

OVERCOMING HUNGER IN SOUTH ASIA

CASE OF SOUTH ASIAN SUPPLY CHAINS

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Overview

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- Regional contradictions
 - Growth
 - Agriculture
 - Safety net programmes
 - Hunger
 - Under-nourishment
 - Evolving food consumption patterns
 - Agribusiness
 - Supermarket led changes: RoW
 - SA: innovative changes
 - Private sector
 - Government

Context

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- Understanding hunger
 - ▣ Food security
 - Multidimensional concept
 - income, prices, political stability, natural hazards /nutrition/hygiene, healthcare
 - Implications for labour productivity, income and food insecurity: vicious cycle
 - The hunger trap
- Holistic supply chain perspective to achieve food security objectives

Context

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- Global debate
 - Hunger-nutrition: new dimensions
 - changing and diverse dietary contexts
 - nutrition security of vulnerable groups
 - evolution of new food security standards
 - monitoring systems
 - New mechanisms to deal with food security concerns
 - Public – private partnerships
 - Varied patterns of food value chains
 - Retail revolution that is changing the way food is produced/
distributed/ graded/ displayed
 - Consequent evolution of necessary backward linkages to the
agriculture sector

Context

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- ▣ Food price crisis of 2007-08
 - Price rise & decline in HH Purchasing power
 - Price volatility
 - Increased fiscal burden
 - Emergency food reserves
 - Export restriction/ ban policies
 - Strategic reserves
 - PDS & Price stability objectives
- ▣ Changing global, regional, national conditions
 - Lifestyle changes
 - Consumption patterns
 - Increasing awareness of health and hygiene standards
 - Climate change

Agriculture sector profile

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Country	2000	2013
Afghanistan	38	24
Bangladesh	24	16
Bhutan	27	17
India	23	18
Maldives	9	4
Nepal	41	35
Pakistan	26	25
Sri Lanka	20	11

Source: WFP, World Bank

Agriculture sector profile

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Agricultural Public Expenditure for Economic Development

	Share of agriculture in total expenditure (%)		
	1980	1995	2012
Afghanistan			4.256*
Bangladesh	13.023	4.932	8.919***
Bhutan	31.855	19.693	11.183***
India	7.179	5.259	6.508*
Nepal	16.394	9.638	8.959
Maldives	8.844	12.068	1.334**
Pakistan	2.135	0.458	2.905
Sri Lanka	5.768	5.285	5.468*

Source: Global Food Policy Report (GFPR), 2015, IFPRI; *: last year of data available for 2011; **: Data for 2010, ***: Data for 2009

Agriculture sector profile

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Country	Employment in Agriculture (% of total employment) (2012)	% of Rural Population 2013
Afghanistan	NA	74
Bangladesh	48(2005)	67
Bhutan	62	63
India	47	68
Maldives	12(2006)	57
Nepal	66(2001)	82
Pakistan	44(2013)	62
Sri Lanka	39	82

Source: WDI, World Bank

Agriculture sector profile

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Arable Land (hectares per person)

Country/year	2000	2012
Afghanistan	0.37	0.26
Bangladesh	0.06	0.05
Bhutan	0.19	0.13
India	0.15	0.13
Maldives	0.01	0.01
Nepal	0.1	0.08
Pakistan	0.15	0.12
Sri Lanka	0.05	0.06

- Agriculture: characterized by small holdings
 - Average size remains < 1 hectare in most economies of the region
 - Average farm size is .06 hectare in Bangladesh, 0,69 in Sri Lanka and .79 in Nepal
 - In India and Pakistan the size is bigger: average: 1.31 hectares for India & 3.1 for Pakistan

AB 1/5/2016

- Further arable land under irrigation <50% in most South Asian countries

Agriculture sector profile

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- Cereal import dependence
 - ▣ Afghanistan, Bangladesh, Nepal
- Value of food imports/ total merchandise exports
 - ▣ In case of Nepal food imports as a percent of total exports have more than doubled since 1990-92 and are 59 per cent in 2009-11 period. For Pakistan the ratio has increased even though it is a low value of 17 per cent
- Food price volatility: 1990 and 2013/2014
- Observed increase in food production variability
 - ▣ reassuring that relatively lower volatility in per capita food ss
 - possibly on a/c of M of food commodities by concerned economies

Agriculture sector profile

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- Agriculture research: low priority for public expenditure in SA
 - ▣ Public agriculture research spending in India was 1092.8 million US \$
 - As against 2970.7 million US \$ in China
 - ▣ Bangladesh spends about 78 million, Pakistan 83.8 million and Sri Lanka 21.6 million and Nepal only 12.4 million only
 - ▣ As a proportion of agriculture GDP: < 50% for all South Asian economies
- This is coupled with low levels of irrigation
 - ▣ low rates of output growth of less than 5 per cent in the last decade and
 - ▣ low productivity gains

Data Source: IFPRI Food Policy Indicators, GFPR, 2015

Food Security

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- No. of undernourished in the world(2012-14): About 805 million people
 - In 1990-92:1000 million
 - Almost all of the under nourished people (790 million) reside in developing countries
 - Of these about 35 % reside in South Asia.
 - 69% of South Asia's poor live in India ; Pakistan : 14% & Bangladesh: about 9 %
 - Little change in these numbers since 2010 (MDG commitments notwithstanding)
- As regards individual countries,
 - No. of undernourished has declined in last 2 decades in all South Asian countries
 - except in Afghanistan and Pakistan where an increase is observed and in Sri Lanka where the number has remained almost constant since 1990-92.
 - Interestingly the number of undernourished has seen the maximum decline for all South Asian countries in the first decade from 1990-92 to 2000-02.
- Extent of undernourishment: depth” of the food deficit
 - In South Asia: Between 1990-92 to 2012-2014:depth of food deficit declined varyingly
 - The decline has been maximum in case of Bangladesh, least for Pakistan and Sri Lanka
 - The depth of food deficit is highest for Sri Lanka in the South Asian region
- Food Inadequacy: declined in all South Asian economies
 - though the decline seems to be the lowest in Pakistan

Food Security

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- Alternatively analysis: IFPRI, GHI 2014
 - significant progress in the fight against hunger
 - Compared with the 1990 score, the 2014 GHI score is 41% lower in South Asia as compared with 28% lower in Africa, south of the Sahara, 40% lower in the Near East and North Africa
- South Asia and Africa south of the Sahara have the highest 2014 GHI scores, at 18.1 and 18.2 respectively
- In absolute terms South Asia registered the steepest absolute decline of more than 12 points in GHI scores since 1990.
 - It is reported that the region reduced its GHI score by 3 points between 1990 and 1995—mainly through a decline of almost 9 percentage points in underweight in children—and then again since 2005, experienced a decrease of more than 5 points in South Asia’s GHI score largely owing to its recent successes in the fight against child under-nutrition
- Bangladesh and India have made noteworthy progress in the value of the GHI index over the last two decades.
- While the three South Asian economies of India, Bangladesh, and Pakistan are in close proximity in the 2014 GHI ranking, Nepal and Sri Lanka are placed at higher ranks with a better performance in terms of lower value of the GHI

Regional Trade

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- Intra-regional trade
- Almost all SAARC countries have a large number of agricultural products included in their sensitive lists for NLDCs as well as LDCs
 - ▣ These range from around 10 per cent in case of Nepal to almost 23 per cent for India and about 50 per cent in case of Sri Lanka.
 - ▣ While India has drastically cut its sensitive list for least developed countries (LDCs) to 25 products, all of these products belong to the agriculture sector
- Delays at the border, trade related physical infrastructure, regional transit
- Politics and security
- 2007 “Agreement on Establishing the SAARC Food Bank

Changing Conditions: Opportunities

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- Sustained economic and income growth,
- Fast growing urban population: youth proportions
- Work patterns
- Increasing integration of global agri-food markets
 - ▣ Fuelling rapid growth in demand for high-value food commodities
 - An opportunity for farmers, especially smallholder farmers to augment their incomes and use surplus family labour in the production of high-value, labour-intensive food commodities
 - Impediments: smallholders'
 - Lack of access to markets for high-value commodities
 - Access to credit, high quality inputs, improved technology, information, and services
 - Providing all these would require close linkages between farmers, processors, traders, and retailers to coordinate supply and demand

Changing conditions: Opportunities

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- Institutions such as cooperatives, producers' associations, and contract farming are important means of linking producers with markets, as well as a source of credit, inputs, technology, information, and services
- However, fears
 - ▣ Smallholders may be excluded from the institution-driven value chains
 - ▣ Agribusiness firms may exploit smallholders by extracting monopsonistic rent in the output market and manipulating the terms and conditions of contracts
- But advantages outweigh disadvantages
- Scope for smallholders to exit agriculture is limited so
- In the situation, far more advantageous to make
 - ▣ efforts to enhance their agricultural income by intensifying or diversifying their production
 - with more remunerative activities like horticulture, dairying, poultry, and fisheries
 - Gestation period
 - Labour intensity
 - Pro women

Value chains in Agriculture

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- A 'value chain' in agriculture identifies the set of actors and activities that bring a basic agricultural product from production in the field to final consumption, where at each stage value is added to the product.
- A value chain can be a vertical linking or a network between various independent business organizations and can involve processing, packaging, storage, transport and distribution
- Traditional agricultural value chains are generally governed through spot market transactions involving a large number of small retailers and producers.
- Modern value chains are characterized by vertical coordination, consolidation of the supply base, agro-industrial processing and use of standards throughout the chain.
- Source: Adapted from FAO, 2005.

Value chains in Agriculture

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- Traditional chains
 - ▣ Independent smallholders
 - ▣ Traditional wholesale market
 - ▣ Small retailers and processors
- Cooperatives/large farmers/lead farmers
 - ▣ Formalized procurement system
 - ▣ Specialized wholesaler/ specialised exporter
 - ▣ Domestic supermarket and processors/exported
 - ▣ Domestic organised chains/ organised export chains

Government Intervention

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- At all stages of the value chain
 - In procurement
 - Price setting
 - Grain stock/ storage and
 - Distribution and marketing of major consumption commodities
 - Inefficient markets: market distortions
 - Private participation is naturally eliminated from the process
 - Prevented the efficient functioning and/or
 - Evolution of the food value chain in the region

India

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- Different formats of contract farming
 - Government, cooperatives, corporate houses and multinational corporations (MNCs)
- Dairy industry
 - Nestle India
 - Intermediate contracts: agent
- Vegetable industry
 - MDFVL: organised retail chain
 - Dispersed production
 - Firms may have to incur high transaction costs if procure from scattered producers
 - So MDVFL promotes growers' association
- Poultry: Broiler industry
 - Venkateshwara Hatcheries Limited (VHL)
- Food value chain
 - McCain Foods that supplies French fries to McDonalds
 - Amul Cooperative: direct link between milk producers and consumers
 - Elimination of all middlemen
- ITC e Chaupal
- Reliance Fresh

India

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- However
 - Slow pace of integration of value chain segments
 - Many independent segments
 - Limited to few commodities
 - Small scale
 - Information flow

Nepal

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- Agro processing and enterprises in niche areas
 - Fruits, vegetables and high value products like medicinal herbs and essential oils
 - The Medicinal Plants Project of Dabur
 - Company provides saplings to farmers (routed through local community development agencies) and the plant produce is bought by Dabur Nepal at prevailing market prices
 - Dabur Nepal also has another model of lease cultivation
 - The farmer provides land and irrigation, the company undertakes the planting, the costs are deducted from the total value of produce and the balance is divided with the farmer's share being 50 per cent of the net returns
- The missing elements in value chain establishment
 - Availability of funds and information on market developments for the farmers
 - To adapt the generic value chain to terrain (mountain and hilly) specificities
 - Specific geography though also has the potential to produce niche products but linkages with markets would need to be established

Sri Lanka

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- Cases of vertically integrated chains
 - Large plantation owners lease out their land and then sell their produce as private exporters to international chains
 - Sale of bulk tea and spices in auctions is classified as weak value chains
 - Little buyer-supplier contact and transfer of information/ knowledge in agri-business
- Plenty Foods: A unique model to integrate smallholder farmers in its core supply chain.
 - It has contractual agreements with its outgrower network of small farmers across Sri Lanka
 - The company provides farmers with technical and business services as well as a guaranteed price at market value or contract price whichever is higher
 - The model underwent a refinement with the joining in of the NGO Oxfam
 - Instead of individual farmers the company started working with farmers' groups or lead farmers and assisted them with finance, insurance, seeds, research, technology as also service providers in relevant fields.
 - Over time Oxfam helped Plenty Foods and farmers identify specific commodities with potential for profit
- Value Chains: of a fragmented nature