

Food Security and Sustainable Agriculture: Policy Options

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South Asia in Global Setting

| Variable | Year | Share (%) |
|--------------------------------------------------------|-------------|--------------|
| Gross National Product | 2009 | 2.93 |
| Population | 2009 | 23.14 |
| Land Area | 2009 | 3.68 |
| Arable Land derived | 2009 | 14.24 |
| Poverty (People Living on less than 1.25 a day) | 2005 | 43.38 |
| Prevalence of Under-nutrition derived (million) | 2009 | 36.37 |
| Total Merchandise Export (\$ million) | 2009 | 1.64 |
| Total Merchandise Import (\$ million) | 2009 | 2.57 |

Salient Features of South Asian Economies

| Particular | Reference year | Bangla-desh | India | Nepal | Paki stan | Sri Lanka |
|------------------------------------------------------|----------------|-------------|-------|-------|-----------|-----------|
| Per capita gross national income (\$) | 2009 | 580 | 1220 | 440 | 1000 | 1990 |
| Income rank in the world | 2009 | 189 | 160 | 196 | 171 | 151 |
| Arable Land (ha. Per capita) | 2008 | 0.05 | 0.14 | 0.08 | 0.12 | 0.06 |
| Poverty, people living on less than \$1.25 a day (%) | 2004 -2007 | 49.6 | 41.6 | 55.1 | 22.6 | 7.0 |
| Share of Agriculture in GDP (%) | 2009 | 19 | 18 | 34 | 22 | 13 |
| Workforce in Agriculture | 2006-10 | 48.1 | 56.1 | 65.7 | 45.1 | 32.5 |
| Agriculture value added/worker (2000 \$) | 2009 | 435 | 468 | 238 | 903 | 926 |

Source: World Development Indicators, 2011

Incidence of Hunger and Undernutrition

| Country | Dietary Energy Consumption (Kcal/person/day) | | Prevalence of undernourishment in total population (%) | | Number of undernourished persons (million) | |
|------------------|-------------------------------------------------|-----------|--------------------------------------------------------|-----------|--------------------------------------------|-----------|
| | 1990-1992 | 2006-2008 | 1990-1992 | 2006-2008 | 1990-1992 | 2006-2008 |
| Bangladesh | 1960 | 2270 | 38 | 26 | 44.4 | 41.4 |
| India | 2290 | 2360 | 20 | 19 | 177.0 | 224.6 |
| Nepal | 2190 | 2340 | 21 | 17 | 4.2 | 4.7 |
| Pakistan | 2210 | 2280 | 25 | 25 | 29.5 | 42.8 |
| Sri Lanka | 2170 | 2370 | 28 | 20 | 4.8 | 3.9 |
| South Asia | 2270 | 2360 | 22 | 20 | 267.5 | 330.1 |
| Developing World | 2440 | 2640 | 20 | 15 | 833.2 | 839.4 |
| Total World | 2610 | 2790 | 16 | 13 | 848.4 | 850.0 |

Per Capita Supply of Various Food Items: kg/person in 2007

| Item | India | Bangla-desh | Pakistan | Sri Lanka | Nepal | China | World |
|--------------------------|-------|-------------|----------|-----------|-------|-------|-------|
| Cereals excl. beer | 152.6 | 180.9 | 129.8 | 143.5 | 171.3 | 152.5 | 146.6 |
| Rice (Milled Equivalent) | 70.9 | 159.7 | 14.5 | 97.3 | 78.0 | 76.8 | 52.9 |
| Wheat | 60.2 | 14.7 | 106.1 | 44.1 | 37.9 | 67.4 | 65.9 |
| Pulses + (Total) | 12.9 | 4.8 | 8.1 | 8.0 | 8.4 | 1.3 | 6.5 |
| Vegetables + (Total) | 64.8 | 19.7 | 30.0 | 40.1 | 77.9 | 279.9 | 119.4 |
| Fruits - Excluding Wine | 45.1 | 20.7 | 36.5 | 27.2 | 38.8 | 64.4 | 69 |
| Eggs + (Total) | 2.1 | 1.3 | 2.4 | 2.2 | 1.0 | 17.4 | 8.6 |
| Meat + (Total) | 3.3 | 3.6 | 13.4 | 6.8 | 9.8 | 53.4 | 40.1 |
| Milk - Excluding Butter | 68.7 | 16.2 | 159.0 | 36.1 | 40.9 | 28.7 | 85.1 |
| Sugar (Raw Equivalent) | 17.3 | 5.3 | 23.9 | 24.6 | 4.3 | 8.3 | 20.3 |
| Vegetable Oils + (Total) | 8.2 | 6.2 | 11.5 | 4.1 | 6.8 | 9.4 | 11.4 |

Source: FAOSTAT, Food Balance Sheets

SUSTAINABILITY: CONCERNS

- Shrinking natural resources
- Decline in quality causing decline in capacity
- Competing demand
- Climate change and rising environmental stresses
- Rising sensitivity of output to weather fluctuations

SUSTANABILITY AND DEGRADATION

Ground Water Exploitation (BCM)

| Dynamic resources | Punjab | Haryana | India |
|---------------------------------------------|--------|---------|-------|
| Annual replenishable ground water resources | 23.8 | 9.3 | 433.0 |
| Net annual ground water availability | 21.4 | 8.6 | 399.3 |
| Annual ground water draft | 31.2 | 9.5 | 230.6 |
| Stage of Ground Water Development (%) | 145 | 109 | 58 |

Categorization of administrative units according to status of water, 2004

| Region | Percent Distribution of Assessed Units | | |
|---------|----------------------------------------|----------------|---------------------------|
| | Safe | Over Exploited | Semi-critical or Critical |
| Punjab | 18 | 75 | 7 |
| Haryana | 37 | 49 | 14 |
| India | 71 | 15 | 14 |

GLOBAL AND DOMESTIC FOOD PRODUCTION

- **Demand side**
 - Population growth
 - Dietary diversification, meatification
 - Rise in per capita demand: low level
 - Required growth rate till 2020, 2050: >2.5%
- **Supply side**
 - Widespread deceleration in productivity growth of most staple

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_6218

