

CHAPTER – II

REFORM AND DEVELOPMENT OF AGRICULTURAL MARKET

'Market having profit motive drives the economy to an efficient solution as if achieved with an invisible hand'.

--Adam Smith

Sizeable amount of work in development economics literature has been devoted to the debate on the role of state as against the role of market as a catalytic institution in the aggregate development process. The debate began with the early theories of economic development, where it was argued that failure of allocation of investment to the deserving developmental sectors created structural imbalances in the process of development. In recent past again, the debate came alive in the context of the process of liberalization, where it is argued that the role of the state should be minimized over time so as the market forces create a proper atmosphere for economic growth. It is also believed by many that rational and most desirable resource allocation takes place through the market forces. The change in thrust right from the 'grow more food campaign' through the Green Revolution period to commercialization of agriculture/horticulture, shifting cropping patterns, increasing domestic and international trade and growing market intervention leading to increased marketed surplus, have put greater pressure on the existing marketing system and have exposed the inadequacies.

India's geographic location provides a significant trade opportunity for high-value crops (HVC) both to the east and west. These opportunities are not being captured at present because of (i) poor transport infrastructure, (ii) lack of modern logistics for aggregating perishable products, (iii) lack of or obsolete agri-marketing and value-adding infrastructure from farm gate to wholesaler, (iv) distorting effects of the food self-sufficiency policy, and (v) limited success in attracting private sector investment to resolve these constraints. The

changing demand for food gives rural India an opportunity to capture the benefits of a high-growth economy. The agriculture sector needs well-functioning markets to drive growth, employment and economic prosperity in rural areas of India.

The analysis of *Strength, Weakness, Opportunities and Threats* (SWOT Analysis) of Indian agri-business sector, as furnished in Asian Development Bank (ADB) report on "Agribusiness Infrastructure Development Investment Program (RRP IND 37091-02)"²⁰, is placed at Annexure-2.1. While diverse agro-climatic production base provides strength to India agri-business, growing demand due to good economic growth with increasing rural income provides strength to it. With the objective of providing dynamism and efficiency into the marketing system, as well as to facilitate access of alternative competitive marketing channels to farmers, large investments are required for the development of post-harvest and cold-chain infrastructure nearer to the farmers' field.

Legal Framework for Market Reform

A *Model Agricultural Produce Marketing (Development & Regulation) Act 2003*²¹ (popularly called Model APMC Act, 2003) had been circulated to all States and Union Territories(UTs), to guide them in adopting its provisions to help in removal of barriers and monopoly in the functioning of agricultural markets. The Model Act provides avenues for competing alternative marketing channels to farmers in the form of direct marketing, contract farming and private and co-operative markets facilitating backward linkages to production belt (Box-2.1). The alternative marketing channels are intended to reduce the marketing cost for farmers while ensuring better returns to them. At the same time it is intended to provide consumers with quality produce at lesser price.

²⁰ Asian Development Bank Report (2010) on "Agribusiness Infrastructure Development Investment Program(RRP IND 37091-02)".

²¹ www.agmarknet.nic.in

Box-2.1

Salient Features of Model APMC ACT, 2003

- i. In addition to regulation of Markets under the Act, concept of Development of efficient marketing system is introduced*
- ii. Legal persons, growers and local authorities can be permitted to establish new markets for agricultural produce in any area*
- iii. No compulsion for the growers to sell their produce through existing markets administered by the Agricultural Produce Market Committee (APMC)*
- iv. Provision for purchase of agricultural produce through private yards or directly from agriculturists in one or more than one market area*
- v. Separate provision is made for notification of "Special Markets" or "Special Commodities Markets" in any market area for specified agricultural commodities*
- vi. Contract Farming facilitated with provisions for compulsory registration of sponsors, recording of contract farming agreements, resolution of disputes for safeguard of farmer's safeguard as well as provision of its exemption from levy of market fee*
- vi. Provision made for establishment of "consumers/ farmers" market to facilitate direct sale of agricultural produce by producers to consumers*
- viii. Registration for market functionaries provided to operate in one or more than one market areas*
- ix. Provision made for imposition of single point levy of market fee on the sale of notified agricultural commodities in any market area*
- x. State Governments conferred power to exempt any agricultural produce brought for sale in market area, from payment of market fee*
- xi. Market Committees permitted to use its funds to create infrastructure on its own or through public private partnership for post harvest handling of agricultural produce and development of modern marketing system.*
- xii. State Agricultural Marketing Board made specifically responsible for promoting grading, standardization and quality certification of notified agricultural produce*

Source- AGMAKNET website (www.agmarknet.nic.in)

Similarly to help operationalise the APMC Act, Ministry of Agriculture had circulated a Model APMC Rules, 2007 for guidance of all States/UTs. The 53rd Meeting of the National Development Council (NDC) suggested completing the process of market reforms by all the States up to the end of March, 2008.

Progress of Market Reforms

The market reforms are essential to be carried out across the length and breadth of the country. Government of India has set up a Committee of

State Ministers of ten different States in charge of agricultural marketing in 2010, to promote the growth of healthy/balanced reform in agricultural marketing sector and to develop barrier free market with the objective of providing the farmers with better gain for their produce while ensuring availability of quality produce at reasonable price. The ten States included in this committee are a mix of both reformed and partially reformed States and include the States of Maharashtra, Gujarat, Haryana, Uttarakhand, Madhya Pradesh, Bihar, Assam, Odisha, Andhra Pradesh and Karnataka. The status of reforms as provided in the first report of the Committee of State Ministers in-charge of Agriculture Marketing to promote Reforms (April 2011)²² is provided at Table 2.1 below.

Table 2.1: Status of Reforms in Agricultural Markets (APMC Act)

Sl. No.	Stage of Reforms	Name of States/ Union Territories
1.	States/ UTs where reforms to APMC Act has been done for Direct Marketing; Contract Farming and Markets in Private/ Coop Sectors	Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Mizoram, Nagaland, Orissa, Rajasthan, Sikkim, Uttarakhand and Tripura.
2.	States/ UTs where reforms to APMC Act has been done partially	a) Direct Marketing: NCT of Delhi, Madhya Pradesh(M.P.) b) Contract Farming: Haryana, Punjab, Chandigarh & M.P. c) Private market Punjab and Chandigarh
3.	States/ UTs where there is no APMC Act and hence not requiring reforms	Bihar*, Kerala, Manipur, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu, and Lakshadweep.
4.	States/ UTs where APMC Act already provides for reforms	Tamil Nadu
5.	States/ UTs where further action is required for the reforms	Meghalaya, Haryana, J&K, West Bengal, Puducherry, NCT of Delhi and Uttar Pradesh.

* APMC Act is repealed w.e.f. 1.9.2006.

Source- Directorate of Marketing & Inspection, Ministry of Agriculture

²² First Report (April 2011) of "Committee of State Ministers, In-Charge of Agriculture Marketing to Promote Reforms constituted by Department of Agriculture and Cooperation, Ministry of Agriculture.

Whereas, only 17 states as brought out above, have amended their respective state APMC Acts, only the State of Andhra Pradesh, Rajasthan, Maharashtra, Odisha, Himachal Pradesh, Karnataka, Mizoram (only single point levy of market fee), Madhya Pradesh (only for special license for more than one market) and Haryana (only for contract farming) have notified such amended Rules so far, which considerably vary in their content and coverage. As per the first report of the committee on reforms (April 2011), out of 35 states and UTs, 16 now have the provision for private market yards. Seventeen States and UTs have so far made this provision for granting licenses to processors, exporters, graders, packers, etc. for purchase of agricultural produce directly from farmers. So far, 18 States and UTs have incorporated the provisions of contract farming of which eleven States have also provided for exemption of market fee on purchases under contract agreements. The aforesaid report also provides the list of states which have adopted various major item-wise reform issues, which is placed at Annexure-2.3 to this chapter.

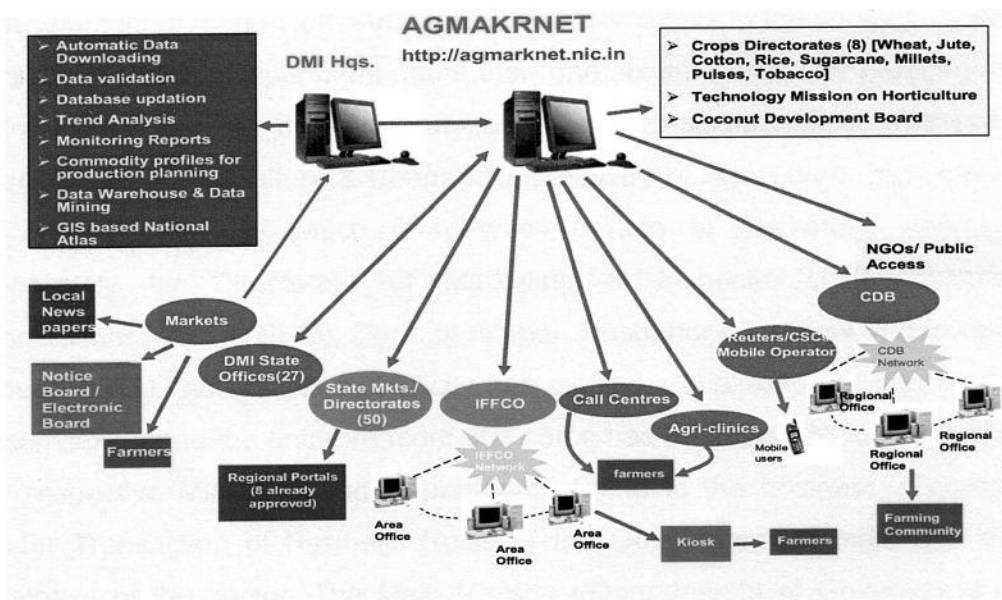
With a view to providing opportunity to farmers to undertake sale of their produce direct to the consumers, the Model Act 2003 provides for establishment of farmer's markets, where no market fee is levied on farmers, though some service charge may be imposed. Such markets can be established either by APMCs or by any person licensed by APMC for this purpose. Several States had promoted farmers' markets. These include Punjab (Apni Mandi), Haryana (Apni Mandi), Rajasthan (Kisan Mandi), Andhra Pradesh (Rythu Bazar), Tamil Nadu (Uzhavar Sandai), Maharashtra (Shetkari Bazar), Karnataka (Raithara Santhe) and Orissa (Krushak Bazar). These markets have benefited both farmers and consumers. Sixteen States have made provisions in their amended Act.

ICT Based Market Information System

Market information helps the farmers in comparing the prices offered by different firms in different markets for his type of produce and also in the selection of alternative outlets available. The Market Information System (MIS)

reduces business risks of farmer-sellers and traders. There are about 435 MIS centres in the country. Wholesale prices of important agricultural commodities from selected markets are collected daily by these centres for further transmission through TV and AIR stations. With a view to provide electronic connectivity to all the important wholesale markets in the country, Ministry of Agriculture has implemented an ICT based Marketing Information Network Scheme viz. 'AGMARKNET' (FIG-2.1).

FIG.2.1: ICT Based Market Information System (AGMARKNET)



Source- www.agmarknet.nic.in

The aim of the scheme is to collect and disseminate (price and market related) information in respect of agricultural commodities. The scheme was launched in the year 2000-01 and as on date more than 3,000 wholesale markets from all over the country have been linked to a central AGMARK portal managed by National Informatics Centre(NIC). Currently even NIC has provided registration facilities to mobile users for receiving sms-based market information through the customer's mobile hand-set. Now even some of the private companies like 'Reuter' and 'NOKIA', have been providing market and weather information to their registered mobile users. As the growth of mobile tele-density is increasing in rural –India (35% by August

2011), this sms-based market information system can come handy to rural users. Apart from various Government organisation disseminating market information, other ICT based market information services are provided by: DRISHTEE (Drishtee.com), HARIT GYAN, IKISAN (Ikisan.com), TATA KISAN KENDRA, TARAHAAT, N-Logue, EID Parry etc.

Promotion and Development of Agriculture Market and Market Infrastructure

In order to foster large investment in the development of marketing infrastructure, central government has provided for several schemes for development of market infrastructure and supply chains in the country. Under individual Ministry/Department, more than one scheme exists for creating the infrastructure under different categories of sub-sectors/crops. Currently, Department of Agriculture & Cooperation, Ministry of Agriculture, implements 51 schemes out of which 8 schemes pertain to Marketing, operated separately by Directorate of Marketing & Inspection(DMI), National Horticulture Mission(NHM), Dept. of Animal Husbandry, National Horticulture Board(NHB). Though this multiplicity has caused duplication of efforts and inconvenience to the entrepreneurs, the same has been sought to be justified by respective Ministries and Departments owing to the business allocation under Transaction of Business Rules of the Government of India and the vastness of the sector. The Main Ministries/Departments of Government of India viz. the Department of Agriculture & Cooperation; Department of Animal Husbandry, Ministry of Food Processing Industries; Department of Consumer Affairs; Department of Food and Public Distribution; Ministry of Commerce & Industries; Ministry of Panchayatiraj are responsible for formulation of policy related to the sector and regulation in their respective areas and the implementation of programmes related to agriculture marketing (domestic/overseas). The overlap in activities of various Government of India Ministries/Departments/Organizations w.r.t market infrastructures are summarized in Annexure-2.2 to this Chapter.

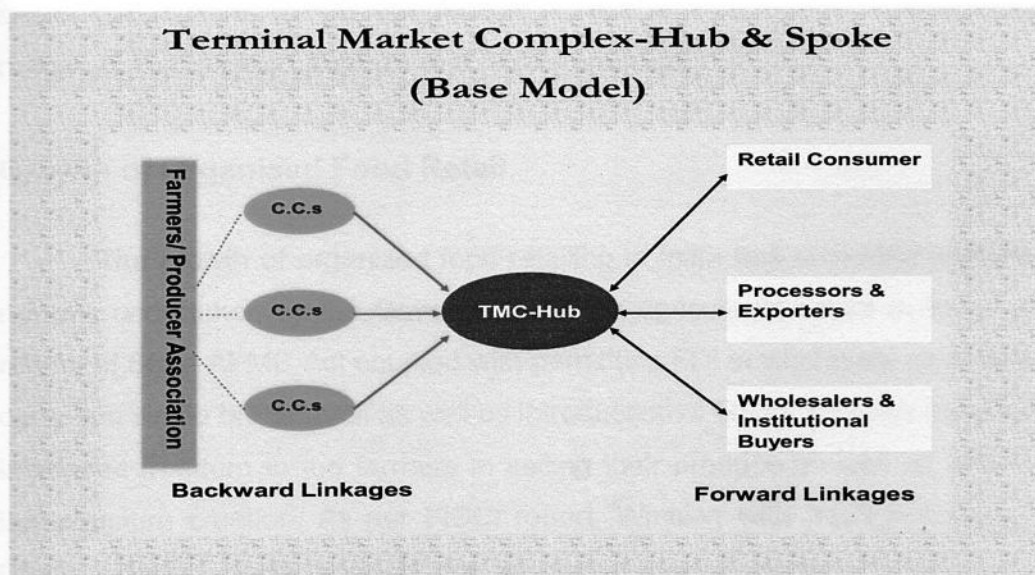
The flagship umbrella scheme of Rashtriya Krishi Vikas Yojana (RKVY) of Ministry of Agriculture provides assistance for development of agriculture market and marketing infrastructure through the state governments. The National Horticulture Mission and National Horticulture Board under Ministry of Agriculture, provide credit-linked back-ended assistance for development of marketing facilities and cold chain in private sector for perishable horticulture produce. The scheme of "Construction & Renovation of Rural Godowns" and reform-linked scheme of "Development/Strengthening of Agriculture Market Infrastructure, Standardisation & Grading(AMIGS)", both of which are *credit-linked(linked to credit from institutional source)*, are promoted by Directorate of Marketing & Inspection under Ministry of Agriculture, with the objective of developing storage facilities and other critical market infrastructure facilities at farm gate level, particularly by small and marginal farmers for reducing post-harvest losses and improving primary value addition to agricultural commodities. A Venture Capital Assistance Scheme was launched through Small Farmers Agri-Business Consortium (SFAC) under Ministry of Agriculture, late in the X Plan and continued in the XI Plan. Agricultural and Processed Food Products Export Development Authority (APEDA) under Ministry of Commerce has been providing assistance for cold chain and pack-houses for export promotion of agricultural and horticulture products. SAFAL, a wholly-owned subsidiary of National Dairy Development Board (NDDB) has set-up wholesale Terminal Market in Bangalore providing for backward linkages to the farmers clusters. Similarly Premium Farm Fresh has set-up a wholesale market in Nashik(Maharashtra) and is planning few more markets in Karnataka. In order to promote integrated cold chain in India, Govt. of India has now set up National Centre for Cold Chain Development in partnership with Industry and various Chambers of Commerce as centre of excellence to foster development of integrated cold chain in India.

Promotion of Public-Private-Partnership (PPP) in Agriculture Marketing

Realising the need for providing state-of-art marketing facilities under Public Private Partnership mode for promoting horticulture produce in India as

promoted in the west, Government of India has made a new beginning in launching a scheme of setting up Modern Terminal Market Complex in various states in India during XI Plan. As per the article “Integrated Horticulture Development-Cold Chain” (Swain P.K., 2011)²³, the Modern Terminal Market Complex (TMC) is implemented under Hub (TMC) and Spokes (Collection Centres(CCs) model (Fig.-2.1) in adjoining production areas) model (Fig.-5) with subsidy assistance from National Horticulture Mission(NHM)/ Horticulture Mission for North East and Himalayan States (HMNEH), as the case may be, providing for integrated forward and backward linkages. Producer associations will have stake up to 26% of the equity in the venture which will help establish a very strong backward linkages with production centres. Already steps have been taken for implementation of the scheme in Tamil Nadu (Perundurai) and Maharashtra (Babangaon, Nashik and Nagpur).

Fig. 2.2 – Schematic Presentation of a Simple Terminal Market



Source-“Integrated Horticulture Development-Cold Chain” (Swain P.K., 2011)

Ministry of Food Processing Industries has been actively promoting Mega Food Parks (MFPs) in the country to give a fillip to the food processing activities.

²³ Swain Prasanta Kumar (2011) – “Integrated Horticulture Development-Cold Chain”, pp 572-580, Horticulture to Horti-Business, Horticulture Society of India, Westville Publishing House.

Public Private Panchayat Partnership (PPPP)

To ensure inclusive and equitable growth, there is a need to knit and integrate rural areas into the modern economic processes that are rapidly transforming our country. The Ministry of Panchayatiraj and Confederation of Indian Industries (CII) are promoting Rural Business Hubs in different blocks on the lines of the successful THAI experience of "One Tambon One Project (OTOP)" by building linkages between Panchayats, Industry and Business to create successful business models. The Prime Minister has announced a strategy for developing Rural Business Hubs through Panchayats. These hubs are a first ever Public Private Panchayat Partnership (PPPP) to improve and refine locally available resources and produce goods to enable larger market access. The Rural Business Hubs are groups of entrepreneurs, including farmers and artisans, working together under the aegis of a village/block Panchayat to enhance the value of their products with private sector participation for greater market access and prosperity. The product range will include food & drinks and herbal products.

Growth of Organised Food Retail

The growth of organized food retailing in India has coincided with the reforms undertaken by the Government in the agricultural sector in terms of reform of State APMC Act coupled with permitting FDI in wholesale cash-and-carry and single brand retail as well as introduction of GST. This has provided increased freedom to the farmers in selling their produce as well as enable infrastructure creation. As per FICCI report "Winning with Intelligent Supply Chain" (2007)²⁴, food products are the single largest component of private consumption expenditure and accounts as much as 35% of total spending. As per NABARD report "Organized Agri-Food Retailing in India" (2011), while organized retail is about 5% of total retail, it is growing @ compounded annual rate of 11.06% since 1990-91, while the share of organized food retailing

²⁴ Winning with Intelligent Supply Chain" prepared by Ernst and Young in 2007 for FICCI

stood at about 61% of the organized retailing in 2008-09. As per said NABARD report, farmers have benefited from the organized retailers.

DCM Shriram Consolidated Ltd. has started utility shopping centers called "Haryali Kisan Bazaars" in Uttar Pradesh, Uttaranchal, Punjab, Rajasthan and Haryana, M.P., A.P., offering rural household all farming and consumer products and related services along with financial services under one roof. Tata Chemicals Limited re-launched 'Tata Kisan Kendra' as 'Tata Kisan Sansar' (TKS-Tata Farmers' World)-a rural agri-retail outlet offering entire range of agri-services including quality agri-input products as 'one-stop farmers solution shop' mostly in North India with a clear objective of empowering the farmers. Mother Dairy Fruits and Vegetables Limited (MDFVL), procures fresh fruits and vegetables from about 100 producer associations (that include more than 18,000 farmers organised into informal cooperatives or self-help groups managed by the producers themselves) for retailing through its SAFAL outlets in North India. ITC e-choupal provides real time information to farmers in taking production decision as well as assist in marketing his produce (Box-2.2).

Box-2.2

ITC's e-choupal

Indian Tobacco Company (ITC) is one of India's leading private corporations, which has diversified into many activities ranging from hotels to food products. ITC's International Business Division conceived e-choupal, i.e.; village internet kiosks managed by local level farmer called 'Sanchalak'. The kiosks enable the farming community to access real time information in the local language on weather, market prices; disseminates knowledge on scientific farm practices and risk management, facilitate the purchase of farm inputs and sale of farm produce. As a direct marketing channel, virtually linked to mandi system for price discovery, it eliminates the intermediation thereby reducing marketing cost substantially. While the farmers benefit from higher productivity and better farm-gate price, ITC benefits from lower net procurement prices. Today, the system operates in six states of M.P., Maharashtra, Rajasthan, U.P., A.P., and Karnataka.

Source- ITC website

Bharti Enterprises entered into B2B joint venture with world's largest retailer, Wal-Mart, for wholesale cash-and-carry business and back-end supply chain management operations in India in 2007-08. In addition to this organized food retail outlets such Reliance Fresh, Spencer retail, Namdhari Fresh, Food world, Godrej Agrovet etc are active in organized food retailing. Direct procurement gives the farmers certain indirect benefits like knowledge of what needs to be produced when, technological inputs and access to credit on account of assured market etc. As per the report, there is a need to promote farmer clusters but smaller organized retailers do not have the financial capacity and volume requirement to justify the creation of such clusters. While farmers can form production and marketing cluster by way of forming Self-Help group, Cooperatives, they can also form Producers Company under Company's Act 1956 etc.(Example-Government of Madhya Pradesh has been promoting this under District Poverty Initiatives Programme) to realise economy of scale for achieving better marketing strategy while improved credit facilities from financial institutions.

E-Trading and Virtual Markets

One of the recent phenomena in agriculture marketing in India has been the advent of Virtual Markets. The virtual market in the context of Agriculture Marketing is an electronic market which enables producers and buyers in the supply chain, with a view of transact at the most efficient and transparent prices, thereby reducing the cost of intermediation, improving marketing efficiency and farmer's price realization with value for money for consumer. Example of such virtual markets is Spot Exchange, Warehouse Receipt System and Future exchanges. The functions of these markets are enabled by ICT based market information. Out of the above forms of virtual markets, spot exchanges and negotiable warehouse receipt system effect physical delivery of the goods. Derivates products like forward, future and options are the risk management through hedging which can be used to avoid the impact of unexpected price changes in future price movements.

The electronic spot exchanges helps in price discovery. The price discovery function allows important economic decisions to be made as to which commodity produce, how much to sell and what prices, how much to store and for how long. This is also a form of direct marketing and helps enhance the share of farmer in consumer rupee. State Govt. of Gujarat, Maharashtra, Karnataka, Rajasthan, MP, Bihar, Odisha have accorded the licenses for such Spot Exchanges and National Spot exchange Limited(NSEL) is operational at 56 locations in these states at APMC market places. The higher price realization by farmers' is stated to be achieved up to 4% to 5% through spot exchange due to reduced intermediation. Safal National Exchange of India Ltd. (SNX), which is a joint venture between Mother Dairy Foods Processing Limited (MDFPL), MCX and Financial Technologies Ltd., provides a technology based competitive market place with wide choice to farmers in Marketing of their perishables and other allied produce in a fair and a transparent manner by using modern IT and improved Logistic. It provides a platform, where seller can sell at the best possible rate, buyers can buy at the most competitive rate and SNX would provide counter party guarantee in respect of all trade. SNX facilitates provision of services like quality certification, Warehousing and Logistics and other customized value added services.

Warehouse Receipts as negotiable instruments backed by the underlying commodities, are an integral part of the agriculture marketing and financial systems of most industrial countries as they can be traded, sold, swapped and used as collateral to support borrowing or accepted for delivery against a derivative instrument such as a futures contract. In developing countries, the high real interest rates for agricultural loans are often linked to perceived risks. The working group on warehouse receipts and commodity futures of RBI has stated in its report (2005) that collateralizing agricultural inventories will lead to an increase in the availability of credit, reduce its cost, and mobilize external financial resources for the sector. Warehouse Receipts contribute to the creation of cash and forward markets and thus enhance competition and reduce transaction costs.

A functioning Warehouse Receipt system also obviates the need for Governments to take physical inventories to support prices as they could simply purchase Warehouse Receipts when the prices fall below a certain minimum. In the United States of America the Warehouse Receipt System is organized under the US Warehousing Act of 1916. The Dubai Commodity Receipt (DCR) system is a web based warehouse receipt system owned and managed by Dubai Metal and Commodity Centre. In Zambia, a stakeholder-controlled agency, the Zambian Agricultural Commodity Agency Ltd. (ZACA), which is at arm's length from Government, has been established to certify and oversee warehouses. The Warehouse Development and Regulation Authority has been setup by the Government in October 2010 under the Warehouse (Development & Regulation) Act, 2006, to regulate the warehouses in the country, which would allow banks to improve the quality of their lending services in agriculture sector through the negotiable warehouse receipt system, increase the liquidity in the rural areas and encourage better price risk management in agriculture commodities.

'Futures' are standardized financial contracts traded in a futures exchange. A futures contract is an agreement to buy or sell a certain quantity of an underlying asset at a certain time in the future at a predetermined price. When futures contracts are traded, there isn't necessarily an actual delivery of goods. The trader only speculates on the future direction of the price of the underlying asset, which may be a commodity (including agriculture), foreign exchange, bonds, money market instruments, equity or any other item. India has a long tradition of organized trading in commodity derivatives. The history of organized futures trading in India can be traced to the setting up of Bombay Cotton Trade Association in 1875. Futures trading in oilseeds was started with the setting up of Gujarati Vyapari Mandali in 1900 which carried out futures trading in groundnut, castor seed and cotton. Trading in commodity futures is regulated under the Forward Contracts (Regulation) Act, 1952. However, by seventies, forward trading in most of the commodities was either suspended or prohibited. With the implementation of the recommendations of Khusro Committee (1980) and Kabra Committee (1994) futures trading was permitted.

Futures trading in agricultural commodities comprises of cereals, pulses, oil-seeds, spices, vegetables, guar gum & seeds, rubber and other commodities. In the wake of National Agricultural Policy announced in July 2000, followed by the issue of Government notifications in April, 2003, futures trading can be conducted in any commodity subject to the approval/recognition of the Government of India / Forward Markets Commission.

The first National Multi-Commodity Exchange of Ahmedabad (NMCE) was started during November 2002. A year later, two more exchanges opened their doors in Mumbai- the Multi-Commodity Exchange (MCX) and the National Multi-Commodity Derivatives Exchange (NCDEX). Almost all of futures trading in agricultural commodities are now accounted for by the three national exchanges. Planning Commission document on XI Five Year Plan pertaining to Agriculture & Rural development states "commodity futures markets that can potentially reduce price variability have grown massively in crop coverage and trading volume. At Rs 36.76 lakh crore in 2006-07, futures volumes now far exceed the volume of actual physical trade in agricultural commodities. But direct participation of farmers is negligible.Quality specifications, delivery norms, margin, and lot size of most commodities traded at the bourses make it difficult for the average farmers to directly participate in exchange trading as hedgers." Four commodities (wheat, rice, urad and tur) were de-listed for futures trading towards the end of financial year 2006-07, which accounted for only 6.65 percent of the total value of futures trading in all agricultural commodities in 2006-07.

Agri-Export Zones

With a view to promoting agricultural exports from the country and remunerative returns to the farming community in a sustained manner, the concept of the Agri-Export Zones (AEZ) was floated. AEZ is identified by the State Government, who would evolve a comprehensive package of services to be provided by State Government agencies, State Agriculture Universities and concerned institutions and agencies of the Union Government for

intensive delivery in these zones. Corporate sector with proven credentials are encouraged to sponsor new Agri-Export Zone or take over already notified Agri-Export Zone or part of such zone for boosting agri-exports from that zone. AEZ are notified under EXIM policy and are entitled for all the facilities available for exports of goods in terms of provisions of the respective schemes. Some of the Agri-Export Zones set up are: for pineapples - West Bengal, Tripura, for Gherkins -Karnataka, for Mangoes-Maharashtra, A.P.,U.P, for Flowers - Tamil Nadu, Maharashtra, Sikkim, Uttarakhand, for apple - J&K , Himachal Pradesh, for basmati rice- U.P., Uttarakhand and for wheat- M.P. etc.

Reduction of Post-Harvest Losses

A recent field study carried out by Indian Council of Agriculture Research (ICAR) titled "Estimation of Quantitative Harvest and Post-harvest Losses of Major Agricultural Produce in India' (Report of 2010)²⁵ has revealed that percentage of post harvest losses of major agricultural commodity has substantially reduced (Table- 2.2).

Table- 2.2: ICAR Study on Post-Harvest Losses

Crop	Minimum % Loss	Maximum % Loss
Cereals	3.9 (sorghum)	6.0 (wheat)
Pulses	4.3 (chick-pea)	6.1(black-gram)
Oilseeds	2.8(cotton seed)	10.1 (groundnut)
Fruits	5.8 (sapota)	18.0(guava)
Vegetables	6.8(cauliflower)	12.4(tomato)
Spices	3.9(spices)	7.4(turmeric)

Source-ICAR Report (2010)

As per the report, overall losses at National Level is stated to have come down from Rs 51,500 crore per annum in 2005 to Rs. 44,000 crore (at 2009 wholesale price) in economic terms.

²⁵ Report 2010 on "Estimation of Quantitative Harvest and Post-harvest Losses of Major Agricultural Produce in India", Indian Council of Agricultural Research

Tax Incentives for Important Agriculture Market Infrastructure Scheme

Realising the importance of the role of critical post-harvest marketing infrastructure such as storage godown and cold storage for long-term development of Indian agriculture, and need for promoting the same, Government has now accorded tax incentives. Investment-linked tax incentives have been announced for the business of setting up and operating warehousing facilities and cold chain including cold storages for storing agricultural produce in the Union Budget 2009-10, allowing benefit of deduction to the extent of 100% of investment made in these infrastructure facilities. In the Budget 2010-11, project import status (with a concessional import duty of 5%), has been accorded for setting up mechanised handling systems and pallet racking system in Mandies or warehouses, with full exemption for service tax for installation and commissioning of such equipments. Additionally, external commercial borrowings has been made available for cold storage or cold room facility, including for farm level pre-cooling, for preservation or storage of agricultural and allied produce, marine products and meat. It provides for project import status (at a concessional customs duty of 5 per cent) with full exemption from service tax to the initial setting up and expansion of Cold storage, cold room including farm pre-coolers for preservation or storage of agriculture produce.

Multilateral Donor Assistance

The initiatives for agriculture market reforms undertaken by Government of India and supported by majority of state Governments in attracting private sector investment has led multilateral donor agencies such as World Bank and Asian Development Bank, to extend their assistance, on pilot basis, for development of agriculture market infrastructure and integrated value chain. As per Annual Report 2009-10 of Department of Agriculture & Cooperation, Government of India, "Agricultural Competitiveness Project" has been initiated in five states, i.e., Maharashtra, Rajasthan, Orissa, Andhra

Pradesh and Tamil Nadu, for World Bank assistance under the state sector. The project aims to achieve the development of competitive marketing systems and improved market access for farmers through enhanced knowledge and more effective producer organizations, increasing efficiency and reducing costs in the marketing chain for the benefit of both producers and consumers, increased Small and Medium Enterprise investment in agriculture, and more effective use of public funds allocated to extension/applied research and investment schemes. A project on agribusiness infrastructure development for improving marketing infrastructure and market intelligence including capacity building through Asian Development Bank (ADB) Technical Assistance has been undertaken for the states of Maharashtra and Bihar.

Need for Marketing Credit

As per "Marketing and agribusiness text 2 (Agricultural and Food Marketing Management by I.M. Crawford-FAO Publication)²⁶", agriculture marketing is the integrative force that matches production to customer needs and satisfaction. As Indian agriculture has made a transition from subsistence level to commercial in character, farmers have to grow the crops which can fetch a better price, thus giving it a market orientation. In India, credit for agriculture marketing is covered under the agricultural credit system in its formal sense and no separate policy seems to have been prescribed by the Governments though various credit-linked infrastructure schemes have been promoted by the Government for ensuring better marketing of agricultural and horticultural produce.

In this context, the need for affordable, sufficient and timely supply of institutional credit has assumed critical importance. As per Golait (2007)²⁷, the demand for agricultural credit arises due to: (i) lack of simultaneity between

²⁶ Food and Agriculture Organization of the United Nation, Rome(1997), 'Agriculture and Food Marketing Management-Marketing and Agri-Business Text 2'- I M Crawford

²⁷ Golait, Ramesh. 2007. "Current Issues in Agricultural Credit in India: An Assessment." *Reserve Bank of India Occasional Papers*, 28(1)

the realization of income and act of expenditure; (ii) lumpiness of investment in fixed capital formation; and (iii) stochastic surges in capital needs and saving that accompany technological innovations. Due to the peculiarities of agriculture, especially its uncertainties, scattered operations, low returns, small unit production, high rates of rent, need for marketing as per specialised demands and limited scope for employment, a large proportion of cultivators particularly small and marginal farmers, find it extremely difficult to manage from one harvest to another without recourse to borrowings.

Recommendations of Marketing Committees for Credit

The recommendations of the "Guru Committee on Agricultural Marketing (1992)²⁸" lay emphasis on the uniform adoption and implementation of pledge finance scheme by all the APMCs in different states as well as to evolve a scheme for insurance against price depressions below support/procurement prices to safeguard the producers/sellers. The report of Expert Committee on Strengthening and Development of Agricultural Marketing (2001) highlighted that pledge financing enables the usage of inventories of graded produce as collateral for accessing credit from the organized credit market at cheaper rates of interest that reflect the lower credit and collateral risk. The Expert committee requested the government to design a full-fledged agricultural marketing credit policy considering the requirement of increased production, market innovations, technologies and socio-economic changes with specific reference to post WTO regime. It suggested that loans for construction/ running storage facilities be included under priority lending and further suggested that the existing limit of priority sector advance should be revised upward suitably taking in to consideration innovation in agricultural sector in the post WTO regime. The report of Inter-Ministerial Task Force on Agricultural Marketing Reforms (2002) suggested that the solution to problem of distress sale by farmers in immediate post-harvest period lies in providing farmers with safe and easy marketing credit.

28 Report of the High Powered Committee on Agriculture Marketing chaired by Shri Shankarlal Guru (1992), Ministry of Rural Development, Government of India

Need for a Paradigm Shift for Agriculture Credit

The Approach Paper to the Eleventh Five Year Plan has set a target of 4 % growth in agriculture within the overall GDP growth target of 9 %. Reform and development of agricultural marketing system is imperative to achieving such a growth rate in agriculture sector. While market reform initiatives, undertaken by central government and various state governments, have sent a forward moving signal including that through implementation of various reformed linked market development programs, it is time to ensure that credit flow for this, complementing government efforts, is undertaken to facilitate overall growth. From better access and availability of credit for agriculture marketing will help him in procuring requisite post-harvest infrastructure and other value addition facilities for improving the quality of his produce for securing a better remunerative price from the market. As per (Y V Reddy, 2001), RBI is perhaps the first central bank in the world to have taken interest in the matters related to agriculture and agricultural credit, and it continues to do so. While RBI seems to have taken several measures to improve credit to agriculture, primarily the same has remained production and productivity centric, the issues of whose improvement has remained a big challenge for the country even to this date. As will be seen in chapter-IV on literature survey, there is a need also to substantially focus on specific area within the issue of credit for agriculture i.e.; working capital credit for post-harvest marketing, credit for development of post-harvest infrastructure as well as development of agriculture marketing infrastructure and its operations.

Need for Study

Inadequate marketing infrastructure coupled with poor credit support to farmers from formal banking sector had also an adverse impact on the development of agricultural marketing systems in the country. Despite considerable progress made by Indian Banking and other formal financial system, a large proportion of our farming population have remained outside the formal banking system. Consequently the informal sector lending

continues to provide credit to farmers for agriculture marketing and wholesale trade. The informal lending is by the traditional money lender, trader/commission agents with/without interest in procuring the agriculture commodities of the borrower and family/relatives/friends. Of this, the major interest is of lending by 'Adhathiya' (Commission Agent/trader), who while lending money informally also generally enters into some kind of marketing transaction with the debtor-farmer and is of interest for study.

Though the lending provided by the informal sector in general and commission agent/trader in particular, may not perhaps be tenable under law, it has nonetheless remained entrenched in the system in the absence of viable alternatives. This in turn brings inefficiencies in price discovery and true economic forces do not play fair role. As many have considered the producer as a 'bonded supplier' of commodities to such lender (trader/commission agent), a unique situation of interlocking of credit with marketing emerges. While a large number of studies have been undertaken in the field of credit for agriculture sector in general, very limited study has been carried out in India in recent years on both the aspects of trader credit to agriculture marketing as well as institutional credit for agriculture marketing. As agriculture marketing is a very important aspect of agriculture activities, it is essential to undertake a study in the subject of credit for agriculture marketing.

Objective of Study

It is intended to study '*Credit for Agriculture Marketing in India- Issues, Challenges and Way Forward*'. The *objective of study* is: (i) to examine the existing policies for agri-marketing as well as major schemes and programmes to promote agriculture marketing and market infrastructure. (ii) to study credit system for agriculture activities including the study of geographical/regional and sectoral/institutional pattern of disbursement of agricultural credit existing in the country (iii) to study the institutional credit for agriculture marketing and development of agriculture market infrastructure (iv) to study the informal sector lending in agriculture marketing with reference to

financing by traders/commission agents (v) to explore the components of agriculture market infrastructure projects, which are not yet covered under the institutional credit. (vi) to recommend the aspect of improving the framework for credit through institutional mechanism for agriculture marketing.

Research Questions

- i. Whether the existing policies and programmes/schemes of central government are satisfactory in canalizing credit for development of agriculture marketing (post-harvest) infrastructure? If not, what are the challenges and limitations?
- ii. What is the nature of credit by trader to farmers for agriculture marketing? What is the basis of its grant by trader to farmer, its interest rate, repayment period, recovery rate?
- iii. What are the components of agriculture market infrastructure projects which are not considered for sanction of institutional credit (particularly by the banks)? What are the problems faced by the farmers w.r.t. institutional credit for agriculture marketing?

Chapterization

While chapter-I of dissertation deals with the development of regulated agriculture marketing system in India including its limitations, Chapter-II deals extensively the market reform process and the developments associated with it including the need for credit, objective of study, research questions. Both these chapters bring out together existing policies for agri-marketing as well as major schemes and programmes to promote agriculture marketing and market infrastructure. Chapter-III deals with the methodology of study with reference to both primary and secondary research on credit for agriculture marketing. Chapter-IV brings out the contemporary literature review on credit for agriculture as well as on agriculture marketing. It focuses on geographical/regional and sectoral/institutional pattern of disbursement of agricultural credit. This chapter also brings out the relative slow growth of

long-term credit, (which helps in development of much needed critical market infrastructure such as rural storage godowns, cold storage etc) over period of time within priority sector lending.

While large number of literature is available on the subject of credit to agriculture sector, there is hardly any specific literature available pertaining to study of credit for agriculture marketing and agriculture market infrastructure development in the country. Attempt has been made through field survey to investigate both trader financing and institutional credit system about various aspects including bottleneck being faced in this regard. Chapter-V deals with findings of the market survey carried out on trader lending as well as institutional lending for agriculture marketing. With reference to credit provided by trader, it brings out the nature of credit, purpose for which credit is provided, interest rate, recovery rate and methodology of recovery. Recommendations of both short-term as well as long-term in nature, to improve the institutional credit for agriculture marketing including that for agriculture market infrastructure projects, have been made in last chapter (Chapter-VI).

In order to study in detail about issues and challenges relating to credit for agriculture marketing with a view to come out with specific short-term and long-term suggestion to improve institutional credit for agriculture marketing, two pronged methodology has been adopted i.e.; i. Primary Research and ii. Secondary Research. The next chapter brings out the Research Methodology adopted in detail including the scope of study.

Annexure- 2.1

SWOT Analysis of Agri-Business in India

Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> -Good agro-climatic crop production base -Comparative advantage in high-value crops production -Increase in demand for high-value crops -Growing private sector management and investment capability -High returns from value-chain investment -Retail concentration providing lower transaction cost for marketing quality products 	<ul style="list-style-type: none"> -Small and fragmented land Holdings -Low productivity -Low level of diversification into high-value crops -Low-quality rural and marketing infrastructure -Monopolized and/or public marketing systems -Poor value chain integration and links -Inefficient and under-resourced public sector institutions -Slow private sector Involvement -Poor-quality standards, and certification to enhance food safety -Limited access to rural Credit -High post-harvest losses 	<ul style="list-style-type: none"> -Increased rural incomes, employment, and economic development -Better food safety, and nutritional and diverse range of products for consumers -Increased agro-processing -Increased exports and foreign exchange earnings -Greater import substitution and foreign exchange savings -Public-private partnership models tested for marketing infrastructure -Value chain models to increase producer margins 	<ul style="list-style-type: none"> -Intensification of unbalanced cropping systems resulting in declining productivity -Negative impact of climate change -Decreasing public investment in fertilizers and specialty high-value crop seeds -Corruption -Poor quality -Inadequate investment requiring food importation for high-value products -Public sector transaction and compliance costs for no services -Continued feminization of agriculture

Source- Asian Development Bank

Annexure 2.2

Central Govt. Ministries/ Organisations Dealing with Agriculture Marketing Issues

Agency	Policy Formulation	Regulation	Domestic Trading	Post-Harvest Mgmt	Agro-Processing
Ministry of Agriculture					
Dept of Agriculture and Cooperation	x				
Directorate of Marketing and Inspection		x	x		
Directorate of Plant Protection, Quarantine and Storage					
Horticulture Division	x			x	
Dept. of Animal Husbandry and Dairying	x	x	x		
Boards and Autonomous Bodies					
National Horticulture Board			x	x	x
National Dairy Development Board			x		x
Coconut Development Board			x		x
National Oilseeds and Vegetable Oils Development Board			x	x	x
National Insecticides Board	x				
National Institute of Agricultural Marketing			x	x	x
National Institute of Post Harvest Technology				x	x
National Cooperative Devp Corporation			x	x	
National Agricultural Cooperative Marketing Federation of India					
Small Farmers Agribusiness Consortium			x	x	x
Ministry of Food Processing Industries	x	x			x
Ministry of Consumer Affairs, Food and Public Distribution					
Dept. of Consumer Affairs	x	x			
Bureau of Indian Standards		x	x		
Dept. of Food and Public Distribution	x		x		
Directorate of Sugar		x			x

Directorate of Vanaspati, Vegetable Oils and Fats			x		x
Central Warehousing Corporation					
Food Corporation of India			x		
Ministry of Small Scale Industries	x	x		x	
Ministry of Commerce and Industry					
Dept. of Commerce	x				
Dept. of Industrial Policy and Promotion	x	x			x
Directorate General of Foreign Trade					
Indian Institute of Packaging			x		x
Agricultural and Processed Food Products Exports Development Authority (APEDA)			x		
Marine Products Export Development Authority (MPEDA)			x		x
Export Inspection Council					x
Coffee Board			x	x	
Rubber Board			x	x	x
Spices Board			x	x	x
Tea Board			x	x	x
Tobacco Board			x	x	
Ministry of Health and Family Welfare	x				x
Ministry of Finance					
National Bank for Agriculture and Rural Development			x	x	x
Ministry of Rural Development			x	x	x
Ministry of Panchayatiraj	x	x	x	x	x

Source- Report of Evaluation of Impact assessment of Central Sector Scheme of Agricultural Marketing Infrastructure (2011)

Annexure – 2.3

Progress of Market Reforms as per major areas identified in Model APMC ACT

Sl. No.	Area of Reform	States adopted the suggested area of market reforms
1.	Initiative for setting up of new market by any person, local authority or grower	Chhattisgarh, Goa, Assam, Mizoram, Nagaland, Sikkim, Tripura and Jharkhand
2.	Setting up of Special Markets and Special Commodity Market	Andhra Pradesh, Gujarat, Maharashtra, Karnataka, Nagaland, Sikkim, Tamil Nadu and Tripura, Jharkhand
3.	PPP in Market Extension activities of Market Committee	Andhra Pradesh, Himachal Pradesh, Karnataka, Nagaland and Sikkim
4.	To promote and encourage e-trading, Market Committee may establish regulatory system, create infrastructure and undertake other activities and steps needed thereto	Gujarat, H.P., Karnataka, Nagaland, Sikkim, Mizoram, and Goa and Maharashtra (under Rule 5 license granted to Commodity Exchanges registered under FMC)
5.	Secretary to be Chief Executive Officer of Market Committee. CEO shall be appointed by the Market Committee from the panel maintained by the Director/Board which may include professionals from open market.	Nagaland, Sikkim, Mizoram, Maharashtra (under Rule)
6.	Contract Farming Sponsor shall register himself with the Marketing Committee or with a prescribed officer in such a manner as may be prescribed.	Andhra Pradesh, Arunachal Pradesh, Assam, Goa, Himachal Pradesh, Karnataka, Haryana, Maharashtra, Madhya Pradesh, Mizoram, Nagaland, Orissa, Rajasthan, Chhattisgarh, Sikkim, Tripura and Jharkhand*
7.	The contract Farming Sponsor shall get the contract farming agreement recorded with the prescribed officer.	Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Gujarat, Goa, Karnataka, Haryana, Madhya Pradesh, Mizoram, Maharashtra, Nagaland, Orissa, Rajasthan, Sikkim, Tripura and Jharkhand*
8.	No title, rights, ownership or possession shall be transferred or alienated or vest in the contract farming sponsor or his successor or his agent as a consequence arising out of contract farming agreement.	Arunachal Pradesh, Assam, Goa, Haryana, Maharashtra, Mizoram, Nagaland, Orissa, Rajasthan, Sikkim, Tripura and Jharkhand*, Andhra Pradesh, Karnataka
9.	Dispute settlement mechanism	Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Gujarat, Goa, Karnataka, Haryana, Madhya Pradesh, Mizoram, Maharashtra, Nagaland, Orissa, Rajasthan,

		Sikkim, Tripura and Jharkhand*; Himachal Pradesh
10.	Exemption of Market Fee on the sales to the contract farming sponsors taking place outside the market yard under the contract farming agreement	Arunachal Pradesh, Goa, Karnataka (Reduced by 30%), Maharashtra, Mizoram, Nagaland, Orissa, Rajasthan, Sikkim, Tripura and Punjab (exempted under the Rules)
11.	Specification of model agreement for contract farming	Chhattisgarh, Gujarat, Goa (As may be prescribed), Karnataka (As may be prescribed), Maharashtra (Rules), Mizoram, Nagaland, Rajasthan, Sikkim, Tripura and Jharkhand*
12.	Single point levy of market fee	Chhattisgarh, Gujarat, Goa, Himachal Pradesh, Madhya Pradesh, Mizoram, Karnataka, Nagaland, Sikkim, UT of Chandigarh, Punjab and Jharkhand
13.	Registration (not licensing) of market functionaries and single registration for trade / transaction in more than one market	Assam, Goa, Himachal Pradesh, Maharashtra, Mizoram, Madhya Pradesh, Nagaland, Sikkim, and Jharkhand
14.	No commission agent shall act on behalf of agriculturist seller and no deduction to be made towards commission	Madhya Pradesh, Chhattisgarh, Mizoram, Nagaland and Sikkim
15.	Establishment of private market yard and direct purchase from farmers	Andhra Pradesh, Arunachal Pradesh, Assam, Gujarat, Goa, Himachal Pradesh, Karnataka, Madhya Pradesh (only direct purchase), Maharashtra, Mizoram, Nagaland, Orissa (excluding for paddy / rice), Rajasthan, Sikkim, Tripura, and Jharkhand
16.	Establishment of consumer / farmer market	Arunachal Pradesh, Assam, Gujarat, Goa, Himachal Pradesh, Karnataka, Mizoram, Maharashtra, Nagaland, Rajasthan, Sikkim, Tripura, Punjab (only enabling provision), UT of Chandigarh (only enabling provision) and Jharkhand
17.	Power to grant exemption from market fee by the State Government	Andhra Pradesh, Chhattisgarh, Gujarat, Goa, Madhya Pradesh, Maharashtra, Mizoram, Nagaland and Sikkim, Himachal Pradesh
18.	Setting up of separate Market Extension Cell in the Board, establishment of State Agricultural Produce Marketing Standard Bureau	Nagaland, Sikkim and Karnataka and Mizoram.

*Changed the nomenclature as market oriented farming agreement.

Source- First Report of The Committee of State Ministers to Promote Reforms (April 2011)