

Cold-chain Investments in India

A Projection

2012 – 2017



E: Contact-NCCD@gov.in / NCCD.India@gmail.com

T: 011 – 2306 1595

Office: 645A, Nirman Bhawan, New Delhi 110001
Director: Krishi Bhawan, New Delhi 110001

Total investment projected in cold chains over the next 5/10 years

As per estimates by the National Centre for Cold-chain Development (NCCD), the total investment expected in India's cold chain in the next 5 to 10 years is approximately USD 6 to 10 billion. These estimates are based on the following, basis current costing norms. This investment estimate does not include cost of land and added cold-chain ancillary requirements-

- Current gap in cold storage infrastructure estimated about 40 million metric tonnes
- Estimated investment of \$ 5 billion in storage infrastructure alone; at average cost of \$ 127 per ton capacity for multi-product storage other ancillary infrastructure. The land and other infrastructure would require further \$ 5 billion investment.
- Specialised storage systems like Controlled Atmosphere cold stores would involve a higher investment cost of \$ 580 per ton capacity.
- Further investment would be needed for upgrading technology of existing cold storages, which is estimated at \$ 27 per ton capacity. Such upgradation involves thermal integrity, refrigeration installation, handling systems, etc.
- These cost estimates are linked to norms for minimum design standards as established by the government.
- In refrigerated transport, the capacity is required to grow 3 fold to fully service the existing and more for growing storage capacity. Current estimate of refrigerated transport indicates an available on road capacity of only 3.6 million MT.
- An estimated \$ 1 billion investment will be required for long haul refrigerated transportation. A refrigerated vehicle of 10 ton capacity currently costs \$ 44,000/.
- Each cold storage on an average employs 10 direct employees and approximately 50-100 handlers. Currently we have 6488 cold storages (30.4mill MT), and this is expected to double in capacity in next 5/10 years. This requires added investment for training approximately one million skilled and semi-skilled employees in this sector. An investment of approximately \$ 300 million is projected for this.
- Similar investment will be needed to train refrigerated transport operators and technicians (road and rail). Each road transport employs two drivers, one helper and shared maintenance technical staff.
- Investment will additionally be required in developing farm-gate level packhouses with precoolers as initiators of cold-chain, specifically for horticulture produce. Infrastructure cost for such packhouses with precooling capacity of 15 MT per is about \$ 50,000 per unit. Currently there is negligible capacity available in the country.
- To complete the cold-chain, there is front-end investment required at retail end, both for walk-in buffer storage and vending platforms or shelf space.
- The other investment needs are in testing and certification labs, research and protocol development centres, specialised training centres, transaction based IT network, handling and packaging equipment.

Plans/Strategies of achieving these targets

- Easing of import rules for cold-chain equipment including refrigerated vans.
- Developing FPOs and FIGs and enabling them to develop direct market links.
- Developing improved business models by promoting producer owned supply chains.
- Amendments to APMC aimed at enabling direct market driven supply chains and opening options through alternate market channels.
- Continue extant grants and subsidy schemes for cold-chain infrastructure development and extend the schemes to include the logistics and transport sector.
- Develop multi-modal cold-chain links through rail and highways, aimed at a fast track green corridor for perishables.
- Promote use of Negotiable Warehouse Receipts for notified perishable goods stored in WDRA accredited cold storages.
- Exemption of all cold-chain activities including knowledge dissemination in cold-chain from service tax.
- Promote HRD for all levels of cold-chain; farm-gate aggregation and pre-cooling, storage, transport, handling, packaging.
- Establish produce specific protocols linked with domestic FSSAI and ATP Legislation for the export markets.
- Promote energy efficiency and low carbon imprint technologies and operational processes in the cold-chain.
- Promote development of a national virtual network or grid of cold warehousing and transport available to public lease.
- Establish National Centre for Cold-chain Development (NCCD) as centre of excellence to promote an integrated approach to cold-chain development, spanning agricultural and non-agricultural products.
- Implement recommendations of Dr Saumitra Chaudhari Committee (DSCC) Report, for strengthening supply chains, in XIIth Plan.

The status of tax reliefs and financial incentives

- Basic Custom duty at a nominal 5% for imports specified for cold-chain projects.
- Basic Custom duty Nil for import of Reefer vans and containers.
- 100% FDI through automatic route open for cold-chain.
- ECB route open for cold-chain infrastructure.
- Investment subsidy of 40% for cold chain projects is available.
- Service tax is exempted for storage of agricultural produce in cold storages and warehouses.

- Service tax is exempted for erection, installation or commissioning of cold storage equipment; transport; technical testing and analysis service by state or central certification agencies.
- Deduction of 150% of Capital expenditure incurred for setting up and operating a cold chain facility (for computing taxable income).
- Excise duty is fully exempt for specified equipment for cold storages or transport.

Status of PPPs in this area

- NCCD has been setup as an autonomous organisation in PPP mode with Govt and industry participation. The mandate of NCCD is to provide enabling environment through developing standards & protocols, HRD and applied research for integrated cold-chain.
- Govt participation is through credit linked subsidy schemes to strengthen the equity base of the cold chain projects. Since 2009-12, government has participated by disbursing INR 739 crore as subsidy to cold-chain projects.

The work being done with other Governments

- Cooperation in the field of agriculture which includes development of cold chain is being implemented through work plans with Israel, Netherlands and France. The focus is on developing produce specific Centres of Excellence to showcase technologies in specific states, applied research and implementation, knowledge exchange through subject matter experts, capacity building programs, promotion of PPP including exchange of business delegations. The implementation of projects in the participating states under these cooperation programmes is monitored by Joint Working Groups (JWG).



This note has been prepared by National Centre for Cold-chain Development from information gathered for use of NCCD. The contained matter is for information purpose only.

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