

# Subject: NCCD Road Map suggestions (17/7/2012)

# **Considerations**

- National Centre for Cold Chain Development to function as The Nodal Agency for cold chain development.
- Establishment Corpus: Rs 25 cr (start up).
- Functional Budget: Rs 2.2 cr per annum.
- Focus Integrated Cold Supply Chain Development.

## Tasks as Declared

Tasks as Autonomous Body:

Direct Tasks	Support Required
Undertake Coordinate R&D	R&D Head
Undertake Coordinate HRD	Capacity Building Expert
Assess & Develop IT based	IT Expert
management tools	
Launch Publicity Campaign	PR Manager
Recommend Policy Framework	Regulatory Expert
Foster multimodal transport	Transport Expert

Indirect Tasks	Support Required
Recommend Standards	Coordination
Suggest Guidelines for DPR	Coordination
Facilitate multimodal transport	Coordination
Awareness Programme	Event Coordination

# Limitations

- 1. No functional Team.
- 2. Funds limited (from interest earning on start-up Corpus).
- 3. Current Membership is limited and closed.
- 4. Elections to close Governing Council are pending.
- 5. Functions currently handled by various other govt agencies/departments.
- 6. No policy directive relating to interface with other agencies or departments.
- 7. Records and history of past developmental activities with other agencies and departments.
- 8. Director NCCD has administrative powers only; executive decisions reside with executive committee.

# **Suggestions from Roadmap Conclave (17/7/12)**

## A. Regulatory Framework as Nodal Agency

- Mr. Savla, Mr Gurmit Singh, Mr Jagmit Singh, Mr P. Kohli, Mr Pankaj Mehta, Mr AS Thakur and others.
- 1. Establish regulatory framework for Cold Chain infrastructure including capacity mapping and to confirm 'usable' capacity & availability nationwide.

#### **DECLARED AIMS & OBJECTIVES**

- To recommend standards and protocols for cold chain infrastructure/building including post harvest management so as to harmonize with international standards and best practices and suggest mechanism for benchmarking and certification of infrastructure/building, process and services provided by cold chain industry.
- 2. To suggest indicative guidelines for preparation of project reports for potential investors/entrepreneurs.
- 3. To assess and develop appropriate IT-based management information system for the cold chain infrastructure.
- 4. To undertake and coordinate Research and Development (R&D) work required for development of cold chain industry in consultation with stakeholders.
- To undertake and coordinate the task of Human Resource Development (HRD) and capacity building. It may also conduct in-house training, short-term/long courses relevant for cold chain development.
- 6. To launch publicity campaign to educate the stakeholders including awareness building about the benefits of integrated cold chain.
- 7. To recommend appropriate policy framework relating to development of cold chain.
- 8. To facilitate and foster the development of multimodal transportation facilities for perishable agricultural, horticultural and allied commodities and establishment of National Green Grid Perishable Commodities.



- 2. Register all existing and future cold stores and reefer vehicles with NCCD. Future development to be regulated across areas instead of feeding over supply in some areas.
- 3. Establish as nodal controlling and regulatory body for developments across all sectors for schemes, subsidies, training and standards.
- 4. Provide recourse & address disputes arising in cold chain development work industrial, operational and commercial.

#### B. Industry Intelligence from Nodal Agency

- Mr. Thapliyal, Mr Gurmit Singh, Mr Pawanexh Kohli, Mr Jagmit Singh, Mr Savla and others.
- 5. NCCD should work as information centre: where to take loans, what should be the interest, whom to approach. Open direct lines with other government arms to be single point interaction.
- 6. Create market intelligence to lead towards guidelines on what are the areas to store, where to sell, what price, etc.
- 7. Facilitate industry interest and participation in cold chain development by providing valid financial and industrial opportunity options to domestic and foreign interested parties.

#### C. Business Intelligence from Nodal Agency

- Mr Pankaj Mehta, Mr. Thapliyal, Mr NK Jawa, Mr Kohli, Mr Khosla and others.
- 8. Get experts & professionals on board to guide on making projects viable. Take on pilot projects to create case studies.
- 9. Educate user on cross utilisation of facility and how to remain profitable in lean periods. Present case studies on challenges and mitigating options.
- 10. Assist ailing cold chain infrastructure by provision of improved business models. Promote commerce through built up infrastructure by policy intervention or guiding with new business modelling.

## D. Operational Intelligence from Nodal Agency

- Mr Kohli, Mr NK Jawa, Mr Gubba, Mr Pankaj Mehta, Mr. Thapliyal, Mr Khosla and others.
- 11. Provide information or technology inputs to make project operationally efficient.
- 12. Manuals should be developed to set guidelines for best practises.
- 13. Develop contingency plans for crisis management and disaster management.
- 14. Multi-modal operational models to be developed for future growth in cold chain.
- 15. NCCD should be the storehouse of knowledge with respect to equipment, maintenance and refrigerated transport. International knowledge pool should be established to take care of the challenges and literature should be available which could be referred to while taking important decisions.

#### E. Cargo Intelligence from Nodal Agency

- Mr NK Jawa, Mr Kohli, Mr Pankaj Mehta, Mr Khosla, Mr Majunath, Mr. Surange and others.
- 16. Provide information or cargo care specific to product types handled in cold chain.
- 17. Manuals should be developed to set guidelines for best practises for cargo management protocols.
- 18. NCCD should be the knowledge repository with respect to perishable produce handling in storage and transport and publish such handling protocols. Domestic knowledge pool should be established for various produce types and time criteria in liaison with international and domestic universities.



19. Specific solutions on product type, lane wise and region wise be taken up by NCCD to pilot.

#### F. Standards & Certification from Nodal Agency

- Mr Pankaj Mehta, Mr Gurmit Singh, Mr Parasakar, Mr Manjunath, Mr KK Mitra and others.
- 20. We follow the standards and protocols of Europe or US. For Indian scenario, more indigenous/customized / Indianised standards & protocols should be made by NCCD.
- 21. Such standards should specify contractor prequalification, project execution criteria, manpower deployment, basic layout and not only for equipment selection.
- 22. Standards should be in form of minimal guidelines so as to continue to allow forward innovation.
- 23. Certifying of service providers to allow service benchmarking and to promote service excellence both in warehousing and transportation.
- 24. Basic standards to be monitored through compliance audit process by NCCD as nodal agency. Currently no operational certification and audit mechanism is in force. Such audits can be done in regulatory partnership with other agencies.
- 25. NCCD should address non-compliance in terms of contractual obligations, subsidy linked payments to contractors, cargo damage disputes, performance quarantee clauses, etc.
- 26. Create testing & validation labs and R&D centres related to cold chain development.

## **G.** Awareness & Cross Pollination from Nodal Agency

- Mr Gurmit Singh, Mr Pankaj Mehta, Mr Vaithyanathan, Mr Savla, Mr Kohli, Mr Jagmit Singh and others.
- 27. Cross-pollinate & liaise with other industry organisations and associations. NCCD to hold out-reach programmes as in current formative stage is not seen to be active.
- 28. Establish direct communication with other government cells to present consolidated picture and effort for cold chain development. To function as nodal agency should facilitate as single window.
- 29. NCCD to heighten awareness levels across stakeholders including financial organisations. There is no clear awareness in public at large as well as financing sector on priority provided to cold chain.
- 30. NCCD to reinvigorate interest in cold chain as current market trend is dependant and disconnected from opportunity. This should be done through active presence across industry sectors.
- 31. Reopen membership & include missing stakeholders like transport & freight companies, packaging companies, research institutions, agriculture universities, farming associations, etc.

## H. Skill Development from Nodal Agency

- Mr KK Mitra, Mr Savla, Mr Manjunath, Mr R.Singh, Mr Khanna, Mr Kohli and others.
- 32. NCCD should develop & coordinate skill development curriculum and programmes.
- 33. Setting up of specialised vocational and operational training institutes.
- 34. Training not to be limited to engineering aspect but also handling and management of perishables.

#### I. Others

- 35. Environmental impact through energy consumption, waste disposal and mitigating aspects Green design & energy saving options to be promoted for cold chain.
- 36. There was strong expression of the necessity as well as apprehension about sustaining NCCD in long term as the nodal agency.
- 37. Various tax and fiscal benefits were suggested during road map session (to be taken up separately).
- 38. Importance of fast tracking a Green Corridor by road as well as rail for Perishable movements.



39. Support in various areas expressed from USA and French representatives.

# **Key take-away from Feedback**

#### Demand expressed for a Larger proactive role of NCCD

- To perform both as a Guiding body and as well as a Regulatory agency.
- To function as single window understanding across all cold chain development initiatives.
- To provide two way interface between infrastructure development and business development.
- To assess and indigenise published guidelines and to consolidate divergence in such guidelines.
- To standardise supply chain protocols and equipment utility and to monitor their implementation.
- To verify & monitor cold chain network and suitably recommend new development & additional capacity build accordingly.
- To provide business guidance & up-gradation opportunity to ailing cold chain projects.
- To publish guiding documents on policy, domain research, insights and business case studies.
- To bring nodal cohesiveness to capacity building and training across all segments of cold chain.
- To function as umbrella body in guiding various functional & perceptual concerns that limit growth
   & interest in effect a facilitation and support mechanism across entire business chain.

#### **Current Limitations**

- NCCD was setup as a membership society with limited funds & membership.
- An extension of existing structural framework with key differentiation not established.
- Sourcing independent Professional domain experts' participation to assist in fulfilling demands.
- Duplication of objectives with other government bodies limits expectations as nodal body.

# **Primary Action Items**

#### Formation as Nodal Agency (NCCD)

- 1. Decide initial team strength & appoint Team.
  - Function requirements are suggested (in-house or out-sourced)-
  - Chief Advisory Officer as domain expert to support Director NCCD.
  - Domain experts for technical support for Quality Standards, Infrastructure, Packaging, Logistics, etc.
  - In-charge Industry Coordination
  - In-charge Engineering R&D
  - In-charge Policy Formulation
  - In-charge IT Development
  - In-charge HRD and Training
  - Accounts Officer
  - Assistants / Functionaries (events, website, HRD activities).
  - Analysts / Research

Assign office & administration resources to team

- 2. Establish clear Lines of communication with other Apex departments in sectors-
  - Agriculture & Cooperation
  - Commerce & Industry
  - Communications & Information Technology
  - HRD Education & Training
  - Energy & Power
  - Environment & Natural Resources
  - Food & Public Distribution



- Transport & Infrastructure
- Health & Family welfare
- Information & Broadcasting
- Science, Technology & Research

Present opportunity and impact of NCCD on national level. Additionally, seek functional Deputation/Budgetary support from each.

- 3. Membership in Working Groups/Steering Committees in -
  - Innovation Council
  - Planning Commission (Agricultural Marketing Infrastructure and Policy, Skill Development & Vocational Training)
  - APEDA
  - NSDC

Advise and participate on policy and budgets at national level.

4. Assimilate historical records for declared set of activities from other agencies/departments.

#### To Strengthen NCCD as a nodal agency.

(Keeping in mind existing by-laws of NCCD & limitation of resources)

- All national level proposals: as a nodal agency, proposals related to cold chain shared with NCCD for assisted appraisal & record keeping. A nominal fees accordingly factored into subsidies/grants.
- 6. All new formulation to be recorded at nodal agency (NCCD) & for its recommendation, inter-alia:
  - a. Academic and capacity building related;
  - b. Policy on cold chain development;
  - c. Cold chain related technology induction; etc

Bye-Laws: Income

The income of the Centre will inter-alia, consist of the following:

- a) Grants by the Central Government and other Govt, organizations,
- b) Membership fee,
- c) Fee from certification and training activities,
- d) Fee from sponsored R&D activities,
- e) Fee from assisting project appraisal,
- f) Income from investments & other sources,
- g) Loans, receipts, donations & contributions in cash & kind to the Centre from other sources.
- 7. R&D proposals related to refrigeration and cold chain technologies to be sponsored through NCCD as evaluated for suitability and field application. IIT's can be sourced to assist NCCD objectives.
- 8. Membership to be kept open indefinitely for any future participants and membership criteria ratified and to include other stakeholders.
- 9. Outsource research & consulting functions to panel of consultants.
- 10. Assign a Chief Advisory Officer for NCCD from industry (ex-officio member executive council):
  - a. Advisory Officer preferably a leader with established cross-domain expertise (Cold Chain management, logistics, shipping, rail and infrastructure development).
- 11. Additional funding arrangements may be required to meet all industry expectations from NCCD.
  - a. Shared deployment of budgeted funds through Agriculture Marketing, NHM, NHB, MoFPI, APEDA as NCCD would be directly supporting their existing initiatives and objectives.
  - b. Sourcing of funds from external agencies for funding research and training activities.



# Year 1, Agenda & Targets:

#### **Agenda:**

- 1. Utilise available limited funds to first establish basic structure and administrative team.
- 2. Seek additional financial support through multi-donor agencies and government.
- 3. Establish NCCD as nodal government supported agency on all matters and communication related to cold chain development (infrastructure, logistics, practises, packaging, standards, protocols, IT & R&D).
- 4. Create & drive partnership with international bodies in cold chain. Liaise & promote NCCD as a centre of excellence and medium of inclusive communication from local and international interests.
- 5. Launch website as initial communication and knowledge dissemination platform.
- 6. Commence to table and short list IT tools to be developed for cold chain management aimed at central record keeping of nationwide capacity utilisation, status of cargoes at storage and network of cold chain transports.

#### **Targets:**

- 1. Create internal action groups through inviting industry participation for steering committees on various segments/sectors as per aims/objectives to induce greater & long term participation.
- 2. Assimilation of records of common activities undertaken by other government agencies. In phased priority as follows:
  - a. HRD and capacity building.
  - b. Publicity and awareness campaigns.
  - c. Standards and Protocols.
  - d. Technical Assist Programs.
- 3. Implement directive that all initiatives and existing budgets assigned for declared set of activities be assigned to NCCD, or alternately be deployed through NCCD as nodal agency.
- 4. Hold monthly events to promote inclusive interactions with all kinds of stakeholders.
  - a. To evaluate response and impact of existing standards and protocols developed.
  - b. To seek consultation from stakeholders for future R&D work.
  - c. To seek possible course corrections or options suggested from stakeholders.
- 5. Seek approval to undertake at least one pilot project with intent to highlight challenges and the opportunities that NCCD is ready to showcase. This work can be undertaken with industry associations or with industry directly, aimed at:
  - o Development of cold chain solutions for specific Produce types.
  - o Development of supply chain & logistics options to facilitate Green Corridor by road/rail.
  - o Development of feasible cold chain routes in India.
- 6. Commence a publicity campaign budget permitting.
- 7. Raise basic repository of cold chain management information, scientific & technical, for public use.
- 8. Commence interactions and funds permitting, induct IITs, agriculture universities or other pharma....institutions for validation and testing labs, product wise R&D.
- 9. Review private sector proposals & submissions seeking govt subsidies and revert with recommendations for future proposal guidelines.
- 10. Introduce initially the concept of single window nodal agency for public interface and for cold chain proposals and policies, to be made effective with alignment of other ministries by end of year 2.
- 11. Pilot an assessment of existing cold chain infrastructure and map for declared capacity, actual usability, equipment type, accessibility and condition, etc.



# Year 2, Agenda:

- 1. Revisit budget status for surplus or limitations.
- 2. Revisit staff strength (on deputation or on hire) for next 3 years.
- 3. Review performance for Year 1.
- 4. Suggest revisions if any to existing standards and protocols.
- 5. Recommend additional standards and protocols related to cold chain.
- 6. Registration of cold storages and refrigerated trucks/vans/containers towards enablement of green corridor. Propose guidelines for green corridor for perishable cargos.
- 7. Commence and evaluate R&D trials.
- 8. Undertake and promote on its own or in collaboration with national and international agencies, commercial exploitation of technologies.
- 9. Recommend indicative guidelines to streamline new project reports for potential investors.
- 10. Invite a panel of arbitrators to allow NCCD to serve as arbiter in case of cold chain disputes.
- 11. Continue concerted publicity campaign, extending same to foreign territories.
- 12. Increase sectorial participation in cold chain development from missing segments.
- 13. Propagate policy highlights and recommendations to prospective businesses.
- 14. Publish a series of books and other literature highlighting growth, and overall development of cold chain in India.

# **Charting a Direction**

- A. Team Building with focus on creating a differentiating environment for a developing sector that is seen to be fragmented and disjointed.
- B. Market Development focus on marketing infrastructure as well as developing market interest for agricultural produce through innovative support interventions. Seek developmental synergy with other cold chain sectors including pharma, meats & seafood, processed foods and others.
- C. Standards and Guidelines alleviate claims that imported standards are being enforced by promoting more as guidelines and allowing alternative options. Standards to be guided more by environmental safety and personal safety aspects, with technology options as project guidelines.
- D. Public Interface keep in touch with stake holders and interested parties, instead of them having to reach out to authorities. Basis demonstrated demand, build information repository.
- E. Create collaborations with established external agencies and promote development of Indian universities and other R&D institutes. Be perceived as partner in developing knowledge repository.
- F. Coordinate and guide feasibility & market studies on cold chain as deployed by existing bodies to. Most studies conducted, available to interested players are suggested to have uncoordinated & disparate data. NCCD to be seen as central source for industry intelligence in cold chain arena.
- G. Regularly collaborate or undertake pilot projects and coordinate similar efforts from other agencies, with aim to establish successful models or ratify mis-conceptions on cold chain efficacy.
- H. Promote trade routes or technologies with proven commercial benefits basis guiding protocols.
- I. Develop options for Green Grid for perishables on long hauls, including multi-modality options.
- J. Through industry interactions provide updates and new policy intervention options to council.
- K. Build long term platform to serve as monitoring and regulatory arm for government and as the dispute resolution body for cold chain industry.



## **ROAD MAP CONCLAVE - ANNEXURES**

# **Annexures:**

- I. Photographs of sessions at Road Map Conclave.
- II. Detailed Final Programme with Topic Listing of Conclave.
- III. List of Attendees & Speakers at Conclave.
- IV. Copy of all presentations or talks at Conclave.



## **CONCLAVE ON ROAD-MAP FOR NCCD**

#### Inauguration of the event with Lighting of lamp by the dignitaries









Introductory note by Mr. Sanjeev Chopra, Joint Secretary, NHM, Ministry of Agriculture



#### **ADDRESS BY HONORABLE CHIEF GUEST**

Additional Secretary Agriculture, Shri A.K. Thakar



#### **THE COLD STORAGE INDUSTRY EXPECTATIONS**

Mr. Prashant Gubba Director Gubba Cold Storages Mr. Vivek Savla Managing Director Savla Foods and Cold Storage Pvt. Ltd.



Mr. N.K. Jawa CEO, Fresh and Healthy Enterprise Ltd.





## **EQUIPMENT SUPPLIERS EXPECTATIONS**



Mr Pankaj Mehta Director Carrier (UTC Group)

Mr. K.K. Mitra Vice President Lloyd Insulations





Mr. Pravin Mahajan Business Manager – Rigid BASF Mr. Santhosh Kumar Regional Marketing Manager Industrial Refrigeration, Danfoss



#### **RELATED ORGANIZATIONS EXPECTATIONS**





Mr. R. Vaithiyanathan Director Confederation of Indian Industry

Mr. Gurmit Singh Co-Chairman –FICCI Task Force on Storage s Promoter, GMH Agri Hub, Ludhiana





Mr. Jagmit Singh President AIACRA



## **ALLIED SUPPLY CHAIN & BUSINESS**

Captain Pawanexh Kohli Principal Advisor CrossTree techno-visors Mr. Ashok C Khosla Director Agribusiness



#### **QSRs EXPECTATIONS**

Mr. Samir Kukreja President National Restaurant Association of India



Mr. Manoj Paraskar Director - SCM Yum! Restaurants (India) Pvt. Ltd.



#### <u>3PL / TRANSPORTATION INDUSTRY EXPECTATIONS</u>

Mr. Anuj Thapliyal
Vice President
Cold chain and Special Projects
Cargo Service Centre



## **INDIA CENTRIC PROTOCOLS**

Mr. M.S. Manjunath Leader – Business Creation Climate Solutions (Cold Chain) Ingersoll Rand





#### **TECHNOLOGICAL CONSIDERATIONS**

Mr. Arvind Surange Chief Consultant, ACR Project Consultants



## **INTERNATIONAL PARTICIPATION**

Ms. Judy Reinke Minister – Counselor for Commercial Affairs Embassy of the United States of America Mr. Philippe Beyries Counsellor – Agriculture Embassy of France





#### **HUMAN RESOURCE TRAINING AND DEVELOPMENT**

Mr Atul Khanna Director, GCCA India Mr Prekash Ramsingh Representative, Lentiz Group







#### CONCLUDING REMARKS BY MR. SHAILENDER KUMAR, DIRECTOR NCCD















## **NETWORKING DURING THE EVENT**

















# **Program**

# Road Map for National Cold Chain Development Centre

Lighting of lamp 10.00-10.15 am

**Introductory note: Aims and Objectives of NCCD** 

10.15 - 10.30 am

- > Mr. Sanjeev Chopra, Joint Secretary, NHM, Ministry of Agriculture
- Address by Mr A.K. Thakar Additional Secretary, Ministry of Agriculture

#### **Session I: Expectations from NCCD**

#### 1. The Cold Storage Industry

10.30 - 11.00 am

- Mr. N.K. Jawa, CEO, Fresh and Healthy Enterprise Ltd., subsidiary of CONCOR
- > Mr. Vivek Savla, MD, Savla Foods and Cold Storage Pvt. Ltd.
- Mr. Prashant Gubba, Director, Gubba Cold Storages

*Discussion* 11.00 – 11.10 am

Tea Break 11.10 – 11.20 am

#### 2. Equipment Suppliers

11.20 - 12.00 am

- > Mr Pankaj Mehta, Director, Carrier Transcicold
- > Mr K K Mitra, Vice President, Lloyd Insulations
- Mr. Pravin Mahajan, Business Manager Rigid, BASF
- Mr. Santhosh Kumar, Regional Marketing Manager, Industrial Refrigeration, Danfoss

Discussion 12.00-12.10 pm

#### 3. Related Organizations

 $12.10 - 12.40 \ pm$ 

- Mr. R. Vaithiyanathan, Director, Confederation of Indian Industry
- Mr. Gurmit Singh, Co-Chairman –FICCI task force on storage and logistics & Promoter, GMH Agri Hub, Ludhiana
- Mr. Jagmit Singh, President, AIACRA

*Discussion* 12.40 – 12.50 pm

#### 4. Allied Supply Chain & Businesses

 $12.50 - 01.00 \ pm$ 

Capt. Pawanexh Kohli, CrossTree techno-visors

*Discussion* 01.00 – 01.15 pm



	Lunch	01.15 – 02.00 pm	
<i>5</i> .	QSRs	02.00 – 02.30 pm	
	Mr. Samir Kukreja, President, National Restaurant Association	ciation of India	
	Mr. Manoj Paraskar, Director - SCM, Yum! Restaurants	(India) Pvt. Ltd.	
	Discussion	02.30 – 02.40 pm	
6.	Logistics / Transportation Industry	02.40 – 03.00 pm	
	> Mr. Anuj Thapliyal, Vice President, Cold chain and Spec	ial Projects, Cargo Service Centre	
	Discussion	03.00 – 03.10 pm	
7.	India Centric Protocols	03.10 – 03.30 pm	
	> Mr. M.S. Manjunath, Leader – Business Creation, Climate Solutions (Cold Chain), Ingersoll Rand		
	Discussion	03.30 – 03.40 pm	
8.	Technological considerations	03.40 – 04.10 pm	
	> Mr. Arvind Surange, Chief Consultant, ACR Project Consultants		
	Discussion	04.10 – 04.20 pm	
Геа Br	eak	04.20-04.30 pm	
9.	Seeking International Participation	04.30 – 04.50 pm	
	Ms. Judy Reinke, Minister – Counselor for Commercial Affairs, Embassy of the United States of America		
	> Mr. Philippe Beyries, Counsellor – Agriculture, Embassy	of France	
	Discussion	04.50 – 05.00 pm	
10.	. Human Resource Training and Development	05.00 - 05.20 pm	
	<ul> <li>Mr Atul Khanna, Director, GCCA India</li> <li>Mr Prekash Ramsingh, Lentiz Group</li> </ul>		
Discussion		05.20 – 05.30 pm	
Concl	usion	05.30 – 05.40 pm	
	> Mr Shailender Singh, Director NCCD		
	Networking interaction		



		List of Attend	dees
#	NAME	DESIGNATION	COMPANY NAME
1	Abhinav Jaggi	Director	United Cold Chain & Food Processing Ltd
2	Alakesh Roy	Chief Ex Officer	Reliance Innovative Solutions
3	Alok Kumar Srivastava	General Manager - Cold Chain	TCI Supply Chain Solutions
4	Amit Srivastava	Dy General Manager	Kirloskar Pneumatic co ltd
5	Anupam Prakash	Manager - Corporate Affairs	Frick India Itd
6	Anuz Thapliyal	Vice President	Cargo Service Center
7	Arjun Singh	Assistant Manager - Sales &	Mayekawa India Pvt. Ltd.
		Marketing	
8	Arvind Surange	Senior Consultant	ACR Project Consultants
9	Ashish Sonal	CEO	ORKASH Services Pvt Ltd
10	Ashok C Khosla	Agribusiness Advisor	
11	Ashok Chauhan		TATA Power Delhi Distribution ltd
12	Bhavana Vishwanath	Director	TOLSMA Tech
13	Deepak Verma	Sales Manager	DUPONT Ind Pvt Ltd
14	Dhananjay Deshpande	General Manager - Service	Bitzer India Pvt. Ltd.
15	Dr Arjun Singh Saini	Add Director Horticulture	Horticulture Board Of India
16	G K Deb	Asst Commissioner	Ministry of Agriculture
17	Gagan Verma	Manager	Jindal India Thermal Power Ltd
18	Gautam Jha	Country Head	Fresh Food Technology (I) Pvt. Ltd.
19	Gurmit Singh	Promoter	GMH Agri Hub
20	H P Ramesh Babu	Sales Manager	Schaefer Systems International Pvt ltd
21	Harshal Surange	Associate Consultant	ACR Project Consultants
22	Isabelle Leclaire	Managing Director	Metaflex Doors Ind Pvt Ltd
23	J M Gupta	Managing Director	APC Polycoat Ind Pvt Ltd
24	Jagmit Singh	Managing Director	Freezeking industries pvt ltd
25	Jochen Anthierens	First Secretary	Embassy of the Kingdom of Belgium
26	Judy Reinke	Minister - Counselor for Commercial Affairs	Embassy of the United States of America
27	Jyoti Singhal	Under Secretary	Horticulture Board Of India
28	K.K Mitra	Vice President	Lloyd Insulations Ind Ltd
29	Luv Jain	Product Manager	Geo Trackers Mobile Resource Management (P) Ltd.
30	Manjunath M.S	Leader - Business Creation, Climate Solutions (Cold Chain)	Ingersoll Rand International Ind Ltd
31	Manoj Paraskar	Director	YUM India
32	N K Jawa	CEO	CONCOR India
33	N.K. Suri	Chief Director	National Cooperative Development
			Corporation
34	Nilesh S Sonawane	Business development leader	Owens Corning Industries pvt ltd
35	Pankaj Mehta	Asst. Director	Carrier Airconditioning & Refrigeration Ltd
36	Pawanexh Kohli	Principal Advisor	CrossTree techno-visors
37	Philippe Beyries	Counsellor (Agriculture)	Embassy of France
38	Prabhat Saxena	Chief Consultant	Warehousing development & Regulatory Authority
39	Pramod Pereira	Deputy Manager	Quality, Training & Procedures
40	Prashant Gubba	Director	Gubba Cold Storage
41	Pravin Mahajan	Business Manager	BASF India Ltd
42	Prekash Ramsingh	Representative	Lentiz Group
43	R Vaithiyanathan	Director	Confederation Of Indian Industry
44	R. K Bakshi		Daikin India
45	R.K Raghav	Dy General Manager	Frick India Ltd
46	R.Sivakumar	senior manager	Voltas Ltd
47	Rajbir Singh	Officer-cold chain	TCL supply chain solutions

		List of Attena	lees
#	NAME	DESIGNATION	COMPANY NAME
48	Rajesh Bhargava	General Manager - Marketing	Frick India Ltd.
49	Rajesh Khanna	Director	LUVATA Ind p Ltd
50	Rani Kumudini	Commissioner	Horticulture Board Of India
51	Renie Subin	Commercial Assistant	Embassy of the United States of America
52	Rohit Bhandari	Business Associate	Omnivent India
53	Ruchira	Senior Asst. Director	FICCI
54	S L Kapur	President	Welspun Energy Ltd
55	Samir Kuckreja	President	National Restaurant Association Of India
56	Sanjay Aggarwal	Managing Director	Dev Bhumi Cold Chain Ltd.
57	Sanjay Gupta	Director	Infra Cool
58	Sanjay Kapoor	Zonal Manager - Channel Sales	Emerson Climate Technologies (India) Ltd.
59	Sanjeev Saini	Business development Leader	Bayer Material Science
60	Sarfraz Ahmed Khan	VP - Strategy & Operations	Coldex
61	Sayee Verma	Sales Manager	ThyssenKrupp Electrical Steel India Pvt. Ltd.
62	Siddharth Singla	Advocate	
63	Subhranshu S Patra	Manager	Danfoss Industries pvt ltd
64	V. Santosh Kumar	Regional Marketing Manager	Danfoss Industries pvt ltd
65	V.P Vergheese	Managing Director	Suraksha Transport Systems India (P) Ltd.
66	Vaibhav Tondon	Deputy Manager	Adani Power Ltd
67	Vineet Vats	Deputy Manager	Zeppelin Mobile Systems
68	Vivek L Salva	Ext Director	Savla Foods & Cold Storage Pvt. Ltd.
69	Yuvraj.R	Dy General Manager	Danfoss Industries pvt ltd

List of Speakers			ers
#	NAME	DESIGNATION	COMPANY NAME
1	V. Santosh Kumar	Regional Marketing Manager	Danfoss Industries pvt ltd
2	Arvind Surange	Senior Consultant	ACR Project Consultants
3	Gurmit Singh	Managing Director	GMH Infrastructure and Resorts Pvt Itd
4	Jagmit Singh	Managing Director	Freezeking industries pvt ltd
5	K.K Mitra	Vice President	Lloyd Insulations ind Ltd
6	Philippe Beyries	Counsellor (Agriculture)	Embassy of France
7	Prekash Ramsingh	Representative	Lentiz Group
8	Manjunath M.S	Leader - Business Creation	Ingersoll Rand International India Ltd
9	R Vaithiyanathan	Director	Confederation Of Indian Industry
10	Pankaj Mehta	Asst. Director	Carrier Airconditioning & Refrigeration Ltd
11	Vivek L Salva	Ext Director	Savla Foods & Cold Storage Pvt. Ltd.
12	Anuz Thapliyal	Vice President	Cargo Service Center
13	Manoj Paraskar	Director	YUM India
14	Pravin Mahajan	Business Manager	BASF India Ltd
15	Samir Kuckreja	President	National Restaurant Association Of India
16	N K Jawa	CEO	CONCOR India
17	Pawanexh Kohli	Principal Advisor	CrossTree techno-visors
18	Judy Reinke	Counselor (Commercial Affairs)	Embassy of the United States of America
19	Prashant Gubba	Director	Gubba Cold Storages
20	Sanjeev Chopra	Joint Secretary	National Horticulture Mission
21	Atul Khanna	Director	Global Cold Chain Alliance - India
22	Ashok Khosla	Director	Agribusiness

# National Centre for Cold Chain Development

#### ROAD MAP CONCLAVE: ANNEXURE-IV

## List of Presentations

The conclave was addressed directly by the following through presentations, dissertations and discussions. The presentations as available are in hard copy format for perusal. The suggestions as collected from each participant and during audience discussions have been found mention in above document.

- Mr. N.K. Jawa, CEO, Fresh and Healthy Enterprise Ltd., subsidiary of CONCOR
- Mr. Vivek Savla, MD, Savla Foods and Cold Storage Pvt. Ltd.
- Mr. Prashant Gubba, Director, Gubba Cold Storages
- Mr Pankaj Mehta, Director, Carrier Transcicold
- ➤ Mr K K Mitra, Vice President, Lloyd Insulations
- Mr. Pravin Mahajan, Business Manager Rigid, BASF
- Mr. Santhosh Kumar, Regional Marketing Manager, Industrial Refrigeration, Danfoss
- Mr. Ashok C. Khosla, Agri-Business consultant.
- Mr. R. Vaithiyanathan, Director, Confederation of Indian Industry
- ➤ Mr. Gurmit Singh, Co-Chairman –FICCI task force on storage and logistics
- Mr. Jagmit Singh, President, AIACRA
- Capt. Pawanexh Kohli, Principal Advisor, CrossTree techno-visors.
- Mr. Samir Kukreja, President, National Restaurant Association of India
- Mr. Manoj Paraskar, Director SCM, Yum! Restaurants (India) Pvt. Ltd.
- Mr. Anuj Thapliyal, Vice President, Cold chain & Special Projects, Cargo Service Centre
- Mr. M.S. Manjunath, Leader Business Creation, Climate Solutions, Ingersoll Rand
- Mr. Arvind Surange, Chief Consultant, ACR Project Consultants
- Ms. Judy Reinke, Minister Counselor for Commercial Affairs, Embassy of the United States of America
- Mr. Philippe Beyries, Counsellor Agriculture, Embassy of France
- Mr Atul Khanna, Director, GCCA India
- Mr Prekash Ramsingh, Lentiz Group