



Pawanexh Kohli

COLD CHAIN CAN EMPOWER PRODUCERS

Pawanexh Kohli, Chief Advisor to the National Centre for Cold Chain Development (NCCD) talks about a range of issues related to cold chain management in an interview with **R&M**.

What is the importance cold chain for the Agriculture sector?

In agriculture, cold chain 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.

Cold chain also provides mobility, it can therefore free the farmers from their traditional monopolistic buying locality and opens opportunity to link them with buyers across longer distances.

What is the overall scenario of Cold Chain in India?

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. We are today the largest market for milk products, the largest exporters of beef and have eradicated polio, all thanks to cold-chain. 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 pre-coolers 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.

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What are major challenges?

There are no special regulatory challenges. It has the maximum facilitation and the highest development focus from the government. The challenge is to break the past misconceptions on 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 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.

What is NCCD doing and its future goal?

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. 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 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. **R&M**

GEARING UP FOR FUTURE

IN-DEPTH ANALYSIS OF INDIA'S SUPPLY CHAIN

Indian farmers harvest record produce while rural people also need consumer goods at their doorstep. It needs sufficient transportation and warehousing of goods in both ways. To meet this demand logistic and warehousing companies are gearing up themselves. **Mohd Mustaquim** reports on the growth and challenges of the sector.

India's farm output during 2011-12 reached a record 252 million tonnes. Additionally, the country produces around 200 million tones of fruits and vegetables every year. On the other hand, according to a Crisil report, during 2009-10 and 2011-12, consumer spending in rural India touched a record high at Rs 3,75,000 Crore, significantly higher than Rs 2,99,400 Crore spent by urban consumers.

These figures show how India's economy shifting towards rural terrains and driven by rural people. The strong consumers base of 840 million people shows the future direction of India's economy as it is going to be rural centric in the future.

THE DEMAND

The high farm output and increasing consumer demand in the hinterland require a strong storage and supply chain network of goods. Food Corporation of India and Central Warehousing Corporation with some private sector firms like National Collateral Management Ltd are playing key role in providing warehousing facilities to the food grains.

However, the country still faces shortage of warehousing capacity. According to an Assocham report, around 35-40 per cent of fruits and vegetables are wasted annually. The same happens with foodgrains in the country.

CHALLENGES

According to BK Pal, a member of



India has around 23 million tonnes of cold storage facilities where as the country currently needs at least 9-10 million tonnes more of capacity

Warehousing Development and Regulatory Authority (WDRA), warehousing infrastructure development faces multiple hurdles as it is high capital intensive, loans are not available easily, taxation and other finan-

cial benefits are not encouraging.

Moreover, according to P Alli Rani, director (finance), Container Corporation of India (CONCOR), availability of land and good transportation connectivity are also the major challenges in developing the warehousing infrastructure. She seeks land on subsidise rates for building warehouses. She further added, "The capital intensive functioning of cold chains sometimes stops functioning, there are many cold chains have been shut down its functioning due their operational cost. Farmers cannot afford all the cost so the operational cost also be subsidised by the Government."



According to Dinesh Rai, chairman of WDRA, farmers are reluctant in storing their produce in the big warehouses. Therefore, when we gives registration to a new warehouse, we run farmers' awareness programme and gives focus on farmers' co-operative to run the warehouses. Currently, 10,000 big warehouses are available in the villages under Rural Warehousing Project, where we also run training programmes for warehousing entrepreneurs.

COLD CHAINS

According to an Assocham report, currently India has approximately 23 million tonnes of cold storage facilities where as the country currently needs at least 9-10 million tonnes more of capacity. The report says, fruits and vegetables of around Rs 100,000 Crore are wasted every year due to lack of cold chains.

Defining the cold chain and its importance for agriculture, chief advisor of National Centre for Cold Chain Development, Pawanexh Kohli, said, "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."

"In agriculture this chain of activities, especially since it counters



Prof. Nalin Jain
International Management Institute

LOGISTIC FIRMS SHOULD APPLY CROSS-DOCKING

Prof. Nalin Jain talks on supply chain infrastructure:

What is the current scenario of gearing up by the logistic companies for the future?

They do not upgrade their capacity strategically. There are only few companies doing this for their supply chain network strategically. The growth of retail sector is not taking place on the rate it should be. Once the growth takes place, then there will be supply chain integration with agricultural sector in the rural areas. It would have sustainable business opportunities for the companies. The distributions network has to be expanding in the rural India. That would come from the retail end. Rural India is headed to increase in number outlets and wholeselling points in the future. There is a need to empower and organise the retails stores in the hinterlands of the country.

There has been a debate on developing retail infrastructure in India. Whether it should be developed by the Government or by the private sector?

If a private company develops infrastructure, it will be for their vested interests only. The sustenance of the infrastructure involves a lot of maintenance which would need constant investment which may not be done by the private sector. The sustainable development can only be done by the Government or by a body, which looks after the holistic development. The Government should form an apex body, which

should look after the entire infrastructure whether it is warehousing, railway transportation, road transportation and other tools.

What kind of technological, infrastructural and knowledge upgradation logistic companies need to meet the demand of goods?

As far as technological upgradation is concerned, the internet and mobile penetration have increased. Therefore, it can be a good platform for data interchange within the supply chain. That can enable supply chain companies to be connected to the final outlets and data inter-exchange.

The major innovations are coming toady on the form of optimisation of the payloads. Indian companies can adopt cross-docking, which is used by Walmart. It is different from hub-and-spoke model, used by India's supply chain industry. If a consignment is sent to a hub, the truck may collect another consignment from a middle point. It is cross-docking.

Walmart has parted itself from Bharti very recently, how will it affect India's retail and supply chain industry?

It will have a mixed affect on retail infrastructure. Now they would have independent operational stores. It also would not give a good signal to the other FDIs in the retail. If a foreign company is going to operate on its own, it may not be successful to create an infrastructure without getting help from an Indian partner. It also raises question on the strategy of Walmart in India. R&M



perishability and enables to 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”, he added.

INFRA DEVELOPMENT

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.

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 pre-coolers, which



Nitesh Prasad,
Sr. Supply Chain Professional

WE NEED STRONG SUPPLY CHAIN

ple if we have a regional or mother warehouse in Bhuvneshwar for East then a state ware house would be required at Guwahati, Kolkata, Ranchi and Patna and for firms selling inverters for instance would require around 1000 to 2000 Sq.Ft. Manufacturing firms are following this model now to strengthen their supply chains for rural areas. For West zone Pune and Ahmadabad emerge as favourite centre for regional warehouse for companies as they easily cover western states.

For South Bangaluru and Hyderabad remain preferable. Secondary distribution is yet another critical area for supply chain management. Here firms need to reach every nook and corner in rural areas. Firms set up around 500 sq feet warehouse at district towns and make quick replenishment. For products like salt, cigarette and FMCG products, these district centres play very important role in secondary distribution network. However, we find different consumer behavior in rural areas. R&M

For better coverage of rural markets, we need a very strong supply chain. To any product and services rural markets react differently and that decides the main strategy for supply chain management for such a big market with huge potential. Supply chains exist in both service and manufacturing organizations, although the complexity and structure of the chain may vary greatly from industry to industry, firm to firm and product to product. Quick replenishment is the key to avoid demand-supply gap.

For a better supply chain management firms have started setting up regional warehouses which may have area around 5-6 lakh square feet and then a regional warehouse is required in each states. For exam-



Sajay Kaul, MD & CEO, NCML

PRIVATE SECTOR TO EXPAND STORAGE CAPACITY

National Collateral Management Services Ltd MD speaks on warehousing infrastructure:

India lacks facilities and during Monsoon foodgrains are wasted, what measures need to be taken for improving our warehousing capacity?

Initiatives have been taken by the Government to bridge the warehousing gap in the country. For meeting the storage gap (estimated at 20 million MT) for meeting the requirement of the new Food Security Legislation the FCI has been implementing the 10 year guarantee scheme under which the FCI is facilitating the private sector to build

15 mn MT of storage capacity. Of this over 5.5 million MT has already been built and the balance is at various stages of contracting and construction.

To meet the requirement of the private sector, Companies like NCML has embarked on an ambitious plan for construction of modern warehousing hubs. NCML is

is source of fresh produce, can also be destination for public health services; the reefer vehicle that transports fruits and vegetables can back haul dry FMCG goods.

GEARING UP FOR FUTURE

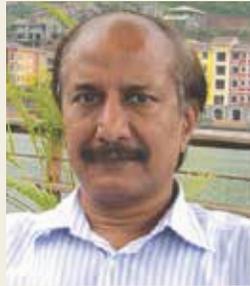
Increasing consumer spending in rural areas needs a concentrated logistics infrastructure. According to Kohli, since the food supply chain needs to be in motion, it will also be an energy guzzler. I would suggest that service providers develop and focus on energy efficient technologies, improved traceability, 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.

Adding that he said, "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."

currently implementing its plan to build large warehousing hubs at 40 major market locations across 12 States to build 3.5 mn Sq.Ft. of capacity at a cost of Rs. 360 crore.

How does NCML play its role in agri procurement and its supply chain?

NCML offers innovative supply chain solutions to its clients that include processors and other end users. These solutions include an integrated package that encompasses direct purchase from farmers, grading and assaying series, storage



Ashok Kumar
COO, GATI-KWE

Kindly throw some light on your organisation and its services

GATI-KWE is an express logistic company. It has presences in all the districts of the India except two districts. It has the largest reach even in the remotest areas of India. The logistic company has got advancement in its delivery system even in the remotest parts of the country. We have adopted advance information technologies to upgrade our delivery system. We run global positioning system (GPS) enabled trucks so that they can be traced easily.

How do you upgrade your services to meet the future demand?

To meet the future demand we are increasing our capacity on regular basis. We are increasing our transportation capacities, getting services from railways and increasing our hubs in the country. Technology will play important role in the future, so we are imparting it our operations in a big man-

and preservation of the produce as well as making available credit for financing the procurement.

As per your opinion, what kinds of improvements, India needs in supply chain infrastructure?

India needs to be radically reform the over regulated and poorly managed APMC mandi yards and permit private initiative to bring in transparency in the price discovery process, introduce grading facilities and treat warehousing hubs as mandis. States should also amend the APMC Acts to permit unified

POOR ROADS ARE THE CHALLENGE

Ashok Kumar, chief operating officer with GATI-KWE, talks on technological advancement.

ner. GATI-KWE has a tracing mechanism on every consignment, which leaves for any destination. Within one hour of delivering of goods, the PODs (proof of delivery) get uploaded on our portal. The customer can easily track his consignment from his own home. We have a strong network of hubs in the country and a customer can easily track his consignment from his home.

GATI-KWE is one of the largest stakeholders in van parcel vans, how many trains does the company run?

We are running more than 30 van parcel trains, comprising over 20 bogies each, in many corridors in the country. The mains corridors are Mumbai-Kolkata, Kolkata-Guwahati and Haldi Road in Uttarkhand to Tughlakabad near Bangalore. It accounts for one third of van parcel trains run by Indian Railways.

What challenges do you face in transportation and how do you tackle them?

The poor roads are the challenge but unfortunately, this is not in our hand. Whenever we find poor roads, we use train services. R&M

pan-State licenses and broaden the participation at the market yards.

NCML is providing weather advisory to the farmers, how does it help them?

NCML has emerged as the largest digital weather data provider in the country through its network of 2074 automatic weather stations. Each year this data is used by 100,000 farmers to insure their crop under the Government's Weather Based Crop Insurance Scheme. R&M



According to Professor Nalin Jain of International Management Institute, as far as technological upgradation is concerned, the internet and mobile penetration have increased in the rural areas. Therefore, it can be a good platform for data interchange within the supply chain. That can enable supply chain companies to be connected to the final outlets.”

The major innovations are coming today on the form of optimisation of the payloads. If a truck goes to multiple locations to deliver the goods, the issue is how to optimise the payloads. Indian companies can adopt cross-docking which is used by Walmart. They send the goods to the hub rather than sending directly to the retailers. However, it is different from hub-and-spoke model, used by India's supply chain industry. If a consignment is sent to a hub, the truck may collect another consignment from a middle point. It is called cross-docking.

In the current scenario, the country needs concentrated efforts to develop warehousing, cold chains and logistics infrastructure. R&M



P Alli Rani

'INDIA NEEDS A MASTER PLAN'

P Alli Rani, Director (Finance) highlights CONCOR's warehousing, cold chain and logistic services.

First, kindly brief us on CONCOR and its role towards logistics and warehousing.

With biggest infrastructure deployment, Container Corporation of India is the largest logistic service provider company. There are two types of warehousing are needed, one is ordinary warehousing and another one is cold chain warehousing. Ordinary warehousing is taken care by Food Corporation of India, Central Warehousing Corporation and other agencies.

CONCOR sets up cold chain infrastructure. We have made a business plan with an investment of Rs 1,300 crore to develop cold chains in three faces. For perishable goods, we have intended to set up cold chain warehousing since the beginning.

What kinds of challenges do you see in front of logistic companies in reaching rural areas?

Availability of land is a major challenge to develop any infrastructure in rural India, then it needs a huge investment. These requirements should be available on subsidise rates. Easy and minimum interest loans should be available for them. Another thing is, they should be given assurance on return on their investment. If they develop any warehouse or cold chain store, it needs good transportation connectivity. These issues need to be taken care of.

The operation of these ventures are also expensive, so subsidy should not

be stopped after the venture is set up. Its operation also needs subsidies.

Do you think the government should come with a master plan to develop the warehouses?

The setting up of warehouses is very expensive. Somehow, it can be afforded by the government. The storage of produce needs land, parking of trucks needs land, so land availability should be the first priority. Then, its connectivity. CONCOR has set up many logistic parks, connected with railways. Storage and connectivity can go with hand in hand. A master plan can be a good thing for increasing warehousing facilities in the country. All state governments have developed their own master plan in this direction. Government cannot run a business. However, it can encourage the corporate houses.

What future upgradation do you see in this sector?

There is lot of technological upgradation taking place, but these are not affordable for companies. Farmers cannot afford those kinds of expensive technologies. If you adopt those kinds of ventures, they will become a loss making project. The technologies need to be adopted as per our own environment. The short-term warehousing facilities are mushrooming, but they will not be fruitful. The perishable products need long term facilities. R&M