed Provinces and all-Nepal level*
- *Income group (expenditure quartile)*
- *Farmers & non-farmers*
 - Different categories of farmers (Marginal, small, medium and large)

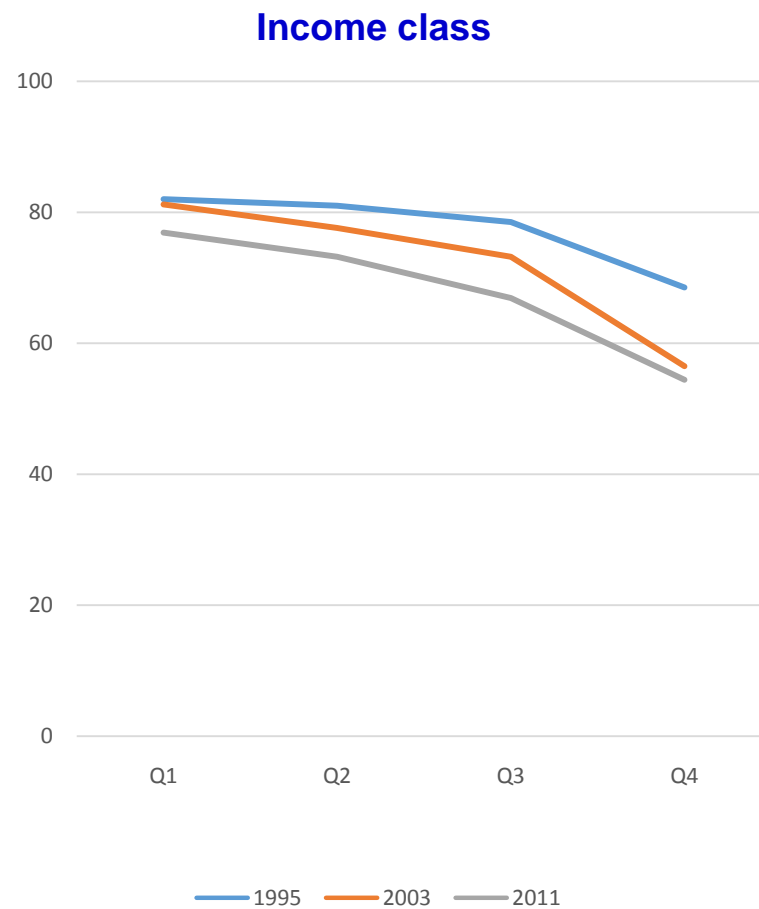
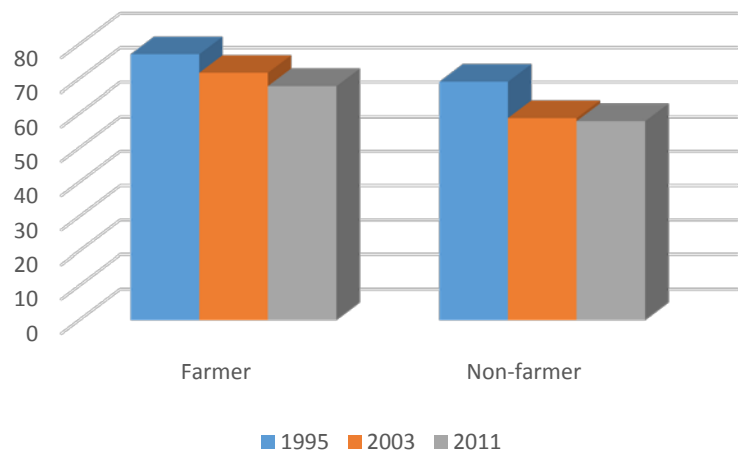
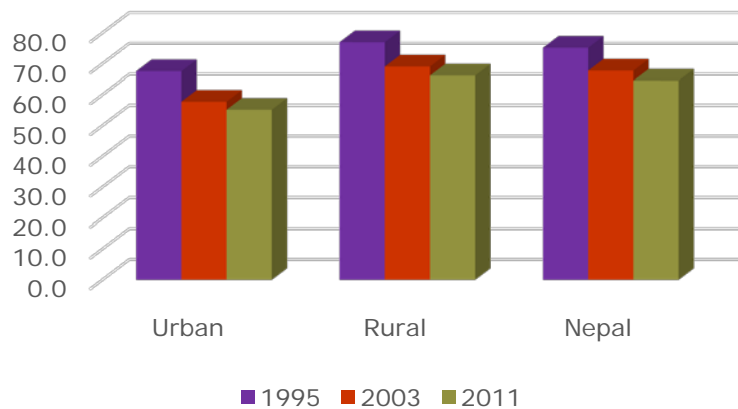
Dimensions of food security



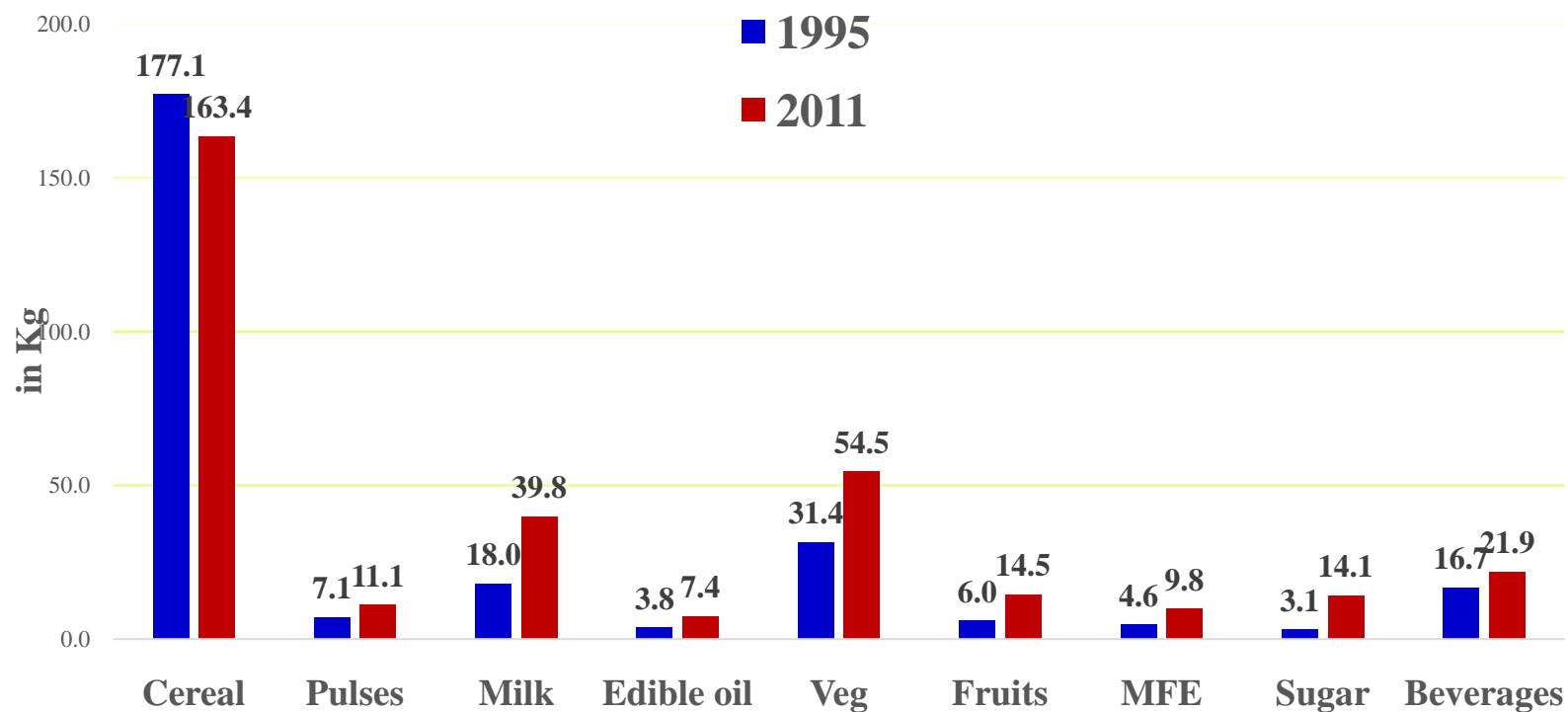
Trends in cereals production in Nepal on a per capita basis, 2000-13



Trends in food expenditure as % of TCE



Annual per capita consumption of food in Nepal (kg)

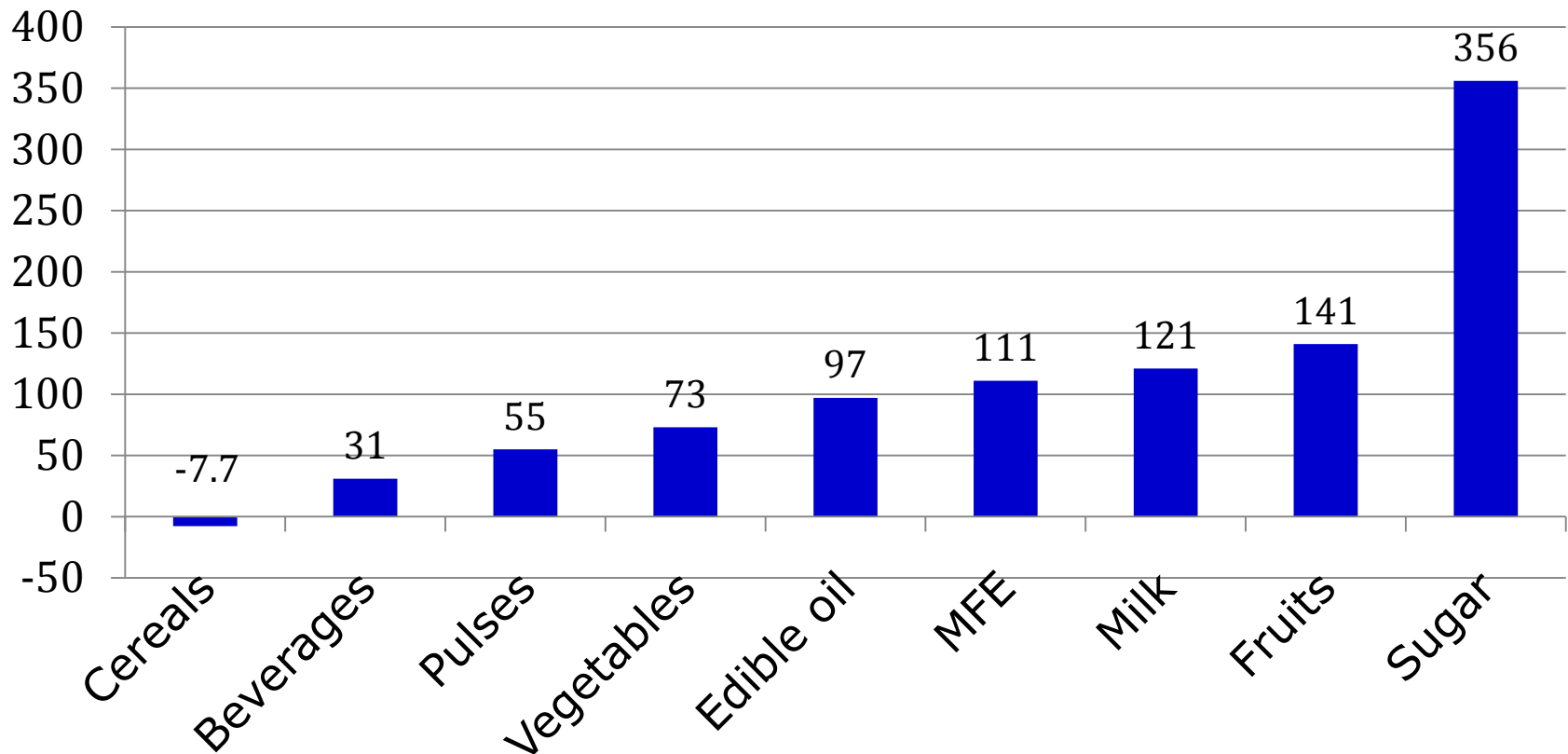


Changes in consumption of different food items in Nepal

	Rural			Urban		
	1995	2003	2011	1995	2003	2011
Cereal	181.5	162.9	168.6	148.0	127.2	122.9
Pulses	6.9	8.1	11.0	8.6	10.8	11.6
Milk	17.7	34.5	39.5	19.8	46.5	43.5
Edoils	3.6	4.8	7.4	5.2	5.8	7.7
Veg	29.3	40.8	55.4	45.9	59.2	43.6
Fruits	5.5	9.5	14.6	9.2	16.3	13.7
Eggs	8.1	12.1	21.0	31.5	43.6	53.3
Fish	0.6	0.9	1.8	0.6	1.3	2.1
Meat	3.0	4.0	6.4	5.8	9.4	7.7
MFE	4.1	5.6	9.5	8.4	13.3	13.0
Sugar	2.7	3.6	4.6	5.8	6.6	4.6
Beverages, % of food expenditure	16.0	17.7	20.9	20.0	23.9	28.6

Dietary diversification in Nepal during 1995-2011

Percent change in consumption



Changes in the composition of food expenditure

% of food expenditure

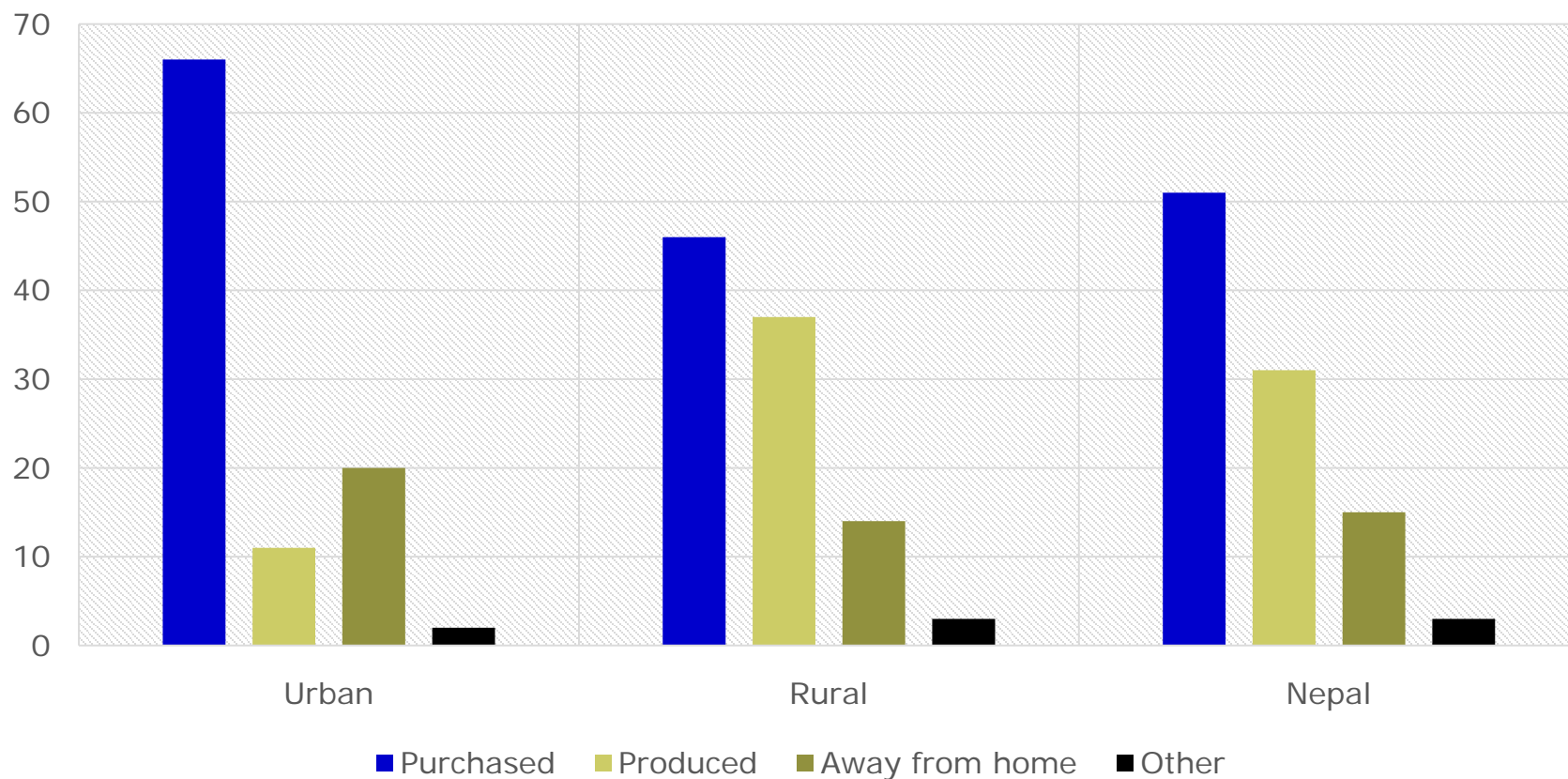
	1995	2003	2011
Cereal	44.5	36.1	28.9
Pulses	4.8	4.7	6.0
Ed. Oil	7.1	8.2	7.1
Milk	8.3	11.4	8.9
Veg & Fruits	9.0	10.5	12.4
MFE	8.0	9.6	13.3
Sugar	1.8	1.6	2.1
Other food	16.5	18.1	21.5
Total food	100.0	100.0	100.0

Composition (%) of food expenditure by income group, Nepal, 2011

Food	Quartile 1	Quartile 2	Quartile3	Quartile4
Cereal	42.9	34.4	27.4	19.1
Pulses	6.0	6.2	6.3	5.6
Edible oil	6.9	7.1	7.4	7.0
Milk	5.9	8.5	9.8	10.0
Vegetables & fruits	10.6	12.3	12.9	12.9
Meat, fish & eggs	10.1	11.9	13.7	15.6
Gur & Sugar	1.8	2.2	2.3	2.1
Beverages & others	15.9	17.5	20.3	27.8

Extent of reliance on own food production, 2011

Chart Title



Trends in calorie intake and incidence of undernourishment across proposed provinces in Nepal

Provinces	Calorie intake (kcl/cap/day)			Change,%	Undernourished population, %			
	1995	2003	2011	1995-2011	1995	2003	2011	1995-2011
1	2346	2036	2250	-4.1	34.3	43.4	30.4	-11.1
2	1977	1985	2322	17.4	43.3	45.1	20.3	-53.1
3	1996	1991	1986	-0.5	40.3	42.5	46.1	14.3
4	1898	2161	2165	14.1	32.1	33.5	33.2	3.4
5	1737	1954	2186	25.8	50.6	48.4	33.9	-32.9
6	1675	1728	2140	27.8	35.3	56.4	37.6	6.5
7	1607	1768	2199	36.9	69.2	55.5	30.2	-56.3

Trends in protein intake and incidence of undernourishment across proposed provinces in Nepal

Provinces	Protein intake (g/cap/day)			Change,%	Malnourished population, %			
	1995	2003	2011	1995-2011	1995	2003	2011	1995-2011
1	64.7	55.5	60.3	-6.7	40.5	47.4	36	-11
2	53.9	52.6	63.6	18.2	46.8	51.9	24.8	-46.9
3	55.2	56.4	54.9	-0.6	42.8	41.4	47.5	10.9
4	50.5	59.7	58.7	16.3	35.3	36.2	36.3	2.7
5	46.1	53.5	58.5	26.7	54	50.7	38.7	-28.2
6	30.3	50.8	62.7	106.6	33.1	51.4	34.8	5.2
7	46.7	50.9	60.3	29.1	63.9	51.8	30.9	-51.7

Distribution of calorie intake by source in Nepal (2011-12)

Food	Quartile 1	Quartile 2	Quartile3	Quartile4
Cereal	81.1	74.4	67.9	57.4
Pulses	3.1	3.8	4.6	5.5
Edible oil	6.7	7.5	9.1	11.1
Milk	2.5	4.2	5.7	7.8
Vegetables & fruits	3.7	4.8	5.1	5.6
Meat, fish & eggs	0.9	1.2	1.7	2.7
Gur & Sugar	1.5	2.2	2.7	3.1
Beverages & others	0.7	2.1	3.1	6.8
Calorie intake (cal/capita/day)	1746	2217	2386	2517
Undernourished population, %	54.2	23.9	25.0	26.1

Distribution of protein intake by source in Nepal (2011)

Food	Quartile 1	Quartile 2	Quartile3	Quartile4
Cereal	79.6	71.2	63.0	50.0
Pulses	7.7	9.5	11.5	13.3
Meat, fish & eggs	5.1	6.9	9.3	13.5
Milk	3.8	6.3	8.7	11.5
Vegetables & fruits	3.0	3.9	4.2	4.4
Beverages	0.8	2.2	3.4	7.3
Protein intake (g/capita/day)	47.3	60.3	65.0	69.9
Malnourished Population, %	56.9	29.2	28.0	26.6

Nutrition status by provinces in Nepal

	Province 1	Province 2	Province 3	Province 4	Province 5	Province 6	Province 7	Nepal
Calorie intake (Kcal/capita/day)								
1995	2346	1977	1996	1898	1737	1675	1607	1924
2011	2250	2322	1986	2165	2186	2140	2199	2162
Protein intake (gram/capita/day)								
1995	64.7	53.9	55.2	50.5	46.1	30.3	46.7	52.8
2011	60.3	63.6	54.9	58.7	58.5	62.7	60.3	59.1
Undernourished population, (head count ratio,%)								
1995	34.3	43.3	40.3	32.1	50.6	35.3	69.2	43.2
2011	30.4	20.3	46.1	33.2	33.9	37.6	30.2	34.2
Malnourished population (head count ratio,%)								
1995	40.5	46.8	42.8	35.3	54.0	68.1	63.9	45.7
2011	36.0	24.8	47.5	36.3	38.7	34.8	30.9	37.3

Nutrition status by farm size in Nepal

	Marginal	Small	Medium	Large	Farmers
	(<0.25 ha)	(0.25-0.50 ha)	(0.50-1.00 ha)	(>1.00 ha)	
Calories intake (Kcal/capita/day)					
1995	1706	1825	1944	2133	1931
2011	2101	2227	2337	2401	2257
Protein intake (gram/capita/day)					
1995	47.2	51.4	54.6	58.2	53.5
2011	56.8	61.4	64.2	66.2	61.8
% of farmers undernourished (deficit in Calories)					
1995	50.3	46.6	43.2	34.3	42.5
2011	33.5	31.7	26.0	24.1	29.1
% of farmers malnourished (deficit in protein intake)					
1995	52.5	45.3	43.8	37.1	43.8
2011	39.3	32.8	26.4	26.5	31.7

Characteristic of farms in Nepal

	Marginal	Small	Medium	Large	All farm
	(<0.25 ha)	(0.25-0.50 ha)	(0.50-1.00 ha)	(>1.00 ha)	
Distribution of farmers					
1995	26.3	21.1	24.1	28.5	100
2011	31.5	25.2	24.6	18.7	100
Average farm size, ha					
1995	0.12	0.36	0.70	2.44	0.97
2011	0.12	0.36	0.70	1.95	0.67
% irrigated area					
1995	25.4	29.2	32.5	39.5	37.0
2011	44.0	42.2	44.9	53.0	48.9

Determinants of nutritional intake

- **Socio-demographic characteristics**

- *Age*
- *Household size*
- *Education*
- *Social group*

- **Economic characteristics**

- *Land holding*
- *Occupation*
- *Income*

- **Policy instruments**

- *Functioning of support programme*
- *Prices of food commodities*

- **Regional characteristics**

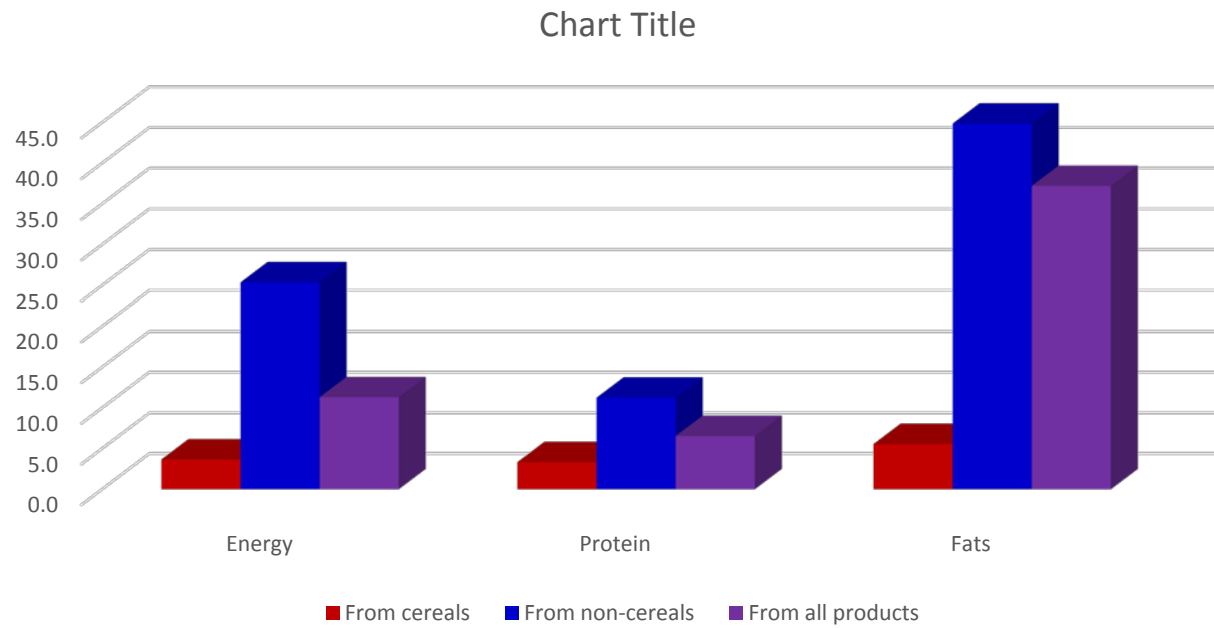
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6	30.3	50.8	62.7	106.6	33.1	51.4	34.8	5.2
7	46.7	50.9	60.3	29.1	63.9	51.8	30.9	-51.7

Import dependency ratio (%)



To sum-up....

Food consumption pattern

- *A gradual change in dietary pattern*
- *Cereal-dominated food basket is diversifying towards horticultural and livestock products. The demand for high-value food commodities will increase much faster than for cereals.*

Nutrition status

- *Nutrient intake pattern has also undergone significant change over time. The numbers of poor, malnourished and undernourished households have been declining, but pace is slow.*
- *Owning a small piece of land, irrigation facilities makes a huge difference to decline numbers of poor, malnourished and undernourished households.*

Newly formed Provinces of Nepal

Provinces						
1	2	3	4	5	6	7
Taplejung	Saptari	Dolakha	Gorkha	Nawalparasi (Western part)	Rukum (Western part)	Bajura
Panchthar	Siraha	Ramechhap	Lamjung	Rupandehi	Salyan	Bajhang
Ilam	Dhanusha	Sindhuli	Tanahun	Kapilvastu	Dolpa	Doti
Sankhawasa bha	Mahottari	Kavrepalanchok	Kaski	Palpa	Jumla	Accham
Terathun	Sarlahi	Sindhupalchowk	Manang,	Argakhanchi	Mugu	Darchula
Dhankuta	Rautahat	Rasuwa	Mustang	Gulmi	Humla	Baitadi
Bhojpur	Bara	Nuwakot	Parbat	Rukum (Eastrn part)	Kalikot\	Dadeldhura
Khotang	Parsa	Dhading	Syangja	Rolpa	Jajarkot	Kailali
Solukhumb hu		Chitwan	Myagdi	Pyuthan	Dailekh	Kanchanpur
Okhaldhun ga		Makawanpur	Baglung	Dang	Surkhet	
Udayapur		Bhaktapur	Nawalparasi (Eastern part)	Banke		
Jhapa		Lalitpur		Bardiya		