

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

Consideration:

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

Tasks as Declared

Tasks as Autonomous Body:

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

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. Current Membership is limited and closed.
3. Elections to close Governing Council are pending.
4. Functions currently handled by various other government agencies/departments.
5. No policy directive issued relating to other agencies or departments.
6. Records and history of past activities with other agencies and departments.

DECLARED AIMS & OBJECTIVES

1. 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.
5. 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 multi-modal transportation facilities for perishable agricultural, horticultural and allied commodities and establishment of National Green Grid Perishable Commodities.

Suggestions at 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.
 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 options 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 Majunath, Mr Pankaj Mehta, Mr. Surange, Mr Kohli, Mr Khosla 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 guarantee 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)

5. 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: Incomes

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 an Chief Advisory Officer for NCCD (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:
 - Development of cold chain solutions for specific Produce types.
 - Development of supply chain & logistics options to facilitate Green Corridor by road/rail.
 - 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.