



Dynamic Reforms in Agricultural Marketing is the Key for Development of Agriculture Sector

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ABSTRACT

In spite of different hurdles, the agricultural marketing sector still plays dominant role in the Indian economy. There is need for integrated effort and regulations oriented towards the marginal and small holding farmers rather than general policies. In the present context of market oriented agriculture there is need of vibrant market information systems, new approaches in marketing such as, Group marketing, E-marketing, direct marketing, etc. The forward and futures market has the potential for national level market integration but it needs reforms to suit the Indian farmers. There is need of demand driven market for which a strong value chain approach is needed for the agricultural commodities. It is essential for a planned cropping pattern and timely market advisory for a stable market and less price volatility. For a sustainable farming there should be equitable income distribution for the farmers. Similar to Public Distribution System for safeguarding the consumers, there is need of an integrated system for safe guarding the interest of the farmers in marketing their produce for a faster and stable growth in agricultural sector.

Key words: Marketing finance, Marketing regulation, E-marketing, Forward markets, Direct marketing

The Indian economy has been sustaining the stability even when the major economies yielded to the recession. Since India has seen agriculture as a basic tool of economic development and other sectors depend on it. However there have been a lot of structural transformations in Indian Economy and it was a healthy signs of transformation particularly in agriculture and allied activities (Shakeel *et al.* 2012). Still agriculture supports 54.6 per cent of the population (Census 2011) and it contributes 17.4 per cent to the Indian Gross Value Addition (Ministry of Agriculture and Farmers' Welfare 2016). But the share has been shrinking since it contributed 51.9 per cent of GDP in

1950-51 (Manashree and Ayekpam 2014), but then declining continuously. The agricultural labour forces are shifting towards the jobs pertaining to construction, textile and other unorganized sectors, this causes the scarcity of labour force in agricultural sector (Murugesan and Rajarajan 2016). It was observed that in spite of persistent efforts and investment into the agricultural sector there was no substantial growth (Lavanya 2011), the agricultural sector has to keep pace with the production technology and socio economic development of the country for considerable growth. The market has been a society's common place where it is essential for individuals directly or indirectly to

take part for the survival. It is an area in which the forces leading to exchange or title to a particular product operate and towards which and from which the actual goods would tend to travel (Clark and Clark 1962). The provision of sufficient marketing facility is an important stimulation which would be backed by the price signals that will support the producers in taking up the crop production actively.

At the same time the socio economic status of the consumers has been changing continuously and its impact is felt in the market. The main cause for increase in the demand for agricultural commodities was growth in population, income, urbanization and liberalization (Johnston and Mellor 1961). The marketed surplus has been increasing, in this situation providing the basic market information is highly essential for sustaining the market competition (MANAGE 2015). It was emphasized by the National Commission on Agriculture (1976) and the National Commission for Farmers (2006), it is not only essential for producing the crop or animal product, but it must be marketed properly to get the returns to the producers. There have been persistent efforts to develop the agricultural marketing since from the beginning of the plan period in different forms both by central and state Governments. But still only 4.6 per cent of total agricultural production is processed and 35 per cent of fruits and vegetables were still lost during storage and transport (GOTN 2018).

International marketing as a tool for price stabilization

India had a long history of international trade since the sea voyages and the country was recognized for its quality spices such as pepper among the world nations. As the export trade has been considered as the engine for development, it was found that, in the absence of an efficient marketing system, strategy for agricultural development cannot go very far to stimulate production (Khalon and George 1985). Earlier, due to domestic food shortage the agricultural policies were aimed at achieving self-sufficiency in food grain production and there was only little concentration on agricultural exports (Pursell and Gulati 1993). In the later periods the market liberalization and globalization led for transformation in agriculture and agri-food markets in India. The Indian food basket is reoriented towards high value commodities such as fruits, vegetables and animal products and production has been diversified (BIRTHAL *et al.* 2007).

India is having comparative advantage in commodities like milk, pig, bovine meat, eggs, bananas and grapes as the producer prices are lower in India compared to many other countries (FAOSTAT 2007). The Quality control and standardization is extremely important, which is necessary to face competition (Expert Committee 2001). In the international markets India could not perform well mainly due to lack of scale economies in processing, stringent food safety and quality standards in the global trade, and their high cost of compliance and huge protection to producers and exporters in major exporting countries (BIRTHAL *et al.* 2007). It was found that there is an accelerated export of

high value food products particularly from the developing to developed countries (Diaz and Recca 2000, Aksoy 2005). In the past few decades, agricultural import share has increased from 2.8 per cent in 1990-91 to 4.2 per cent in 2014-15, at the same time the share of exports has reduced from 18.5 per cent to 12.7 per cent (Tanvi 2017). There is need of price stability for a stable export from any country but price volatility is a pronounced characteristic feature of international trade (Tangermann 2016). The world market prices were decided by the major producing countries besides the quality for some commodity like pepper. However Reardon and Barret (2000) in their study suggest that when market reforms the commodity prices will raise, at the same time it will stimulate production levels to raise, particularly for the export crops. There is need of export oriented production targeting niche markets to enhance export trade and stabilize the prices of agricultural commodities.

Present scenario and constraints in agricultural marketing

The Indian agricultural sector is being creating new record in production of cereals, building stocks of cereals, high inflation in cereals, also the farmers reported that they were not getting even the MSP in some areas. In this context the government has been intervening in the pricing, production, procurement and marketing of agricultural produce (Anandi 2014). An efficient agricultural marketing system need to aid in efficient allocation of resources, wealth creation, equitable income distribution and stabilize the market (GOTN 2018). In the present context the major bottlenecks in agricultural marketing system were lack of organization among farmers, low bargaining power, distress sale, malpractices in the market, inadequate infrastructural facilities, inadequate transport system, lack of market intelligence and information systems, lack of value addition facilities, post-harvest credit, and have high transaction costs. The small holding farmers even if they produce high value food commodities, their links to markets are not strong (BIRTHAL *et al.* 2007, FICCI 2017).

The farmers reported that the marketing facilities are inadequate and they get less price for their produce but in reality the marketing middle men and pre harvest contractors ruins the profit of farmers. In the traditional marketing channel there are multiple intermediaries and high cycle times for agricultural commodities (Reddy and Murthy 2009). Producer's share in consumer's retail price is mere 40 to 60 per cent depending on the commodity and only 25 per cent of produced food-grains utilize scientific storage. In fruits and vegetables marketing farmers receive 30- 50 per cent of the consumer price (Gandhi and Namboodiri 2002). In the agricultural marketing private traders handles around 80 per cent of agricultural commodities. The marketed surplus of the Indian farmer is around 90 per cent but they do not get remunerative returns (FICCI 2017). In most of the crops like chilli the fluctuation in market price influence the livelihoods of thousands of farmers (Parthasarathi *et al.* 2017). In Particular the farmers located in remote areas either due to physical distance or poor roads were highly

affected and get unattractive prices. The major constraint in production of high value and perishable crops in most of the rural areas and blocking factor in the linkage of producers and specialized markets is the distance (Heather and Ann 2001).

Present scenario of agricultural marketing infrastructural facilities

The consumer preference in India is different than the western countries. Unlike the developed countries, in India the value addition in fruits is less than 2 per cent (Surendranathan *et al.* 2004). Due to lack of infrastructural and processing facilities the post harvest losses is very high, the post-harvest losses ranges from 4.65 to 5.99 per cent in cereals, 6.36 to 8.41 per cent in pulses, 3.08 to 9.96 per cent in oilseeds, 6.7 to 15.88 per cent in fruits, 4.8 to 12.44 per cent in vegetables, 0.92 per cent in milk, 7.19 per cent in eggs and 6.74 per cent in poultry meat. The aggregate post-harvest losses of agriculture commodities are about ₹ 92,651 crores at average prices value of 2014 (Jha *et al.* 2015).

The marketing infrastructure is an important factor for remunerative farming business but there were insufficient marketing infrastructure facilities. The study by Gyanendra *et al.* (2015) reveals that one fourth of the markets have common drying yards, only one-third markets have grading facilities and cold storage facility is available in only 9 per cent of the markets, trader modules is available in only two-third of the Markets and one-third of the markets are having open auction platforms without any cover. Ramkishan (2004) identified that the lack of food processing and storage facilities is the main cause for low price during peak marketing season and at the same time during lean season the consumer pay a higher price. As there is lack of market infra structural facilities the farmers in most cases do not have any incentive is selling their produce through market yards (AMP 2015). Creation of adequate marketing infrastructure along with growth oriented business environment and Agri-business friendly policy paradigm will pave way for sustainability and can reduce urban-rural disparity (GOTN 2018).

Need for market investment and marketing finance

The market finance is the most important factor for the agricultural sector. If there is more investment, it will lead to creation of processing and storage facilities. In turn it will lead to reduction in the price volatility. Of the total allocation to agriculture only 4-5 per cent of public expenditure of agriculture during 10th and 11th five-year plan concentrated on agricultural marketing and only one per cent is on infrastructure development (Swaniti initiative 2016). The marketing of agricultural commodities is no longer a simple activity of assembling in open yard and finding ready takers it has the potential of flow of information to guide the cropping cycles, and incentivizing the use of technology. The ultimate outcome is added investment in agriculture allied activities and it will create additional job opportunities. (Ministry of Agriculture and Farmers' Welfare 2017). The supply chain management is very

important to reduce the post-harvest loss and transaction cost but it needs investments (ISAM 2014).

Under the prevailing conditions private sector is unwilling to invest in logistics or infrastructure of the Market (Report Committee of State Ministers, 2013). But large private investments are required for post harvest and cold chain infrastructure and to establish effective linkage between the farm production and retail chain and food processing (Ramesh Chand 2017). Financial requirement of marginal and small farmers need to be taken care without delay by the private/public sector institutions along with nominal interest rates (Hegde and Madhuri 2013). The farmers need finance for their immediate requirements which causes to sell their produce at lower price is it is available through credit institutions then they can wait and sell at higher prices (Takle *et al.* 2011). Around 86 per cent of land holdings of the Indian farmers are less than 2 hectares for whom the external investment credit is essential, but the informal sources of credit constitute 40 per cent of loans which ruins their income due to higher interest rates. In addition the inadequate access to crop insurance is also a threat to the agricultural producers (Tanvi 2017).

Development of agricultural marketing sector in India

The history agricultural marketing started when the British Government felt the need for supplying pure cotton at reasonable price to the textile mills at Manchester. The Karanjia Cotton Market was established in 1886 as a Regulated Market under the Hyderabad Residency's order. The Government of India appointed the Royal Commission on Agriculture in (1928). The Indian Central Banking Enquiry Committee (1931), endorsed the recommendation of the Royal Commission with some suggestions. Based on recommendation the office of the Agricultural Marketing Advisor to Government of India established during 1935, now known as Directorate of Marketing and Inspection (DMI), for undertaking the necessary tasks in framing sound and comprehensive policies for the improvement of agricultural marketing in India, is considered as an important milestone in the field of agricultural marketing (Gyanendra *et al.* 2015). The Hyderabad Agricultural Markets Act was passed in 1930 and followed by the Central Provinces Agricultural Produce Act in 1935 that is for all kinds of produces except cotton. At the end of 1940, there were 135 Regulated Markets in India, it was only 268 in the First Plan period, but it increased to an impressive figure of 7,566 by the end of 2008 (Ramesh Chand 2012).

However, it cannot be denied on the benefits of initiatives and development of agricultural marketing through regulating the agricultural marketing sector during various phases of agricultural development. The chronological development of the agricultural marketing in Tamil Nadu and India is being compiled to trace back various developments in this field of agricultural marketing and to study the efforts made by the Government for farming community. Some of the major regulatory interventions made legally that made agricultural marketing efficient were:

- Co-operative Marketing Societies Act, 1912
- Royal Commission on Agriculture 1928.
- Agriculture produce (Grading and Marketing) Act, 1937, 1986
- Food Grains (Procurement and Licensing) Order, 1952,
- Prevention of Food Adulteration (PFA) Act, 1954, 1964, 1976, 1986
- Essential Commodities Act, 1955
- The Fruit Products Order, 1955
- Export (Quality Control and Inspection) Act, 1963
- Food Corporation Act, 1964
- Solvent Extracted Oil, De oiled Meal and Edible Oil (Control) Order, 1967
- Meat Food Products Order, 1973
- Standards of Weights and Measures Act, 1976
- Pulses, Edible Oilseeds and Edible Oils (Storage Control) Orders, 1977
- Vegetable Oil Products (Control) Order, 1947,1977
- The Solvent Extracted Oil, De oiled Meal, and Edible Flour (Control) Order, 1967
- Prevention of Black Marketing and Maintenance of Supply of Essential Commodities Act, 1980
- The Cold Storage Order, 1964, 1980, (rescinded in 1997)
- Consumer Protection Act, 1986
- Bureau of Indian Standards Act, 1986
- General Grading and Marking Rules 1988
- Milk and Milk Products Order, 1992
- Fruit Products Order (FPO), 1955, 1997
- The Edible Oils Packaging (Regulation) Order, 1998
- Food Safety and Standards Act, 2006
- Model Agricultural Produce Marketing (Development and Regulation) Act, 2003
- Organic Agricultural Produce Grading and Marking Rules, 2009
- National Agriculture Market or eNAM, 2016
- Model State/UT Agricultural Produce and Livestock Marketing (Promotion and Facilitation) Act, 2017.

As early as 1928 the Royal Commission on Agriculture felt that the problems of agricultural marketing can be solved by the establishment of regulated markets (The Royal Commission on Agriculture 1928). According to Acharya and Agarwal (1994) the marketing costs in regulated markets are standardized and practice is regulated. The outcomes of regulatory functions of the marketing system will have impact on economic growth of agricultural sector (Cullinan 1999, Fafchamps *et al.* 2008, Minten *et al.* 2012, Acharya 2004). It was evident that the regulated markets at the wholesale assembling level had helped to solve the problems of both producers and sellers but the rural periodic markets and tribal markets do not get benefit and still face constraints (Rajendran and Karthikesan 2014). In the recent periods through market intervention the government has been playing an important role in price stabilization and to protect interests of producers and consumers many regulations related to food safety, transportation, weights and measures and food standards

were brought into force (FICCI 2017). In the development of the agricultural marketing there were many hurdles as it had emerged due to conversion from subsistence agriculture to market oriented one. All along there were many regulatory activities for main streaming and safe guarding the farmer producers and consumers.

The effective regulations for agricultural produce markets have been increasingly recognized as an important institution for agricultural sector development (Purnima 2016). As a major regulatory activity the central government had released a Model APMC Act in 2003, to be enacted by states. The Model Act (i) provides for the direct selling of produce through contract farming, (ii) permits private persons, farmers and consumers to establish agricultural markets, (iii) levies a single market fee on the sale of the commodity, and (iv) replaces licenses with registration of market agencies so that they can operate in more than one market, among other things (APMC Act 2003).

Regulation of agricultural marketing in Tamil Nadu

The Government of Madras passed the “Madras Commercial Crops Market Act 1933’ to protect farmers. According to the act, the first regulated market specifically for cotton was formed at Tiruppur in Coimbatore District and the second regulated market for groundnut was established at Villupuram of South Arcot District. Subsequently, the 1959 Act was modified as the “Tamil Nadu Agricultural Produce Marketing (Regulation) Act 1987 and Rules 1991”. Tamil Nadu State Agricultural Marketing Board came into existence in December 1970 and Board being an apex body of the market committees and ensures uniformity in practice and procedure in the day to day administration of market committees. The State Agricultural Produce Marketing (Development and Regulation) Act, 2003 was circulated to the states by the Union Ministry of Agriculture to make amendment in their respective state APMC Acts (Task Force on Agricultural Marketing Reforms 2001) had further brought about new dimensions through solving the major constraints in the earlier act. In total 40 Agricultural Commodities have been notified in the state. In Tamil Nadu, 23 Market Committees have been established under which 278 Regulated Markets are functioning as per the provisions of Tamil Nadu Agricultural Produce Marketing (Regulation) Act 1987, Rules 1991 (GOTN 2018, DES Chennai 2017). In the APMC index worked out by Purnima (2016) the magnitude revealed that the states such as Haryana, Andhra Pradesh, Tamil Nadu and Rajasthan maintained ranks at the higher side in most of the time period.

Initiatives for improving the agricultural marketing in Tamil Nadu

The Department of Agricultural Marketing in Tamil Nadu works on Agri Export, Post Harvest Management, Food Processing and Agricultural Marketing that can provide additional income for the farmers. The role of the co-operatives also occupies important place in the field of agricultural marketing (Murugesan and Rajarajan 2016).

The Tamil Nadu Cooperative Marketing Federation Ltd., (TANFED) arrange, store and distribute required inputs along with market support to the affiliated member.

The new marketing initiatives such as group marketing through Farmer Producer Organizations, contract farming, and technology-enabled e-marketing are some of the recent interventions made in the existing agricultural marketing system in Tamil Nadu. For the marketing infrastructure development, investments has been made in the creation of storage, sorting, grading, certification infrastructures and primary processing facilities at the farm level (FICCI 2017) to enhance the farmers income and as a safeguarding mechanism for the farmers. The major initiatives made in the recent times in Tamil Nadu are detailed as follows:

- Group marketing is an effective marketing mechanisms that can increase the bargaining power of the farmer. The formation and promotion of Farmer Producer Organization (FPO) and group marketing will pave the way for increasing producers' share in consumer rupee. In the past 3 years around 42 FPO's have been formed in crops such as pulses, millets, banana, coconut, oilseeds, groundnut, guava, mango, minor millets, maize, chillies and vegetables.
- Promotion of Commodity Groups for creation crops at village level is the initiative that can gain access to better technology and marketing facilities.
- The development of infrastructure facilities for post harvest management and marketing of farm produce to improve the value addition and stabilizing prices of agricultural commodities is in progress.
- For the prevention of wastage and minimizing post harvest losses and enhancing shelf-life, the storage godowns, cold storages, ripening chambers, drying yards, facilities is being enhanced.
- In order to attract more private involvement in enhancing the marketing infrastructure the Public Private Partnership (PPP) has been encouraged particularly in value addition and processing sectors.
- Dissemination of market information and intelligence and crop advisories to farmers is highly important in the era of globalization. Price forecasting information systems should be available at village levels, for which the local mandis should be updated and upgraded with modern information systems (Hegde and Madhuri 2013). To disseminate the price forecasting and market information a separate unit Agro Marketing Intelligence and Business Promotion Centre has been functioning in coordination with Tamil Nadu Agricultural University.
- The quality assurance has been made with the help of AGMARK laboratories to check the adulteration of food products.
- The skills on post harvest management are highly important for which the capacity building programmes has been provided to impart skills to the farmers.
- The State is in the process of integrating and introduce e-trading in 15 Regulated Markets and 10 Agricultural Producers Co-operative Marketing Societies.

- The projects have been under progress on Supply Chain Management of fruits, vegetables and other perishables, to reduce post-harvest losses and connect the farmers with major markets and processors.
- In Tamil Nadu the Farmers Markets / Uzhavar Sandhais is one of the major initiatives which function with the objective of ensuring fair price to the Farmer produce without the interference of intermediaries and at present, there are 179 Uzhavar Sandhais" functioning in Tamil Nadu.
- High investment with entrepreneurial skills is required for creation and managing market infrastructures. The private investment need to encourage particularly for remote and difficult areas (Expert Committee 2001). Market Complexes for specific Commodity with facilities like cold storage, godown, grading and sorting hall, drying yard, etc., for various crops such as paddy, turmeric, coconut, tender coconut, hilly vegetables, tomato, onion, mango, grapes, banana and other vegetables crops is being created.
- The modern terminal markets complexes for perishables will provide state-of-the art infrastructure facilities for electronic auction, cold chain and logistics and operate through primary collection centers (Rajendran and Karthikesan 2014). The Government of Tamil Nadu have taken initiatives to set up 3 Terminal Market Complex for fruits, vegetables and other perishables through Built, Own and Operate (BOO) basis in Public Private Partnership mode.
- Food Processing Incubation cum Training Centers has been established, in which the TNAU is imparting skills on value addition through trainings.

These are the some of the farmer friendly major initiatives of the Tamil Nadu Government for upgrading the agricultural marketing sector at present.

The way forward

The effective regulation of agricultural markets has been increasingly recognized highly important institution for agricultural sector development (Purnima 2016). First it is essential to stream line the existing markets. At the national level an integration work has been initiated which is means for organizing the agricultural market, that is Electronic National Agricultural Market (eNAM) to unify nationwide agricultural markets by creating a central online platform (Swaniti initiative 2016). But the Government needs to look into policies and regulations that hinder free marketing system (Expert Committee 2001).

The same time the Government has to keep in mind is the mounting food subsidy which was ₹ 92,000 crore during 2013-14 and also mounting fiscal deficit (Gyanendra *et al.* 2015). It is necessary to consider that the average monthly income of the agricultural households was ₹ 6,426 (70th NSSO Report 2014). Accordingly the reforms need to be modified and streamline the marketing set up. At the same time it is essential to look into the world markets, Burt and Lindabrewer (2005) stated that value-added processing and handling of crop and livestock products is a major force for

withstanding in the global competition that need to be concentrated.

a. Addressing emerging problems

There are many emerging issues in the present economic condition that affect the agricultural marketing and prices such as changing consumer preferences, climate change, new production and processing technologies etc. The climate change also affects the agricultural market and hence the climate-related interventions in market systems also need to be account for different market function's specific response (Andrea *et al.* 2017). There is need of intensive marketing research, in particular the SAUs and the Regional and other centers of ICAR to take coordinated marketing research (Expert Committee 2001) to address the emerging new market environment. Basically there is need of more storage structures for storing seasonal and perishable produces at the village level, at least one in each village that is managed by the Government authorities (Yavana 2014). An efficient Marketing system increase in the marketed surplus and income of the farmers (CSO, 2010). There is need of farmer welfare-centred approach rather than isolated development approaches (State of Indian Agriculture 2016). As the global markets growth is rapid, the new market opportunities have arisen for products based on long and Integrated Supply Chains (Hu *et al.* 2004).

b. Marginal and small farmers oriented reforms

There is caution about smallholders on their participation in the market-oriented production due to their inability in access to markets, capital, inputs, and technology and extension services (BIRTHAL and JOSHI 2007). As the economy develops there need for specialized marketing services for physical distribution, storage, grading, market information gathering and so (Crawford 2006) oriented towards small producers. Much concentration has to be made towards the development of marginal and small farmers rather than already commercialized and large farms where they have clear view of the market (AMTF 2016). The country has already gained self-sufficiency in food production, but there is need for translating this into better remuneration for the producers through increasing focus on agricultural marketing sector (ISAM 2014). To avoid isolation of small-scale farmers they need to be integrated and imparted market knowledge on fluctuations, demand and supply etc, (Kiruthiga *et al.* 2015). Price alone will not induce the smallholders to participate in markets, there is need of public policy intervention (Swaminathan and Sivabalan 2016). There is need for Reform in Agricultural Marketing for empowering farmers to undertake market-driven production, competitive marketing channels, large scale investments for post-harvest infrastructure (GOI, Planning Commission 2011). The necessary marketing reforms coupled with proper price discovery mechanism will help to streamline and strengthen agricultural marketing along with collective and integrative efforts from various stakeholders (Rajendran and Karthikesan 2014). Mainly the high marketing and transaction costs are a barrier to

farmers' participation in markets. The institutions such as cooperatives, FPO's and contract farming etc, can reduce marketing and transaction costs along with risks and provide 'markets' to the farmers at their doorsteps (Eaton and Shepherd 2001).

c. Vibrant agricultural market information systems

The agricultural Market Information Systems (MIS) is designed to collect, analyze and disseminate information on the status and the dynamics of agricultural market prices (FAO 2017). In developed countries, MIS has been in use since century but in developing countries its importance is felt and started using since 1980's (Mawazo *et al.* 2014). The MIS is described as an essential part of the reform process in agricultural sectors (Coulter and Poulton 2001). A efficient marketing information system will be helpful in managing timely delivery of product, reduce marketing costs and increase production and make the market more transparent (Gauravjeet 2015). Development of ICD based market intelligence will ensure awareness about market information and may help small farmers (Gyanendra *et al.* 2015) but that should reach rural areas. The AGMARKNET is another attempt that aims at empowering the farmers with market information (Sharad 2005).

d. Contract farming

The contract farming is another marketing tool that assures the farmers with assured price and processors with required quality and quantity. Ramaswami *et al.* (2006) have shown that the contract farming farmers can shift 88 per cent income risk to the firms. The farmers also benefit with interest-free credit in the form of inputs. BIRTHAL *et al.* (2005) have found that there is reduction in marketing and transaction costs to an extent of 58 per cent and net profits increased by 13 per cent. The study of Aparna and Hanumanthaiah (2012) has revealed that the marketing cost incurred at the producer's level is higher in the traditional channels compared to that of the supermarket channel. The farmers entering with the contract with the retail chains receive higher prices (Dhananjaya and Rao 2009, Alam and Verma 2007), along with higher net profits (Mangala and Chengappa 2008, BIRTHAL *et al.* 2005) and more importantly the transaction costs is lower (Joseph *et al.* 2008). BIRTHAL *et al.* (2005) found that the contract farming farmers could save as much 92 per cent of transaction costs that is twice the net revenue earned as compared to that by independent farmers. Bahinipati (2014), found that the supermarket-contract farmer uses the concept of preferred supplier that has reduced governance costs. However the entire system cannot be regulated or channelized since both demand and supply side factors that contribute to the emergence of traditional and modern retailing (Reddy *et al.* 2010). In a similar study the farmers have benefited from the SAFAL supply chain (BIRTHAL and JOSHI 2007). Hence an efficient contract farming and value chain management will certainly add value and help in bringing the produce to the market with less transaction cost that will benefit both the producer and consumer.

e. E-marketing, forward markets and direct marketing of agricultural commodities

In many situations, farmers sell directly to consumers on local markets avoiding transaction costs, farmer has control over sales prices and therefore obtain greater market power (Timmons and Wang 2010, Uematsu and Mishra 2011, Brown and Miller 2008, Timmons and Wang 2010, Uematsu and Mishra 2011, Low and Vogel 2011, Fischer and Qaim 2012). The advantageous direct marketing may create a healthy emulation among farmers it will not only increase the net income to the farmers but also will lead to more production (Agbo *et al.* 2014). The basic problem of the price fluctuation arises due to lack of storage facilities. The warehouses and cold storages need to be created extensively covering the rural areas and production centers. There is need of integration of the markets for reducing the spatial differences in the price that will create a healthy competition and there is need of more competitions for better price to the farmers (NCAER 2006) that can increase the share of farmers in consumers' rupee. E-marketing is essential to overcome challenges of the rural environment (Kashyap and Raut 2006). At the national level an integration work has been initiated which is means for organizing the agricultural market, that is Electronic National Agricultural Market (e-NAM) to unify nationwide agricultural markets by creating a central online platform (Swaniti initiative 2016). More importance has to be provided in executing the e-NAM throughout the country. E-marketing is essential to overcome challenges of the rural environment (Kashyap and Raut 2006). The forward contract is an effective alternative marketing method that can facilitate competitive and free marketing system (Expert Committee 2001) but it needs reforms that suit the present day farmers' condition to take part in it. The share of farmer in consumer's price is very low due to intermediaries hence reduction in intermediation by providing alternative marketing channels like direct marketing, forward markets, contract farming, etc. for which reforms in agricultural marketing system are necessary (Gyanendra *et al.* 2015, Expert Committee 2001),

CONCLUSION

In spite of different hurdles, the agricultural marketing sector still plays dominant role in the Indian Economy. Still it provides employment to 54 per cent of the population of the country. There is tremendous improvement in the marketing and infrastructural facilities since independence but it does not match with the present needs. The long experiences of regulation of agricultural marketing have taught that there is need of integrated effort for serving the millions of farmers. There is need for the regulations oriented towards the marginal and small holding farmers rather than general policies. In the present context of market oriented agriculture there is need of vibrant market information systems that will help the farmers to decide the enterprise to be taken up. Altogether there is need of new approaches in marketing of agricultural commodities such as, direct marketing, group marketing, e-marketing etc. More emphasize is needed for the direct marketing but the present individual direct marketing will not suit the condition rather there is need of direct group marketing through producer organizations, commodity groups etc. There is need of creation of healthy competition among the traders through integrating the markets in turn that will increase the price for the farmers. Although the forward and futures market has the potential for integration and possibility of nation level price discovery but it needs reforms in such a way that it suits the Indian farmers. Although the farmers are moving towards market oriented enterprises still it could not attain the status of demand driven market for which a strong value chain approach is needed for the agricultural commodities. The reforms need to be carved in keeping marginal farmers at the center since 85 per cent of the farmers are marginal and small holders with economically deprived condition. For a sustainable farming there should be equitable income distribution for the farmers as that of the other sectors like service sector. Similar to Public Distribution System for safeguarding the consumers, there is need of an integrated system for safe guarding the interest of the farmers in marketing their produce for a faster and stable growth in agricultural sector.

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