

Feature Article



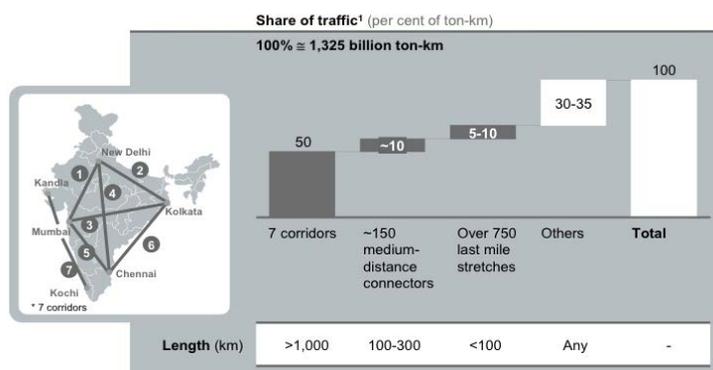
Click to view Pawanexh Kohli's presentation

INDIA Cold Chain Logistics

Exhibit 1

Three key components of the logistics network account for over two-thirds of total freight traffic in the country

■ Key elements



¹ Share estimated for 2007

SOURCE: McKinsey

No one can deny that India's food industry is undergoing massive transition alongside its intention of being a major player in the global supply of food. In order to achieve this goal, policy makers are looking across the board at the daunting task at hand whilst recognising the need to also bring the agriculture sector in to the 21st century.

Yet it does not matter how good a product is, or how sophisticated or productive an agricultural area is, if a farmer or manufacturer cannot get the product to market or on the retail shelf, all their efforts are in vain.

Currently the progress within the food industry is quite uneven. The ever growing middle class with their specific demands, domestic and international food companies all wishing to meet these needs, the regulatory agencies making massive strides towards a complete overhaul of the food industry is all coupled to the logistics infrastructure already pushed to the limits.

India is one of the largest agricultural producers in the world. Horticulture, as a subset of agriculture, takes up 23 million hectares (57 million acres) of land or 15% of total area under agriculture.

Although only using 15% of land area, horticulture accounts for over 35% of agriculture's contribution to GDP. Horticulture alone provided over 265 million metric tons to the food basket in 2012, up from 257 million metric tons in the previous year. The top ranking products are mangos, bananas, papayas, sapota, pomegranates, amla (India gooseberry), areca nut (betel nut), okra and peas.

In the last five years, the horticultural sector has registered an annual growth rate of 6% in production against the annual population growth rate of 1.3%

Other statics are equally impressive. India is the world's largest beef exporter, and has 17% of global milk production (currently worth US\$60 billion with confectionary and ice-cream valued at \$2.5 billion). This is together with the Indian pharmaceutical sector which, by global standards, is the third largest in terms of volume and stands 14th in terms of value, as of 2010.

Despite all the growth, reports indicate (with accurate statistics difficult to obtain) that between 20-40% of all produce grown in India spoils before reaching consumers And these very consumers are driving the most talked about and deeply debated topic – retail. The middle class with their higher

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incomes and access to easy credit are not only looking for quality products but also are more hygiene and health conscious, more open to new tastes, getting more global in their demands.

Servicing the retail sector, and including food outlets in this scenario, has not only put logistics under pressure, but stretched cold chain far beyond current capacity. As of last recorded national data, India has 6,488 cold storage units with an installed capacity of approximately 30 million metric tons.

Cold chain storage is just a small part of the problem. Currently there are only 8,000 reefer trucks that delivers all the products requiring cold chain around the entire country. Conversely, the success of the milk sector can be attributed to the presence of almost 25,000 insulated milk carrying vehicles that service the collection centres and fresh milk delivery logistics.

The per annum domestic movement of chilled and frozen product is around 50,000 tons of frozen potatoes (french fries), 3.4 million tons of meat, 110,000 tons of frozen vegetables, 300,000 tons of fresh product, and all this excludes the 135,000 tons of imports and 47,000 tons of exports.

If only the lack of reefer trucks was the problem. Consider the route between Delhi to Bangalore, a distance of 2,140 kilometres (1,330 miles) takes up to 9 days. The implications are that an inter-city haulage needs to be handled with protocols much like the sea shipment between Singapore and Dubai! So what are the solutions?

Progress is being made and, to repeat the obvious, demand will outpace development for some time. Whilst the earlier development focus was on cold storage, that focus has now changed to the actual distribution requirement. Perhaps the better news is the coordinating agency set up by the government on recommendation from industry is made up of both government and industry participants.

This umbrella body, India's National Centre of Cold-chain Development (NCCD) has appointed an industry leader, Pawanexh Kohli as their Chief Advisor. In a recent interview with Pawanexh who commented that besides distribution, if India's fresh produce sector is to gain from a cold supply chain, the base production units also need to be developed.

The large cold storage capacity is in reality a middle link in the cold-chain as they service goods that already originate in the cold-chain. The slower development of associated production units like pack-houses with pre-coolers and food processing units, leaves the cold storages to largely service ice-creams, meats and imported fresh produce (since they arrive from within the cold-chain).

The domestic produce does not originate in the cold-chain and hence are not catered to in the existing storage infrastructure. "This cannot continue as this is the root of all the wastage that we need to curtail" says Pawanexh.

The Mega Food Park Scheme (MFP) is one such initiative targeting the set up of processing facilities, that has had some limited success. The idea behind the Mega Food Parks is to set up strategic logistics hub with designated spots for dairy, meat, fruit, vegetables, grains etc, where companies share common infrastructure, common waste, effluence etc, servicing all food processors.



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The size of land mandated, to set up a MFP with government support, is also quite substantial at between 50 - 100 hectares of land, as this can restrict some more practical locations. At this stage 22 MFP's have been sanctioned, three are operational and, according to a source, four may be poorly located by the promoters as the parcel of land available did not lend itself to the best possible location.

There has also been a mixed reaction with some logistic companies simply not interested in the idea of being bundled in with other firms all sharing the same infrastructure. In other projects, the shared infrastructure and lower cost has appealed to many. The surrounding cachement of agricultural produce might well be the main deciding factor.

It is relatively easy to identify the shortcomings of the logistic industry, and in particular the cold chain sector. The real question is what does it mean to companies wishing to enter the Indian market requiring cold chain?

For those companies entering the Indian market requiring cold chain, Pawanexh advises

1. Clear identification of source and market, the user base and the consumer base.
2. Understanding capacity utilisation and reverse haulage options.
3. Allocating infrastructure and other resources to strategically develop identified lanes.
4. Ensuring that focus is not just on market capture but also maintaining presence in new developments and the expanding consumer base. Rural India is vastly spread and fast becoming the new middle class consumer base.
5. Innovation in service models and technology applications. Like all developing nations, the dynamism is high and the opportunity exists to create futuristic brands.
6. The back end or farm-gate development is where the vacuum is the most. This presents the greatest scope to launch food labels, both in the fresh and processed segments.
7. Since integrated cold chains are still nascent, sustained training of operational staff and the selection of leadership that can apply themselves to strategic targets is also important.
8. This lack of integration stems from single bodied entrepreneurs having set up individual activities in the cold-chain. This too is an opportunity, to consolidate existing infrastructure into a single chain of custody. Some signs of consolidation are already evidenced in this sector.

India presents an awfully immense opportunity, not just because of its large and growing consumer base, but it can be a source for many developed markets. To add to this opportunity, are the various fiscal and facilitating schemes by the Indian government. All factors tend to point to a hastening in the cold-chain in India - we will continue to watch this space for exciting developments.

Asian Food Regulation Information Service would like to thank Koelnmesse, organisers of ThaiFex and the associated conference on Cold Chain Pawanexh Kohli is founder of [CrossTree](#): Strategy & Technical Advisors for Logistics, Infrastructure and Cold Chain.

Images: [The Hindu Business Online](#) / [Tirupati Motors](#)

