Comprehensive Note on Creation and Management of Cold Chain Infrastructure for Agriculture & Allied Sectors

1. Availability of Cold Storages

Cold Storage development in India from the year 2004 to 2012 is shown in table given below.

Year	No. of Cold Storages	Installed Capacity In lakh MT (Cumulative)
Previous Years	2607	54.02
2004	4748	195.52
2007	5316	233.34
2009	5381	244.50*
2010	5837	269.03@
2011	6156	286.82@
2012#	6307	301.10

Source: * Directorate of Marketing and Inspection upto 2009
@ includes only NHB and NHM assisted cold storages during 2009-10 and 2010-11
# As on 01.09.2012

Of the 300.05 lakh MT cold storage capacity, nearly 140.00 lakh MT has been created between 2000 – 2011 on account of interventions by National Horticulture Board (NHB), National Horticulture Mission (NHM), Horticulture Mission on North East and Himalayan States (HMNEH), Agricultural and Processed Food Products Export Development and Authority (APEDA), Ministry of Food Processing Industries (MoFPI) and Department of Animal Husbandry and fisheries (DAHD).

Agency wise details of Cold Storages/CA/MA Infrastructure created (2009-12)*

Name of Scheme	Number of New Cold Storages/CA/MA infrastructure	Capacity created (lakh MT)	Govt. Subsidy (Rs. in crore)
NHM	4,51	24.35	3,25.91
NHB	5,28	28.28	1,64.08
HMNEH	9	0.41	7.35
NCDC	5	0.22	3.19
MoFPI	49	2.32	1,46.71
APEDA	24	0.02	12.09
Total	**1,066**	**55.60**	**6,59.33**

*up to 31.03.2012

2. Requirement scenario

National Spot Exchange (NSE) undertook a study in December, 2010. The gap in cold storage capacity in various states has been estimated as under:

State	Cold Storage Requirement in lakh MT	Present Capacity in lakh MT	Gap in lakh MT
Andhra Pradesh	23.24	9.01	14.23
Assam	9.19	0.88	8.31
Bihar	42.41	11.47	30.94
Chhattisgarh	5.43	3.42	2.01
Gujarat	27.48	12.67	14.81
Haryana	8.04	3.93	4.11
Himachal Pradesh	4.87	0.20	4.67
Jammu & Kashmir	7.37	0.43	6.94
Jharkhand	7.96	1.70	6.26
Karnataka	24.04	4.07	19.97
Kerala	27.71	0.58	27.13
Maharashtra	62.73	5.47	57.26
Manipur	0.80	0.00	0.80
Meghalaya	2.39	0.03	2.36
Mizoram	0.74	0.00	0.74
Madhya Pradesh	12.13	8.08	4.05
Nagaland	0.70	0.06	0.64
Orissa	18.35	2.91	15.44
Punjab	13.18	13.45	0.00
Rajasthan	3.91	3.24	0.67
Tamil Nadu	79.06	2.39	76.67
Tripura	1.63	0.30	1.33
UP & Uttaranchal	122.28	101.87	20.41
West Bengal	105.66	56.82	48.84
Total	**611.30**	**242.98**	**368.32**

Source: NSE& DMI (Present Capacity in Delhi- 126158 MT, Goa -7705 MT, A & N- 210 MT. Pondicherry-85MT)

In 2010, the cold storage gap of about 370 lakh MT was worked out on the basis of peak season production and highest arrival/ harvesting of storable fruits and vegetables in a month. Against this, normally 50%capacity is required for storable surplus of the identified fruits and vegetables. The growth of production of fruits and vegetables is at **Annexure – I**

3. Post Harvest Losses

As per reports of the Task Force on Development of Cold Chain in India, set up by the Ministry of Agriculture (August, 2008), Planning Commission (XIth plan working Group on horticulture) and All India Coordinated Research Project on Post Harvest Losses, CIPHET, Ludhiana (April, 2010) post harvest losses continue to be in the range of 18% - 40% in several commodities (**Annexure - IA**). As such, a robust cold chain, transport and logistics infrastructure is required.

4. Recent Government initiatives

i. Enhanced Pattern of Assistance:

Subsidy has been enhanced from 25% to 40% in General Area and from 33.33% to 55% in Hilly and scheduled area, to attract more entrepreneurs and private investment in Cold Chain Infrastructure Sector since April, 2010.

ii. Rural Infrastructure Development Fund (RIDF) for warehousing

Finance Minister in his budget speech for 2012-13 has proposed to earmark Rs. 5,000 crore for creating warehousing facilities (including cold storages) from the allocation under RIDF. During 2011-12, there was provision of Rs. 2,000 crore under RIDF VII for the first time.

NABARD has informed that as against the allocation of Rs. 2000 crore. NABARD sanctioned an amount of Rs. 2252.90 crore during 2011 – 12. Of this Rs. 1493.82 crore was sanctioned to 13 state Governments/UTs, while the remaining amount of Rs. 759.08 crore was sanctioned and disbursed to banks as refinance. Assistance from NABARD is likely to create a storage capacity of 7.30 million metric tons. Keeping in view the shortage of warehousing infrastructure (including cold storage) for agricultural commodities, GOI has increased the allocation for 2012-13 to Rs. 5000.00 crore from a level of Rs. 2000.00 crore in 2011 – 12. Sanction details are at **Annexure – II**

The interest rate regime governing RIDF has undergone a change w. e. f. 01 April, 2012. NABARD is in the process of finalizing the policy for the year 2012 – 13, in consultation with Department of Financial Services, Ministry of Finance, Government of India.

iii. Exemption on Excise and Custom Duty

Custom Duty - The projects of cold storages, cold room (including farm level pre-cooling) or industrial projects for preservation, storage or processing of agricultural, apiary, horticultural, dairy, poultry, aquatic and marine produce and meat have been granted project import status with concessional Basic Customs Duty (BCD) of 5%. The Truck refrigeration units and Refrigeration motor vehicle have been fully exempted from BCD. - **Annexure – III.**

Excise Duty - The Central Excise duty has been fully exempted for installation of a cold storage cold room or refrigerated vehicle, for the preservation, storage, transport or processing of agricultural, apiary, horticultural, dairy, poultry, aquatic and marine produce and meat, air conditioning equipment and refrigeration panels for cold chain

infrastructure and including conveyor belts used in cold storages, mandis and warehouse. – **Annexure – IV.**

Service Tax - The Central Board of Excise and Customs have clarified that sub-clause (v) of Section 66D of the Finance Act, which specifies the Negative List of services and where the services by way of storage and warehousing of agricultural produce are covered. The expression "Agricultural Produce" has been defined in Section 65(B)(5) of the said Act. Thus storage and warehousing of agricultural produce is not liable to service tax. Moreover, serial No. 14 of the Mega Exemption 25/2012-ST, dated June 06, 2012 has exempted the construction of post – harvest storage infrastructure for agricultural produce, including cold storage for such purposes. – **Annexure – V.**

iv. External Commercial Borrowing (ECB)

External Commercial Borrowing (ECB) can be raised for investments in new projects, modernization/expansion of existing production units in real sector – industrial sector including infrastructure sector for creating cold storages or cold room facility, including farm level pre-cooling, for preservation or storage of agricultural/horticultural and allied produce. **Annexure – VI**

v. Foreign Direct Investment (FDI)

100% Foreign Direct Investment (FDI) is allowed under automatic route in storage and warehousing including warehousing of agriculture products with refrigeration i. e. cold storages. **Annexure – VII**

vi. National Mission on Food Processing

In order to have a better outreach and to provide more flexibility to suit local needs of fruits and vegetables, it has been decided that a new centrally sponsored scheme titled "National Mission on Food Processing" would be started, in cooperation with the State Governments in 2012-13 under which cold storage for processing purposes will also be developed. This mission will be implemented by MoFPI as a centrally sponsored scheme.

vii. Introduction of Horti Train

Introduction of dedicated train and reefer van is also expected to bridge the gap between the producers and consumers thereby ensuring remunerative prices to the farmers.

The first Horticulture Train, nonstop trail run was conducted between Bhusawal – Azadpur (New Delhi) sector in the month of January, 2012

which carried about 1100 MT of banana from Bhusawal to Azadpur market yard in 26 hours.

Another round of Train run with potato was successfully conducted between Agra – Turbhe (New Bombay) sector on 12th June, 2012. The Train reached its destination in a record time with extremely good condition of produce at APMC Turbhe, Vasi Market.

Another round of trail run of full rake load of onion from Khedwadi (Niphad, Distt. Nashik) to Chitpur, Kolkatta (West Bengal) was done in June, 2012.

After conducting trial run on various sectors and with different commodities, service of Horticulture Train is proposed to be formally launched on viable origin – destination (OD) pairs; i. e. is Agra – Turbhe – Tulgalabad/Azadpur – Agra.

viii. Technical Standards Notification

Following Technical Standards for storing fresh fruits & vegetables had been notified for implementation w.e.f.1.4.2010.

a. Fresh Horticulture produce Not requiring pre-cooling before storage (Technical standards number NHB-CS-Type 01-2010)
b. Fresh Horticulture produce requiring pre-cooling before storage (Technical standards number NHB-CS-Type 02-2010)
c. Control Atmosphere (CA) Cold Storage (Technical Standards Number NHB-CS-Type 03-2010)
d. Fruit Ripening Units (Technical standards number NHB-CS-Type 04-2010)

ix. Negotiable Warehouse receipt system in Cold Storages Warehouse for horticulture crops

The Warehousing Development and Regulatory Authority (WDRA), a statutory body, in consultation with NHM, Department of Agriculture & Cooperation has introduced, in June 2012, negotiable warehouse receipt system in cold storage warehouses for the major horticulture produce so that the farmers producing horticulture crops may also avail the benefit of loan from the banks against the deposit of their produce in the registered warehouses (cold storages). This will help in commercialization, effective post-harvest management and integrated development of agriculture including horticulture in the country. The WDRA has notified 26 horticulture commodities for the issuance of NWRs by the registered warehouses (cold storages). The WDRA has also finalised the checklist for accreditation of warehouses (cold storage). The Authority has also approved following 5 Government organisations as accreditation agencies for the cold storage warehouses.

1. National Institute of Agricultural Marketing (NIAM)
2. Directorate of Marketing and Inspection
3. National Cooperative Development Corporation (NCDC)
4. National Productivity Council (NPC)
5. The Rail India Technical and Engineering Services (RITES) Ltd.