Executive Summary of Dr. Saumitra Choudhuri Committee report for encouraging Investment in Supply Chains including provision for Cold Storages for efficient distribution of Farm Products.

1. General

1.1 The domestic and export demand for Horticultural Produce and other perishable items produce by the Animal Husbandry and Fisheries sector has increased rapidly over the past two decades. This is significantly higher than the demand for cereals.

1.2 The supply-side response to this increased demand has been fairly robust and the production has increased both on account of extension, that is, more and more farmers taking up this activity and also on account of higher yields due to adoption of modern technology. This has also been facilitated by improved road and telecom connectivity across the country.

1.3 In 2011/12 production of fruits and vegetables was 2.7 and 2.6 times that of the output level two decades ago, i.e. in 1991/92. This expansion was much higher than that for cereals, where the 2011/12 output level was 1.5 times that of 1991-92. A similar and more marked difference may be seen in the most recent past decade (2001/02 to 2011/12) where output of fruits and vegetables has increased by 80 and 69 per cent respectively over 2001/02, while output of cereals has grown by 17 per cent in the same period.

1.4 Horticulture, animal husbandry and fisheries are particularly accessible to small and marginal farmers who have less land, but also more family labour.

1.5 Various schemes of the Central and the State Governments have been very useful in helping farmers gain access to affordable technologies and skills through subsidy and loans.

1.6 There is a clear need to continue and strengthen these efforts to increase the coverage of such activities as also to continually increase the yield of land, water and nutrients.

1.7 There is considerable wastage and spoilage in fresh produce as also sharp variation in prices during the season.

1.8 The rate of increase in the prices of fruit and vegetables have been higher than that for cereals especially in recent years, and is a major contributor to the sharp increase in the inflation level for primary food. Inflation in primary food has been greater than that of manufactured products and appears to be a driving force behind the higher inflationary pressure.
The proportionately higher increase in the prices of horticultural produce and other perishable farm items, suggest that (a) there is excess demand in the domestic market and (b) their higher output levels will indeed be absorbed by domestic consumption demand.

This clearly justifies energetic efforts to encourage the continued expansion of horticulture, animal husbandry and fisheries, in order to service increasing domestic demand.

The data shows that for fruit and vegetables, the price at the first point of sale in large mandis as a proportion to the final retail price, is in the range of 25 to 40 per cent. This proportion may be lower, if smaller mandis were to be considered. The farm gate price is likely to be lower still, because it is the aggregator who for the most part brings the produce to the mandis and there lies the matter of his expenses, margin and wastage.

The inference is that (a) the benefits of demand expansion is not passing adequately to the farmer and (b) the benefits of higher production and productivity is not passing adequately to the consumer. All the evidence suggests that this is on account of the large deficiencies in the logistics system in between the farm to the final consumer.

The push to build up storage capacity through cold chains has not been successful in vegetables and is limited for fruits. This seems to have been because the revenue or business model for cold storage on rental basis is not workable for cold chains in horticultural produce under the present institutional set up.

The inefficiency in the logistic system appears to stem from (a) Physical inadequacies: Multiple handling of produce, inadequate cold chains leads to high wastage and bunched-up supply. (b) The inadequacy in cold chains fails to smoothen out the supply which is seasonal in relation to the demand which is constant and results in regular episodes of scarcity and glut conditions. (c) Institutional shortcomings flowing from the way in which APMC legislation has perpetuated a pre-modern framework with uncompetitive and non-transparent markets, in which commission agents do not have any incentive to change their age old method of operation. It must be noted that commission agents not only draw sustenance from the "closed shop" flowing out of licenses but also function as financiers by providing credit to their buyers and ready cash to farmers. Thus, the principal role of the commission agent is of a financier-intermediary. (d) lack of adequate processing facilities which may help to increase the shelf life of the produce with complementary cold chains for the raw material as well as the finished produce.

The Committee is of the view that it is possible to visualize a sea change in the agricultural supply chain by way of a strategy that
involves four points of intervention, namely: (1) Agents; (2) Market linkages (3) Institutional change and (4) Financing & incentives.

2. **Economic Agents**

Two kinds of agents are envisaged. The first is co-operatives of farmers or producer companies established by growers and the second is private investors. It is desirable that both channels namely, cooperatives/producer companies and private sector enterprises have equal opportunity to build up the cold chain infrastructure. In the private sector, it is generally felt that large outside companies may hesitate to actually invest in such facilities, but commission agents may participate.

3. **Revenue or Business Model**

3.1 A rental model has a high risk emanating from uncertainties about demand for rental space. The investor is not necessarily in a position to interact with the downstream market, where the demand for such rentals can emanate. However, there are cold chain projects based on rental models also and therefore, policies should be designed to support both models of cold storages viz. rental and price-arbitrage.

3.2 The desired outcome in this instance must be in terms of market development and fairness to all stakeholders.

3.3 The only way to reduce the business risk of finding the rental space, is to link the investors in the cold storage, be it an outside investor or a commission agent or a joint venture between such entities, to an anchor customer who can come forward to take 50 to 75 or even 100 per cent of the available rental space. It is obvious that this anchor customer can only be a large downstream marketer and is most likely to be a large modem retailer or a food processing unit.

4. **Negotiable Warehouse Receipts**

4.1 The Warehousing Development and Regulatory Authority can play an important role by interfacing with cold chain networks so that farmers can either sell for ready cash at the electronic exchange market price or obtain Negotiable Warehouse Receipts, which they can use to secure financing from the banking system. This will increase the financial flexibility of farmers who are presently compelled to sell for ready cash at a subdued price.

4.2 The price discovery mechanism must be reinforced by creating electronic exchanges so that at each of these cold chains there is a clearer picture about what the relevant prices are.
5. **Market Linkages & Direct marketing**

5.1 The fact is that most farmers do not have the time or resources to bring their produce on a regular basis to the market place. Therefore, if the farmers have to gain meaningful access on this parallel chain of supply, there has to be an opportunity for the farmer to **directly market** their produce to the cold chain. One way certainly is the establishment of producer companies/co-operatives. The other would be to allow private companies to undertake these transactions. However, in both cases certain **institutional changes** are required, which is taken up subsequently.

5.2 **Market Linkages:** The linkage to modem retail or food processing sector via the **anchor customers** for cold chain is indeed the most powerful means of creating a fair and equitable market where farmers obtain a good price and the consumers do not have to pay an excessively high price. Even if this mode of transaction accounts for only a fraction of the total, it has the potential of setting prices across-the-board.

5.3 Alongside this, in the cities there has to be a plan to modernize markets for fresh produce, so that small retailers are also able to enjoy the advantage of scale, efficiency and more transparent markets with wide access to information. In this connection, private and co-operative wholesale markets wherever possible, must be encouraged.

6. **Institutional Changes**

6.1 The most important change that is required in the institutional set up is to liberate perishable farm produce from the restrictions of the APMC. The best way to do this is for State Governments to remove “perishable farm produce” form the aegis of the APMC.

6.2 There have been many references to the Model APMC Act. However, it appears that the Model Act has many of the infirmities in the original APMC Act and is not helpful in developing a framework to modernize the farm logistics for perishable produce.

6.3 Several high powered committees have recommended changes that are consistent with what is being suggested here. State governments should remove “perishable farm produce” from the coverage of the APMC acts. This it is understood can be done by amending the schedule. Some of the committees have suggested that a compensatory mechanism be worked out for the fees that would be lost to the APMC markets. They have also suggested a ceiling of 2 per cent as fees. This seems to be a matter that can readily yield to a satisfactory resolution.

6.4 If such steps are taken, it will be advisable to put in place a regulatory and reporting authority which can create a simple framework for the operation of a cold chain. That would include onetime registration,
depositing of fees and a requirement to submit periodic returns on an annual or semi-annual basis.

6.5 It is advisable that such a regulatory agency work closely with the Warehouse Development and Regulatory Authority and other existing regulatory agencies so as to both minimize the creation of a new large and unwieldy set-up and to take advantages of economies of scale through regular exchange of information – especially in regard of transactions, price, volume and identity.

7. Financing and Incentives

7.1 Cold chains have received some amount of financial support in the form of subsidies. The two recent high powered committees have suggested that (a) the cold chain supply system for horticulture and other fresh farm produce should be treated as infrastructure and (b) that they should qualify for the corresponding financing and tax incentives. This Committee endorses this view.

7.2 Both the Committee of State Agricultural Marketing Ministers as well as the Working Group of Consumer Affairs have recommended that the Public Private Partnership (PPP) model with Viability Gap Funding is an appropriate device to catalyze large scale investments in cold chain. However since every cold chain project is in many ways unique it may be difficult to structure a competitive bid. This aspect needs further detailed study so that at least one cold chain project is taken up for viability gap funding. From this experience a firm conclusion can be drawn on how to proceed further in this matter.

7.3 In continuation of the above paragraph, the Committee would like to endorse the suggestion of a Viability Gap Funding model for PPP investments in this area. However, it would be necessary to work out the details involved. In the interim, the catalysis of investment in cold chains would have to depend on capital grants and some access to a slightly concessional line of finance. NABARD has a line of finance for this purpose and this should be fully used.

7.4 There have been suggestions made by the two committees referred to previously to encourage FDI in this sector. Though FDI is permitted in cold-chains to the extent of 100%, through automatic route, for various reasons, inflows have not been significant. There is a need to encourage actual inflows which can be a powerful vehicle of bringing in both capital and logistics technology and expertise.

7.5 The Union Budget 2012-13 has announced earmarking Rs.5000 crore out of the Rural Infrastructural Development Fund (RIDF) for creation of warehousing facilities. It is understood that there are some operational difficulties for utilizing this fund due to lack of clarity. There is a need for clear guidelines for utilization of this fund particularly in the context of other schemes for promoting cold storage facility.
7.6 Instead of a straight jacketed approach for encouraging cold chains, a matrix approach may be considered keeping in view the requirements of different types of horticultural products with varying cold storage requirements and markets relating thereto.

**Recommendations of Dr. Saumitra Chaudhuri Committee Report**

1.1 Visualizing and encouraging both farmer co-operatives/producer companies and private enterprises to establish the cold chain network. Private enterprise would include all manner of outside investors – from standalone investors to processing companies and retail chains. The policy would actively encourage existing commission agents to set up cold chain facilities. FDI in cold chain must be encouraged

1.2 The business model of the cold chain system would expressly not be pure price arbitrage. The objective should be to help smoothen out the episodic and concentrated arrival that is characteristic of the combination of a seasonal output and regular demand in the retail market. The result must be to ensure that the farmer receives a good price especially at the peak of the season, and that the consumers buy at a steady price. The return on investment in this cold chain system should be on a cost-plus basis, not on a price arbitrage model.

1.3 Reduction of wastage, rationalization of margins and larger volumes would generate the economies to sustain the revenue model of the cold chain system.

1.4 It is necessary to reduce the business risk involved in investing in a cold chain system and that can only be achieved by providing a dynamic linkage of the cold chain system to the final retail market. This can be achieved by the tie-up between an anchor customer and the investor provider of the cold chain rental space.

1.5 There must also be framework for direct marketing linking the farmer to the cold chain.

1.6 The Warehousing Development and Regulatory Authority can be brought in to link up the cold chains into a network and create conditions where the farmer can obtain Negotiable Warehouse Receipts that can raise funds from the banks, thereby gaining financial flexibility.

1.7 This would need changes in the way APMC legislation works. It is felt that the best way to achieve it would be remove perishable agricultural produce from the aegis of the APMC acts. Farmers must be given freedom to sell directly to food processing companies, aggregators and retailers in addition to selling in mandis.

1.8 The cold chain supply system for horticulture and other fresh farm produce should be treated as infrastructure and they should qualify for the corresponding financing and tax incentives.
1.9 There is a need for simplification of the clearances and licenses required for setting up of cold storages.

1.10 The committee recommends the Public Private Partnership (PPP) model with Viability Gap Funding as an appropriate device to catalyze large scale investments in cold chain. However, the details will have to be worked out. In the interim, investment in cold chains would have to depend on capital grants and some access to a concessional line of finance.

1.11 The Ministry of Food Processing Industries operates a scheme for capital subsidy of supporting cold chains. This should be a scheme that is on-tap with clearly set out budget limits so that eligible projects within the budgeted limit get the required support. The scheme of subsidy support may be reworked/and sufficient resources provided so that this objective can be achieved.

1.12 There is a need to promote introduction of newer varieties of vegetables with a longer shelf life.