



A Case Study

Study of agricultural market information system and their problems related to dissemination in Maharashtra state

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ABSTRACT : Agricultural market information system collects, processes and disseminate information on the situation and dynamics of agricultural markets in order to improve public policies through increased awareness of market realities and to increase market transparency and by this way to lead to a fairer and more efficient allocation of resources. Different institute in Maharashtra disseminating market information to large number of farmers. But there are some limiting factors and apparent constraint in agriculture information dissemination. Agriculture Market information system is essential not only for the formulation of a proper pricing policy and its successful implementation at a macro-level, but also for farmers to aid them in improving their marketing performance. Accurate, adequate and timely information on all aspects of the crops traded is essential to operate efficiently.

KEY WORDS : Agricultural market information systems, MARKNET, Problems related to dissemination of market information

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INTRODUCTION :

An agricultural market information system collects, analyze, packages, stores and disseminates prices and other information relevant to farmers, traders, processors and others interested in agricultural commodities. It may also be called market intelligence system, market information service or in short a MIS (CTA, 2015). It may use various channels to get the information to the users, now a day's especially mobile phones and internet as well as more traditional methods such as radio, television, print media and notice boards.

MIS information can be used by farmers both for

advocating more producer friendly policies (through farmers organization) and to guide their production and marketing decisions (choice of what, when and where to sale) Andrew (1997). In addition, as small farmer's market power is hindered by their lack of information on price levels and changes at different points of the marketing chain, strengthening small holder farmer's access to information can improve farmers bargaining position (Binayee, 2005).

Objectives:

– To study the agricultural market information system.

- To study different agricultural market information systems in Maharashtra state.
- To identify the problems of agricultural information dissemination.

MATERIALS AND METHODS :

The data collected mainly from websites, annual reports, research reports, already conducted survey analysis. The information has been analyzed to illustrate the use of market information, describe the underlying concepts and generate lessons, ideas and insights useful for developing and strengthening agriculture market information systems in our country.

RESULTS AND DATA ANALYSIS :

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Agricultural market information system:

The more information farmers have, the better decision they can make. Farmers can choose what products to produce and when, where and to whom to sell. Processors can plan their purchases and activities. The Government can detect food insecurity problems quickly. Information is power, valuable. It reduces poverty and make market more efficient, also avoids crises. Market information system disseminate information through three channels in India *i.e.* Government systems, Project based systems and Commercial systems.

Government systems regard information as part of the infrastructure that improves the lives of people (public good) similar to roads or security services. They tend to provide services such as information on prices or the weather for free. Project based systems are set up by development organizations and are supported largely by donor funding. They tend to be specific to a particular area or commodity. They also tend to be short lived. It is difficult to sustain them after the project funding ends. Commercial systems rely on a mixture of user fees, advertising, subsidies and income from additional services (such as training). They believe that by supplying information that is accurate, timely and well-packaged, they can persuade enough users to subscribe to cover their costs or even generate a profit while the majority of

some are able and willing to pay for it. Most providers are still seeking way to make their business profitable.

Second generation MIS, created from the end of the 1990s and in the 2000s, often rely heavily on information and communication technologies (ICTs) to collect and disseminate information, through the internet and mobile phone networks. The system have extended their reach, beyond providing simple market prices to offering information on most of issues, from individual offers and demands (virtual market place) to advice on crops, pest and inputs. Increasingly decentralized, modern agricultural MIS are often interactive, enabling a two-way connection, for example, between farmers and markets or extension agents.

Market information and farmers:

Farmers often have limited outlets for their produce and often bound by traditional trading relationships, which may include an element of credit provision by traders. A simple service offering regular price information for one or two terminal markets can be beneficial to farmers in several ways. Information reduces the cost of selling the produce by reducing risks. In the extreme case, farmers with information can decide whether or not to harvest. Information on market condition may change farmers marketing strategies. While, individually, farmers may be unable to take advantage of spatial arbitrage possibilities, collectively they may be able to organize transport to more distant and profitable markets. Group marketing by farmers is not been widely taken up in practice. Improved availability of information may, however, encourage more group marketing initiatives.

Market information and spatial arbitrage by traders:

Market performance is related to the functioning of arbitrage. Spatial arbitrage should equalize supply and demand at different market places until differences are reduced to the level of transport costs. The higher the level of transaction costs between markets, smaller the probability that exchange will take place between them. Links between markets thus become more likely as transaction costs decrease. When risk or cost of identifying market outlets is reduced because of the availability of market information, transaction costs will go down. Lower transaction costs thus, influence quantities and price in the market. Availability of market information will encourage spatial arbitrage between two markets, especially in cases where information and

transport costs are relatively low. If no trade exists between two markets, both will clear supply and demand at their respective equilibrium prices. When price differences between the two are larger than the transaction costs, trade relations will be developed if there is no control to inhibit exchange. A new equilibrium price will be determined for the combined market for the two regions. The level of transaction costs thus influences trade flows and prices in the markets. When transaction costs go down, as a consequence, for example, availability of price information, efficiency gains are achieved. The availability of correct price information will lower the traders cost of information gathering, as well as the risk of sudden unfavorable price changes. Consequently, they will have more opportunities to prevent unprofitable transfer and this should ultimately lead to a reduction in their gross margins.

Market information and policy maker:

Traders in developing countries are often accused by policymakers of exploitative behavior because large differences between farm-gate and retail prices are observed. It is assumed that the unbalanced relationship between farmers and traders, or between traders and consumers, based on better market and price knowledge of traders, together with imperfect competition, results in abnormally high profits for traders. Often, it is very difficult to substantiate these accusations because of the lack of clear information. Reliable price information is absent and estimates about the costs and risk premiums necessary to deal with price fluctuation are hardly taken into account by policymakers making the accusations. Market information offers the opportunity to judge the performance of markets for agricultural products and to determine micro-economic constraints, although additional information on marketing costs will be necessary to form a reliable opinion regarding the efficiency of the market. An efficient marketing system will enhance food security, however, government facilitating services such as market information are likely to be necessary to improve the functioning of the system.

MIS and DMI :

The directorate of marketing and inspection (DMI), an attached office of the Department of Agriculture, Co-operation and Farmers Welfare under Ministry of Agriculture and Farmers Welfare was set up in 1935 to implement the agricultural marketing policies and

programmes for the integrated development of marketing of agricultural and other allied produce in the country with a view to safeguard the interests of farmers as well as the consumers. It maintains a close liaison between the central and state governments. Main functions of DMI are, a) rendering advice on regulation, development and management of agricultural produce markets of the States/Union Territories, b) promotion of standardization and grading of agricultural and allied produce under the agricultural produce (Grading and marking) Act, 1937, c) promotion and implementation of integrated scheme of agricultural marketing (ISAM), d) development and implementation of agricultural marketing research and information network (MRIN) sub scheme, e) implementation of agricultural marketing infrastructure (AMI) sub scheme, f) agricultural marketing reforms, g) training of personnel in agricultural marketing, h) marketing extension.

Agriculture market information system in Maharashtra state :

Market network (MARKNET):

MARKNET (Agricultural market intelligence network in Maharashtra state):

MARKNET is network of organized APMCs in the State. Under this project, the state marketing board has organized APMCs and connected through internet. To exchange and disseminate market arrivals and prices of Agricultural commodities, for the benefits of farmers, to bring the effectiveness and transparency in the functioning of APMCs are the main objectives of MARKNET. Presently 294 main APMCs and 66 sub yards have been organized under Marknet Project. All 360 computer sets have been provided to APMCs free of cost under AGMARKNET scheme of Director of Marketing and Inspection, Govt. of India. Each organized APMC has one computer, UPS, modem, printer and internet facility. Daily arrivals and prices data is being entered into the computer at APMCs and uploaded on the MSAMB's website (www.msamb.com). Data uploaded on the web site is compiled and made available through web site to everybody.

MARKNET has created awareness about daily arrivals and prices of Agricultural Commodities. The arrival and price information of Agricultural Commodities of other markets is made available to farmers through this Market Network. APMCs could avail email and Internet facilities. Due to email information exchange has

became faster and economical. Agricultural Information is accessible at APMCs through Internet.

MIS and MSAMB (Maharashtra state Agriculture Marketing Board):

As per the provision of Maharashtra Agricultural Produce Marketing (Development and Regulation) Act, 1963 section 39(J), the Board shall perform the following functions and shall have power to do such things as may be necessary or expedient for carrying out these functions.

- To co-ordinate the functioning of the market committees including programmes undertaken by such market committees for the development of markets and market areas.

- To undertake state level planning of the development of the agriculture produce markets.

- To maintain and administer the agricultural marketing development fund.

- To give advise to market committees in general or any market committee in particular with a view to ensuring improvement in the functioning thereof.

- To supervise and guide the market committees in the preparation of plans and estimates of construction programme undertaken by them.

- To make necessary arrangements for propaganda and publicity on matters relating to marketing of agricultural produce.

- To grant subventions or loans to market committees for the purposes of this act on such terms and conditions as it may determine.

- To arrange or organize seminars, workshops, exhibitions on subject relating to agricultural marketing and giving training to members and employees of marketing committee.

- To do such other things as may be of general interest relating to marketing of agricultural produce.

- To carry out any other function specifically entrusted to it by this act.

- To carry out such other functions of like nature as may be entrusted to it by the state Government.

MIS and Maharashtra agricultural competitiveness project:

The project development objective of the Maharashtra agricultural competitiveness project (MACP) is to increase the productivity, profitability and market access of the farming community in Maharashtra.

This would be achieved by providing farmers with technical knowledge, market intelligence and market networks to support diversification and intensification of agriculture production aimed at responding to market demand. Farmers will also be assisted in establishing farmer organizations, developing alternative market channels outside of the regulated markets and in supporting the modernization of promising traditional wholesale markets. Intensification and diversification of market led production, improving farmers access to markets and project management learning and adjusting are the three main components of the project. By promoting alternative marketing systems involving farmers in the formation of producer groups, their associations, developing farmers common service center (FCSC), introducing E-marketing platform with the help of commodity exchanges, by producing warehouse receipt financing to overcome price risk and to provide moderate improvement in rural haats, besides modernization of selected APMCs and livestock markets.

MIS and AIDIPPROJECT:

Agriculture infrastructure development investment programme (AIDIP) is a Project of Government of Maharashtra (GoM), proposed to be implemented under Public-Private-Partnership (PPP) framework. GoM has availed a loan amounting \$85 million from Asian Development Bank (ADB). Department of Co-operation, Marketing and Textiles, Government of Maharashtra, is the Executing Agency (EA) for the project and Maharashtra State Agricultural Marketing Board (MSAMB) is Implementing Agency (IA). The programme targets improving physical and institutional linkages along agricultural value chains through creation of agribusiness infrastructure; provision of support infrastructure like last mile roads, power, water, systems relating to market intelligence, and capacity building and strengthening/establishing value chain linkages.

Problems of agricultural information dissemination:

Development and implementation of agricultural marketing research and information network (MRIN) sub scheme is one of the main function of DMI and to exchange and disseminate market arrivals and prices of Agricultural commodities, for the benefits of farmers, to bring the effectiveness and transparency in the functioning of APMCs are the main objectives of agricultural market intelligence network in Maharashtra state (MARKNET).

But the use of such information and technology is being used by the already rich farmers and utilizing these services they are further prospering. The small and marginal farmers are again being left out in the process of development.

Market data is currently disseminated through the traditional sources like Bulletin Boards (in Market Committees), press, radio and TV. As explained earlier, the data is also available on the internet on sites like MarkNet and AgmarkNet. To access the data on internet, however, one has to have an internet connection and knowledge to use it for this purpose. But the reach of the technology is still very poor and large chunk of farmers are still ignorant about such advancements. The distribution of technologies is not uniform throughout the state. Due to low literacy rate among farmers and digital divide, there is a rise of new class of middle man, who provide ICT services to farmers. They are also believed to distort the information for their own benefit.

Farmers interests are disregarded even more of the agricultural innovations are written and broadcast in English instead of the local language (FAO,2005). There is a lack of smooth flow of information to end-user.

There are still problems in the agriculture information systems, itself, in terms of planning extension activities and the agricultural research-extension linkages are very weak. Lack of integration among organizations, associations, co-operatives and government agencies in disseminating marketing information to large number of farmers (Dagar, 2015).

Conclusion:

Agriculture market information system is essential not only for the formulation of a proper pricing policy and its successful implementation at a macro-level, but also for farmers to aid them in improving their marketing performance. Accurate, adequate and timely information on all aspects of the crops traded is essential to operate efficiently. As discussed in the paper, majority of the rural farmers are not having access most of the required agricultural information. Therefore, application of ICT-based agriculture information support systems is very much important for the dissemination of agricultural information and technological knowhow by rural farming community. To betterment of information systems in agriculture it is

highly recommend to establish communication between farmers, coordinators, agricultural experts, research centers, and community by information technology. Farmers can be illiterate and speak a local language and they are not expected to use the system directly. So it is necessary to provide all agricultural market information in local language (Marathi).

The complexity of the agricultural information system leads to an underestimation among end-users. Lack of knowledge of agricultural information may weaken the support for public information funding as a major priority in agriculture. An increase in funding for public information should allow for an increase in the accessibility of public information to farmers. For easy access and effective utilization of agricultural information in this digital age, there is need for establishment of information centers.

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LITERATURE CITED :

- Andrew, Shephard (1997). *Market information services : Theory and practice*, A study by Food and Agriculture Organization of the United Nation, ROME, ITALY.
- Binayee, Surya B. (2005). Marketing information system in an agricultural extension organization. In: Proceedings of the National Seminar on Management of Information System in Management of Agricultural Extension, pp.1-15, Hydrabad: NIRD.
- CTA (2015). Agricultural market information systems in Africa. Set 0112 sheets. Set 01 12 sheets, Technical Centre for Agricultural and Rural Cooperation, Publications, cta.int/en/publications/topic/agricultural-support-services/.
- Dagar, Gauravjeet (2015). Study of agriculture marketing information systems models and their implications. *AIMA J. Mgmt. & Res.*, 9 (2/4): ISSN 0974-497.

WEBLIOGRAPHY

- <http://www.cta.int.in>.
- <http://www.dmi.gov.in>.
- <http://www.msamb.com>.
- <http://www.fao.org>.