

Institutional Innovations for Agricultural Development in India: Experience and Prospects

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Abstract

Institutions and institutional context are important determinants of development. There are various terms and concepts used to refer to this in literature e.g. institutions, institutional framework, institutional environment, institutional capacity, institutional arrangements and institutional mechanisms. Institutional analysis is also being used to understand the processes of globalisation and economic reforms and restructuring of economic and social systems. Coming from different disciplines like economics, sociology, political science and development studies, various approaches to institutions confirm that institutions and organisations do matter and economic outcomes can not be disentangled from the concrete social contexts in which they take place.

Institutions play an important role in development alongwith other resources like technology, capital and enterprise. In small producer dominated situations like Indian agriculture the role of institutions becomes even more crucial as there are structural and enterprise specific constraints like high transaction cost, lack of market integration and interlocking of factor and output markets which only institutions and organisations can tackle effectively. Institutions help small farmers by way of reducing transaction costs, managing or reducing risk, building social capital, enabling collective action or readdressing missing markets.

This paper examines the cases of institutional innovation –both group and policy in agribusiness sector ranging from farm inputs to processing and marketing sectors from a smallholder perspective to understand the processes and potential of such practices for sustainable and higher agricultural growth and development. It draws inferences about promoting such innovations through policy and practice at various levels of governance and action by various stakeholders in the sector like state, private corporate sector and civil society.

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1.Introduction

Agribusiness innovation could be in the nature of reducing cost of production, improving quality or yield, and adding value to the basic product by processing or post-harvest work. The objective of many interventions in small holder context is to achieve economies of scale or scope or both. High value crops are costly to produce and risky to manage besides being more market dependent and highly perishable. This is so because these crops are more labour intensive, require frequent crop care, harvested more frequently and sold/marketed more often or on daily basis. All this requires knowing input markets, output markets, labour network and taking immediate decisions on production and marketing. Similarly, organic production can also be treated as high value as it requires new process adoption, managing

bio inputs differently and sometimes producing on farm, undertake and manage record keeping, and obtain certification of farms and enterprises. All this is about entrepreneurship as it involves new products, new processes, new markets, new institutions and networks and new information.

New crop based value chains are risky and require big investments for smallholders. In this context, studies in various contexts find that this could be profitable opportunity but can also have downside. For example in Guatemala, non-traditional export crop (snow peas) adoption experience over 25 years showed that initial adoption was rapid (80% farmers growing it at some time from 1979 with average experience with the crop being 14.5 years) due to attractive export market but the withdrawal was also quick after export market became more competitive and support for smallholders dried up as 2/3 growers dropped out of it by 2005. What was perceived as pro-poor crop was not sustainable due to market factors and led to vulnerability of growers though some could have moved to better enterprises and crops after benefitting from export crop as their land size had increased (was double that of non-adopters in 2005), and land was of better quality. But, land size or its quality was not an important factor in crop adoption though land quality did matter in withdrawal along with density of production of crop in the given village. Further, early adopters benefitted more than later adopters who were better off than the non-adopters (Carletto et al, 2008).

Similarly, there were two contrasting cases of Thailand and Taiwan so far as adoption of new crops was concerned. In the former, farmers were reluctant to grow off season crops (tomato and tomato seed, potato, watermelon seed and cantaloupe seed), despite all resources being made available, especially irrigation and package of service through contract farming which even covered production risk to some extent. In the latter, farmers were very entrepreneurial rapidly adopting new crops on a large scale once the market was established though it was limited to some areas and could not be replicated elsewhere in the country. On the other hand, in Taiwan, in mushroom and asparagus, canners gave the responsibility of collection and grading to local farmers' associations which also bargained collectively for contract prices with the intermediation of government representatives and a planned production and marketing (PPM) system was put in place to avoid glut and price crash. The two cases also highlight the creative role of the governments in making the project deliver the outcomes (Benziger, 1996).

In Thailand, the state not only provided coordination and support of local authorities such as agricultural extension agents, local administration officers, and the Bank of Agriculture and Agricultural Co-operatives (BAAC), it also reallocated 250 million Baht deposit in BAAC. The interest compensation for the farmer participants in the program (3.5 % p.a.) was made available to encourage more farmer participation and to reduce production cost. But, later, farmers could obtain only low interest rate (5% p.a.) loan instead of getting compensation for interest charge. The Ministry of Agriculture and Co-operatives (MoAC) through its Department of Agricultural Extension (DOAE) carried out training in CF for farmers and local officials (Singh, 2005d). That credit support to contract farming projects by the state is crucial has been emphasized earlier as well in other contexts (Goldsmith, 1985).

In Sarawak region of Malaysia, a government agency (Sarawak Economic Development Corporation (SEDC)) run contract farming scheme in poultry production aimed at raising incomes and creating commercial agricultural entrepreneurship among small farmers of ethnic minorities (*bhumiputras*) in the presence of a highly vertically co-ordinated private poultry value chains where the average farm size of a chicken contract grower was 49167 birds and where private contract growers supplied 85% of the total production in the state to

six major players. Since chicken is a predominant part of local food basket, the federal government sets ceiling and floor prices and protects the domestic market from imports. The Sarawak state run public poultry contract farming scheme by the SEDC trains and helps the trainees to set up poultry farms from which its subsidiary buys back and supplies after processing to the SEDC which supplies to state controlled outlets like schools, hospitals and police and army since 1988. Trainees with atleast two acres of land are selected and engaged in community farming and then put on test business with small lots of birds and limited number of cycles of production where efficiency and quality of output are monitored. SEDC extends credit for sheds and equipment and subsidises input costs. The poultry business of the entrepreneur farmers led to 43% of the total income of the households with some of them depending heavily on poultry income and most of them were happy with the arrangement. But, none of the trained farmers left this scheme and moved to work with private poultry contract farming schemes perhaps due to various resources constraints like smallholding, low education, and small size of poultry farms. But, for various reasons like performance of the scheme, the scheme was likely to exclude really poor farmers due to selection bias and vested interest of the implementing entities and was more of a welfare enhancing measure reducing rural poverty and inequality (Morrison et al, 2006).

Major problems of small and marginal farmers in India include spurious input supply, inadequate and costly institutional credit, lack of irrigation water and costly access to it, lack of extension services for commercial crops, exploitation in marketing of their produce, high health expenditures, and lack of alternative (non-farm) sources of income (Dev, 2005). The employment which is the only way to raise these farmers' incomes, is low on these fields because of the low employment elasticity of output due to increasing mechanisation and the kind of crops being grown (Muller and Patel, 2004).

The policy and development regime characterized by diminishing role of the state as an agency of development and an expanding role for the market (private entities) and civil society organisations makes it more relevant to leverage the strengths of the private and the civil society actors. It also helps avoid the state in terms of its overwhelming presence, which has been counterproductive for development and poverty reduction at times. There is an increasing corporate interest in agriculture in India. This is largely due to the policy focus on the role of private sector in agriculture in the mode of free markets and Public-Private Partnership (hereafter PPP) for agricultural development.

This paper examines the cases of institutional innovation –both group and policy in agribusiness sector ranging from farm inputs to processing and marketing sectors from a smallholder perspective to understand the processes and potential of such practices for sustainable and higher agricultural growth and development. It draws inferences about promoting such innovations through policy and practice at various levels of governance and action by various stakeholders in the sector like state, private corporate sector and civil society. Next section contextualises the problem in the Indian context from a smallholder perspective and third section examines some cases of innovation in the agribusiness sector including agricultural sub-sector. The fourth section concludes the paper.

2. Context of innovations

In India, there are many cases of farmer entrepreneurship but most of them involve large or medium farmers e.g. potato growers in Punjab (Witsoe, 2006) or Gujarat, chilly growers in Andhra Pradesh (Prichard and Connell, 2011) or cocoa growers in Tamilnadu and Andhra Pradesh (Singh et al, 2011). These farmers being beneficiaries of green revolution crops have diversified and lease in lands to increase the scale of farming and grow for large processors

and exporters and have even off farm presence like cold stores, processing units, transport business, etc.. In north Gujarat, farmer entrepreneurship in hybrid cotton seed production and trade wherein hundreds of former contract and non-contract seed growers have become seed sellers overnight is a recent phenomenon. The new patent law in India (Protection of Plant Varieties and Farmer Rights Act, 2001) gave freedom to farmers to sell seed as long as it is not branded. This has led to a farmer driven vibrant BT cotton seed sector in the state. Similarly, there are farmers in Maharashtra who are into direct exports of grapes and pomegranate and own and manage pack houses. In the context of post-GR Andhra, Upadhaya (1988) writes: “Modern large farmers display a business-like approach to farming, one manifestation of which is that labour has become merely another input on the 'costs' side of the balance sheet. In sum, the GR has strengthened capitalist tendencies in the agrarian economy, and the big and medium landowning farmers have become what can best be termed 'capitalist farmers'” (Upadhaya, 1988, p. 1379).

More recently, AP farmers have been found to be expanding to other areas and states through migration and leasing of lands (as entrepreneurs) and undertaking contract farming of high value crops like chilly for exporting companies, the cotton being the only other and only high value crop being grown by them. They are moving ‘upwards’ and ‘outwards’ from the rural sector (Pritchard and Connell, 2011). The coastal Andhra districts (4) account for 1/3 to one half of the major cash crops of paddy, cotton and sugarcane of the State with just 14% area and 23% of the population of the State (Damodaran, 2008). These special spaces for production of specific crops most of which are destined for export have led to their locational dynamics in terms of labour requirements, provision for such labour, feeding areas and terms and conditions of labour engagement. Labour is so crucial to this production that if for any reason, labour system breaks down the whole chain of production and trade is likely to crumble.

3. Innovations, institutions and policies- Indian Experience

Institutions and institutional context are important determinants of development. There are various terms and concepts used to refer to this in literature e.g. institutions, institutional framework, institutional environment, institutional capacity, institutional arrangements and institutional mechanisms. Institutions also refer to ‘rules of the game’ in a society or more formally, the humanly designed constraints that shape human interaction. They are made up of formal constraints like rules and laws, informal constraints like norms of behaviour or codes of conduct, and their enforcement characteristics and they altogether define the incentive structure of the societies and, more so, economies. Institutions are also different from organisations – the former being the rules of the game and the latter the players in the game. But, both of them influence each other in terms of which organisations come up and how they evolve is determined by the institutional framework (rules of the game) and they in turn influence how the institutional framework itself evolves. Further, the institutional economics also differentiates between institutional environment and institutional mechanisms or arrangements. The former refers to the fundamental political, social, and legal ground rules that establish the basis for production, trade/exchange and distribution and the latter are arrangements between and among economic units that govern the ways in which these units can compete and/or co-operate. These institutions are further embedded in local social and cultural systems which leads to ‘institutional thickness’ which refers to dense presence of organisations in a local area, their strong interactions in local area, their domination due to this high level of interaction shared commitment to a common cause, though all of this need

not be formal. This relationship between regional institutions and local economic development led to the realisation that there is a need for policy and public institutions to facilitate a common context of co-ordination (Neilson and Pritchard, 2009).

The creation of Mahagrapes by the Maharashtra State Agricultural Marketing Board (MSAMB), Deptt. of co-operation, Government of Maharashtra, National Horticulture Board (NHB) National Co-operative Development Corporation (NCDC), Agricultural Products Export Development Authority (APEDA), and the grape growers for the benefit of grape growers which is very successful is a classic case of how market oriented institutions of farmers could be created and managed. Mahagrapes was set up in 1991, as a marketing arm of the grape growers' co-operatives in Maharashtra by MSAMB, and supported financially by NCDC and APEDA for promoting marketing of grapes globally and to attend to the problems of quality and rejection in global market faced by the growers' produce. It has features of both a co-operative and a company in terms of its organizational structure and functioning. It is a unique organisation in India which was born as a result of the special provision of the (amended) co-operative law at the provincial level in 1984 wherein the co-operatives were allowed to associate with other agencies including marketing partners. Thus, Mahagrapes was registered as a partner to the producer co-operatives under the clause following the amendment to the co-operative Act. The two executive partners head the organisation which has an executive council comprising seven elected co-operative heads, followed by a board of directors composed of the heads of 16 member grape growers' co-operatives. Mahagrapes is a for profit organisation and its primary source of funding is membership equity. Mahagrapes has now assumed a much bigger role of managing and facilitating the entire value chain of grapes including extension and market information besides negotiating prices, for growers, with national and global buyers. It only charges a facilitation fee from growers for its services and does not retain profits it earns. It is totally owned and governed by farmers and their co-operatives. It has been able to deliver better net returns to its member growers than those earned by non-member grape growers. Noteworthy in this effort is the role of the state agencies in helping the apex organisation of growers to come up and stabilize. The MSAMB paid the salaries of the first governing officers of Mahagrapes for three years who were on deputation from other state government departments. NCDC provided loans to grape co-operatives for creating local value addition and value preservation facilities. (Roy and Thorat, 2008).

Turmeric Co-operative (FAPRO): India is the largest producer of turmeric followed by Sri Lanka, Pakistan and China. Major growing states are AP, Maharashtra, Orissa, Tamil Nadu, Karnataka, Kerala, West Bengal and Assam. India consumes more than 90% of the production and export the rest. In India, 85% turmeric is sold as bulbs and only 15% as powder. But, it is a high value crop and product and has widely prevalent consumer and industrial demand.

Farmers' Produce Promotion Society (FAPRO), Hoshiarpur (promoted by state agril. and horti deptts.) in Punjab since 2001 and registered under the Societies Act, 1860, has been procuring and processing turmeric for member farmers and retailing it in nearby villages and towns. It also produces and sells honey, and jaggery. The co-operative procures turmeric crop, processes it at its own plant and retails the turmeric powder with its own retailers. A farmer can make Rs. 2 lakh per acre from this nine-month crop after meeting all expenses. It procures turmeric seed from Maharashtra and Andhra Pradesh and some local farmers. 1000 acres are under turmeric crop and last year, 2645 tonnes of turmeric powder was produced.

It has a membership of 308 of which 97% are from within the district and the rest from the adjoining districts. 70% of the members are small holders, 20% medium, 5% large and 5% landless leasee farmers. A large proportion of the bee keepers (45%) are landless. About one third of the members are into both turmeric production as well as bee keeping. The farmer members' turmeric acreage ranges from half an acre to 10 acre. The selection of crop was based on higher yield and profitability, ease of cultivation, eco-friendliness, and suitability for small and landless farmers. Turmeric was a new crop for local farmers where one third of the district area is forest area. It started with 175 acre of turmeric crop. An acre of turmeric gives output worth Rs. 50000 which if dried and polished becomes worth Rs. 80000 and if powdered then worth Rs. 160000, thus there is very high value addition possibility in turmeric.

The seeds to the members farmers are supplied on cash basis @ Rs 800/ql. on 'no profit no loss' basis. The cooperative provide technical support to the members to grow quality produce. The farmers are paid 50% of the value of the produce delivered on delivery by cheque and the rest after one month. In 2001-11, 1000 acres were under turmeric which led to production of 2645 tonnes of turmeric powder.

The production cost for turmeric is Rs 16000/acre. The major costs are seed and FYM, which accounts for 40% each of the total cost. The yield of the crop is 15 tones /acre on an average which fetches Rs. 93750 as the society purchases @ Rs.425/ql for Rajpuri and Rs. 625/ql for seelam variety. The Rajpuri yield is lower than Seelam variety. After accounting for lease rate of Rs. 24000/acre and cost of cultivation of Rs.16000/acre, it gives net return of the order of Rs 50,000/acre. The crop is also less labour intensive than potato as ratoon crop is possible for 1 or 2 years (Author's primary field survey).

In another case of linking small holders with markets, , organic cultivation of medicinal plant (*Picrorhiza kurrooa*) at Ghees village in Chamoli district, Uttarakhand in collaboration with the High Altitude Plant Physiology Research Centre (HAPPRC) and Dhawan International, Delhi (an exporter) was attempted.. HAPPRC provided technology and training to farmers. There is a buy-back agreement with a company -Dhawan International. This collaboration is of mutual advantage to the three parties involved:

- Dhawan International gets assured access to a large quantity of high quality material;
- The farmers have an assured market for their product, receiving a good price;
- HAPPRC has been able to see its technology being used for the benefit of the farmers, which is the main objective of the Institute (Nautiyal and Nautiyal, 2004).

In Uttarakhand again, Kohinoor Food Ltd (KFL), formerly known as Satnam Overseas Limited, one of India's leading companies in the organized marketing of rice, including Basmati rice, attempted a PPP in organic basmati rice. It holds a leading position in the branded Basmati rice business in India with about 38% market share. To increase its supplies, KFL tried to identify farmers for the organic programme and, thus, the company approached various state agencies such as the State Agriculture University, the Rice Research Station and the rice seed development Corporation. They also approached some farmers' groups and, in 2004, after some false starts, KFL made contact with a Basmati farmers' federation in Dehradun district. This federation was organized by the Uttarakhand Organic Commodity Board (UOCB) a state government agency which had been set up in 2003 to promote organic farming and allied sectors throughout the state. UOCB took responsibility for the internal control system and organic certification which enabled KFL to avoid the pre-operational work of motivating the farmers to adopt organic cultivation. Since the majority of the farmers in Uttarakhand have small holdings, one federation was not sufficient for KFL's requirement.

KFL and the first farmer federation, therefore, identified seven other UOCB promoted farmer federations, and a total of eight federations, four each in Dehradun and Udham Singh Nagar districts, were organised to participate in the programmes. Formal contracts between each federation and KFL were signed with UOCB as organic certification service provider and mediator. The technical support to farmers was provided by KFL. The farmer federations procure paddy from farmers as they have a mandi license, pay mandi charges and receive payments and service charges (2.5%) from KFL and pay to individual farmers (Singh, 2009).

Compared to the mandi system, the farmers gained approximately Rs. 235 per metric ton (one US\$ is equal to 50 Indian rupees). The organic yield was higher, cost of production lower and price higher than conventional Basmati. KFL also gained Rs. 245 per metric tonne from this and a quarter of this was spent on extension support to farmers. A subsidy of Rs. 250 per farmer or about Rs.10 per kg is provided by UOCB as a part of its support for organic certification. The farmers are also able to make some more money by weighing and bagging their produce themselves, and they are paid for the work. Previously they had to do this for nothing in the mandi during the peak times. Moreover, 1.5% commission to federation not only covers its operation costs but also serves as a cash reserve which can be used to make emergency cash loans to the members. Starting with only 190 farmers and 119 acres under the organic project in 2005, the project covered 864 farmers and 748 acres in 2007. Because Organic Basmati Export Program of the UOCB is a government supported project, they have placed great emphasis on the inclusion of small and marginal farmers. This meant that a large number of farmers had to be covered to produce sufficient quantities of paddy. It is very difficult to ensure that all these small farmers adhere to organic practices. Every year, UOCB has to expel about 5% of the farmers from the programmes because they deviate from organic practices. KFL is training the farmers in paddy grading and it is hoped that within a year or two it will be possible to start grade-based pricing. With time, the confidence of the farmers in KFL and in organic farming in general has increased. (Singh, 2009).

In south India, in improving the tea quality at estate level in the Nilgiris, SHGs of women were formed with the help of local NGOs to run Quality tea procurement centres, and differential leaf pricing system by Bought leaf factories was introduced. By 2004, 70 such groups were operational within 2 years of this initiative. The purpose was to give charge to the village communities for improving quality which led to better price realization for quality produce and plenty of community infrastructure building like storage, health care and education. Besides, this innovation brought women into the local value chains of tea. These groups then also started revolving credit for small scales activities. Banks also came forward to lend to these groups at lower rate of interest with the help of state and central agencies. The willingness of the factories to accept segmented leaves and pay a premium was also crucial for the success of this innovation. This was supported by the Tea Board with a subsidy of 50% on the cost of upgrading equipment and for obtaining certification under its factory upgradation programme started in 2001. This improved quality performance of smallholder production and some tea estates also started sourcing green leaf from such growers (Neilson and Pritchard, 2009).

Producer companies is another legal institutional innovation providing more business like entity to primary producers to organise and conduct business without any bureaucratic or government control and interference (Singh and Singh, 2012). In India and many other developing countries, traditional cooperatives were mostly organised under the co-operative structure, like State Cooperative Societies Acts in India. But, due to political interference, corruption, elite capture, and similar issues, the cooperatives soon lost their vibrancy and

became known for their poor efficiency and loss-making ways. The government support to these cooperatives has declined, though gradually and selectively. At the same time, they face higher competition due to privatisation and liberalisation policies. The new environment, however, provides new opportunities for cooperatives due to state withdrawal and deregulation. And, there is increased need and relevance of cooperatives due to the structural adjustment programme, and globalization policies, which are marginalizing the resource-poor producers. The major problems of traditional cooperatives have been capital constraint due to the withdrawal of financial support by the government, high competition from other players in the market, and access to credit (capital) and technology, besides free riding by members. The new and potential role of cooperatives in the new economic regime includes provision of inputs, economies of scale, fine-tuning of produce to the market, facilitating more competition in primary markets, and capturing surplus in adjoining stages of the value chain. Cooperatives are different from other forms of organisations not in terms of business functions they perform but in terms of the manner and philosophy with which these functions are performed. The role of a cooperative is to create an interface between the farmer and global market, provide access to permanent risk bearing capital for farmers, manage risk for farmers through diversification, set standards in the market, provide more competitive market conditions and market access to farmers, and to promote economic democracy at the grass root level (Singh, 2008).

The traditional cooperative form of organization has suffered from various constraints, which have had a negative effect on the day-to-day operations and performance of cooperatives. These constraints, which originate in the very nature and principles of the cooperative form of organisation, include the commitment to buy the entire produce from all members, lack of financial and managerial resources, lack of market-orientation, and small size of operations. As a solution to this problem of cooperatives, a new variant called new generation cooperatives (NGCs) has evolved over time in various parts of the world, especially in US and Canada. The rationale for NGCs comes from market thrust and orientation, which are required due to competition, vertical integration and coordination (backward and forward) by other forms of enterprises, and capital mobilisation constraints due to free rider and horizon problems.

An NGC is one, which has restricted or limited membership, links product delivery rights to producer member equity, raises capital through tradable equity shares among membership, enforces contractual delivery of produce by members, distributes returns based on patronage, goes for value addition through processing or marketing, and makes use of information efficiently throughout the vertical system. However, it retains one member – one vote principle for major policy decisions (Harris et al, 1996; Nilsson 1997). The advantages of delivery rights shares for members are assured procurement prices and market share of profits due to value addition (residue claims), and appreciation of share prices due to better performance of the cooperative (Harris et al 1996). This kind of restructuring, especially equity linked delivery shares and contractual delivery of produce helps cooperatives tackle problems of free riding and membership horizon, which are at the root of financial constraint; and opportunism, both of members as well as of the cooperative. This arrangement by cooperatives has helped them become economically efficient, financially viable, and obtain member loyalty wherever it has been tried [Harris et al 1996; Nilsson 1997]. In practice, though the NGCs have been able to raise 30-50 per cent of their total capital through delivery rights issues, the problems include: (i) off market purchases to meet contract terms by the growers; (ii) leasing of delivery rights by members; and (iii) dependence on non-producer member equity and nonmember business (Singh, 2008).

In the light of the previous experience of the poor performance of traditional cooperatives in India, it was felt that there was a need to give more freedom to cooperatives to operate as business entities in a competitive market. This led to the amendment to the Companies Act, 1956 in 2003, which provided for producer companies through a separate chapter. Producer companies came into existence with the amendment of Section 581 of the Companies Act, 1956, in 2003. A producer company operates under the regulatory framework that applies to companies, which is distinctly different from that of the cooperatives, which was seen as arbitrary and corrupt. A producer company can be registered under the provisions of part IX-A, chapter one of the Companies Act, 1956. The objective of the said company can be production, harvesting, procurement, grading, pooling, handling, marketing, selling, export of primary produce of the members or import of goods or services for their benefit. Its membership can be 10 or more individual producers, or two or more producer institutions or a combination of both. It is deemed to be a private limited company but there is no limit on membership, which is voluntary and open. It is a limited liability company by share and not a public limited company under the Companies Act. It is deemed to be a private company within the meaning of Section 581C(5) of the Companies Act, 1956. It retains the one member-one vote principle irrespective of shares or patronage, except during the first year when it can be based on shares. Like traditional cooperatives, it provides a limited return on capital but can give bonus or bonus shares based on patronage. It is named “producer company limited”. It can issue only equity shares, that too, based on patronage. These are not transferable but are tradable within the membership. Even land can be treated as share capital. It is free to buy other producer companies’ shares and to form subsidiary/joint venture/collaboration/new organisations. It can have five to 15 directors, one chairperson, and one ex officio chief executive but multi-state cooperative societies can have more than 15 directors for one year. It can co-opt expert or additional directors without voting rights. It lays emphasis on member education, and cooperation among producer companies. If it fails to start business within a year, registration can be cancelled. The audit has to be conducted by a chartered accountant. Thus, a producer company is a NGC. It is a cooperative form of business enterprise democratically owned and controlled by active user members. It enjoys the same liberalised regulatory environment as available to other business enterprises but it has unique characteristics of cooperatives.

Some of the salient features that provide the producer company a competitive edge are: First, the producer company format provides more legitimacy and credibility in the immediate business environment. It breaks the producer organisation free of the welfare-oriented, inefficient, and corruption-ridden image of cooperatives. Second, it allows registered and non-registered groups, such as self-help groups or user groups to become equity holders in a producer company. This enabling provision is a distinct improvement over the existing legislation on cooperatives, which allows only individual producers to be members. Third, the Act permits only certain categories of persons to participate in the ownership of producer companies, i.e., the members necessarily have to be “primary producers” – persons engaged in an activity connected with or related to primary produce. This ensures that outsiders do not capture control of the company and allows for raising investments from other players in the supply chain who have stated producer interest (table 1). The producer company Act tries to mitigate professional capability asymmetry between private and co-operative organisations by allowing the cooption of professionals in the governance structure. Thus, small and marginal producers can avail of professional management inputs while retaining qualitative governance control. Finally, unlike the cooperatives, companies have stronger regulation making statutory demands on the organisation for better disclosure and reporting. This empowers the members to demand operational and fiscal discipline (PRADAN, 2007).

Table 1: Differences between co-operatives and producer companies in India

Feature	Co-operative	Producer company
Registration under	Co-op societies Act	Companies Act
Membership	Open to any individual or co-operative	Only to producer members and their agencies
Area of operation	Restricted	Throughout India
Relation with other entities	Only transaction based	Can form joint ventures and alliances
Shares	Not tradable	Tradable only within membership
Voting rights	One person one vote but RoC and government have veto power	Only one member one vote and non-producer can't vote
Reserves	Can be created if made profit	Mandatory to create reserves
Profit sharing	Limited dividend on capital	Based on patronage (volume of business)
Role of government	Significant	Minimal
Administrative control	Excessive	None
Borrowing power	Restricted	Many options
Dispute settlement	Through co-op system	Through arbitration

Source: NABCONS, 2011 and Mondal, 2009.

There were 131 producer companies in India across states, promoting agencies, crops and products and types of primary producers as of January 2011. Of these, the largest number (44) is in the west region followed by the east (34), south (30) and the north (23). In the western region, most of the producer companies were in Maharashtra, MP and Gujarat, and in the east in states of Jharkhand, Mizoram and Orissa. In the south, they were mainly in Tamil Nadu and in the north, they were in Rajasthan and Punjab, all of them in the latter being defunct at the time of study. Most of them (74%) were in farm and allied production handling, 3% into input supply, 10% in non-farm sector and 4% in power sector with the rest 11% in other sectors (NABCONS, 2011) and 60% were more than two year old by end of 2011. In India too, first set of producer companies were promoted and supported by a state government (Madhya Pradesh) under a World Bank poverty reduction project since 2005. In the case of PCs in MP, the state government which was also the promoting body provided a one time grant of Rs. 25 lakh to each PC as fixed deposit revolving fund for obtaining bank loan against it, and also another annual grant of maximum Rs. 7 lakh per year for 5 years for administrative and other expenses in the manner of 100% in first year, 85% in second year (Rs. 5,90,000), 70% in third year (Rs. 4,90,000), 55% in fourth year (Rs. 3,85,000) and 40% in 5th year (Rs. 2,80,000). Further, interest subsidy upto a limit of Rs. two lakh was provided on any term loan taken by the PC and a grant of upto 75% of the cost up to a maximum of Rs. 2 lakh was given for any certification expenses like Food Products Order (FPO), Globalgap etc. (NABCONS, 2011).

A recent study of 5 MP PCs found that of the 17 promoted by DPIP, eight were financially successful, 7 at breakeven point and two were into losses. These 17 had membership of 415621 shareholders and turnover of Rs. 38.21 crore. Of the five studied, two were successful, two at breakeven point and one was into losses. The membership of these PCs ranged from 1059 to 3260 and median size of holdings of the members was 1.1 hac. 94% were with PCs for the last five years. 46.5% were SCs, 25.7% OBCs, 19.9% STs and 7.7% others. 42% were from BPL category. The member awareness index was low at 34% varying from 28 to 41 and knowledge level index 30% with a range of 21-33. The loss making PC

had the lowest awareness and knowledge levels (28 and 21 respectively). 63% of the member farmers were not satisfied with the prices offered by PCs. Only 41% had ever transacted with the PCs ranging from 61%-34% across PCs 41% respondents (ranging from 22-67%) reported increase in price realisation across PCs though it was only between Rs. 1101 and Rs. 3198 with an average of Rs. 2751 over three years. On the other hand, savings on input purchase through the PCs were very modest at Rs. 453 and 31% members reported that which ranged from 17-52% across PCs. The additional sale proceeds realization due to PC was 7.6% of their household income and varied from 4-12% across PCs. Thus compared with members who did not transact with the PC, the member were better off to the extent of Rs. 4193 in their total income. (Purushotham, 2012).

There are also innovations of private enterprise to solve small farmer problems like the Zamindara Farm Solutions in Punjab which rents out tractors and other farm equipment to small farmers who are unable to afford purchase of such costly machines. The company also makes farmers partners in owning machines with small investment and then they pay a lower rent and get a cut from rent on hiring out (Kakkar, 2012). There are also many PACS in Punjab which, supported by the State Farmers Commission, rent out farm equipment including tractors at affordable rates and becoming more viable business entities. Similarly, SAVE Ltd. A public limited company floated by Vikas –an NGO in Gujarat in partnership for salt workers (74% equity by workers) helps them sell salt at better prices and provides better machines and technology for higher productivity and better working conditions (Venugopal, 2012)..

4. Inferences and Conclusions

The above experience of institutional innovations using formal and informal contracts and partnerships shows that it is possible to link smallholders with markets and enable them produce quality products provided these institutions are designed and managed well which depends on their governance structure and supportive policies and legal environment. Such institutions and organisations are able to deal successfully with modern markets and benefit member farmers.

But, that does not mean that they are the only solutions to all problems of small producers. The APMC markets are still the only prevailing platform for open market sale. These can be treated as important institutions and need to be reformed with innovative policies and mechanisms like involvement of the PCs or transparent auctioning and weighment besides new monitoring mechanisms. The functioning of regulated markets (APMC) needs to be improved to enhance their cost efficiency which can help reach a better share of the consumer rupee to the primary producers. The measures needed, besides the setting up of private markets which the amended APMC Act allows, are: mandatory adoption of open auction system, more competition in these markets in terms of number of buyers, provision of better facilities like cold storage and improving transparency through access to market information to farmers through Information and Communication Technologies (ICTs). It is important to ensure better functioning of these markets as small farmers may still depend on these markets, and these markets can also serve as competitors to CF to help deliver better value to contract growers.

The amended Companies Act 2003 permits registration of producer companies but there has been lack of adequate awareness and support from state agencies which has led to no momentum for this type of co-operative companies despite the option being available since 2003 (Singh, 2008). New institutional mechanisms like groups, associations, co-operatives, New Generation Co-operatives (NGCs) and other collectivities like MACS, MBT, or PCs or

networks are needed to reach small and marginal producers more effectively. Some of the co-operatives like those dealing with sapota (chickoo) in south Gujarat have also attempted quality based grading and pooling system, and contractual relations with members for procurement, along with market orientation strategies like multiple outlets, and efficient use of market information to achieve better business performance. Similarly, sugar co-operatives in south Gujarat have been able to mobilize enough capital by informally trading in co-operative shares which gives producers right to deliver specified acreage sugarcane to the co-operative which is the only way to access the market for sugarcane. Their shares sell at a premium.

Innovations in smallholder market linkage are needed in terms of partnerships, use of Information and Communication Technologies (ICTs), leveraging networks, value chain financing, smallholder policy and, even in contracts which can promote both efficiency and inclusiveness of the linkage (Mendoza and Thelen, 2008). It is not market access or participation but effective market participation which is at the heart of success of any market linkage for primary producers.

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