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## **Corporate Entry into Agricultural Input and Output Markets and Its Impact on Small Producers and Consumers\***

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The corporates have a traditional role in providing agricultural inputs, both as capital goods and consumables. The significance of this role is obvious. The drudgery associated with farming is not fully appreciated. Policy makers have to understand that drudgery, apart from short term pain, has a lasting adverse effect on the health of the workers. They cannot be working to death. Use of appropriate farm machinery relieves the suffering of the farm labour and improves their productivity to a great extent. Optimal use of resources like water and power is a beneficial fall out. The use of machinery has become important with the movement of farm labour to the non-farm sector and employment guarantee schemes. One important indicator of development is where the man becomes costlier and the materials become relatively cheaper.

The farm equipment manufacturers have developed various machines suitable for Indian conditions like small holdings, low level of skills, limited irrigation and shortage of power etc. Tractors, power tillers, power threshers, sprinklers, drip irrigation, horticultural tools, plant protection equipments, self propelled reapers, paddy transplanter, and specialised power equipments such as sugarcane cutter planter, potato planter, strip till drill and so on. The debate on use of farm machinery on the grounds that it reduces employment opportunities to labour has almost died down. On the other hand, it is seen as a prerequisite for retaining the interest of educated youth in farming. There are many innovations at the micro level encouraged and popularised by the National Innovation Foundation. One of the most demanded skill development programmes under NABARD's Rural Innovation Fund is for repairs to farm machinery. The role of corporates in farm equipment supplies has been non-controversial. However, it is not the case for testing facilities. There is a need to identify more testing facilities and reduce delays.

There are many facets to the debate on seeds and fertilisers. While the debate on seeds is global that on fertilisers is local. The world has to double the food production by 2050 when the population is expected to be of the order of 9 billion. This is a tall order given the problems of climatic change, dwindling water resources, energy

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crunch and soil fertility. The challenge is to produce and conserve. Advancements in hybrid and biotech seeds, fertiliser and agricultural practices are seen as one answer. While this is inescapable, there is apprehension about the exploitative pricing and encroachment into sui generis rights of farmers.

The widespread use of Bt cotton is an example of corporate entry into innovative inputs. The Mahyco-Monsanto Biotech Limited introduced Bt cotton (transgenic technology) in the year 2005. The two gene Bollgard and Bollgard II was introduced next year. The new seed now covers about 10 million acres or 2.2 million farmers in nine states. The consensus is that farmers adopted the new technology and saved costs on pesticides. Alarm bells started ringing when there were quite a few suicides by cotton farmers in Vidharba region of Maharashtra. There are critics who attribute the suicides to the seed “monopoly”. However, a study by Indira Gandhi Institute of Development Research, Mumbai in 2006 submitted to Government of Maharashtra attributed the suicides to indebtedness from the informal sources and for social needs and other socio-economic factors. The suicides were not linked to Bt cotton. Bt cotton has been accepted widely leading to a record production of 27 million bales in 2006-07. The success demonstrated by Gujarat is remarkable. The cotton growers there achieved yields of 728 kg/ha during 2005-06 that was higher than the world average of 715kg/ha. (Khadi, 2007). What is more important is that this innovation has the acceptance of regulators and a large majority of cotton farmers. In fact the Government of India has assisted Biotech Consortium of India Ltd., an expert agency with Rs.26.65 lakh to create awareness about Bt cotton in the nine cotton growing states last year. The problem of high royalty to Monsanto and consequent high prices on Bt cotton seeds remains. There has been a partial cut in the prices consequent on the initiative by AP Government. The main indicator and measure whether the corporate entry has beneficial or not is the increase in farmer’s net income as a result of the entry. It is clear that Monsanto has passed this test.

The low rate of seed replacement is an issue that affects productivity. Ideally, hybrid seeds need replacement every year and non-hybrids once in three years. According to Ministry of Agriculture and Cooperation, the seed replacement rate for wheat and rice for 2003-04 were 13 per cent and 19 per cent respectively. This fact offers scope for seed companies to collaborate with farmers to produce certified seeds and promote seed villages as part of the farmer-corporate joint venture.

Chemical fertilisers are produced exclusively by the corporate sector. There are about 50 major fertiliser companies in India. The inputs are mostly imported. The Government has been keeping the prices of fertilisers at 2002 level with subsidies which amounted to Rs.99456 crore in 2008-09. It is recognised that the application of fertilisers has not resulted in additional productivity. The reasons are well known – the imbalance in fertiliser application not related to soil quality and deficiency in micro nutrients. The Government is moving towards nutrient based subsidies, creating more competition and finally towards direct subsidy to farmers. Israel has demonstrated great success in the use of liquid fertilisers with drip systems. This is

called fertigation – combining fertilisers with irrigation. The fertiliser companies will do well to manufacture the liquid fertilisers and join hands with irrigation equipment suppliers like Jain Irrigation. There are quite a few small companies producing and exporting organic and inorganic liquid fertilisers in India.

Wholesale and retail merchants dominate trade in the food grains, oil seeds, cotton and perishables. The local traders have been also providing loans to the farmers with hidden costs. Corporates have been procuring agriculture produce for processing and retailing. Large scale organised retailing in food sector is a relatively new phenomenon which has shaken the traditional trading community. Competition here as in other areas should prove beneficial to the primary producer and the consumer.

The story of ITC's network with farmers is well documented. The ITC Ltd. has a strong farmer value chain network first with tobacco growers and later with other farmers. Major export earnings of the company come from agribusiness. The company has been a link between small farmers and international markets. ITC consistently has been voicing the concept of triple bottom line – building financial, social and natural capital. For the latest data I would like to borrow from the Chairman's speech at the AGM on July 24, 2009.

The company's e-Choupal network, leverages information technology to empower farmers. The programme not only addresses the needs of farmers in terms of infrastructure, connectivity, price discovery and market access, but also provide a significant boost to farm productivity through extension services and research based agro-inputs. Initiatives like the 'Choupal Pradarshan Khet' bring sustainable agricultural best practices to farmers and have demonstrated significant productivity gains. These interventions have helped transform village communities into vibrant economic organisations, by enhancing incomes and co-creating markets.

ITC's e-Choupals serve 40,000 villages and 4 million farmers, making it the world's largest rural digital infrastructure. This extensive network also provides a unique source of competitiveness to the Company's Packaged Foods Business, through its efficient supply chain and identity preserved procurement. It also strengthens the company's competitiveness in servicing the requirements of international buyers who demand agro-products based on sustainable agricultural practices with associated stringent traceability assurance.

The e-Choupal Infrastructure also enables an efficient two-way flow of goods in and out of the villages. Apart from ITC's FMCG products, almost 70 other companies also ride this channel to offer rural consumers a wide spectrum of choice. Recognising the growing role of chemical free fertilisers in sustainable agriculture, ITC has launched organic based farm inputs for integrated farm management. The neem-based branded Organic manures such as 'Wellgro Soil', 'Wellgro Crops' and 'Wellgro Grains' have already gained wide acceptance for their superior efficacy in soil nutrition and crop management.

The company has set up a dedicated state-of-the-art R&D Centre in Hyderabad with a focus on agri-sciences. It will engage in several competency areas such as Plant Breeding and Genetics, Agronomy, Microbiology, Molecular Biology and Silviculture. ITC's Integrated Watershed Development initiative has helped create freshwater potential covering over 46,000 hectares in water-stressed areas. In addition, the Company's integrated animal husbandry services have reached out to over 3,00,000 milch animals creating avenues for non-farm based livelihoods. Nearly 2,00,000 children attend our rural supplementary education centres, and 20,000 women entrepreneurs have been created through 1000 self-help groups. This has enlightened corporate interest at its best.

There are other important but not so spectacular examples of win-win contracts. In Punjab HLL contracts farmers well before the transplanting season of the crop, and area to be grown by each farmer is agreed. Total area to be grown is decided on the basis of yield per acre and total capacity of the plant or the tonnage to be processed. The farmers are selected on the basis of ability of a farmer to adopt new technology, suitability of land, assured irrigation, financial position, and commitment and literacy level.

The HLL contracts are Procurement and Input (P&I) contracts under which the firm not only agrees to buy the contracted acreage and specified quality produce at a fixed time and price, but also provides inputs like seedlings on credit, technical advice, and various equipments, free of cost but on returnable basis. The contracts are only verbal commitments as there is no written evidence with the farmers. The acreage for tomato production should not be less than 5 acres. The seedlings of tomato cost to the farmer Rs. 1800/- per acre which are supplied by HLL on part payment in advance (25 per cent). The rest is deducted at the time of payment for the produce to the farmer. The company gives a set of equipment free of cost on returnable basis to a group of 5-10 farmers in a village or for 50 acres of tomato crop. These equipments include bed makers, chiselers, fertiliser application cum bed shapers, and transplanters which are all mechanised. It also recommends a schedule of pesticide sprays for each area and even the type and brand of pesticide to be used each time.

At the time of harvest, each farmer is given 30-40 crates free of cost on returnable basis. Quota slips are issued to farmers two days before actual harvest. These slips specify quantities and dates on which farmers may deliver contracted produce at the factory. They are based on the date of transplantation and expected size of the produce which is calculated well in advance based on field information. The slip is generally for 4.5 tonnes of produce and two slips are given for a truckload. The farmer has to adhere to the given date. Diseased and rotten fruits are discarded, yellow and pink fruits are sorted separately and taken to factory only when ripe, whereas healthy red fruit is transported to the factory immediately. To reduce losses in transportation, the farmers are given tarpaulin free of cost by HLL and are advised that the truck be divided into parts by plywood partings. Thus, the pressure on the

lower set of tomatoes is reduced and the juice losses are reduced to seven per cent from that of 15 per cent earlier. The tomatoes are transported loose, as crate transport is not commercially viable. The farmers are paid by cheque within a week after delivery. In the case of crop failure, the company compensates the farmer to the extent of waiving the seedlings cost. The amount of damage and loss is assessed by the company.

Pepsi introduced new technology of deep chiselling, and new methods of transplantation, besides introducing new seed varieties. Deep chiselling involves the breaking of the hard bed formed by tractors about two feet below the farm surface which results in better drainage, more room for roots and thus greater access to nutrition which translates into higher yield to the extent of 20-25 per cent. The method of transplanting used earlier meant that farmers used to press the lower end of the seedling with the thumb into the ground which resulted in the main root growing in an upward direction and plant got lesser nutrition. The shovel technique introduced by the company ensures proper placement of seedling in soil. The company also introduced the system of planting seedlings on the bed head instead of both sides. The varieties of tomato seeds introduced by Pepsi are of the indeterminate variety whose plants grow vertically and as long as 15 feet. Its fruit also matures in a phased manner which helps space out plucking. This requires lesser but continuous labour for pruning and plucking and helps tailoring the produce to the requirements of processing plant in terms of supplies for each day.

The company has printed farmer booklets in English and local language about the farm and off-farm practices for the said crop which give specific details about the selection of fields, soil testing and fertiliser application, bed preparation, transplanting of seeds, irrigation, weeding, plant growth management, insect-pest management, safe use of pesticides, harvesting, transport, and storage for the crop grown. Even schedules of pesticide spray are specified giving names of chemicals, brands of the same, and dose to be given each time. The farmers are also advised to apply insecticide just after the white-borer larvae have broken out of their eggs and not when they mature as farmers used to do earlier. This way, lesser insecticide is used more effectively (Fernandes, 1991). The extension workers of the company remain in constant touch with the farmers and provide them with advice on when, how much and which input to use. The company extension staff inspects plants frequently and replaces defective plants without cost. The selected farmers are educated at farmer training camps organised by the company's extension staff where they are exposed to different aspects of production technology with the help of video cassettes, slides, charts, and exhibiting materials. They are also given a demonstration of the various agricultural implements. The company has basically adapted imported varieties of tomato to the local conditions. Much more important has been the extension work which ensured that these varieties were adopted soon and grew successfully. Also, the company promoted the use of locally relevant traditional techniques like use of a local grass called "Sarkanda" for protection of plants from

winter, and black ash for covering the soil to prevent crust formation and to give warmth to seeds.

The contract farmers, for 80 per cent of whom the crop itself was new, have adopted the Multi-National Corporations and Agricultural Technology Transfer. The farmers are generally happy with contracting, though they do face some day-to-day problems in this system which have implications for their incomes and livelihoods. On the other hand, companies are also sticking on to the system though they do face problem of defaults from the farmers' side. They are trying to manage the situation with new strategies and tactics every time it occurs. The farmers found the multinational company better than the local one so far as farmer treatment was concerned and many of them had experienced with more than one company each. Contract production of tomato has brought a big employment boom in these areas as the mechanisation of sowing and harvesting operations of paddy and wheat crops had reduced manual work in these major crops of the region to negligible. That contracting has led to more and better employment opportunities for labour, especially women, is acknowledged by the labour.

Bharuch and Narmada are major banana producing districts in Gujarat. M/S. Desai Fruits & Vegetables, a Mumbai based firm is involved in Contract farming of Banana in Jhagadia taluka of Bharuch district and Nandod taluka of Narmada district. The firm has tied up with banana growers in around 2000 ha in both the blocks. The firm takes care of the entire operations right from providing tissue cultured plants to harvesting and has set up a ripening chamber in Jhagadia taluka from where the banana is exported to Middle East. The firm has also established a number of pack houses in both the taluks from where after washing, cleaning, grading and packing the banana are sent to the ripening chamber. The sale price of the banana is pre-determined and farmers have expressed satisfaction as the bunch weight has gone up to 45 Kg. The firm provides all types of services to the enrolled farmers including technical advice, etc. Recently the standing banana crop in Jhagadia taluka was severely affected by cyclonic storms on 5 July 2009, bringing heavy loss to the banana growers. Immediately thereafter, the firm provided Rs. 10,000/- to each of the affected farmers as interim relief.

#### THE NEGATIVE SIDE

The positive aspect is that the land, dear to the farmer is not alienated. Despite the benefits, the farmers are not entirely happy. Disputes arise when the market price is higher than what was contracted, when the produce is rejected on quality or when there are deductions from payments on various counts. There is a genuine apprehension that though the farmers may benefit in the short term through tie up with organised retail, they may become subordinate to them losing their bargaining power in the medium term. The National Commission repeatedly refers to a need for code of ethics for contract farming. There is no elaboration. Presumably the code will cover fair price, independent quality assessment and dispute referral.

### *Farmer Enterprises in Gujarat*

There are noteworthy examples of what farmers can do in Gujarat. Creative Farmers' Club in Bharuch district is a very active club in the area of joint marketing efforts of farm produce like papaya, watermelon, vegetables, etc. The Club has taken up joint marketing of papaya fruits to faraway Ludhiana market by negotiating better price. During the last season (2009) the Club despatched about 150 trucks of 16 tonnes of papaya each to Ludhiana market. The trucks go the farms for loading the fruits. The club arranged labour to pluck the fruits, pack the produce with wrappers/boxes and the members camp at Ludhiana in turns to negotiate the prices. Similarly, Pragati Farmers' Club, Hansot taluka, Bharuch district has taken up joint marketing of vegetables grown by farmer members from villages in and around Ryma to Mumbai market thus eliminating local traders. The club arranges for collection of vegetables from the farmers' fields, sorting, grading, packing and transport to Mumbai. The farmers have benefitted by increased income.

The Amalsad Vibhag Vividh Karyakari Sahakari Khedut Mandali Ltd, i.e., Amalsad PACS, Gandevi block, Navsari district had supplied around 15 MT of Chikoo (Sapota) to Reliance Fresh during 2007-08. It also supplied around 10 MT of Chikoo to Subhiksha (retail chain since closed) during 2007-08. However, the society did not supply any commodity to any corporates thereafter. (Source: NABARD, Ahmedabad).

### *Farmers Need to Adopt Corporate Culture*

Irrespective of what the corporate sector may or may not do for farming and farmers, sustainable prosperity to farmers is possible not through patronage, but only with empowerment, leadership, organisation and managerial culture. Fortunately we have a unique but replicable model to look upto. It is the Masuta Producers Company created, managed and run by Santhal women of Bihar, Jharkhand and Chhattisgarh. The company is promoted by the well known NGO PRADAN. It is only appropriate that Shri Deep Joshi, the founder of PRADAN was recently honoured with Ramon Magsaysay Award also known as the Asian Nobel Prize. This model does not need the ethical code for contract farming recommended by the National Commission on Farmers.

MASUTA Producers Company Limited ([www.masuta.org](http://www.masuta.org)) is the biggest producer of Tasar yarn in India. It manages the entire supply chain of Tasar yarn from planting arjun trees, seeding larva, harvesting cocoons, and reeling, spinning and making fabrics of high sophistication. It is a company of 2500 yarn producers, all of them women from disadvantaged rural families living across three eastern States of India. It is the only collective of its kind in the country. MASUTA has also promoted two joint venture companies. One of them already started functioning and produces finest quality Tasar fabric and markets them in India and abroad. The other in the



process of registration, will procure Tasar cocoons, the raw material for tasar yarn and supplies to yarn producers throughout the year.

MASUTA Producers Company Limited was registered on 26th December 2005 as a Producers' Company under Section 581c (5) of Part IX A of the Companies Act 1956. 'Producers Company' is often called a 'Co-operative Company' or 'New Generation Cooperative' (NGC), a term made popular by Dr. Amrita Patel, because such a company operates on co-operative principles even though it is registered under the Companies Act.

MASUTA is owned by the village level primary groups of shareholders, formalised as Mutual Benefiting Trusts (MBT) comprising women from tribal communities. They hail from interior villages of Bihar, Jharkhand and Chhattisgarh where alternative and dignified work opportunities for them are scarce. A tasar yarn producer undertakes her production activity as an individual enterprise even though a group of producers often work under a common facility centre and formalised as MBTs. MASUTA helps them acquire productive assets for yarn making (like reeling machines, etc.), supplies them with raw-materials and other inputs, provide on-job trouble-shooting support and finally market their produce. The enterprise of Tasar yarn making has helped the women to have control over their own earning, create space for their leadership, make business decisions and run their own business. They now have an enhanced say in their family and the community.

PRADAN, a voluntary organisation working in the poverty regions of India has helped the women promote MASUTA. PRADAN provides MASUTA with the required professional management support. This involves organising them to enhance capabilities, introducing ways to improve their incomes and linking them to various economic services. The shareholders of MASUTA are participants of PRADAN's development interventions. PRADAN helped them in transfer of technology, capacity building, membership development etc. MASUTA has availed of institutional credit for its working capital needs.

The main difference between contract farming and the producer company is the equality in bargaining power in the latter case. MASUTA has gone beyond what has been envisaged by the NCF in this regard. The Commission has observed that private limited companies registered under the Companies (Amendment) Act, 2002, are now coming in the area of seed production and the production of biofertilisers, biopesticides and other forms of biological software essential for sustainable agriculture. Small farmers and SHGs should be associated in such companies as stake holders and not just share holders.

Farmers need corporate involvement in making innovative machinery and inputs and in creating national and international markets for them. The McKinsey study of March 1997 recommended corporate investment in upstream food chain, implicitly leaving other elements to farmer collectives. However, farmers have to adopt the corporate culture of organisation and professional management to earn the well deserved equality with other sectors.

Farmers are also major consumers. Surplus with them contributes to a sense of security. The efficient supply chain and competitive retailing a la Wal-Mart would bring down the cost consumer pays.

#### REFERENCE

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