South Asia in recent years, barring a few exceptions, has experienced rapid economic growth and propelled millions out of poverty. Despite the dynamic economic growth, the region is still home to the largest concentration of poor and undernourished people. Owing to the underlying structural transformation of South Asian economies from largely agrarian towards service based, the relative importance of agriculture in terms of the sector’s contribution to the regional economy has consistently undergone a decline in the past decade. With this, the services sector has emerged as the dominant sector in South Asia’s growth process. Nonetheless, the agriculture sector continues to be very important in terms of employment and agricultural population density. In other words, agriculture is still fundamental for poverty reduction, economic growth and food security in South Asia.

In spite of the importance of the agriculture sector, public agricultural expenditure has either been stagnant or declined throughout the region. In turn, South Asia’s agriculture sector has not shown any significant productivity gains. High agriculture dependence, low productivity and under-investment in agriculture, coupled with widespread poverty and the threat of climate change have made South Asia one of the

The current state of food security in South Asia and the existing inefficiencies along the food supply chains calls for increased involvement of the private sector.
most food insecure regions in the world. This is despite that the value of agricultural production has largely been positive in South Asia, with the exception of Afghanistan and the Maldives. Moreover, South Asian countries continue to engage in international and intra-regional agricultural trade to meet the ever increasing demand for food and to mitigate the impact of any volatility in food production which can threaten economic growth and exaggerate the existing level of regional food insecurity. But increased agricultural imports amid sluggish growth of the agriculture sector has made the region increasingly dependent on food imports, making the region susceptible to external shocks and vulnerable to food insecurity.

Trade for food security

Trade—as an instrument for food security—will only be successful if importing countries do not impose protectionist measures. Sadly, such is not the case in South Asia, where several agriculture commodities exported by South Asian countries are listed under the sensitive list maintained by regional members under the Agreement on South Asian Free Trade Area (SAFTA). Moreover, while the pursuit of trade liberalization has led to overall decrease in tariffs, applied tariffs on agricultural goods continue to remain high within the region. More importantly, South Asian governments have resorted to export restrictions to combat domestic food inflation which has led to disruption of food supply and increased food price volatility in food import dependent countries, both of which have major food security implications. Such was the fate of Bangladesh in 2007, when India increased minimum export price for rice and introduced new restrictions on rice export to control domestic food inflation during the global food rice crisis of 2007-2008. Overdependence on food imports and the increasing global food price volatility has consequently highlighted the utility of emergency food reserves and social safety nets.

Food Supply Chain and food security

Despite adequate food availability at the national and regional level, South Asian countries continue to be plagued by persistent food insecurity largely due to the absence of efficient food supply chains. Understanding how food supply chains can most effectively contribute to food security remains a critical question. Effective and efficient food supply chains are, in the case of South Asia, as important as the agriculture sector in ensuring food security, largely because food supply chains connect three important sectors, namely the agriculture sector, processing industry and distribution sectors (wholesale and retail). Thus, it is important to explore the efficiency of existing food supply chains in the region that are responsible for getting the food from the field to our plates.

Regional food supply chains

Sadly, regional food supply chains are characterized by heavy government involvement and widespread inefficiencies. All South Asian countries have established a public distribution system (PDS) to oversee the distribution of staple foodgrains at below market prices to ensure food security. Under the PDS, the government procures foodgrains from the farmers at pre-determined price and subsequently makes the procured foodgrains available to the consumers, target groups in particular, at subsidized rate though PDS shops. But owing to the differences between the price of foodgrains in PDS shops and the open market, the subsidized foodgrains often make it to the open market, resulting in leakages. In fact in India, close to 50 percent of PDS foodgrains are lost from the PDS outlets to free market. Similarly in Bangladesh, food loss is also reported due to spillage and pilferage during the importation and handling of foodgrains caused, often, by manifold agencies involved.

Moreover, the volume of foodgrains procured by the government is greater than the distributional requirement owing to rising minimum support prices (MSPs) and the declining difference between the government’s procurement prices and MSPs. For instance, the level of public foodgrain stock maintained by the Food Corporation of India (FCI) was close to 65.3 million tonnes at the beginning of July 2014, which is more than double the existing buffer stock requirement. But large quantities of public foodgrains in government warehouses are reported to be left rotting due to lack of sufficient storage capacity and efficient storage techniques. Additionally, poor inventory management throughout the region has led to the procurement and distribution of poor quality foodgrains by the government. At the same time, food-based safety net programmes in South Asian countries have failed to reach intended beneficiaries. In India, the PDS for subsidized access to foodgrains is reported to have exclusion and inclusion error of 70 percent. The Sri Lanka government phased out the Food Stamp Scheme by 1990s on account of inefficient targeting.

The dismal state of food distribution system in South Asian countries due
to existing inefficiencies throughout the food supply chain is largely a result of institutional weaknesses and sustained involvement of the public sector in all stages of the supply chain, ranging from procurement, price setting, and storage and distribution of major food grains. But the overwhelming government involvement has not only proven to be a costly exercise with many inefficiencies, it has also prevented the development of well-functioning market mechanisms and more importantly acted as a disincentive for private sector involvement.

Dynamic food supply chains

The world today is experiencing various socio-economic changes that are redefining the contours of food security debate, and South Asia is no exception. Rapid urbanization, evolving demographic profiles and lifestyle changes have led to dynamic consumption patterns with increased food quality standards calls for increased involvement of the private sector. Public-private partnerships are now the new norm in achieving food security objectives. In turn, existing agri-food systems are undergoing rapid transformations and the emergence of integrated food supply chains are already a visible market phenomenon throughout the region.

The introduction of new integrated models of food supply chain has brought forth the significance of flow of information across the various stages of the supply chains. Concomitantly, knowledge based and inclusive supply chain participation is now a major characteristic of the evolving food supply chains. But in South Asia, most of supply chain components—input supply, food production, processing, sales and distribution—are not coordinated nor integrated, particularly in terms of flow of information. The majority of smallholder farmers in South Asia lack the resources and information necessary to gain access to the market and to participate in the supply chains.

Public-private partnerships are now the new norm in achieving food security objectives.

Private sector and supply chain management

Alternative models of efficient supply chains and vertically integrated agri-businesses, largely led by the private sector, are now emerging all over South Asia as new tools to promote the access of smallholder farmers to markets. Contract farming is one such model that assures the procurement of agricultural products produced by smallholder farmers at competitive prices.

In India, McCain Foods Ltd. has been implementing contract farming to supply French Fries to McDonalds since the 1990s. In order to meet the exact specification of potatoes for a perfect product, McCain Foods—one of the largest supplies of potato-based products, established backward linkages throughout the supply chain, including seed supply, quality control, storage, processing, farmer training and the introduction of best agronomy practices. McCain agronomists continue to work closely with farmers, which has translated into tangible improvements both in terms of crop quality and yield. However, it is necessary to ensure that the conditions that are stipulated in a contract farming agreement are not detrimental to the interest of either partner. Reliance Fresh is another private sector company in India, which established direct linkages with farmers bypassing middlemen, and invested in making new seed varieties, modern technologies and necessary raw materials available to the farmers.

Another private company, Dabur Nepal Pvt. Ltd. works directly with farmers in Nepal by providing seeds/saplings of medicinal plants and also provides technical assistance for cultivation and processing of those plants which are later bought by the Company at prevailing market prices. In addition, the company also follows another model of lease cultivation wherein the company takes the land on lease from the farmers and undertakes the responsibility of planting and processing the plants, while providing farmers adequate net returns. In Sri Lanka, Plenty Foods Pvt. Ltd. has also developed a vertically integrated supply chain, and works with farmers’ groups and assists them with finance and other inputs, but more importantly guarantees them maximum price (market or contract price).

Despite these private sector initiatives, changes in supply chain integration are highly limited in South Asia. The different components of the supply chains continue to operate independently without much coordination and flow of information. In India, the agriculture sector continues to be dominated by smallholder farmers with low purchasing power and limited market access. The same is true for other South Asian countries, where existing supply chains are riddled with inefficiencies and weaknesses such as highly limited transfer of knowledge, high involvement of middlemen, inability to maintain food quality and safety standards, and high transport costs, among others.

Nonetheless, the rise of innovative and efficient supply chain models in the region will prove to be of much value when designing new policies and regulations to improve existing supply chains, and
fostering a better environment to facilitate the growth of integrated and efficient supply chains. Improvements in the food supply chain can provide farmers with fairer prices, and help increase food security by distributing food with minimum wastage. Moreover, such improvements can also reduce transfer costs such as those incurred for transport, storage and logistics, which will in turn be reflected in the final consumer prices.

**Improving food supply chains for food security**

The current state of food security in South Asia and the existing inefficiencies along the food supply chains, particularly in national food distribution system, calls for increased involvement of the private sector in the various stages of supply chains throughout the region. In this regard, the government should undertake the following initiatives:

- Conduct cost-benefit analysis of private sector’s involvement in the food supply chain, and subsequently work to diagnose the constraints faced by private sector participants in working to ensure greater food security in the region.\(^{19}\)
- Widen space and incentives for increased participation of the private sector in the food supply chains.
- Prioritize sound management and maintenance of market-oriented agricultural infrastructure. Focus should be on improving transport and communication infrastructure to connect farmers to the market, ensuring the implementation of good management practices (GMPs) and good agricultural practices (GAPs), and minimizing public sector led market interventions, among others.
- Reverse the current trend of declining investment in agriculture development by enlisting private sector’s assistance.
- Adopt better monitoring techniques and enforce measures towards ensuring that food quality and standards are strictly maintained throughout the various stages of food supply chains.
- Develop appropriate land/labour laws and regulations to encourage the private sector, without neglecting the possible impact of such laws and regulations on smallholder farmers and other small stakeholders. In this context, urgent efforts are required to protect land and forest rights, end forcible land acquisitions and support agro-ecologically sustainable agriculture.
- Identify support mechanism to minimize the exclusion of smallholder farmers and other supply chain participants from the national food supply chains.\(^{21}\)
- Work with the private sector to ensure that existing and future supply chain models are more inclusive and enhance the decision making role of all participants and stakeholders active on the supply chain.\(\)