Cold Chain scenario in India

[19-October-2013] **-Pawanexh Kohli**

What is the Cold Chain and what is its importance for the Agriculture sector? What is the overall scenario of Cold Chain in India? What are the challenges before us, where we stand in comparison to other developed countries? What kind of technological & infrastructural and knowledge up gradation logistic companies need to do to meet the demand of goods in the future? What are the challenges do you see in front of logistic companies to reach the rural areas and how can it be tackled? Wal-Mart has parted itself from Bharti very recently, how will it affect the India's retail and supply chain industry and its infrastructure? What is NCCD doing and its future goal?

A series of questions thrown my end, with some quick responses in revert.

Cold-chain is a series of interlinked chain of activities that link perishable goods from source point to destination. Inherently cold-chain **must involve** a **market linkage** and a **product life cycle matrix**.

Any single activity component when referred to in isolation, for example cold storage or refrigerated transport, should not be misunderstood as the cold-chain. It is only an integration of various such components that leads to a market destination. Cold-chain should be viewed as **a temperature controlled supply chain and not just inventory in cold storage**.

In agriculture this chain of activities, specially since it counters perishability and enables connect to distant buying markets, makes it of utmost importance to this sector. Most importantly, the Cold-chain can empower the producers by extending short product life cycles and thereby allowing them to cover longer distances to reach more favourable buying markets.

Since cold-chain counters perishability and provides mobility, it can therefore **free the farmers from their traditional monopolistic buying locality** and **opens opportunity to link to them with buyers across longer distances**. In my opinion, the cold-chain is the only tool that will allow our farmers the option to have a choice in their selling!

In India, cold-chain has been mistaken largely to mean temperature controlled storage, with large capacities having been developed. The associated back end initiators of the cold-chain in form of pack houses with pre-coolers and the middle link in form of transport capacities have not been developed in accordance. In this situation since we have not amply developed these critical components, we have not built cold chains effectively. In horticulture, our produce does not even have opportunity to enter the cold-chain, or the lack of connectivity options enforce excursions and hence failure in operations.

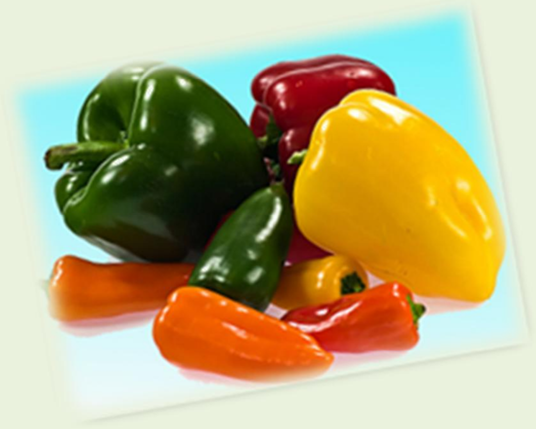
On the other hand, the cold-chain as it exists, has been successful where production points were initially taken care of – for example dairy, meats, vaccines. We are today the largest market for milk products, the largest exporters of beef and have eradicated polio, all thanks to cold-chain. In these examples, the product is properly initiated into the cold-chain and the market of end destination is properly connected in an integrated fashion.

In the fresh produce sector, since there are minimal precoolers and packhouses, the produce has no opportunity to take advantage of the market linkage that cold-chain can bring. Hence a farmer has no option but to dispose of his produce quickly and locally. Without having a chance to feed his produce into the cold chain, he is left to the mercy of the existing multi-layered mechanism.

If the right tools were available at farm-gate, the fresh produce would have been prepared to use the cold-chain conduit to safely transit longer distances into more favourable buying markets.

Strictly speaking, there are no special regulatory challenges in India for this sector. It has the maximum facilitation and the highest development focus from the government. The challenge is to break the past misconceptions about cold-chain. These arose from a narrow understanding that cold-chains were meant to cross seasons, biding time for the right opportune moment to sell.

As more and more entrepreneurs understand that the real opportunity offered by cold-chain is not about timing markets but crossing distances to reach markets, **not waiting to sell locally at a later date but opening a conduit into new selling grounds**… there will be faster development in the cold-chain. In more developed countries, this latter is well understood and applied. An inherent challenge is reverse haulage, but this too has various solution options.



The Choices are Multiple

Food will always be in demand, will normally be subject to perishability, will have increasingly more compliance concerns, will be sourced at multiple points and will be destined for nodal consumption points (urban clusters). The Logistics companies must plan to become multi-disciplinary, should cover a range of market linked activities and own appropriate assets to meet the demand, thereby ensuring their own earnings in perpetuity.

Since the food supply chain needs to be in motion, it will also be an energy guzzler. I would suggest that service providers develop and focus on energy efficient technologies, improved traceability, effective network designs and food specific performance metrics. Lastly, they must build capacity that is not restricted to single product types but allows them to strategically expand their service basket across a range of product types. Typically, there are very few retailers who understand or care about the backend, and it is really **the logistics sector that can manage backend tasks the best!** They must take advantage of favourable government policies, unending demand for food and find opportunity to build brands unto themselves. Alternately the producers could be developed to manage the logistics involved. Farmer producer organisations would be well placed to do so.

With increasing focus from large corporates to sell into rural India – *they mostly see rural areas as a growing consumption market* – reverse haulage of goods into rural areas is opening up. Maybe not so much within the cold-chain yet various strategies can be worked out. In fact, by viewing rural areas as both source and as destination, the flow of goods and demand patterns is overpowering. For example, a pack-house with precoolers which is source of fresh produce can also be destination for our public health services; the reefer vehicle that transports fruits and vegetables can back haul dry FMCG goods. Matching commercials with capacity will be a challenge, though I see that pressure also easing in coming years.

The parting between Bharti and Walmart is not truly going to impact much on our development. In fact I suspect this may trigger greater participation and competition in our food supply chain, more Indian enterprises will be set up. The presence or non-presence of any one marketer is not going to change the basic essence of the story, which is our population's demand patterns and associated growth. This core fact has to be leveraged by strategists & planners, and **these fundamentals will not change**. The scope is huge and no one entity can make a perceptible difference in this entirety.

NCCD has been fulfilling its core mandate, which was initially to serve as a think tank, to guide and advise the government on policy matters and it has provided inputs to help shape the assistance patterns and direction for the next five years. At the same time NCCD also took occasion to widen the scope of stakeholder interactions in this industry. In doing so, the cold-chain is now better perceived as a conduit or pipeline for flow of perishable goods, which involves producers, storage, transport, production points, packaging, environment control, traceability, trackability and technology. Today, stakeholders from all these sectors as well as various resource institutions interact with us. In the coming year, we intend to increase our interface with allied stakeholders and facilitate their plans.

Our developmental aim would have been served if in the future, we will have opened more options for the farmers and improved their outreach to markets, have helped to bring synergy between the health sector and food sector, have helped unify the cold-chain policy of India and have contributed to our food security.

Personally, I envision our country developing increasing **interdependency and interlaced with cold-chain**. I also wonder how many of you would happen to think the same…

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