



Current Food Security and Nutrition Challenges and the role of agriculture and food systems



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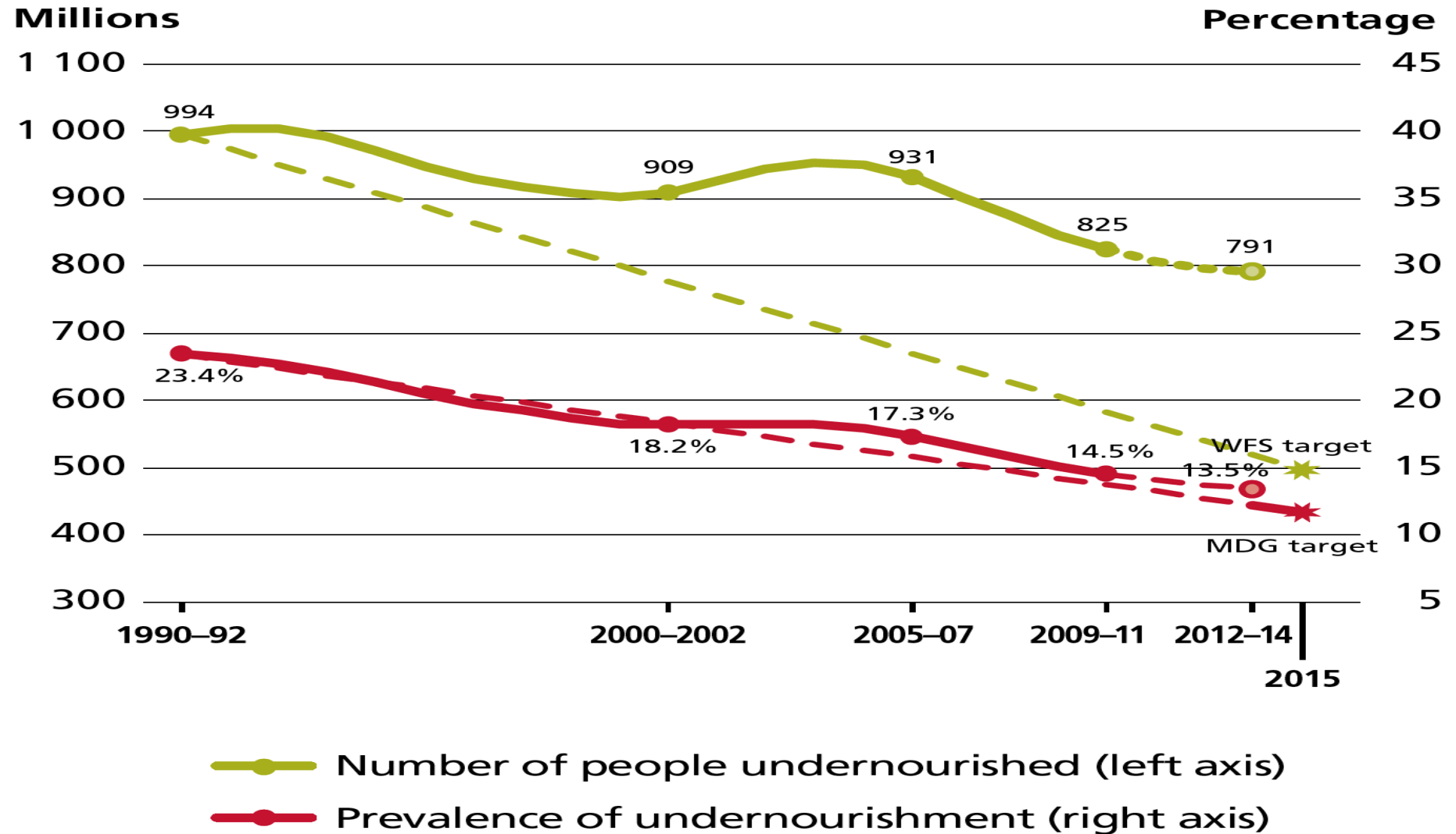
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**Briefing on ICN2
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What is food security?

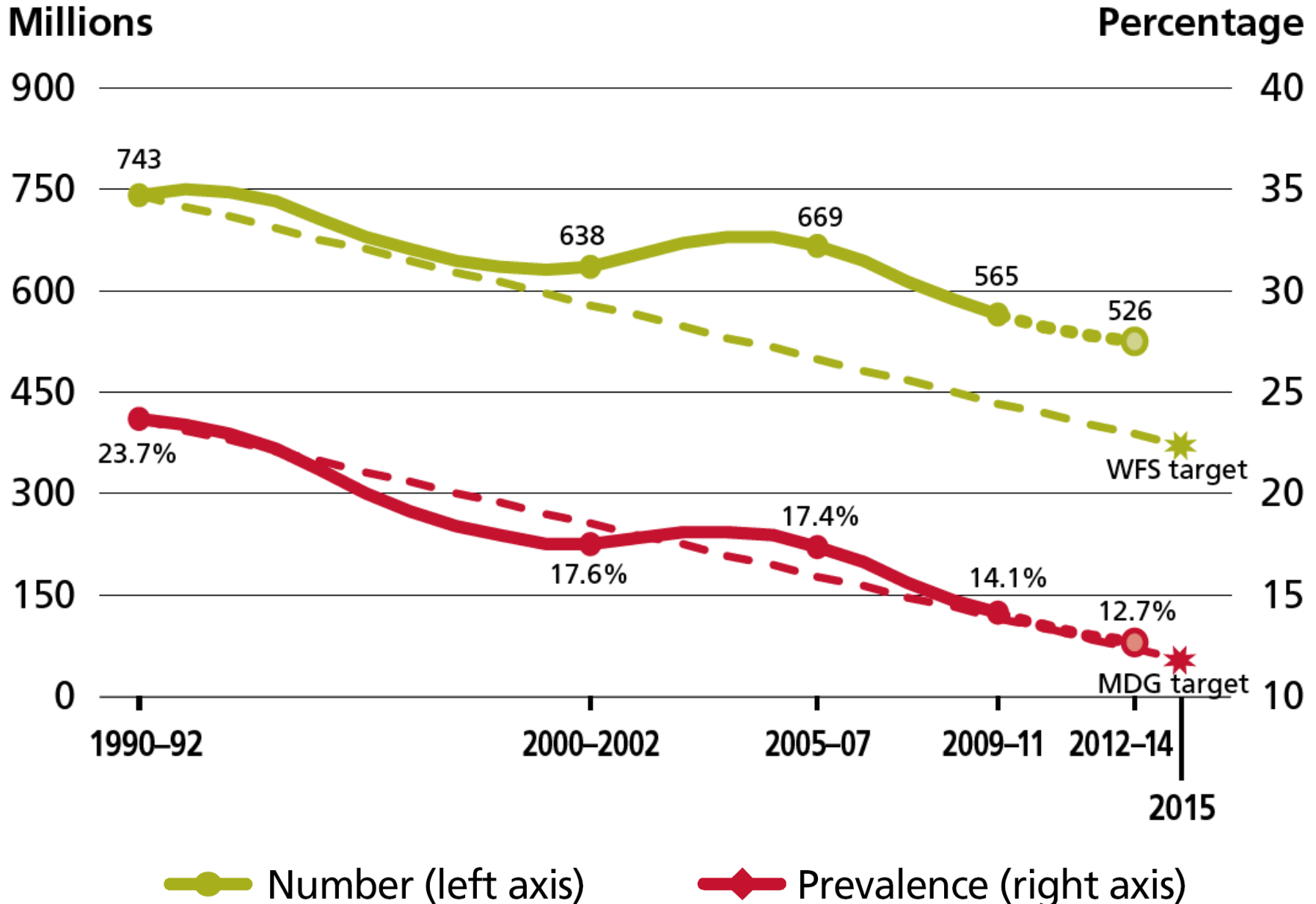
- Availability
 - Sufficient quantity of food nationally: domestic production + net imports + (other things)
- Access
 - Access by individuals to entitlements to acquire food (e.g. income)
- Utilization (or nutritional outcomes)
 - Utilization of food by individuals: adequate diet, clean water, sanitation and health care.
- Stability of access
 - Low risk of losing access to food

Undernourishment trends: Developing Regions



Source: FAO/IFAD/WFP: State of Food Insecurity in the World 2014

Undernourishment trends in Asia

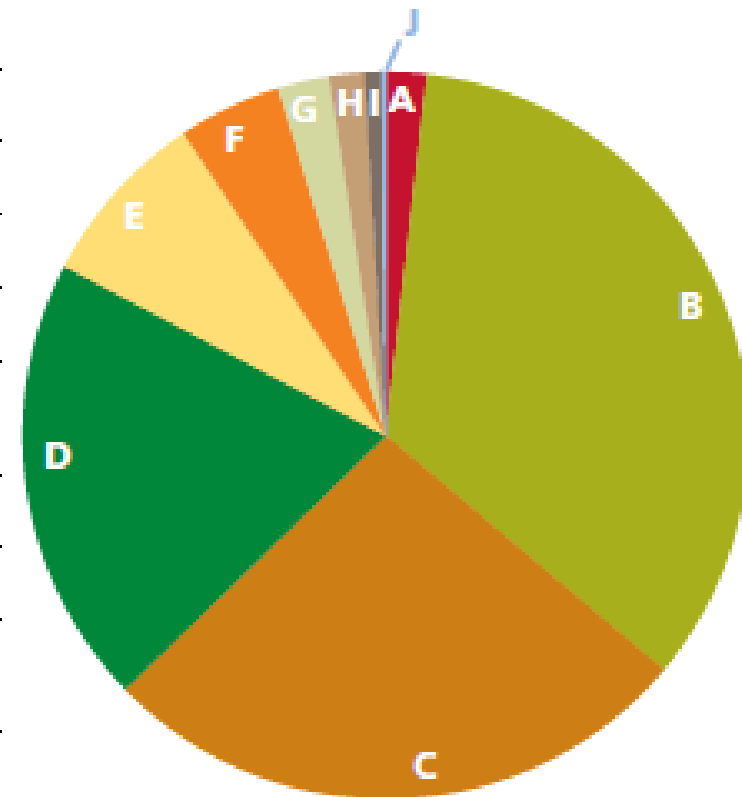


Source: FAO/IFAD/WFP: State of Food Insecurity in the World 2014

The changing distribution of hunger in the world: Numbers and shares of undernourished people by region in 1990-92 and 2012-14

	Number (millions)		Regional share (%)	
	1990-92	2012-14	1990-92	2012-14
A Developed regions	20	15	2.0	1.8
B Southern Asia	292	276	28.8	34.3
C Sub-Saharan Africa	176	214	17.3	26.6
D Eastern Asia	295	161	29.1	20.0
E South-Eastern Asia	138	64	13.6	7.9
F Latin America and the Caribbean	69	37	6.8	4.6
G Western Asia	8	19	0.8	2.3
H Northern Africa	6	13	0.6	1.6
I Caucasus and Central Asia	10	6	0.9	0.7
J Oceania	1	1	0.1	0.2
Total	1015	805	100	100

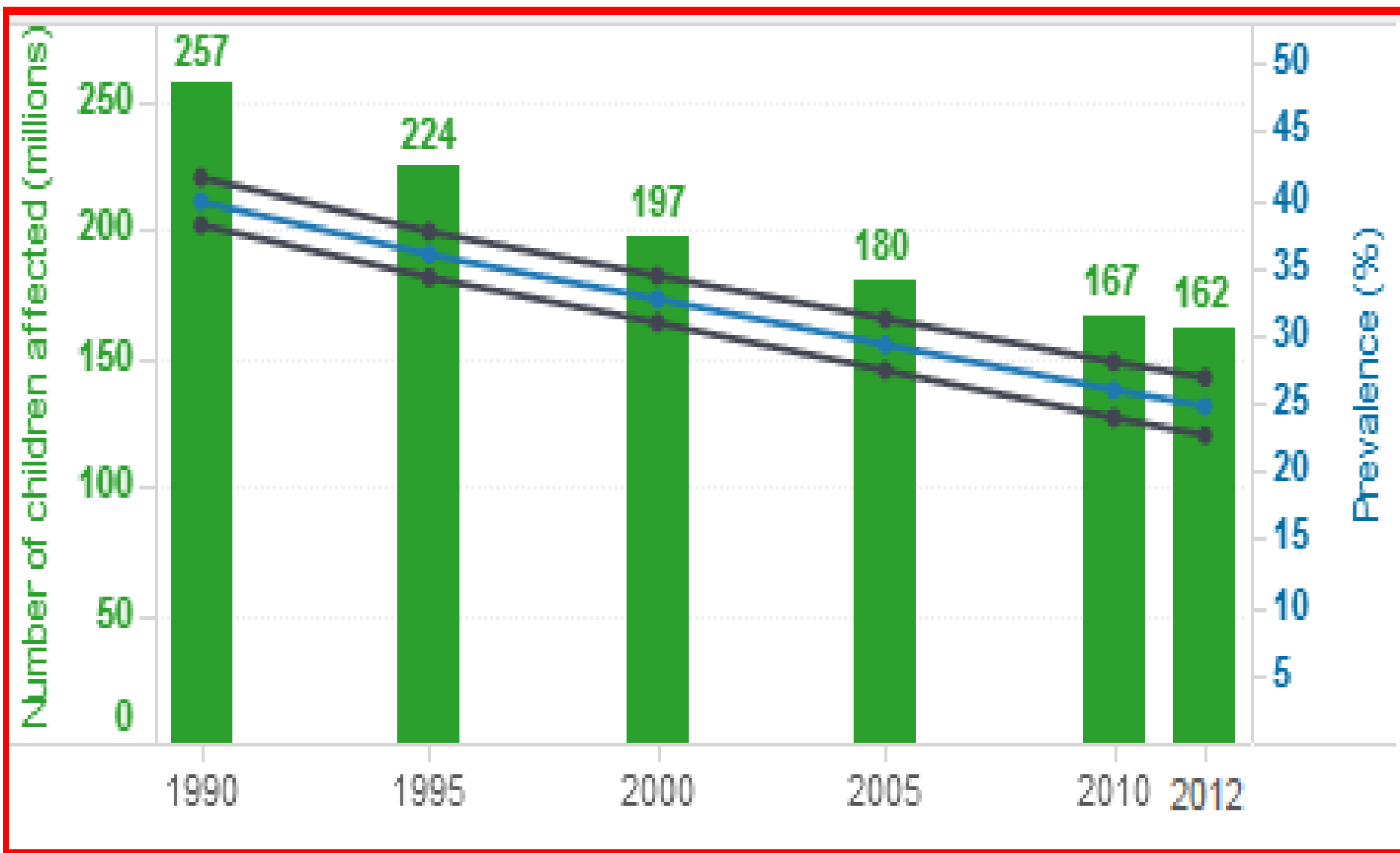
Total = 805 million (2012-14)



Malnutrition Global Facts

- 805 m people suffer from chronic hunger
- 162 million children under five years of age stunted
- Undernutrition major cause of death in children under five, causing 45% of all child deaths in 2013
- Over 2 billion people suffer from micronutrient deficiencies
- Overweight and obesity affect 2.1 billion people
- 42 million children under five years are overweight
- Over 500 million adults affected by obesity in 2010

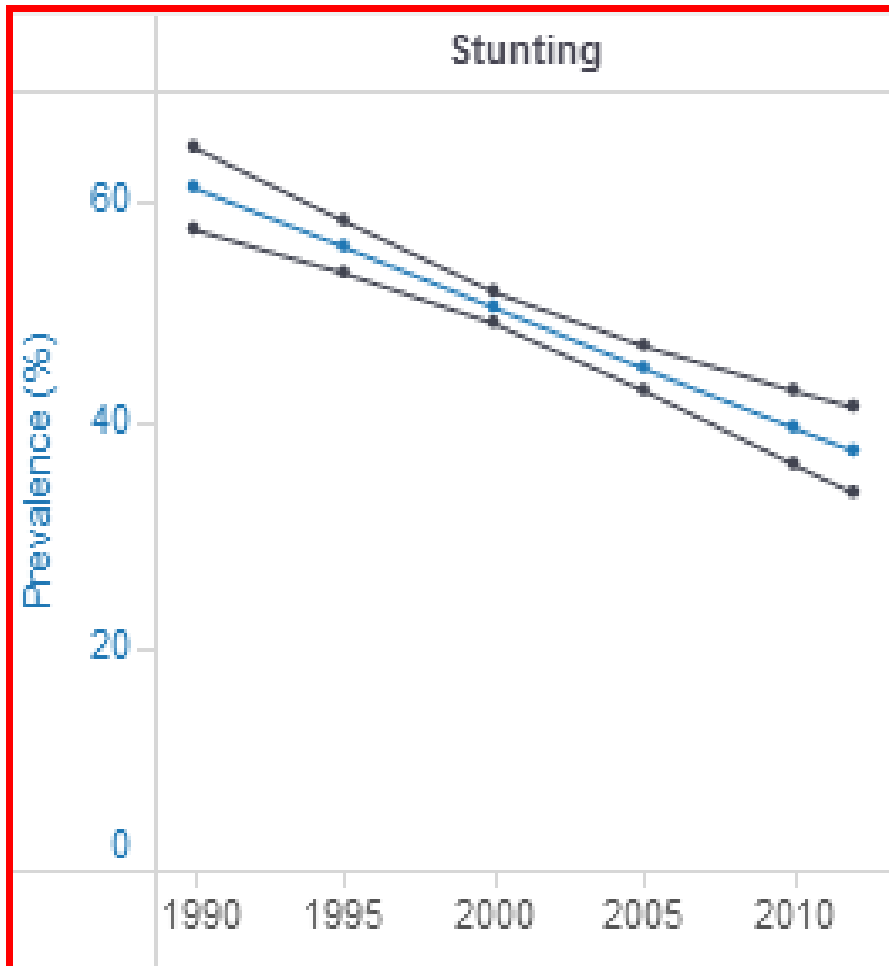
Stunting in Children: Global



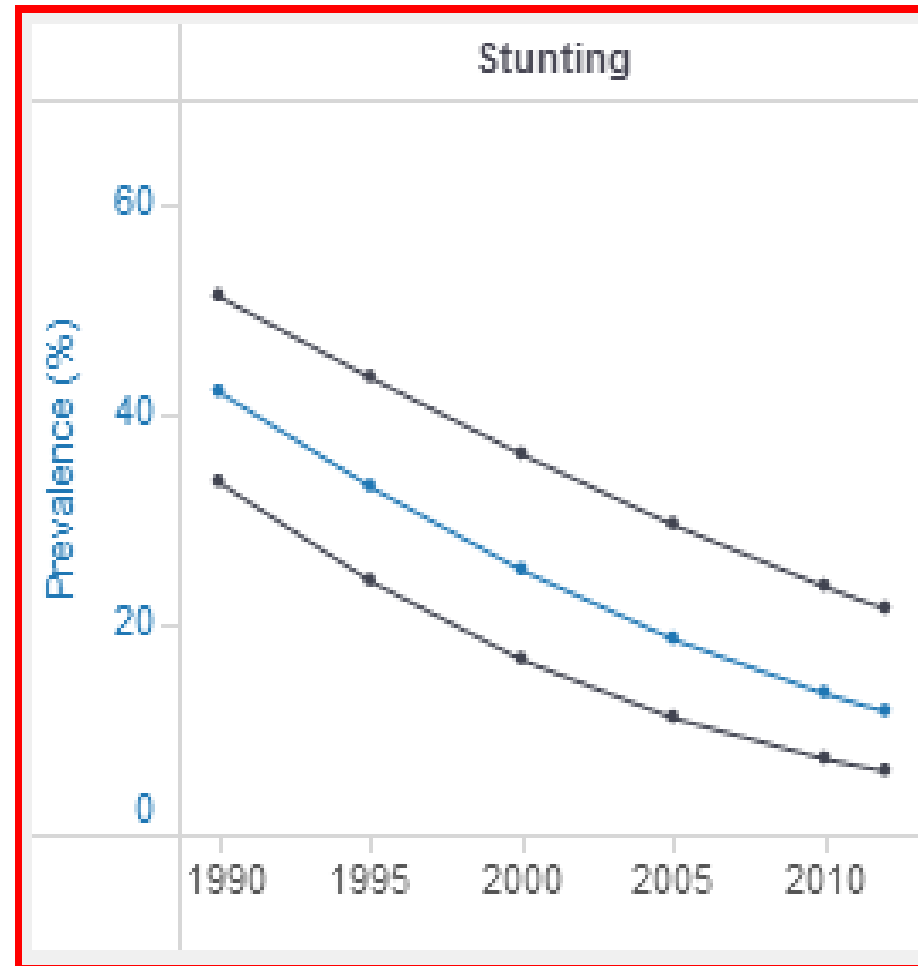
Source: UNICEF: <http://data.unicef.org/resources/2013/webapps/nutrition#>

Stunting prevalence: Asian subregions

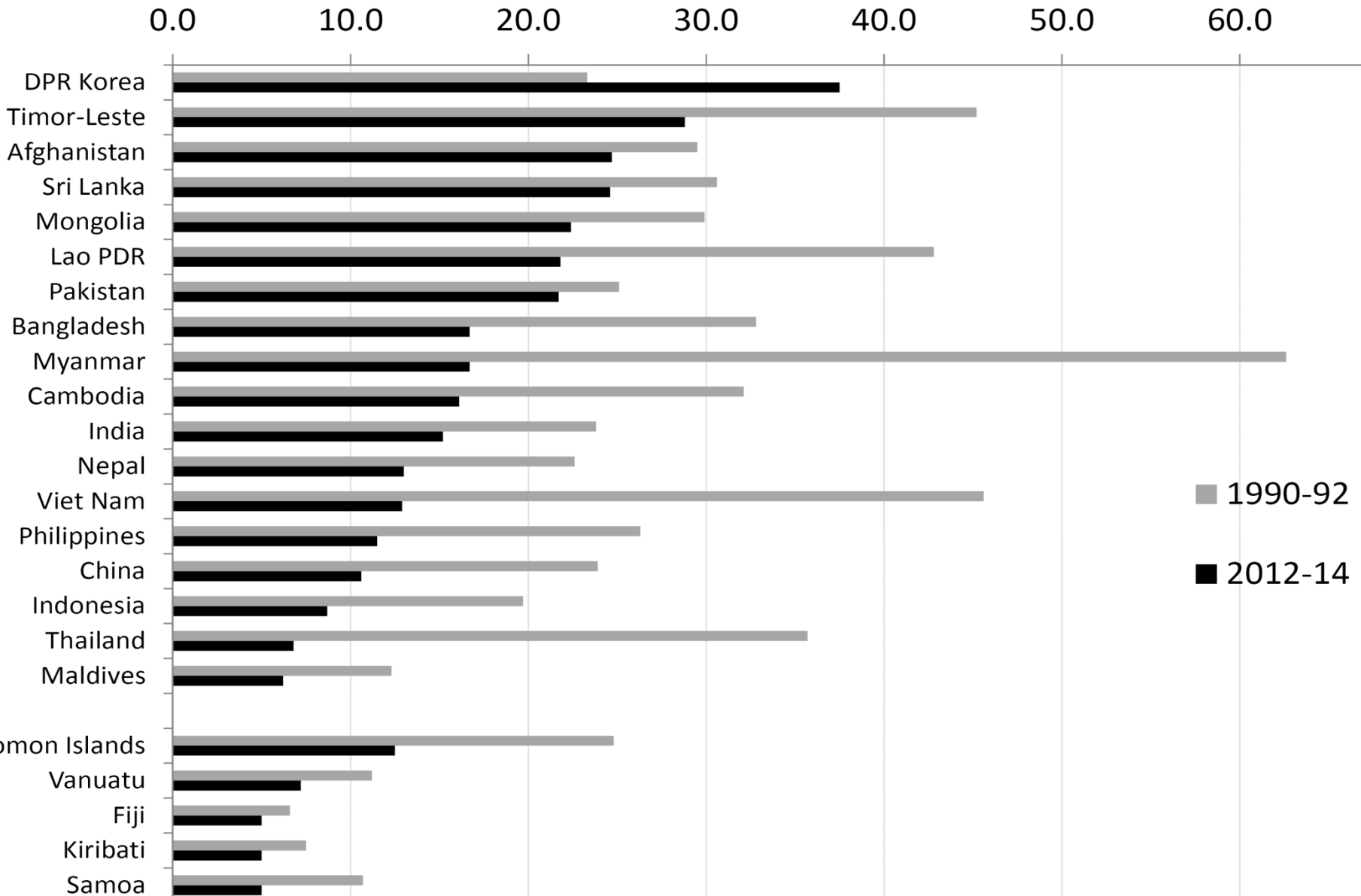
South Asia



East Asia and Pacific

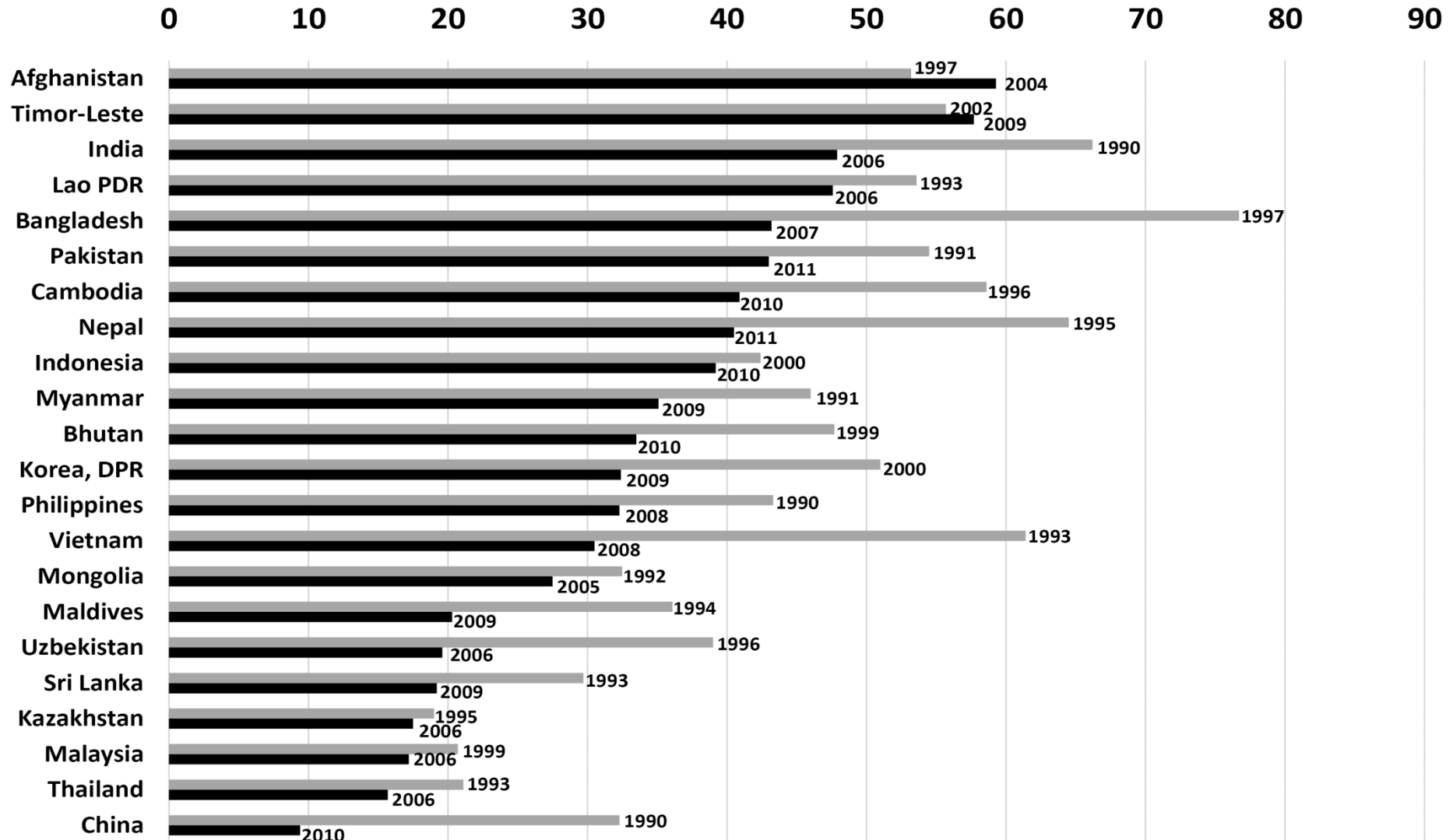


Proportion of undernourished in total population, selected Asian countries



Source: FAO/IFAD/WFP: State of Food Insecurity in the World 2014

Prevalence of stunting in children under 5 in selected Asian countries



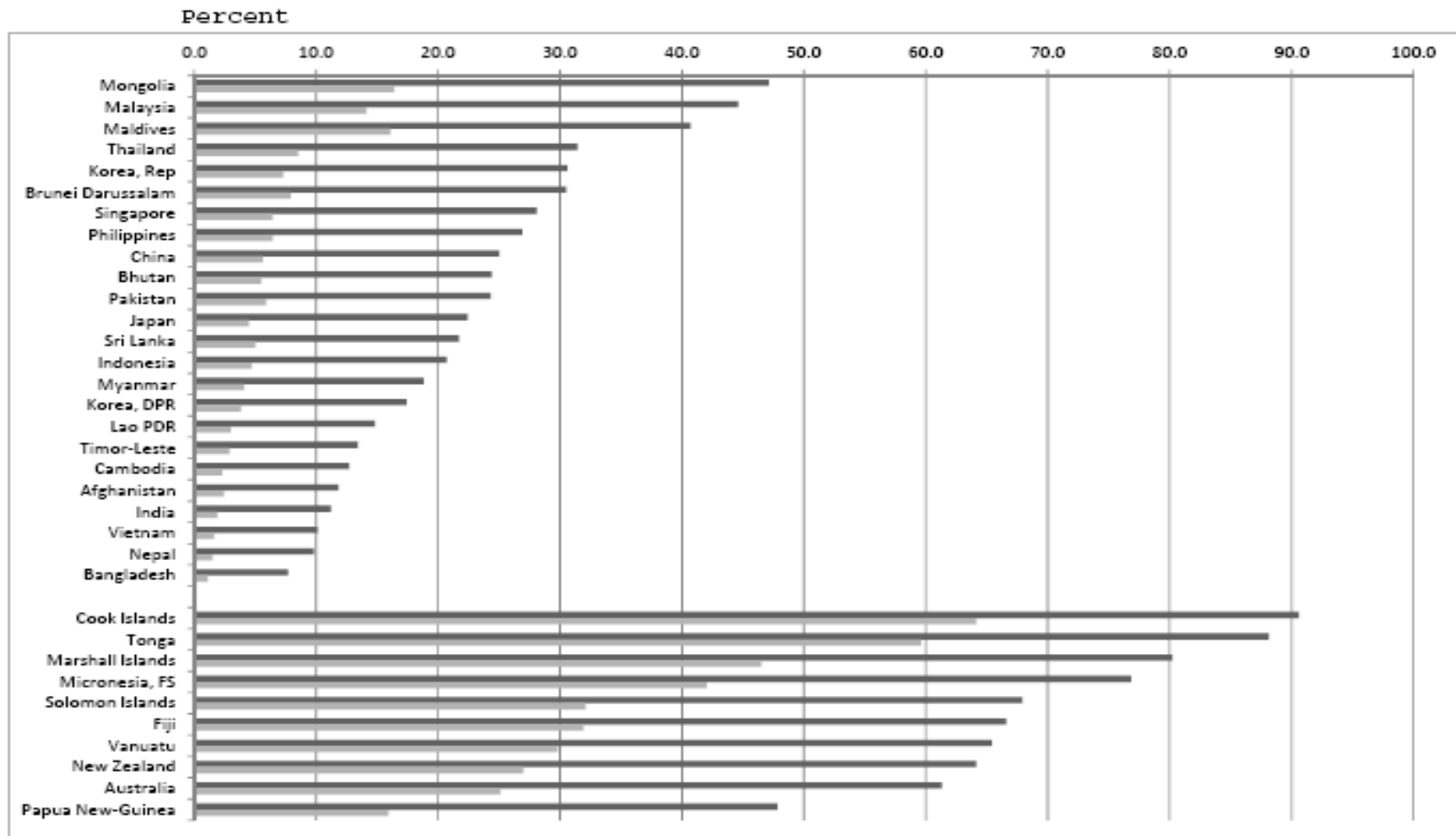
Source: World Bank, World Development Indicators, 2012

Obesity and overweight in Asia-Pacific

Prevalence of overweight (BMI \geq 25.0) and obesity (BMI \geq 30.0) in adults (Age \geq 20.0)

Selected countries in Asia and the Pacific

2008



Note: Overweight prevalence in black, obesity prevalence in gray

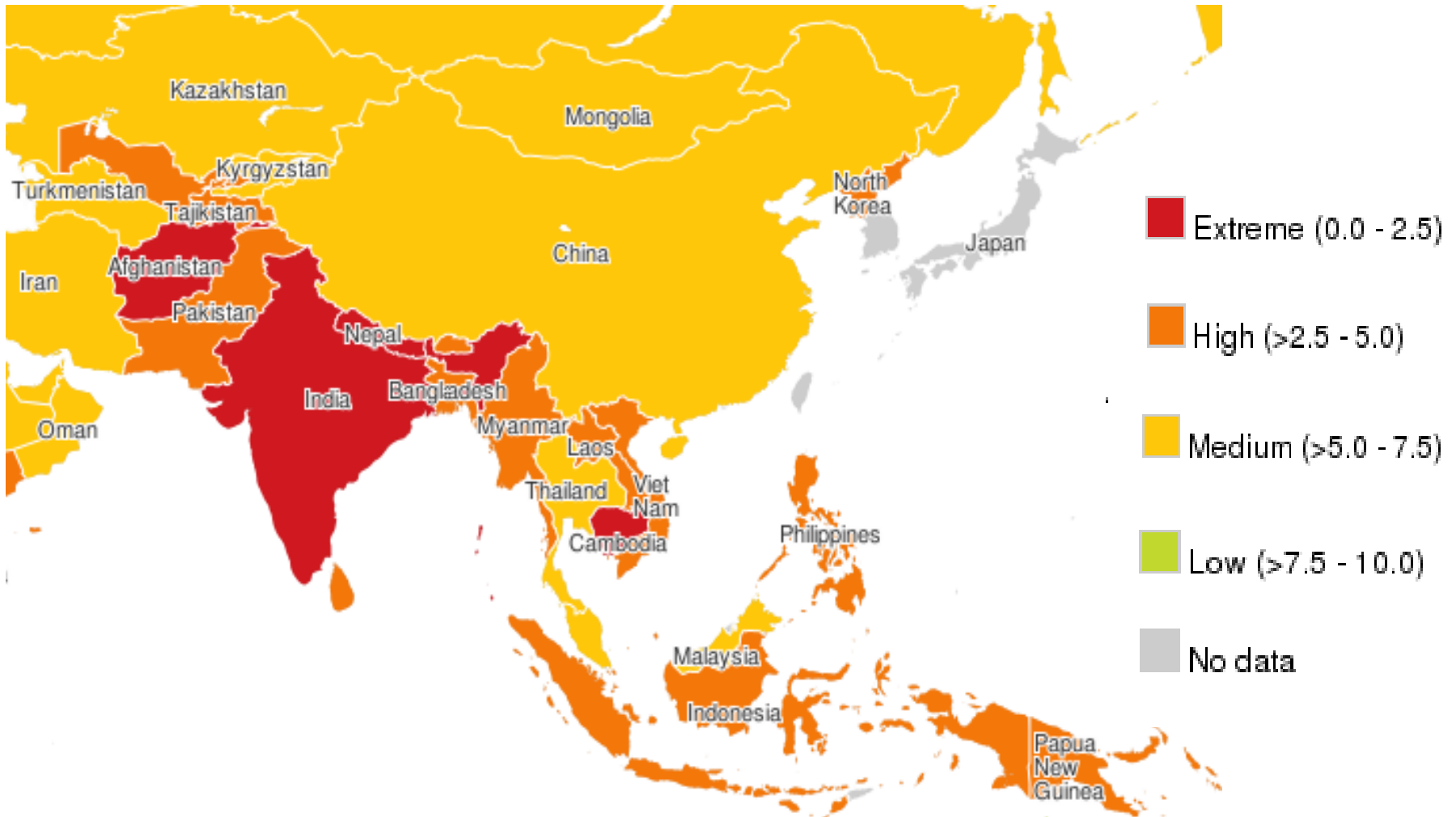
Age standardized rates, 2008

Source: WHO Global Health Observatory Data Repository, <http://apps.who.int/gho/data/node.main.A897?lang=en>

Downloaded 12 Oct 2013

Micronutrient deficiencies still high in Asia

Accumulative Mineral and Vitamin Deficiency Index, Asia



Problem of food losses and waste

- Asia-Pacific region is a hotspot for fruit, vegetable and rice losses to spoilage, damage and other causes
 - 50 percent of fruits and vegetables
 - Up to 37 percent of cereals
 - 20 percent of meat and dairy products
- Nearly 15-20 percent of the food supply is wasted after reaching dining tables in developed countries and middle income countries in Asia.

Global production in 2050

- Compared to 2005/07, the world will need to produce every year 60% more food (77% in developing countries):
 - 1 billion tonnes more of cereals (45%)
 - 196 million tonnes more of meats (76%)
 - 713 million tonnes more of roots & tubers (64%)
 - 172 million tons more of soybeans (79%)
 - 429 million tons more of fruits (68%)
 - 365 million tons more of vegetables (47%)

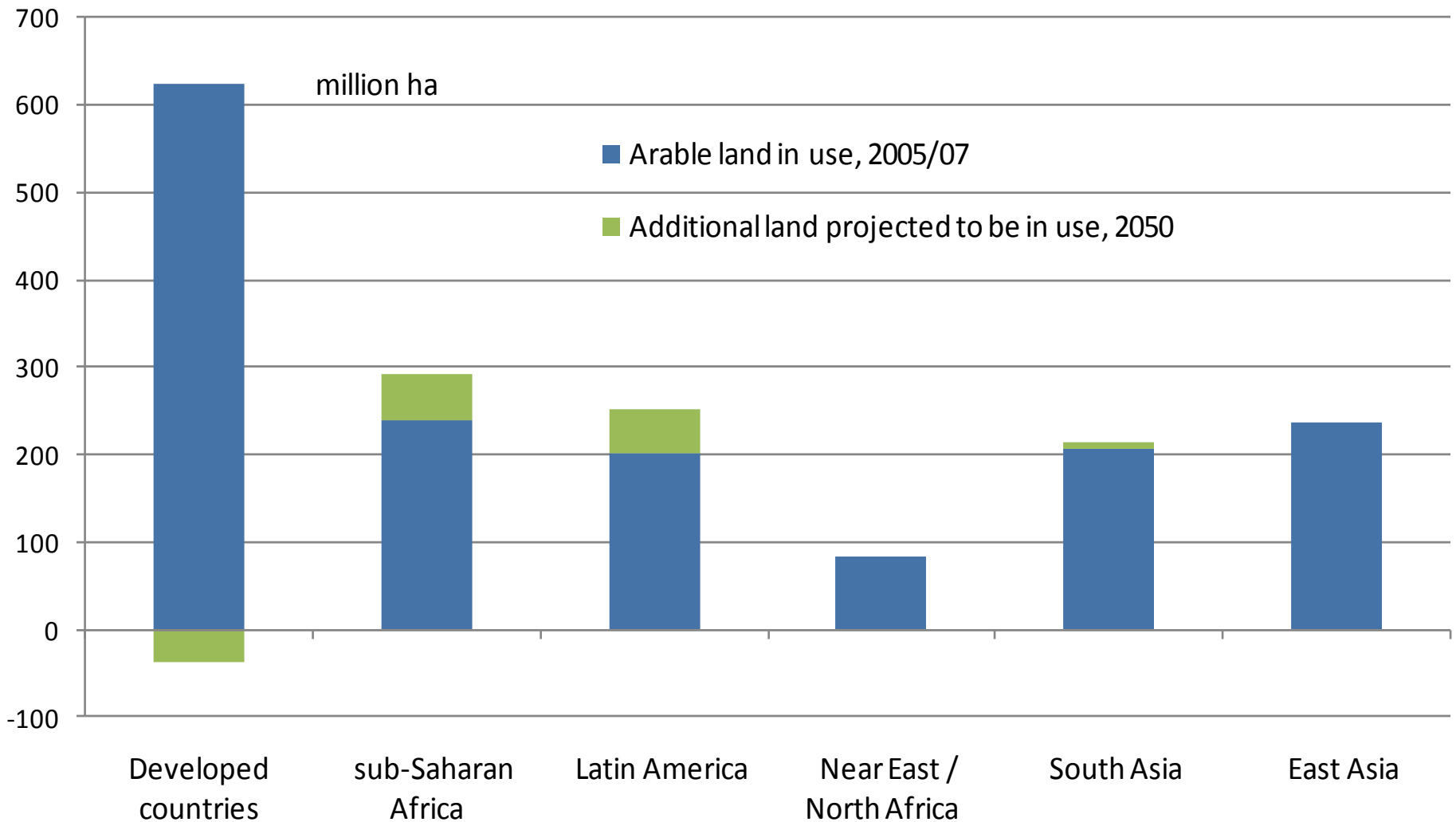
Projected consumption to 2050: South Asia

	2005/07	2050
GDP per-cap (\$ at 2005/07 prices)	814	3169
Food in kcal per person per day	2293	2820
Cereals (million tonnes)	231.0	345.3
Meat (million tonnes)	6.7	41.0
Milk and dairy products (milk equivalent, million tonnes)	135	322.6

Projected consumption to 2050 East and Southeast Asia

	2005/07	2050
GDP per-cap (\$ at 2005/07 prices)	2740	14430
Food in kcal per person per day	2850	3220
Cereals (million tonnes)	319.0	354.0
Meat (million tonnes)	86.8	160.0
Milk and dairy products (milk equivalent, million tonnes)	50.0	96.3

Is there enough land?



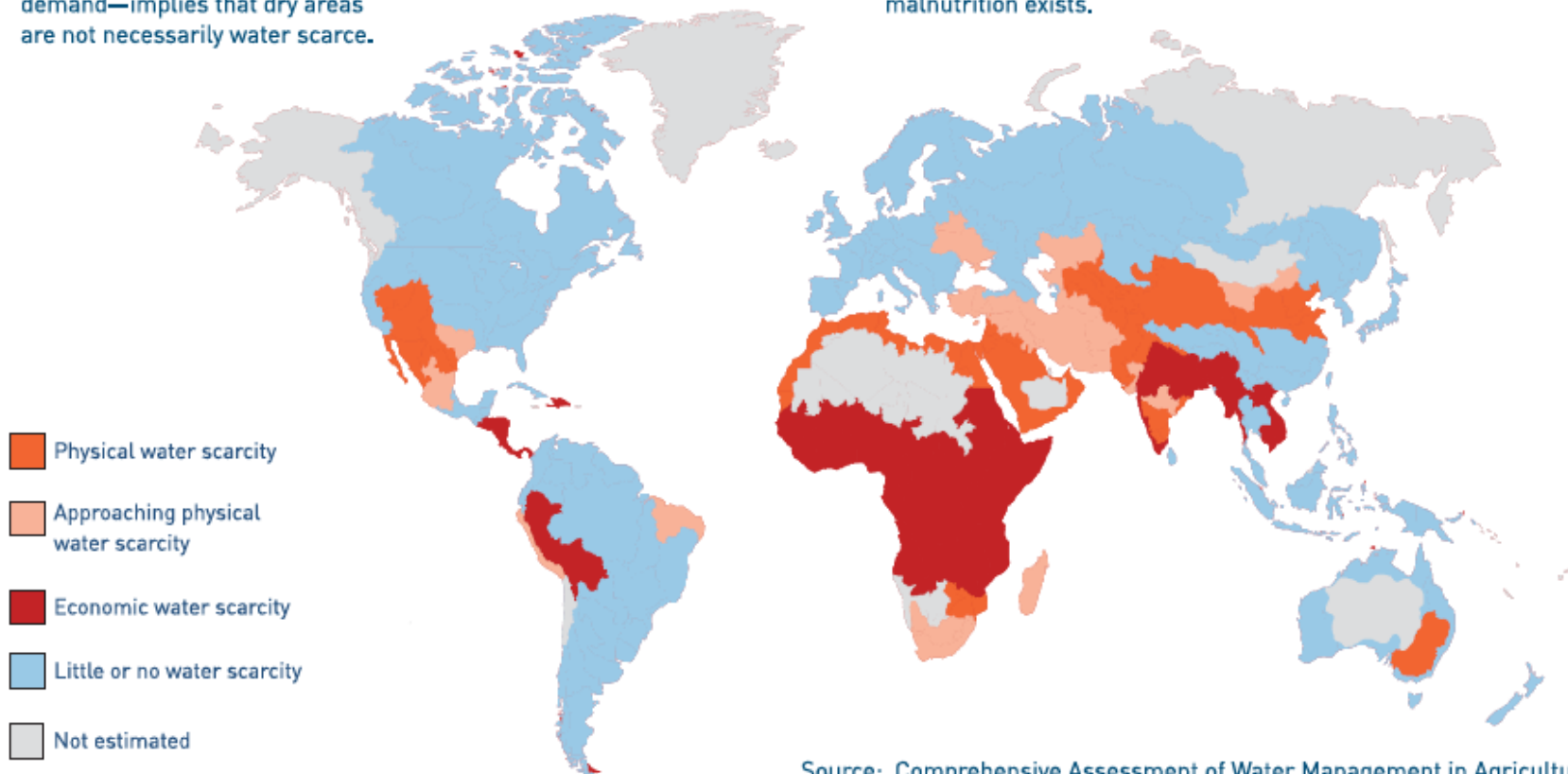
Is there enough water?

Physical water scarcity
water resources development is approaching or has exceeded sustainable limits). More than 75% of the river flows are withdrawn for agriculture, industry, and domestic purposes (accounting for recycling of return flows). This definition—relating water availability to water demand—implies that dry areas are not necessarily water scarce.

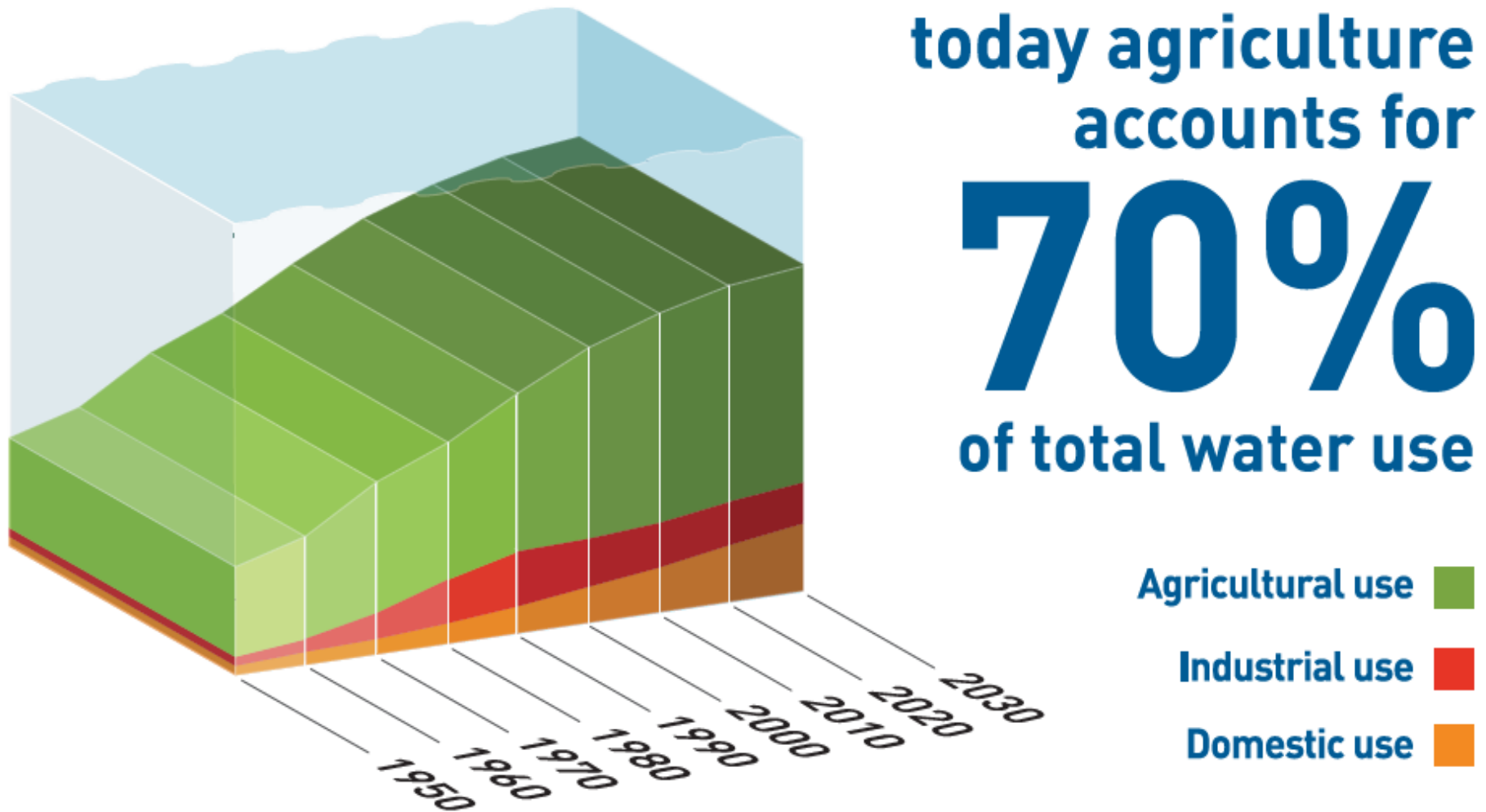
Approaching physical water scarcity. More than 60% of river flows are withdrawn. These basins will experience physical water scarcity in the near future.

Economic water scarcity
(human, institutional, and financial capital limit access to water even though water in nature is available locally to meet human demands). Water resources are abundant relative to water use, with less than 25% of water from rivers withdrawn for human purposes, but malnutrition exists.

Little or no water scarcity.
Abundant water resources relative to use, with less than 25% of water from rivers withdrawn for human purposes.

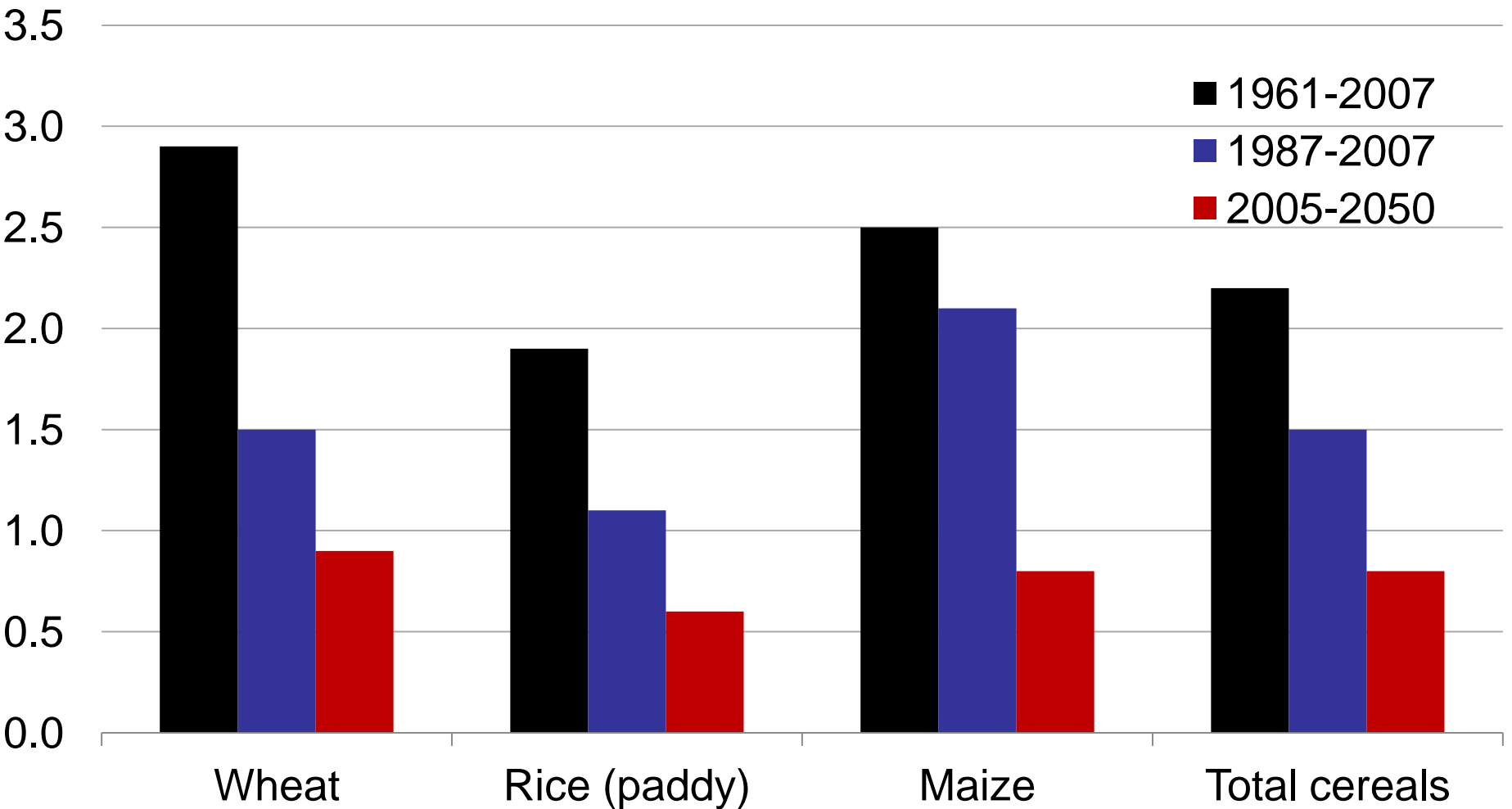


Most of the world's water is used for agriculture



Growth in cereal yields is slowing

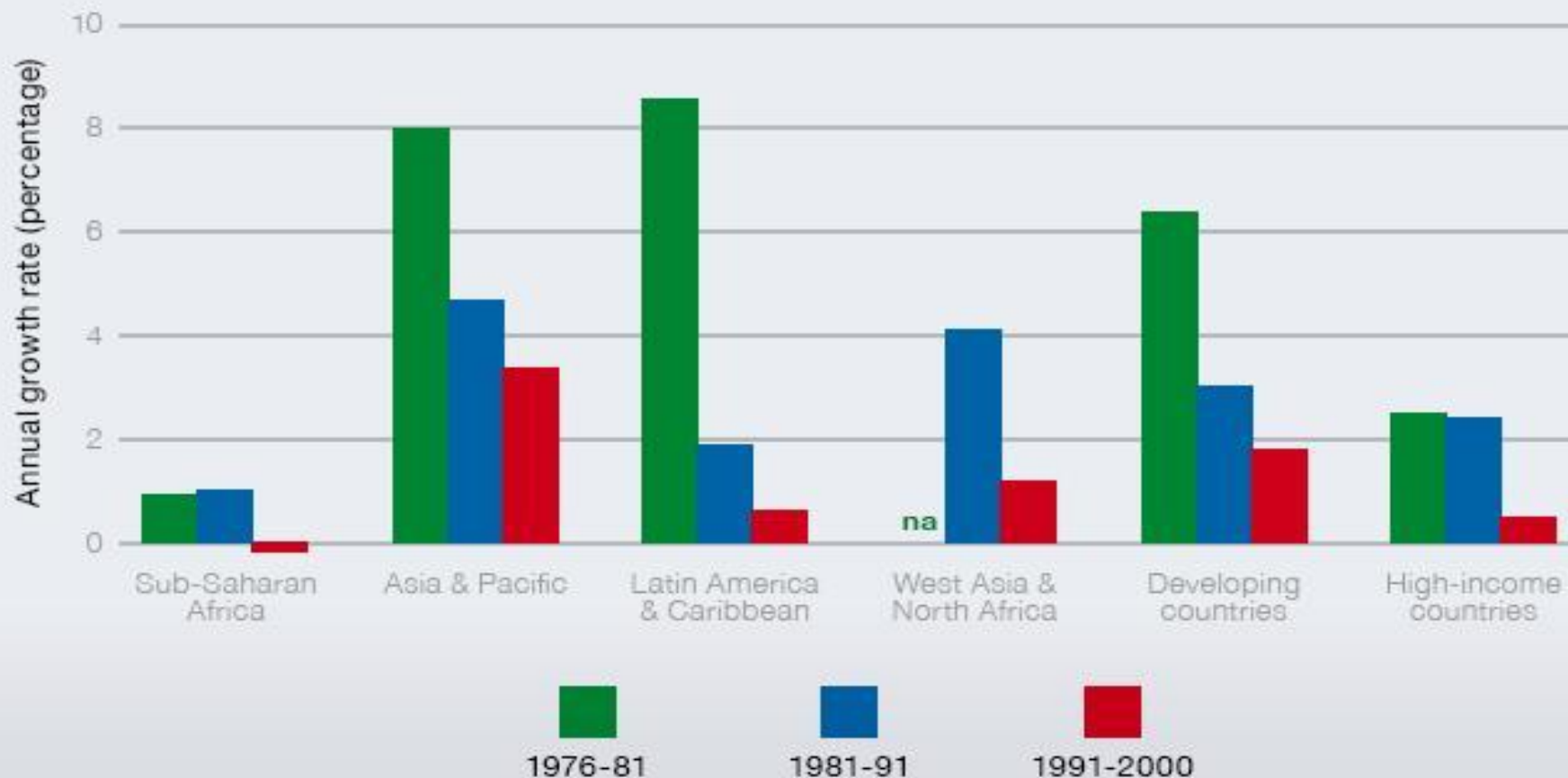
Growth rate, percent per year



Source: Bruinsma 2011

Agric R&D expenditure growth slowed sharply from 1976-81 to 1991-2000

Figure 2: Annual growth rates in agricultural R&D, by geographic area



To sum up...

- Region has made good progress in reducing food insecurity and malnutrition
- But big differences remain across sub-regions
- Growing challenges to achieving further reductions in malnutrition and food insecurity
- Role of food and nutrition policy remains critical

Thank you