Commercializing Agriculture in Eastern India: Some Pertinent Issues

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Commercializing Agriculture in Eastern India: Some pertinent issues

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Commercializing Agriculture- What it Means Post WTO?

Indian agriculture is getting increasingly commercialized and monetized and the volume and proportion of output that enters into market is on the rise. This shows, that along with optimization of production, producers have to achieve optimization of sale to realize best returns to their efforts and investments. This would require knowledge about market demand, prices, timing of sale, relationship between commodity attributes and prices, methods of sale, consumer preference for physical and quality characteristics etc. the idea is to get best prices for what has been produced. Thus, with the increased orientation of production for market, we are landed with an added responsibility of informing and educating producers about prices, marketing skills, emerging demand, temporal price pattern and many such things.

Our experience shows that because of liberalized trade, domestic producers have been often subjected to price shocks and the same time they could not take much advantage of new opportunities for export to other countries. As trade is going to assume more importance in future, there is a need to prepare our farmers to adjust their production and marketing activities to the effects of trade (Market-led Production). This would require educating the farmers about trade impacts, trade opportunities, export prospects, import substitution, macro policies on tariffs, international prices and alike factors. Obviously, the onus of doing all this lies with the extension system of the state and the country.

Trade Intelligence:

The first thing needed to adjust to trade is the information on various aspects related to trade. This includes information about potential markets, potential competitors, weakness and strength of competitors, market behaviour under current supply and demand prospects. This kind of information needs to be compiled, published and supplied to the extension functionaries for all potentially tradable farm commodities. This would give one time information about the commodities.

Macro policies on tariffs

Actual prices realized in trade depends upon three factors viz. wholesale price in a given market, transition and transport cost and rate of tariff. Government policy on tariff for own country and for the potential trading countries are important to know as they determine actual prices to be realized in trade.

Information on Trade Agreements

Implementation of new international trade agreement GATT and formation of WTO have caused lot of apprehensions and concerns in the country. Debate is still raging on the implication of this for Indian agriculture. Even 5-6 years after the agreement we could not fully explain to our farmers what are the various provisions, obligations and consequences of this agreement. This leaves lot of room for misinformation and

politicization of issue causing diversion from the hard facts. By creating proper awareness, extension agencies should prepare farming community to face the changing world courageously.

Importance of Patenting

WTO agreement calls for protection on intellective property and lay emphasis on granting patenting rights, this is posing serious challenge to traditional knowledge and our rich biodiversity. We should help in systematic documentation and recording of traditional knowledge, bio-resources and their uses.

Agents of Export Promotion

Traditionally, the goal set by us has been on achieving self-sufficiency in food grain production. Diversification of other agricultural products got thrust only after achieving this primary goal. Though impressive gains have been made on the production side this has not been reflecting on the export front as most of these products have been produced for the domestic market. All our efforts on research, extension and marketing have been confined to increasing production and marketing the same for domestic consumption. The only exception has been the commodity boards who have been trying to expand India's exports of traditional commodities such as spices, tea, coffee etc.The role of exports as a new engine of growth of economy got full appreciation only in the 90's. Agricultural exports began to get greater emphasis with several policy measures initiated with increasing liberalization of economy in 1991. A series of policy changes initiated from then onwards attracted many industries to this business. The areas include marine products, processed foods and floriculture and exports of these commodities have gained momentum. To use trade as an engine of growth, orientation of extension system has to be changed. They should be supplied technology packages that meet demand in various export markets. This would require effective interface among numerous agencies representing research, trade, industry and producers.

Export now has to meet sanitary, quality and several other specifications. Farmers need to be educated about CODEX and HACCUP standards, pesticides residue, hygienic handling and processing.

Value and Elite Domestic Marketing

Import substitution is as important as export promotion because dollar earned is as good as a dollar saved. We need to encourage cost reducing technology to compete with cheap imports. India itself is a vibrant and growing market being targeted by large number of other countries for agricultural exports. We need to identify why our domestic consumers are willing to buy foreign produce at a much higher price than that of domestic producers. What are the quality attributes for which Indian consumers are prepared to pay a premium price for exotic fruits and other commodities? What is the timing of foreign supply? Knowledge about these factors can help domestic producers to meet demand for elite section of consumers within the country.

Mobilization for Group Action

Given the small scale of operations and lack of skill and information individual producer may not be in a position to take advantage of export opportunities. On the other hand we

have many examples of organized marketing by farmers organizations competing out the MNCs, and harnessing export opportunities.

Providing Feedback to System

Extension system should also provide feedback on how the impact of trade is perceived at grassroots level. What kind of technological improvements and policy actions are required to help the clients to smoothly adjust to trade?

Promoting e-Agriculture

Trade and commerce are becoming increasingly dependent on Internet. Buyers and sellers located at distant places interact with each other through Internet to work out business possibilities. Extension personnel should have access to Internet and should be provided with addresses of concerned sites to explore the possibilities of contracts between buyers and client group of farmers. This may look too elite at the moment, but it seems that in future we will have to use Internet and e-agriculture as a major tool in our sphere of work.

Marketing Extension Involves Risk

Trade liberalization has thrown some serious challenges to the agriculture research and extension system. Before the extension personnel are asked to help the farmers to reorient production and marketing activities to adjust trade, the extension personnel need to be well equipped in terms of trade and continuous flow of information to them about changes in trade scenario are essential. This would require lot of information and development of literature on market aspects of potentially tradable commodities.

Credit Facility

Farmers generally tender the stock for sale either at their farm or in the nearby Mandi immediately after harvest to mobilize liquidity to meet their domestic needs and repay their personal loans, this result in poor sales realization. Finance against pledging of stocks by banks needs to be encouraged on more liberal terms. In case the farmers are provided immediate finance to the extent of 50 to 75% of the total value of the produce calculated at the prevailing marketing rate under single window service concept by making the disbursement procedure the simplest one, it may go long way in not only stabilizing the market prices and reasonable level by regulating the supplies at appropriate time but also provide considerable relief to the farmers as they may have the option to defer the same till the opportune time.

Processing and Cool Chains

Post –harvest losses particularly in perishable commodities are estimated as high as 40%, which can be, equated to a value loss around Rs.50, 000 corers per annum. Presently only 2% of the fruits and vegetables in the country is processed. This is largely attributed to either non- availability of processing and cool stores facilities at farm level or lack of awareness on the part of growers about the existence of such processing units and their utilities in salvaging the stock of perishables and also that it adds value to their produce.

Thus, if adequate awareness among growers about existence of processing facilities and their benefits is created and such facilities are offered initially at a low cost, it may help in

reducing the post- harvest losses and value addition of their produce considerably. There is also an emergent need of stepping up processing and cool store facilities at the farm level and also for generating awareness among growers about their benefits by organizing regular exhibition, seminars etc.

While commercializing agriculture focus should be on:

Advice on Product Planning – Even for small farmers, the concept of product planning i.e. the careful selection of the crops and varieties to be grown with market ability in mind is an important starting point. Providing this basic advice to the farmers to the farmers is very essential to enable them to withstand the competition in the market.

Advice on Marketing Information - The farmers need information on two aspects of marketing viz. current price and market arrival information and forecasting of market trends. This information has also to the supplemented with other information about reaching a particular market to get the particular price, arrangements available in the market related to storage, transactional methods, quality requirements, post-harvest handling requirements etc. Along with the information on spot market, the forward futures market prices are also required to be disseminated to the farmers. They have also to be educated or trained in taking appropriate signals from the forward and futures prices. In order that the information should be area specific, crop specific buyer specific etc.

Securing Markets for Farmers- The extension agencies like ATMA can advise farmers in several ways. For grains to be sold to the government agencies. For cash crops, farmers need assistance in making contract-marketing arrangements with processors, wholesale traders or other bulk buyers.

Advice on Alternate Marketing-In order to avoid 'gluts' in the small local markets, farmers can be advised to take benefit of warehousing with pledge finance schemes, entering into forward contracts or go in for futures trading. A planned marketing strategy will benefit the producers in terms of ideal income and help stabilize local market prices and market supplies in terms of raising farmer's income.

Advice on Improved Marketing Practices- Farmers need education on improved harvesting methods, standardization and grading, improved packing and handling practices, appropriate storing methods etc. for profitable marketing of his produce.

Advice on Establishing and Operating Markets-Marketing extension should help rural population to establish and operate markets on their own the save from exploitative elements. Run by the farmers the rural markets particularly can become centers of marketing rules and regulations, the rural population will be able to protect their interests better when they visit distant wholesale or terminal markets.

Training needs to be addressed

It is important that a farmer gets fair treatment and adequate returns for his produce, the whole- seller, processor or retailer get what they want and the consumer gets the quality food at appropriate price. Even then the basic issue is that farmer must get at least minimum remunerative prices for their produce. Farmers in general, by now have

approached the newer production technology but are comparatively less aware about proper marketing of their produce to fetch better prices. Farmers need to be made aware about appropriate marketing techniques and their skill is also to be developed for better marketing to get more remunerative price. This training should necessarily address to the following aspects:

a. Quality production
b. Post harvest handling and management
b. Presentation for marketing
c. Presentation for marketing
d. Value addition for better prices and more returns
e. The structural and organizational benefits or marketing. In this process the farmers training should take care of all those techniques, which may help them in getting adequate and remunerative prices for their produce. These techniques may be monetary and non- monetary.

Selection of Marketable Varieties / Commodities (Quality Consciousness)

Under the present conditions when food habits are rapidly changing and the consumers have developed various preferences about the quality of the commodities the processors need specific characteristics in a commodity and it has become necessary to consider the cultivation of those varieties which have comparative advantages, better demand and higher acceptability. For this purpose farmers are to be trained about the selection of varieties to be marketed in their targeted area. In this process of selection of varieties and specific cultural practices for the production of appropriate commodity standard are equally important as that of improved cultivation practices.

Pre- harvest care

Pre- harvest care is virtually a non- monitory skill for harvesting the crop when it is most appropriate and is in the situation to be sold at better price. The adequacy of such characteristics can be colour, size, level of maturity and the seasonal preferences & pre-harvest management of the crop- disease free, pest free.

Value addition for Marketing

Although value addition in raw material for marketing is basically preparing if for sale, the major aspect in this regard is brushing, cleaning and sieving and grading of the material. All these functions cost a lot in urban markets and in the mandis, where as it is at nominal labour cost at farm level and in primary markets.

Quality

Market price of the commodity depends on the quality and appropriateness of the standard of the produce demanded by the consumer or the processor. Other things remaining the same it is the quality of the produce, which affects the market value of the produce and some times even the acceptability of the material. Unwanted organic and inorganic matter such as straw and plant pieces, stones and clay particles present in the

wheat in minor quantity lead to the rejection of the produce. Similar situations have been observed in other crops also where minor negligence about cleaning and grading and grading of the commodities lead either to the rejection of entire lot or in considerable reduction and cut in the price quoted. Despite the superior material or the produce, if the commodities are not properly produced, threshed or post harvest preprocessed, the quality of the material in almost all the cases gets deteriorated or damaged. Another aspect is proper moisture content in the produce so as to have appropriate shelf life or storage conditions. Imbalanced moisture content affects the keeping quality of the produce and ultimately results in spoilage. Under these conditions the buyers are always cautions and always quote less prices for the commodities. Naturally this reduction in prices is always significant.

Grading

Farmers are required to be trained and educated the grading and standardization of the produce- whether crops, fruits, vegetables, flowers, medicinal plants, egg, or fish, comparative advantages of grading in monetary terms would help in convincing them about comparative gains. Consumers now days prefer the commodities, which are clean, attractive and ready to use. The process of grading at farm level has its advantages, some of which are enumerated as follows:-

1. The space for sorting and cleaning is easily available with practically no extra cost at the production center.
2. The cost of labour in the rural area (at farm level) is comparatively low and cheaper.
3. The volume and weight of the graded material gets reduced after culling, sorting or sieving out the substandard material.
4. The substandard material can gainfully be utilized at farm level and the waste matter may be put for recycling.
5. The substandard material can gainfully be utilized at farm level and the waste matter may be put for recycling.
6. Packing of graded material or stocks is more easy and appropriate. Graded commodities according to shape, size, weight and luster and only look attractive in the form of hauled or packaged lot but also attract more customers and good price. Farmers must be got convinced that under the forthcoming global competition from international trade they can remain competitive if they are conscious to present their produce in a comparable form at comparative rate.

Transport & Handling

Experiences show that the farmers generally lose huge percentage of their produce during the post harvest handlings. These losses are much more in case of fruits and vegetables, which are comparatively more perishable. These losses may be due of careless storing, improper packaging and transportation without adequate precaution and during the process of handling. Farmers need to be trained to minimize these losses by improvement and adopting adequate techniques for harvesting dumping, packaging, handling and transportation of several commodities.

Strategy to Complement the Economic Liberalization

We need a new strategy to complement the economic reforms, a strategy designed to take full advantage of the state's agro-climatic advantages, huge tracks of cultivable land, and large internal market to stimulate a rapid development of the rural economy.

Growing Domestic Demand

Achieving nutritional security for the masses will require a significant increase in daily intake of calories, protein, vitamins and minerals. As incomes rise, the domestic market for agricultural products is projected to increase many folds over the next few years. Failure to anticipate surging demand could lead to massive imports of various commodities.

Tremendous Export Opportunities

Eastern India has the potential to become a national leader in agriculture. Floriculture projects, fruit production and processing, vegetable production and packaging, production and value addition of medicinal and aromatic plants, organic food productions are some of the areas in which the state can excel in the country. Fresh water prawn culture, milk production fresh water fish production, medicinal and aromatic plants cultivation also have vast potential. Processing can multiply the export value of farm produce by 50 to 500 times and open up vast international markets.

Closing the Productivity Gap

The potential for raising agricultural productivity is enormous. Eastern India ranks at or near bottom in the country in terms of productivity per acre for almost all major crops. Eastern India agriculture suffers from low productivity of its soil and water resources. Raising productivity means increasing profitability. Eastern India farmers have vast scope for generating higher incomes in agriculture. Average net incomes ranging between Rs. 40,000 and Rs. 1,00,000 per acre are now being achieved by some modern farmers employing advanced cultivation practices on a range of medicinal, vegetable, flower and fruit crops.

SWOT Analysis of Agriculture sector in Eastern India for International Trade

Strengths:

The main strength of our agriculture sector to compete in the international markets lies in the fact that it has regions which are climatically favourable for cultivation of every commercially-important plant species grown in other parts of the country – ranging from tropical mangoes, pineapple, tea and Medicinal plants to a wide range of commercially attractive crops. Second, the state possesses the large acreage of irrigated land with potential still to be tapped. Third, the gap between present productivity and proven technological potential is very large for most crops. Fourth, the state has an abundance of available skilled, educated, technical and scientific manpower.

Weaknesses:

i. Lack of good quality produce suitable for exports

ii. Poor phyto-sanitary standards preventing acceptance in foreign markets.

iii. Lack of infrastructural facilities like pre-cooling chambers/cold storage units at production centres

iv. Too many marketing intermediaries resulting in less returns to the producers

v. High taxes / transport costs

vi. Inefficient domestic marketing resulting in huge post-harvest loses

vii. Lack of good and cheap packing material

ix. Lack of awareness among the farmers regarding the benefits the benefits of grading, cold storage, proper packing etc.

x. Lack of grading and sorting facilities in market yards.

xi. Lack of training facilities in methods for preparation of produce for international marketing.

Xii Lack of information on buyer specification with respect to importing countries.

Opportunities:

With more awareness and demand in developed countries on nutritional foods and organic foods, a vast scope exists for increasing exports. The signing of GATT and WTO also provides good access to international market.

Threats:

Poor infrastructure, lack of governmental support to the farm sector and bad law and order situation has ensured that new entrepreneurs are unwilling to take the plunge in exploiting the otherwise conducive conditions. The central government has also not paid much attention to the problems of Eastern India farmers, which is reflected in the procurement policy of the state owned Food Corporation of India. While the farmers of Punjab and Haryana are paid incentives, farmers in this region are deprived of their share year after year.

What May be the Solution?

Optimizing Soil and Water Potential

From a commercial perspective, Eastern region is generating less income for its farmers per unit of available land and water. This low water and soil productivity can be overcome by adopting proven modern technologies for soil restoration and water conservation. Thus far farmers and scientists have focused on raising productivity through the application of macronutrients, nitrogen, phosphorus and potassium, while largely ignoring the crucial

role of micronutrients in bringing forth the full genetic potential of plant materials. Application of water saving technologies can raise the productivity of water in agriculture by two, three or four times its present level, resulting in higher yields, greater production, higher incomes and more jobs.

Creating Rural Entrepreneurs

With the right technology and management practices, agriculture offers lucrative returns to entrepreneurs. A ten acre farm growing a combination of cash crops such as rice, fruits, medicinal plants, vegetables and flowers can earn Rs. 5 Lakh or more per annum for a rural family. Although it is widely believed that the problem of educated unemployment cannot be solved, a shortage of agricultural graduates is actually developing due to the rapid development of commercial agriculture. When the commercial potentials of agriculture are fully recognized, students will flock to agricultural colleges and universities as a course of preference and many agricultural graduates who come from rural families will return to the land to become entrepreneurial commercial farmers, rather than migrating to urban areas in search for employment.

Need for new organizations

The technology and capital required to bring about a second revolution in Indian agriculture in general and Eastern India agriculture in particular are readily available and well within the country's means. But another critical ingredient is needed to galvanize the rural sector for rapid growth – organization. Agriculture can benefit immensely from an induction of professional management and marketing capabilities to handle processing and distribution in the post-harvest phase of agri-business. Institutions like ATMA can be used as a role model for such organizations.

Rural Aquaculture Estates

Fresh water fish and prawn culture can be a highly remunerative undertaking for rural farmers, provided that they have access to appropriate technology, feeds, processing and marketing facilities. One approach is for Government to establish rural aquaculture estates and lease out small production ponds to farmers and landless labour.

New Model of Agricultural Development

New models and innovative approaches are needed to bring small producers together to form viable rural enterprises. One option is for groups of farmers to constitute their own firms for joint production, processing and marketing. Integrated horticulture corporations owned by the growers can coordinate production, processing and marketing of a range of fruits and vegetables grown over a 1000-acre extent. Integrated sericulture projects can be established in which all the essential operations from mulberry cultivation to spinning of silk yarn and weaving of silk fabric can be brought together in a small cluster of villages, minimizing the need for middlemen and maximizing profits to the primary producers.

Role for the Corporate Sector

Large tracks of waste land can be converted into productive cultivable land by an infusion of capital and sophisticated technology to tap deep aquifers, install drip irrigation facilities and in some cases green houses. The cost and technical input required to develop these

lands may be far beyond the means of small farmers in the area, but can be undertaken by agri-business corporations.

The corporate sector can also play a role in stemming and reversing the degradation of forests. Remote sensing data indicate the covered area is declining. The task of reversing this degradation is beyond the means of government to accomplish on its own. Appropriate policies need to be formulated to encourage the private sector to invest in planting the barren areas and farming portions of the tree crops, which they raise under contractual agreements with the forest authorities, according to practices commonly by many highly industrialized nations. Such arrangements will generate job opportunities and enhance supplies of much needed wood products.

Role of Central Government Organizations:

For implementing of extension programmes on marketing aspects in the context of competing in international trade the Central Govt. organizations like APEDA, SFAC, DOE, etc. have to play a vital role. The state government could also create special cells / organizations to help and train cultivators for export purposes.

Encouraging Formation of Farmers Associations for Exporting Commodities

Vertical integration and federation of small producers for processing and value addition at village, block, district and state level. Forward and backward linking of small-scale producers with processors is also needed.

Training:

The training should be imparted to State level subject matter specialists, Individual farmers and Interest Groups interested in exports, Farmers Associations and NGO's interested in exports.

Role of public sector extension agencies

The strategies devised should overcome our weakness and build the capacity of our cultivators to take plunge in the national and international market and compete with other states and countries for this we at ATMA are doing the following:

i. Identifying the farmers/group of farmers interested in production, value addition and export of agricultural commodities.

ii. Creating quality consciousness among the farmers and educating the in new enterprises like medicinal and aromatic plants, organic farming, value addition etc.

iii. Conducting group meetings with farmers/ association to explain the requirements of domestic and foreign markets.

iv. Giving practical demonstration on the practices to be followed and facilitating wherever possible.

v. Printing folders in local language and distributing them on cost sharing basis.

Training in Cost Reduction Strategies

i. Conducting training programmes on IPM, INM and NRM.

ii. Development of modules/procedures in cultivation of crops for exports purposes and training the cultivators.

iii. Right stage of harvesting, proper methods of harvesting, handling, ripening methods, use of proper chemicals for spraying for control of pests etc.

iv. Dissemination of the information about the financial and other assistance available under various government schemes.

v. Giving practical training to the farmers in grading and packing.

vi. Creating sorting and grading facilities at village level and at assembling markets.

vii. Training programmes on storage and preservation aspects to educate the farmers about.

a. Methods of storing in cold storage.

b. Awareness of benefits of cold storage.

c. Use of cultural practices and chemicals for preventing rotting during storage and transport.

d**.** Development and screening of video films showing different steps involved in preparing the produce for exports.

e. Creating awareness about the scope of export of different commodities.

f. Giving information through print and electronic mass media, T.V. and Internet on .

- International market prices of different commodities.
- Product preference by different countries.
- Grading, packing and phytosanitary requirements of importing countries for various agricultural products.
- Pesticides, chemicals etc. banned by importing countries, etc.

Suggested Action Plan

a. Establish commercial farming schools on leased lands in every block to demonstrate cultivation of highly profitable cash crops and train young farmers in advanced methods to raise productivity.

b. Establish integrated horticulture estates for private farmers to cultivate high profit vegetable and fruit crops linked to professional processing and marketing by private or public sector agencies.

c. Establish integrated sericulture projects in which all the operations from mulberry cultivation to silk spinning and weaving are carried out scientifically within a cluster of villages and the products are professionally marketed and exported.

d. Establish intensive aquaculture estates, each of 50 acres, consisting of quarter acre intensive production ponds leased out to small farmers and landless workers with centralized technical support, feed plant, processing, storage and marketing facilities.

e. Establish scientifically run soil labs in every district and block to test soils for micronutrients and prescribe measures to restore soil fertility and double crop productivity while reducing inputs of macronutrient chemical fertilizers.

f. Encourage the private sector to acquire or lease degraded, uncultivable wastelands and to utilize advanced technologies to reclaim land for intensive horticulture & farm forestry.

g. Revamp the curriculum of agricultural colleges and universities to impart practical skills in commercial farming and to encourage graduates to take up scientific farming and agri-business ventures. h. Widely publicize achievements in the Agri-business sector to generate awareness of the enormous potential for the country.

i. Promote the use of organic methods and practices in agriculture.

j. Promote new enterprises like medicinal and aromatic plants cultivation and value addition on a war footing to take advantage of the locally available resources.

k. Encourage farmers to form Commodity based Interest Groups and facilitate them to federate so that they have enough technical and financial power to take up new and costly enterprises.

l. encourage establishment of Information Kiosks from where the farmers can get timely information on not only markets but also prices and technology to suit their needs