منظمة الأغذية والزراعة للأمم المتحدة | 联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Продовольственная и сельскохозяйственная организация Объединенных Наций | Organización de las Naciones Unidas para la Alimentación y la Agricultura

ASIA AND PACIFIC COMMISSION ON AGRICULTURAL STATISTICS

TWENTY-SIXTH SESSION
Thimphu, Bhutan, 15-19 February 2016
Agenda Item 6.4
Food and Nutrition Security; A Status Report of Nepal

Contributed by: Hem Raj Reg, Senior Statistics Officer
Ministry of Agriculture Development, Nepal
hregmi1@gmail.com

Food and Nutrition Security; A Status Report of Nepal

Based on Food Balance Sheets and Household Survey using ADEPT FSM Modules

By

Building statistical capacity for quality food security and nutrition information in support of better informed policies : FAO TCP/RAS/3409

Hem Raj Regmi

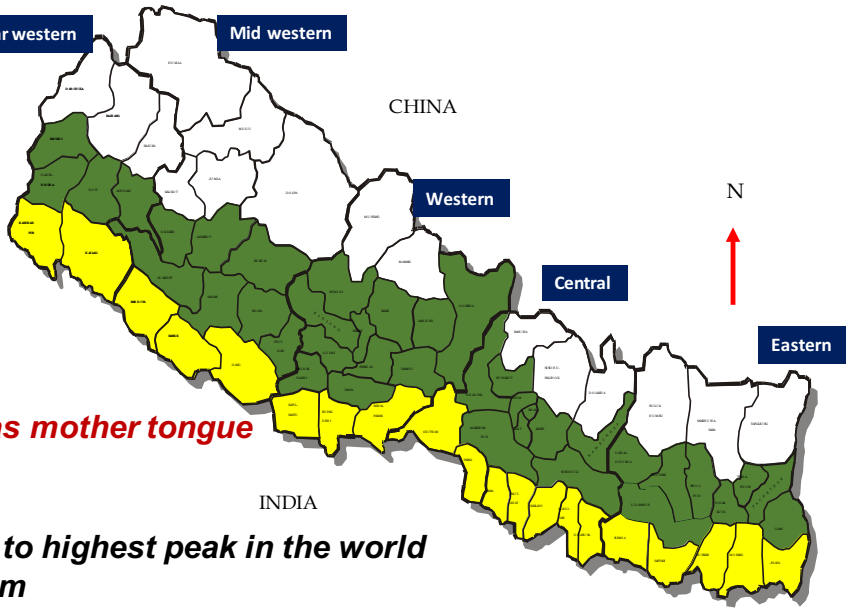
Ministry of Agriculture Development
Nepal

PRESENTATION OUTLINE

1. Brief about Nepal and Nepalese Agriculture
2. Methodology Adopted by MOAD on measuring food security
3. Data Generation, Analysis and Products Details on Food Balance Sheet and ADePT/FSM
4. Lesson Learned and Way Forward
5. Acknowledgements

Nepal- a small but diverse country

7 provinces
5 development regions
3 ecological region
- Mountain
- Hill
- Terai



10 religions
125 caste/ethnic groups
123 languages spoken as mother tongue

60 m above the sea level to highest peak in the world
The Mount Everest-8848 m

Life expectancy ranges from 42 years in Mugu to 75 years in Kathmandu

Nepalese agriculture

- **27% land arable, 18 percent cultivated**
- **54 percent irrigated; 33% has over the years irrigation facility**
- **>60% employment**
- **>33% GDP contribution**
- **78% hold land size < 0.8 ha (CBS 2011)**
- **0.84% of total energy consumption**
- **Consumption of commercial fuel (7.14%), petroleum (9.66%), electricity (2.7%), renewable (5.5%)**

Food Security in Nepal; Policy, Strategy and Practices

•Constitutional provision for food and nutrition security
•Constitutional right
- Right to food sovereignty as fundamental citizen right
- Obligation of State
- Policies of State

- Agriculture Development Strategy

Overarching policy document for agriculture sector for next 20 years
Strong emphasis on food and nutrition security (FNS)

- **4 Strategic Components**
  - **Governance ;**
  - **Productivity;**.
  - **Commercialization;**
  - **Competitiveness;**.

Food security and nutrition: An Approach Paper to the Thirteenth Plan (FY 2013/14-15/16)

Objectives

-To improve the consumption of food in sufficient quantity and nutrient value, and

-To identify areas and communities vulnerable to food insecurity and increase their access to nutritious foodstuffs.

Strategies

-Make necessary arrangements in food-and-nutrition-insecure areas and communities for solving the food crisis in the short and the long term.

-Implement targeted programmes for raising the production of suitable high-value commodities in those areas most vulnerable to food insecurity.

-Ensure food security (food availability, stability in use, and continuity) through the protection, promotion and efficient use of agro-biodiversity and the development and expansion of climate change-adaptive technologies, and

-Create an efficient regulatory mechanism to ensure that foodstuff is clean and healthy.

Operating Policies

-A Food and Nutrition Security Policy, Food Sovereignty Act, and National Food and Nutrition Security Action Plan will be formulated and implemented.

-Access to nutritious foodstuff will be enhanced by providing special facilities for increasing livestock production and productivity

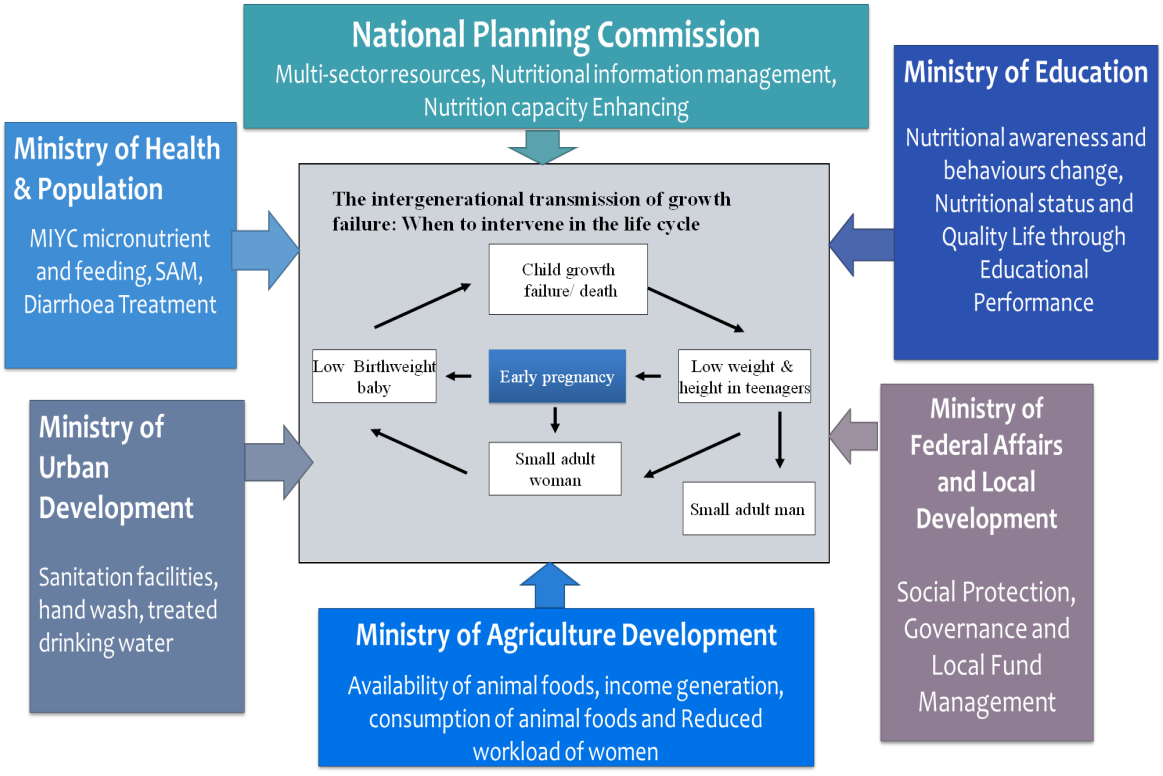
-The Nepal Food Security Monitoring System will be institutionalised.

Expected outcomes

The status of food-and-nutrition security in vulnerable areas will have improved, market infrastructures such as storage facilities and collection centers will have been enhanced, modern technology and equipment will be used in food-related research, standards for the import and export of foodstuff will have been established.

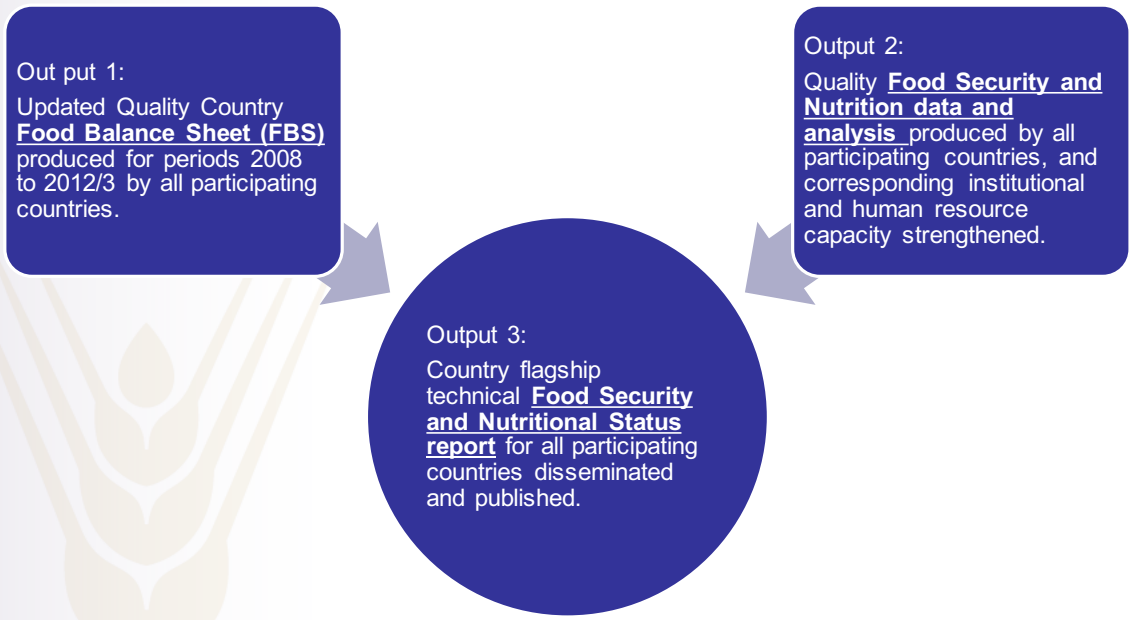
Multi-Sector Nutrition Plan Framework

Each Ministries has their own responsibilities!



Project objectives and Outcomes

TCP/RAS/3409: "Building statistical capacity for quality food security and nutrition information in support of better informed policies"

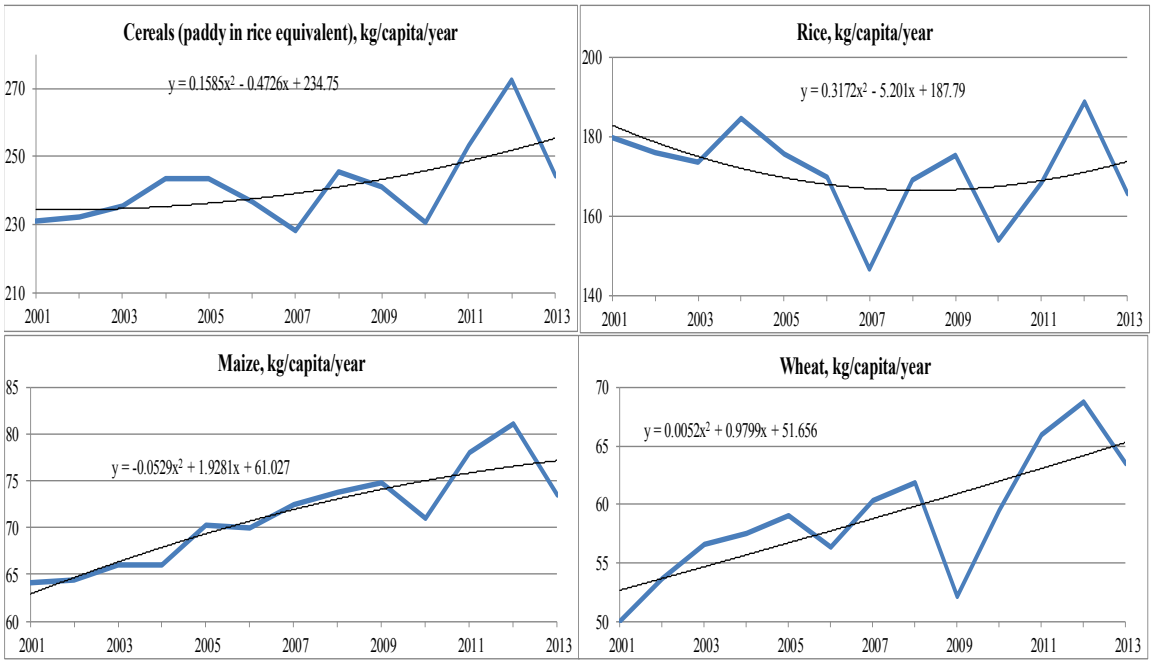


9

Food Balance Sheet Practices and Results in Nepal

- Food Balance Sheets have been prepared regularly since last 30 years 1988/89
- Use of SUA is a new concept with use of FAO excel software
- Some Output tables are as follows

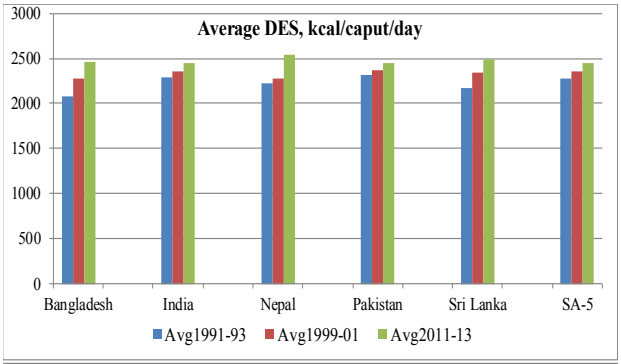
Trends in *per capita* cereals production in Nepal, 2000-2013 (in kg/capita/year)



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

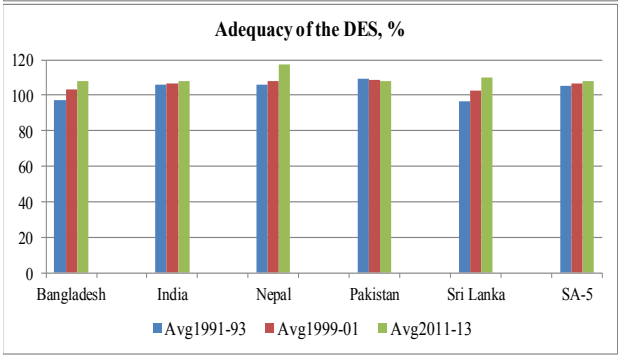
	Average values (kg)			Percent change		Growth rate, % p.a.		
	2001-03	2005-07	2011-13	2013 over 2001	2013 over 2006	2001 to 2013	2001 to 2006	2007 to 2013
Paddy	177	164	174	-1	6	-0.5	-0.7	1.9
Maize	65	71	78	20	9	1.7	2.0	1.0
Wheat	53	59	66	24	13	1.8	2.6	2.1
Potatoes	61	76	97	57	27	4.7	6.1	3.9
Lentils	6	7	8	27	22	1.7	0.9	5.1
Mustard	6	6	6	3	3	0.0	0.0	0.7
Soybeans	1	1	1	38	29	2.8	1.9	5.3
Cereals total 1/	233	236	257	10	9	0.7	0.8	1.7

Trends in the DES and their adequacy levels for Nepal and other South Asian countries



Average DES, kcal/caput/day

	Average values			Growth rate, % p.a.	
	1991-93	1999-01	2011-13	1991-00	2001-13
Bangladesh	2,077	2,272	2,454	1.00	0.53
India	2,291	2,359	2,453	0.52	0.73
Nepal	**2,218**	**2,279**	**2,544**	**0.38**	**1.01**
Pakistan	2,318	2,365	2,442	0.42	0.58
Sri Lanka	2,165	2,343	2,492	1.05	0.67
SA-5	2,270	2,349	2,454	0.55	0.69



Adequacy of the DES, %

	Average values			Growth rate, % p.a.	
	1991-93	1999-01	2011-13	1991-00	2001-13
Bangladesh	97	103	108	0.70	0.22
India	106	107	108	0.28	0.52
Nepal	**106**	**108**	**118**	**0.24**	**0.80**
Pakistan	109	109	108	0.17	0.28
Sri Lanka	96	102	110	0.82	0.76
SA-5	105	107	108	0.31	0.47

Trends in the availability of food energy (calories/per capita/day), 2008-13

		Food energy -kcal/capita/day								Grw. rate
S.N.	Product groups	2008	2009	2010	2011	2012	2013	Av08-13	%	Cum %	% p.a.
1	Rice	891	837	818	819	831	878	846	30	30	-0.3
2	Maize	525	535	537	604	608	507	553	20	49	1.0
3	Wheat	386	326	406	340	318	321	350	12	62	-3.4
4	Edible oils/oilseeds	217	197	242	253	254	259	237	8	70	4.8
5	Potatoes/yams	126	151	156	158	166	176	155	5	76	5.6
6	Milk/dairy products	118	122	147	142	155	158	140	5	81	6.1
7	Pulses/beans	77	79	72	89	84	134	89	3	84	9.0
8	Spices	65	79	87	88	105	86	85	3	87	6.4
9	Other cereals	90	81	81	81	80	89	84	3	90	-0.3
10	Sugar	75	75	84	82	80	92	81	3	93	3.3
11	Vegetables	64	66	69	74	77	77	71	3	95	4.2
12	Meats	60	69	61	59	59	65	62	2	97	-0.4
13	Fruits	55	57	33	34	49	48	46	2	99	-3.2
14	Nuts	7	7	27	17	11	15	14	0.5	99	12.2
15	Alchol. beverages	10	11	13	13	13	12	12	0.4	100	3.9
16	Fish	3	3	3	3	3	3	3	0.1	100	-1.5
17	Coffee/tea	1	1	1	0	1	1	1	0.0	100	6.8
	All total	2,772	2,698	2,837	2,855	2,894	2,922	2,830	100	-	1.4
	Cereals total	1,892	1,779	1,842	1,844	1,837	1,795	1,832	65	-	-0.5
	- cereals share %	68	66	65	65	63	61	65	-	-	-1.8
	Non-cereals total	879	919	995	1,012	1,057	1,126	998	35	-	4.8
	- non-cereals share %	32	34	35	35	37	39	35	-	-	3.4

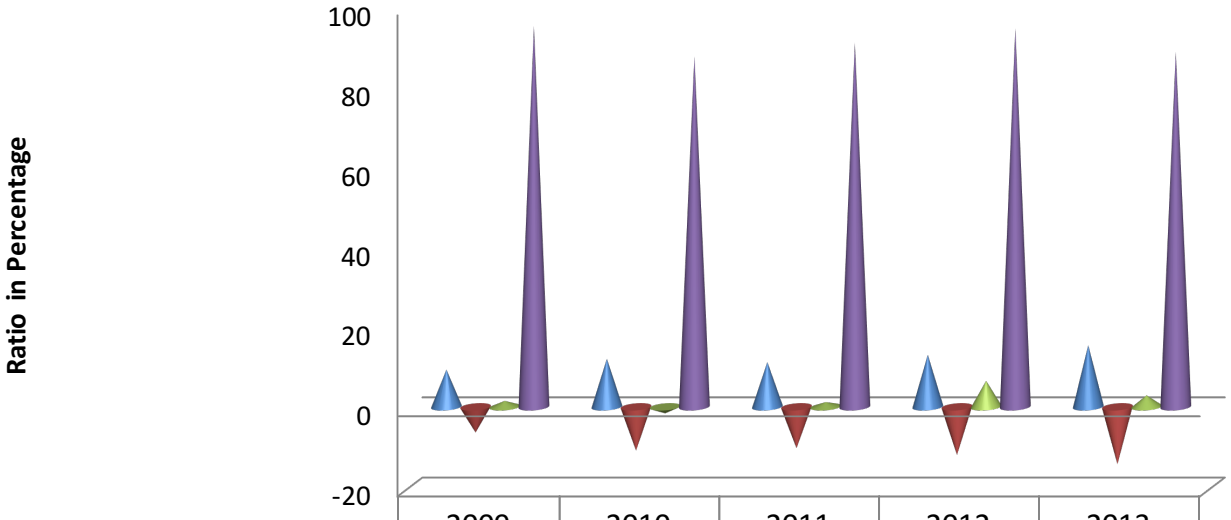
Trends in the availability of proteins (grams/per capita/per day), 2008-13

S.N.	Product groups	Proteins - per capita per day 2008	2009	2010	2011	2012	2013	Av08-13	%	Cum %	Grw. rate % p.a.
1	Rice	18	16	16	16	16	17	17	23	23	-0.3
2	Maize	13	13	13	15	15	12	14	19	42	1.0
3	Wheat	11	10	12	10	9	9	10	14	56	-3.3
4	Pulses/beans	5	5	5	6	6	9	6	8	64	9.0
5	Meat	5	5	5	5	5	6	5	7	72	1.0
6	Milk/dairy products	5	5	5	5	5	5	5	7	79	2.5
7	Vegetables	4	4	4	4	4	4	4	6	84	1.6
8	Potatoes/yams	3	4	4	4	4	4	4	5	89	5.6
9	Spices	2	2	3	2	3	2	2	3	93	6.5
10	Other cereals	3	2	2	2	2	3	2	3	96	-0.2
11	Edible oils/oilseeds	0	0	1	2	2	2	1	1	97	65.4
12	Other 6 groups 1/	2	2	2	2	2	2	2	3	100	1.9
	All total	70	68	71	72	74	76	72	100	-	2.0
	Cereals total	44	41	43	43	43	42	43	60	-	-0.6
	- cereals share %	64	61	61	59	58	55	60	-	-	-2.5
	Non-cereals total	25	27	27	29	31	34	29	40	-	5.7

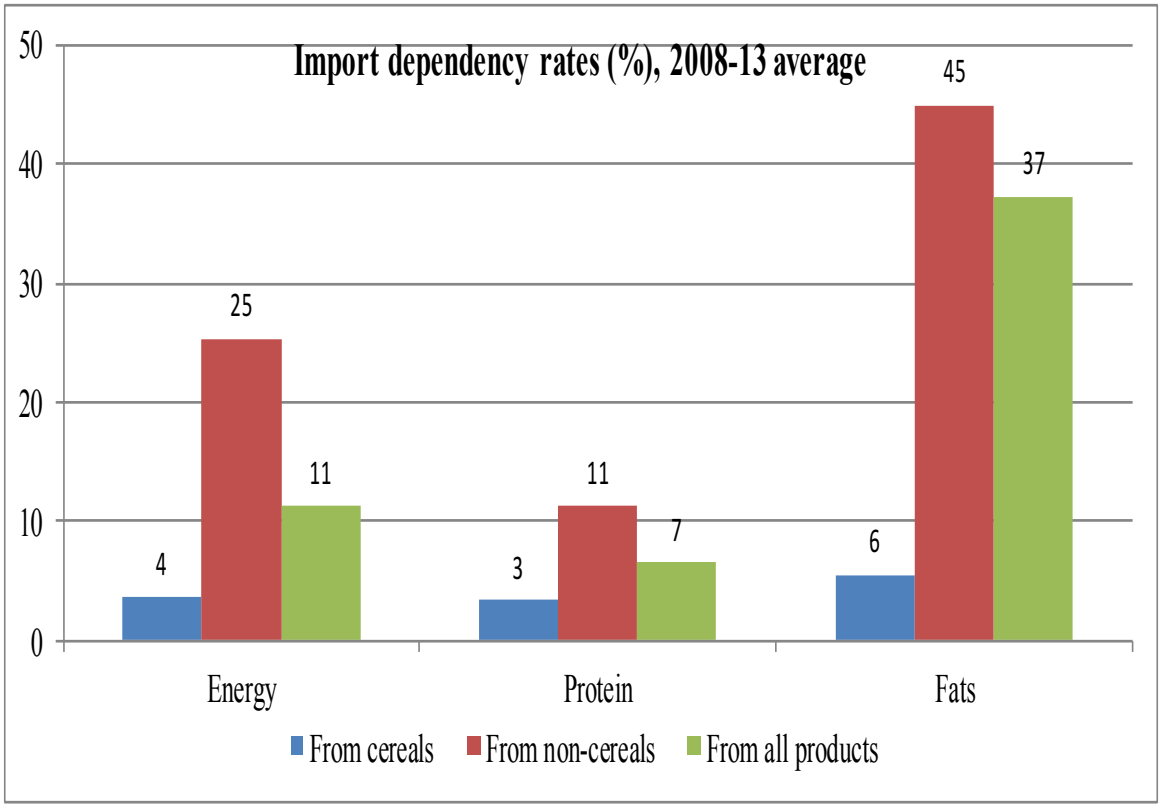
Trends in availability of fats (grams/per capita/per day), 2008-13

S.N.	Product groups	Fat - per capita per day 2008	2009	2010	2011	2012	2013	Av08-13	%	Cum %	Grw. rate % p.a.
1	Edible oils/oilseeds	24.4	22.2	26.7	27.0	26.8	27.4	26	46	46	3.3
2	Milk/dairy products	8.2	8.5	11.3	10.8	11.8	12.0	10	18	64	8.0
3	Maize	4.9	5.1	5.0	5.6	5.6	4.7	5	9	73	0.8
4	Meat	4.2	5.2	4.2	4.1	4.1	4.5	4	8	81	-1.1
5	Rice	3.2	3.0	2.9	2.9	3.0	3.1	3	5	86	-0.6
6	Wheat	2.0	1.8	3.5	2.1	1.8	1.8	2	4	90	-3.1
7	Spices	1.6	1.8	1.8	1.7	2.2	1.7	2	3	93	2.8
8	Nuts	0.3	0.3	2.5	1.5	1.0	1.2	1	2	95	28.1
9	Other cereals	0.8	0.7	0.7	0.7	0.7	0.8	1	1	96	-0.6
10	Vegetables	0.5	0.6	0.5	0.5	0.6	0.6	1	1	97	1.3
11	Pulses/beans	0.4	0.5	0.4	0.5	0.5	0.8	1	1	98	9.4
12	Sum of 6 groups 1/	0.6	0.6	0.6	0.6	0.7	0.7	1	1	100	5.7
	All total	52	51	60	58	59	60	57	100	-	3.3
	Cereals total	11	11	12	11	11	10	11	19	-	-0.4
	- cereals share %	21	21	20	19	19	17	20	-	-	-3.7
	Non-cereals total	41	40	48	47	48	49	46	81	-	4.1
	- non-cereals share %	79	79	80	81	81	83	81	-	-	0.9

Import, Trade and Stock Dependency and Self Sufficiency Ratio in different years

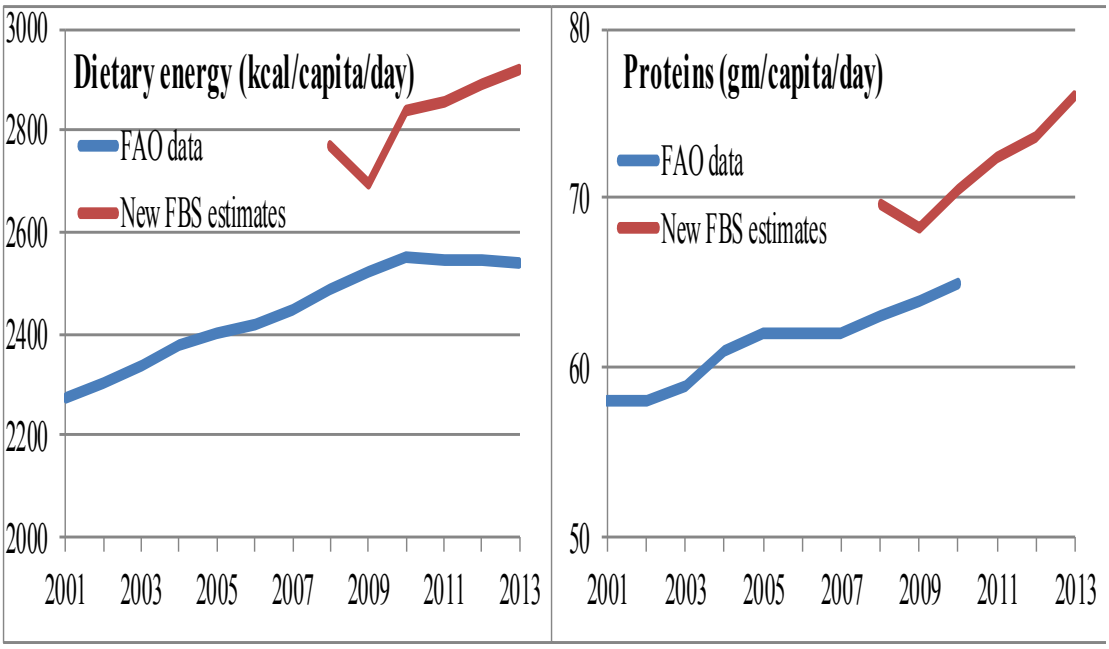


	2009	2010	2011	2012	2013
Import Dependancy Ratio	9.3	12	11.2	13	15.4
Trade Dependency Ratio	-6.4	-10.9	-10.3	-12	-14.3
Stock Dependency Ratio	1.5	-1.6	1.2	6.5	2.9
Self Sufficiency Ratio	95.1	87.5	90.9	94.5	88.6

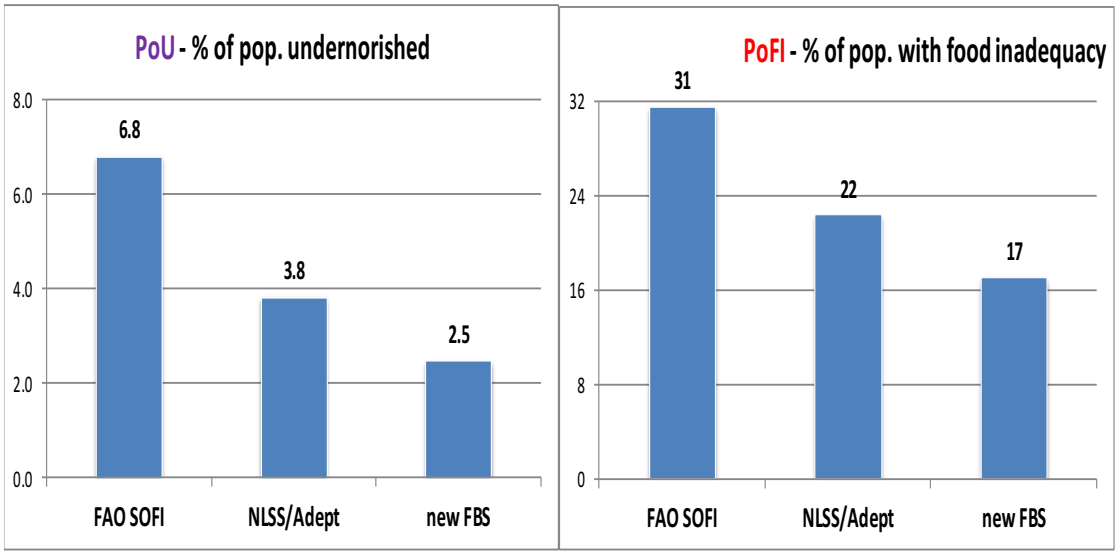


Estimates of average kcal and proteins

(in FAO database and from new FBS)

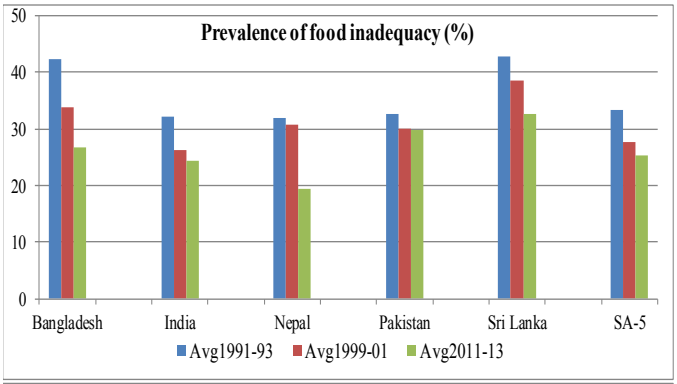


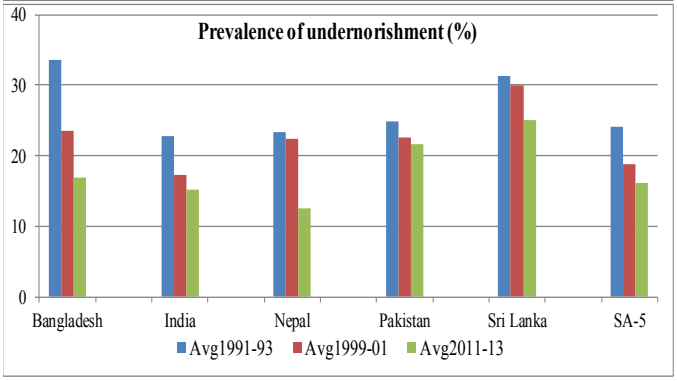
Given average kcal availability, estimated rates of undernourishment (PoU, hunger) and food inadequacy (PoFI) (2011)



Assumptions: Min. kcal requirement 1,724 kcal for PoU (hunger) & 2,200 kcal for PoFI (inadequacy) (CoV distribution assumed same). Estmated using log-normal distribution (the FAO method).

Prevalence of undernourishment in Nepal and South Asia (%)





Prevalence of food inadequacy (%)

	Average values			Growth rate, p.a.	
	1991-93	1999-01	2011-13	1991-00	2001-13
Bangladesh	42	34	27	-1.9	-0.8
India	32	26	24	-2.9	-1.8
Nepal	**32**	**31**	**19**	**-0.4**	**-4.5**
Pakistan	33	30	30	-1.4	-1.0
Sri Lanka	43	39	33	-1.2	-1.6
SA-5	33	28	25	-2.5	-1.7

Prevalence of undernourishment(%)

	Average values			Growth rate, p.a.	
	1991-93	1999-01	2011-13	1991-00	2001-13
Bangladesh	34	24	17	-3.3	-1.2
India	23	17	15	-3.8	-2.5
Nepal	**23**	**22**	**13**	**-0.3**	**-5.7**
Pakistan	25	23	22	-1.6	-1.4
Sri Lanka	31	30	25	-0.3	-1.8
SA-5	24	19	16	-3.4	-2.3

Progress made in reducing child under nutrition in Nepal and some South Asian countries

	Prevalence rates (%)			Annualized growth rates (% p.a.)		
	2001	2006	2011	2001 to 2006	2006 to 2011	2001 to 2011
	-------- Stunting ---------			---------- Stunting ----------		
Bangladesh	55.4	47.0	41.4	-3.3	-2.5	-2.9
India	51.0	47.9	-	-0.9	-	-
Nepal	**57.1**	**49.3**	**40.5**	**-2.9**	**-3.9**	**-3.4**
Pakistan	41.5	-	43.0	-	-	0.4
Sri Lanka	18.4	-	19.2	-	-	0.5
	--------- Wasting ---------			---------- Wasting ----------		
Bangladesh	13.2	12.4	15.7	-1.3	4.7	1.7
India	19.8	20.0	-	0.1	-	-
Nepal	**11.3**	**12.7**	**11.2**	**2.3**	**-2.5**	**-0.1**
Pakistan	14.2	-	14.8	-	-	0.4
Sri Lanka	15.5	-	11.8	-	-	-3.4
	------- Underweight -------			---------- Underweight ----------		
Bangladesh	45.4	39.8	36.8	-2.6	-1.6	-2.1
India	44.4	43.5	-	-0.3	-	-
Nepal	**43.0**	**38.8**	**29.1**	**-2.1**	**-5.8**	**-3.9**
Pakistan	31.3	-	30.9	-	-	-0.1
Sri Lanka	22.8	-	21.6	-	-	-0.7

Six indicators of the stability dimension of food security in Nepal

1. Cereal import dependency ratio (%)

	Average values		Growth
	2000-02	Latest 3 yrs	rate % p.a.
Nepal	1.4	3.6	13.4
Bangladesh	10.5	9.4	-1.4
Sri Lanka	38.0	33.3	-1.8

2. Food imports to exports ratio (%)

	Average values		Growth
	2000-02	Latest 3 yrs	rate % p.a.
Nepal	31.0	52.0	7.5
Bangladesh	23.0	21.3	-1.3
Sri Lanka	13.3	17.7	4.4

3. Arable land irrigated (%)

	Average values		Growth
	2000-02	Latest 3 yrs	rate % p.a.
Nepal	50.0	59.3	2.1
Bangladesh	55.3	66.8	2.4
Sri Lanka	61.4	47.3	-3.2

4. Volatility of domestic prices (index)

	2000-02	Latest 3 yrs	Growth rate % p.a.
	Average values		
Nepal	10.3	9.7	-0.2
Bangladesh	4.1	7.9	5.5
Sri Lanka	7.3	8.7	3.0

5. Per capita food production volatility (index)

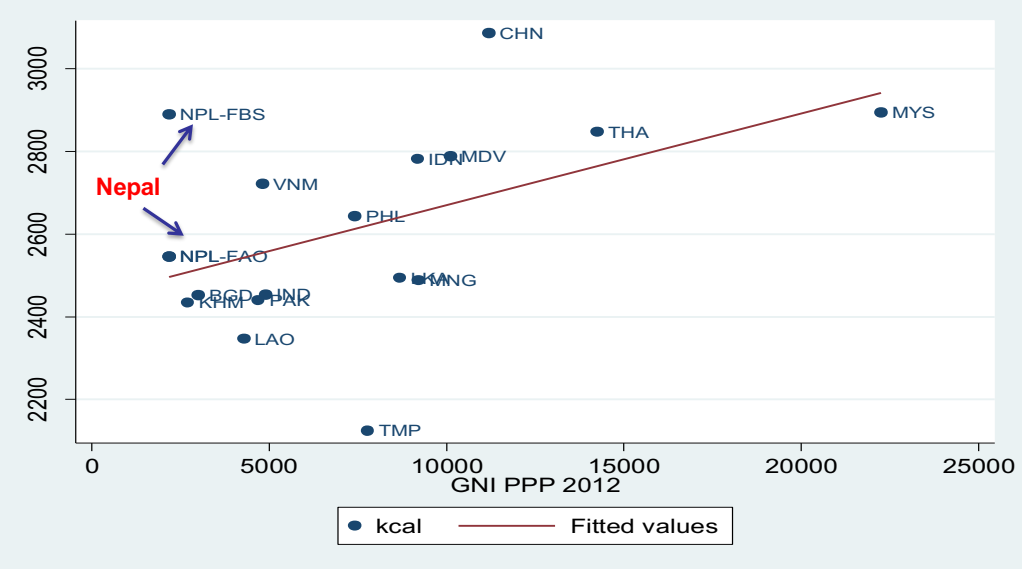
	Average values		Growth
	2000-02	Latest 3 yrs	rate % p.a.
Nepal	2.6	3.2	3.1
Bangladesh	4.4	3.8	-0.3
Sri Lanka	3.6	4.1	2.8

6. Per capita food supply volatility (index)

	Average values		Growth
	2000-02	Latest 3 yrs	rate % p.a.
Nepal	26.7	25.3	-0.6
Bangladesh	57.0	22.7	-9.9
Sri Lanka	40.7	24.7	-7.7

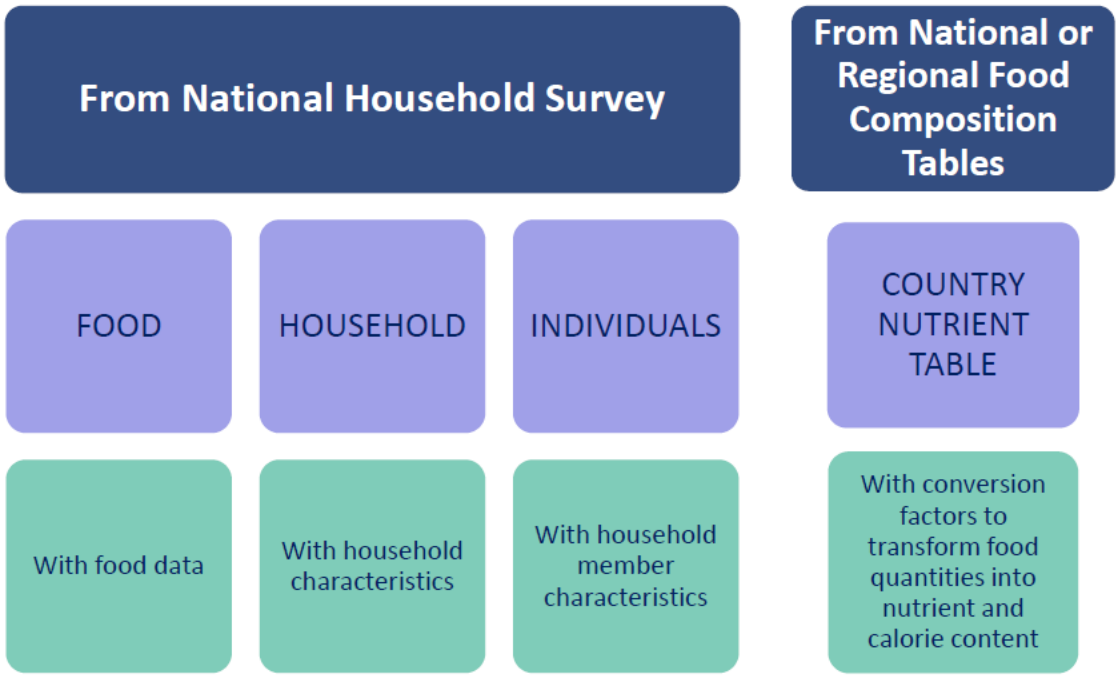
Scatter plot: kcal (Y axis) & per cap GNI in 2012 PPP $

(16 Asian countries)



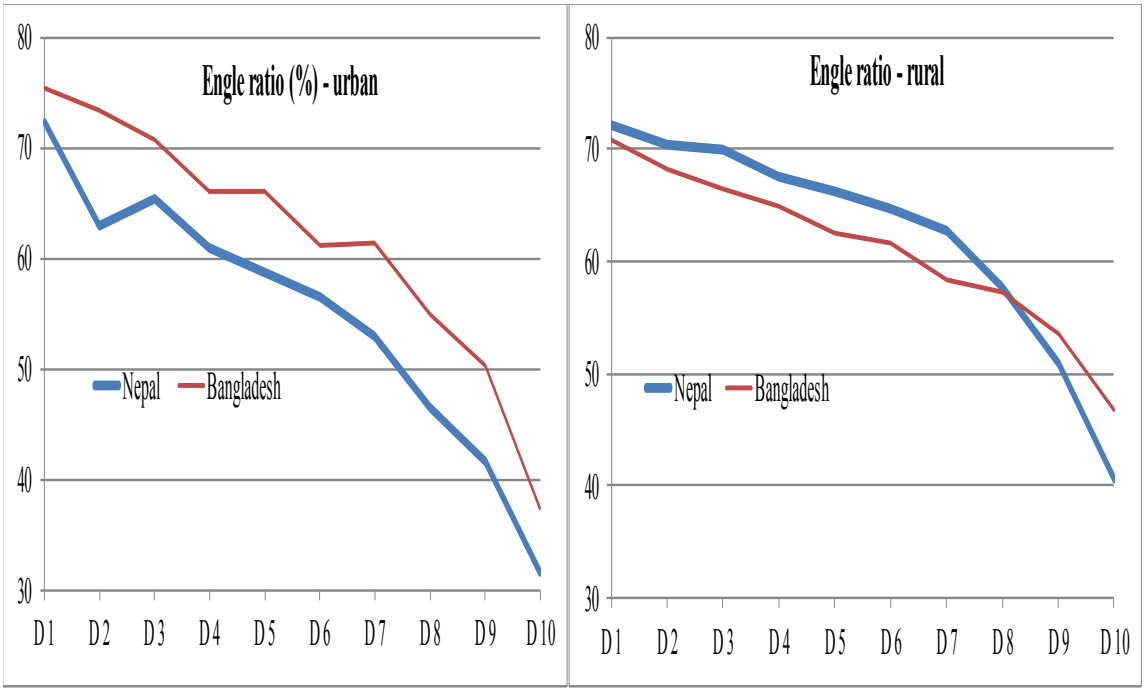
Food and Agriculture Organization of the United Nations

ADePT Food Security (FS) Statistics Module

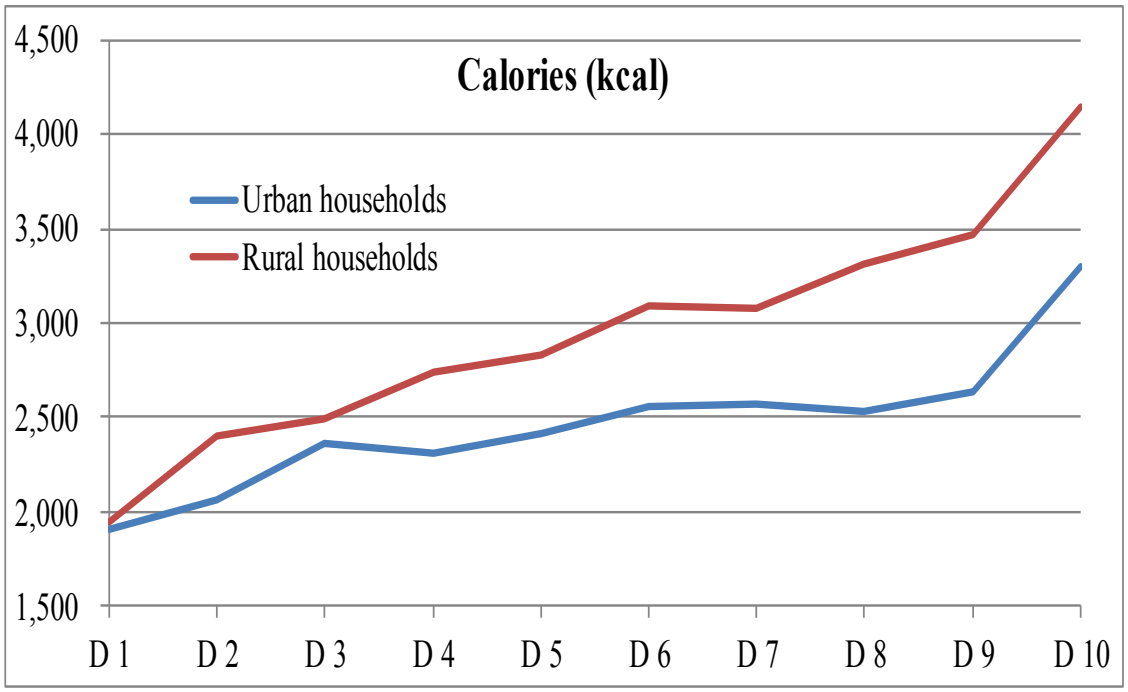


Results from ADePt FSM using Nepal Living Standard Survey III Data

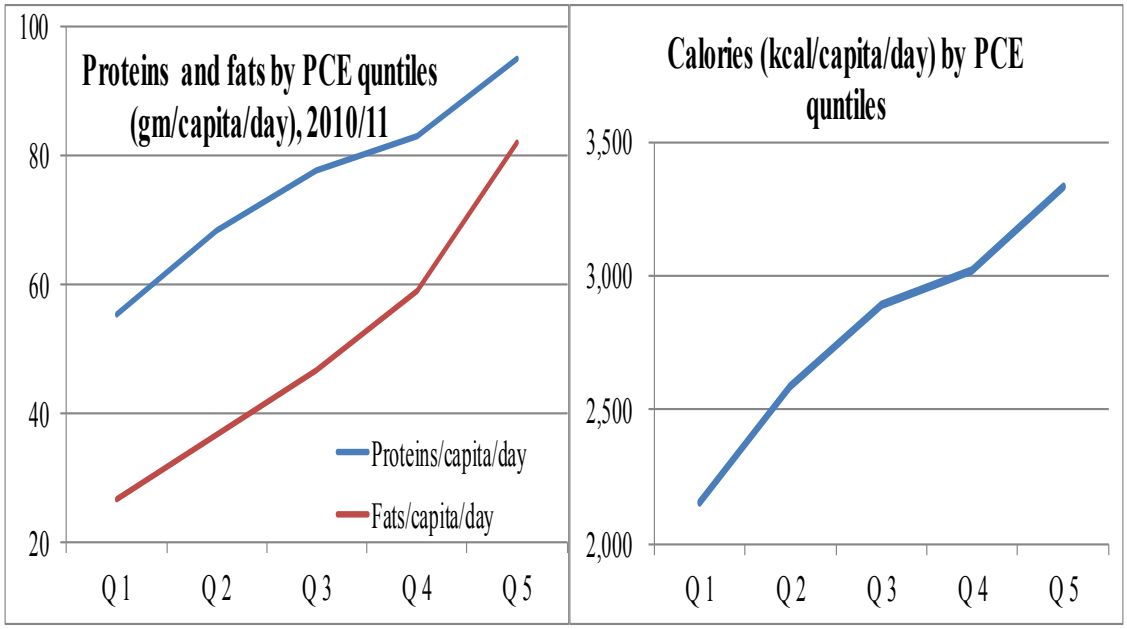
Engle ratio – expenditure on food to total consumption expenditure by deciles (%), 2010-11 for Nepal (2010 for Bangladesh)



Variation in caloric intake levels by TCE decile, 2010/11

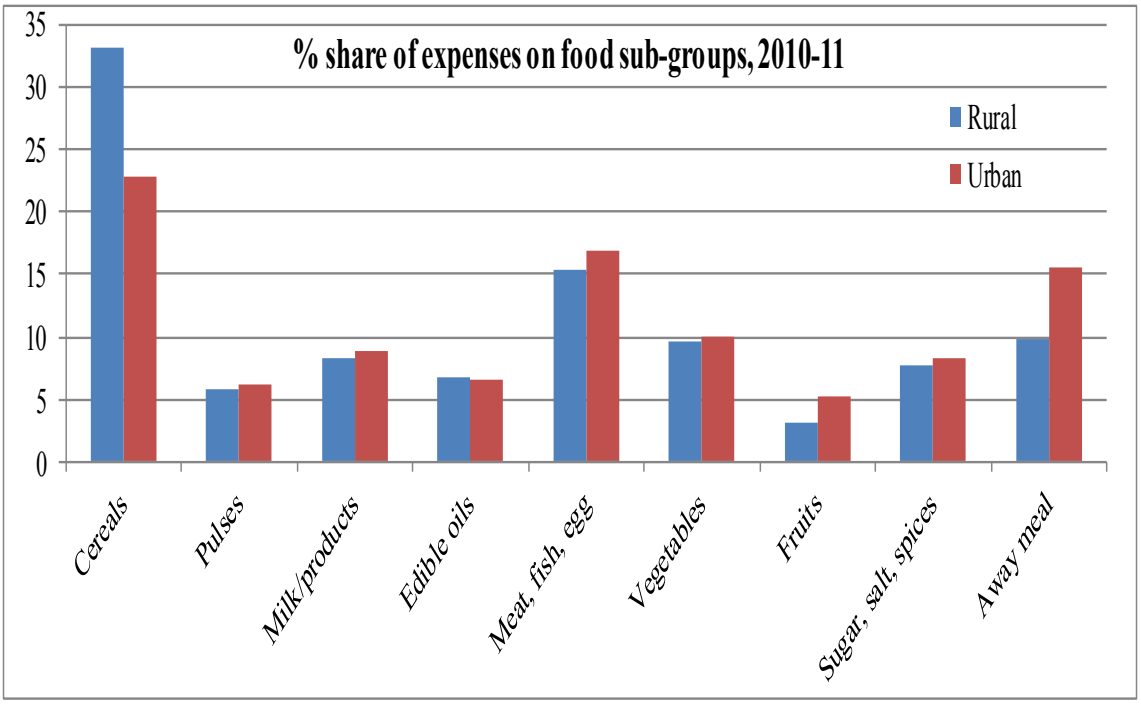


Variation in intakes of proteins, fats and calories by TCE quintiles, 2010/11



Household food expenditure patterns in rural and urban areas, 2010-11

(percentage shares in total food expenditure)



Region/ quintle/ deciles	Demographics: House-holds	Family size	Populatn.	Estimates of food consumption & requirements: Energy (DEC)	Protein	Fat	Min. DES reqrmnt.	Avg. DES reqrmnt.
	#	#	000	kcal/cap/day	gm/cap/day	gm/cap/day	kcal/cap/day	kcal/cap/day
Nepal all	5,988	4.9	28,024	2,725	73.5	47.0	1,724	2,175
Urban	2,088	4.4	5,329	2,685	73.7	57.5	1,788	2,280
Rural	3,900	5.0	22,694	2,735	73.5	44.6	1,709	2,150
Q 1 (poorest)	1,044	6.1	-	2,154	55.3	26.8	1636	-
Q 2	1,068	5.5	-	2,588	68.4	36.8	1686	-
Q 3	1,079	4.8	-	2,889	77.8	46.8	1736	-
Q 4	1,207	4.2	-	3,019	83.0	59.2	1761	-
Q 5 (richest)	1,588	3.7	-	3,332	95.1	82.2	1821	-
Eastern	1,272	4.8	6,525	2,766	73.9	45.6	1,732	2,186
Centeral	2,280	4.8	9,999	2,813	76.3	49.7	1,734	2,194
Western	1,152	4.6	5,367	2,654	70.5	50.2	1,727	2,180
Mid-western	756	5.2	3,653	2,608	71.8	42.6	1,695	2,123
Far-western	528	5.0	2,480	2,591	70.2	39.5	1,699	2,136
D 1 - Nepal	526	6.4	3,679,102	1,948	-	-	-	-
D 2 - Nepal	518	5.9	3,389,366	2,377	-	-	-	-
D 3 - Nepal	537	5.7	3,281,933	2,485	-	-	-	-
D 4 - Nepal	531	5.3	3,051,084	2,698	-	-	-	-
D 5 - Nepal	530	4.9	2,854,001	2,785	-	-	-	-
D 6 - Nepal	549	4.6	2,650,725	3,001	-	-	-	-
D 7 - Nepal	571	4.3	2,487,375	2,982	-	-	-	-
D 8 - Nepal	636	4.1	2,357,639	3,057	-	-	-	-
D 9 - Nepal	714	3.9	2,268,348	3,111	-	-	-	-
D 10 - Nepal	874	3.5	2,002,976	3,582	-	-	-	-
D 1 - Urban	-	-	-	1,909	-	-	-	-
D 2 - Urban	-	-	-	2,066	-	-	-	-
D 3 - Urban	-	-	-	2,361	-	-	-	-
D 4 - Urban	-	-	-	2,308	-	-	-	-
D 5 - Urban	-	-	-	2,414	-	-	-	-
D 6 - Urban	-	-	-	2,556	-	-	-	-
D 7 - Urban	-	-	-	2,571	-	-	-	-
D 8 - Urban	-	-	-	2,532	-	-	-	-
D 9 - Urban	-	-	-	2,640	-	-	-	-
D 10 - Urban	-	-	-	3,304	-	-	-	-
D 1 - Rural	-	-	-	1,949	-	-	-	-
D 2 - Rural	-	-	-	2,399	-	-	-	-
D 3 - Rural	-	-	-	2,499	-	-	-	-
D 4 - Rural	-	-	-	2,746	-	-	-	-
D 5 - Rural	-	-	-	2,825	-	-	-	-
D 6 - Rural	-	-	-	3,086	-	-	-	-
D 7 - Rural	-	-	-	3,084	-	-	-	-
D 8 - Rural	-	-	-	3,313	-	-	-	-
D 9 - Rural	-	-	-	3,470	-	-	-	-
D 10 - Rural	-	-	-	4,151	-	-	-	-

A comparison of the estimates of food supplies in the FAO database and the new SUA/FBS

	2008	2009	2010	2011	2012	2013	Avgerage
kcal/capita/day							
FAO database	2,490	2,522	2,553	2,547	2,546	2,538	2,533
New FBS estimates	2,772	2,698	2,837	2,855	2,894	2,922	2,830
Difference	282	176	284	308	348	384	297
% difference	11.3	7.0	11.1	12.1	13.7	15.1	11.7
Protein/capita/day							
FAO database	63	64	65	n.a.	n.a.	n.a.	64
New FBS estimates	70	68	71	72	74	76	70
Difference	7.0	4.0	6.0	-	-	-	5.7
% difference	11.1	6.3	9.2	-	-	-	8.9
Fats/capita/day							
FAO database	44	47	49	51	n.a.	n.a.	48
New FBS estimates	52	51	60	58	59	60	55
Difference	8.0	4.0	11.0	7.0	-	-	7.5
% difference	18.2	8.5	22.4	13.7	-	-	15.7

Technical Notes on the difference

- food energy, the difference between the two estimates averages 297 kcal/capita/day for 2008-13, a difference of 12%. The average difference for 2008-13 is 5.7 gm/capita/day for protein (or 9%) and 7.5 gm/capita/day for fat (or 16%).
- The12% difference in caloric supply leads to a marked difference in the estimated prevalence rates of food insecurity. For example, assuming 1,724 kcal as the minimum and 2,200 as the adequate requirement (see Section 2.1.2 for details), the standard FAO methodology gives the following prevalence rates: 7.1% for undernourishment (the PoU) and 32% for food inadequacy (the PoFI) with the lower DES in the FAO database (2,533 kcal), but only 2.7% of PoU and 18% of PoFI with the higher DES (2,830) from the new SUA/FBS.

Accounting for the discrepancy in the two estimates

- What might explain the discrepancy in the estimated DES? One source of discrepancy is easily identifiable which is the discrepancy in the population numbers used, higher population in the FAO database and lower in the FBS.
- The CBS has released fresh estimates of Nepal's population following the 2011 Census, including for the years prior to 2011. The SUA/FBS used these numbers. Apparently, FAO did not update population numbers in its database.
- Assuming the same level of the DES as in the FAO database, the use of the higher population (as in FAO database) reduces the DES by 60 kcal/capita/day.
- In other words, the DES would have been higher by 60 kcal in the FAO database if the correct (lower) population size was used

Accounting for the discrepancy in the two estimates

- While 20% of the discrepancy was due to population, it is not easy to be as precise on the sources of the other 80% discrepancy. A number of such sources were identified during the course of compiling and updating the SUA/FBS. Highlights of these discrepancies and adjustments include the following.
- For *wheat and maize flour*, the main difference was due to the extraction rate used (96% and 97%, instead of 80%).
- For *maize*, the feed ratios used were different 15% instead of 20-30%.
- The *nutritional factors* updated in the 2014 FAO workshop (organized under the FAO project) were revised as these markedly impacted on total DES.
- For all years covered (2008 to 2013), there is a need for adjusting *stock variations* (element 071) as the balancing element for paddy/rice and millet. These should be estimated as there are no official data on stock variations.
- For *ginger*, utilization assumptions were revised. While national FBS does not have waste, other utilization (e.g. medicines) and stocks changes, FAO created, reportedly to reduce calories and eliminate stock entries, entries for waste and other utilization based on some articles from the web.
- For *mustard seed*, there was a difference in production data between FAO and national FBS; for 2010, area sown was higher than harvest area. Also, the element "stock variation" has been excluded from the national FBS.
- For *pastry* (code 22), import volumes for 2010 were found out to be different and so corrections were made.
- For *fruit fresh nes* (code 619), marked statistical discrepancies were noted and corrected.

Accounting for the discrepancy in the two estimates

- Also, many cases were found where *trade data* were incomplete and *product coverage* inadequate for some years. These include:
  - Imports data for 2011 did not seem to be complete in coverage of products relative to other years. In this regard, trade data were re-checked and confirmed for a number of products, namely tomato juice concentrated, tomato paste, pineapples canned, dates, fruit juice nes, fruit prep nes, water, coffee roasted, coffee substitutes, coffee extracts, chocolates, pepper, cinnamon, essential oils, butter, dry skim cow milk, meat nes and food prep nes. (code 1232).
  - As above, trade data for 2012 had to be re-checked for the following products: bran cereals, cake rapeseed, lettuce, tomato juice concentrated, fruit juice nes, coffee subst. cinnamon, butter, pork, turkey meat exp, and meat dried nes.
  - For 2013, trade data were re-checked and verified for a number of products: oil olive residues, lettuce, tomato juice concentrated, grapefruit juice single strength, fruit juice nes, coffee subst, cinnamon, hey cheese and bacon ham pigs.

Challenges Faced and How we solved them

- Update of food composition table
- Post harvest loss estimation
- Processing rate and loss
- Other utilization like , alcohol and tourist consumption
- Disaggregation of data upto varietal like fruits, vegetables and fishes
- Balancing of the elements

Lessons Learned; For my country

- Capacity building at the local level is key to generate commitments for the effectiveness of the FNSM system
- Stakeholders benefited by the information for decision making–
- Data and results helped on macro level indicators
- FNS monitoring needs multi-sectoral coordination and support at the national and local level
- Time taking process
- FNS concept not fully understood (only food sufficiency)
- Importance of build agencies' awareness and have them engaged in the process (more than a nice reference table!),
- They want to keep monitoring at a "technical level" and have an inclusive structure to do that

Lessons Learned; For other country

- Regional cooperation (south –south) on capacity development
- Regional data on trade for verification, ex export data from Nepal should come to Import data in India and vice versa
- Regional lessons learning and coordination
- Capacity transfer from Rome to Bangkok and national level
- Ready for Technical Support?

Lessons Learned; For FAO

- Helpful in MDG monitoring and progress reporting
- Should be useful for SDG monitoring focused on Goal 2 ie Zero Hunger and some data on nutrition monitoring
- Comparison of FAO data base with new food composition table and thresholds

Acknowledgements

"*Building statistical capacity for quality food security and nutrition information in support of better informed policies*", TCP/RAS/3409, FAO Regional Office for Asia and the Pacific (FAO-RAP), Bangkok.