

---

## **Community and Collective Organisations for Sustainable Agricultural Development in India: Experience, Challenges and Policy\***

**Sukhpal Singh<sup>†</sup>**

### ABSTRACT

The paper reviews and examines the performance of various community and collective institutions across agricultural and allied sectors and regions to determine the factors in their performance and sustainability. These range from water users' associations, co-operatives and self-help groups to producer companies. It examines the dynamics of their working and performance and their local level livelihood impact based on review of literature, case studies, and inferences. It dwells on the major policy and practice challenges faced by these community entities and concludes by identifying policy and practice relevant lessons for promoting such institutions for inclusive and sustainable agricultural development in India.

**Keywords:** Institutions, Producer organisations, Community and Collective organisations.

**JEL:** J54, P32, Q01, Q13.

### I

#### INTRODUCTION

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. Various approaches to institutions confirm that institutions and organisations do matter and economic outcomes cannot be disentangled from their concrete social contexts.

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

---

\*Keynote paper presented at the 78th Annual Conference of the Indian Society of Agricultural Economics held under the auspices of Institute of Economic Growth at NASC Complex, IFPRI, New Delhi, November 1-3, 2018.

<sup>†</sup>Professor, Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad-380 015.

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 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).

Institutions play an important role in development along with 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 addressing missing markets.

Small producers globally suffer from lack of capital, skills and information, high business costs, poor access or costly access to services, and weak bargaining power and policy influence (Penrose-Buckley, 2007). There is a large scale exclusion of small producers from modern processing and retailing value chains- national or global (Singh, 2012). In India, 29 per cent of farmer households had a membership in a co-operative society but only 19 per cent availed of any services like fertilisers or credit from co-operatives in 2003 (Mahajan, 2015).

In fact, primary producers' organisations (POs) or collectives are being argued to be the only institutions which can protect small farmers from ill-effects of globalisation or make them participate successfully in modern competitive markets (Trebbin and Hassler, 2012). POs not only help farmers buy or sell better due to scale benefits but also lower transaction costs for sellers and buyers, besides providing technical help in production and creating social capital. In Mozambique, where 80 per cent farmers were small holders and only 7.3 per cent were members of any farmer organisation in 2005, the membership in a farmers' organisation led to 50 per cent increase in profits for small farmers from the crops handled by the organization (Bachke, n.d.). It is also argued that co-operatives or such collectivities can help eliminate interlocking of factor and product markets into which small farmers are generally trapped (Patibandla and Sastry, 2004). Milk co-operative members in India were able to achieve lower cost of production, achieve higher yield and higher price realisation and had lower cost food safety compliances than those by non-members

(Kumar *et al.*, 2013; Kumar, *et al.*, 2018) and in case of apple in China where not only co-operative membership led to significant increase in yields, farm net returns and household income but small farmers benefitted even more than other farmers (Ma and Abdulai, 2016). The collectives like groups can even open up new market outlets for small producers as was the case in potato in Uganda where the farmer associations started supplying the specified quality potatoes to a global fast food outlet (Nandos) in Kampala (Kaganzi *et al.*, 2009). In many situations, the collective action has also led to promotion of biodiversity by cultivation and marketing of underutilised plant species like minor millets, kokum, cowa, coconut fibre and cowa which was a bottom-up and supply driven initiative (Gruere *et al.*, 2009; Kruijssen *et al.*, 2009). In yet another case, collective action facilitated potato market chain innovations in terms of new potato varieties, new potato based chips and new market outlets in Andes (Devaux *et al.*, 2009).

There are only a few sectors in India where co-operatives have significant presence like sugar in Maharashtra with 40 per cent share of co-operatives in sugar production of the state or milk in Gujarat where co-operatives account for 16 per cent of the marketed surplus of milk and 49 per cent of the state's milk production is processed in the organised sector, the highest in India followed by Maharashtra and Karnataka (40.5 per cent and 39.5 per cent respectively) (Gulati and Juneja, 2018). On the input side, it is only in chemical fertilisers that co-operatives have 36 per cent share in production and the credit co-operatives account for 16 per cent of agricultural credit. This is nowhere close to what co-operatives have achieved in the European countries accounting for 40-95 per cent of dairy business, 20-70 per cent of fruits and vegetables, 30-70 per cent of wine, 15-90 per cent of meat and 30-70 per cent of farm input supply across European countries (Mahajan, 2015).

In India, there are also legal and administrative implications of institutional choice for organising producers. There are inter-state differences in the same form of institution which restrict or expand choice of organisational form and also costs of setting up the institutions and the autonomy and control that can be exercised by the members. Some of the forms have also implications for raising capital and accessing funds. The implications range from tax benefits, government support, registration procedure and cost, producer control and governance structure. Table 1 gives a detailed account of various legal and administrative aspects of different legal collective entities in India. The vertical structure of local institutions can move from small groups to larger federations, co-operatives or a producer company. Horizontally, there could be common interest group, self-help groups or watershed development committees at the village level interacting with each other and mid-level institutions like cluster level or watershed level entities which originate from these local groups. The average membership of primary groups can range from 10-40, in primary level and secondary level federations from a few to more than 100 or a few thousand and in those at the apex level having thousand to tens of thousands members with an average of 3800 members of such federations (Pastakia and Oza, 2011).

TABLE 1. LEGAL AND ADMINISTRATIVE IMPLICATIONS OF INSTITUTIONAL CHOICE

Criteria	Legal form					
	Society	Public trust	Co-operative	Producer company	Section 25 company	Private company
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Basic orientation	Charity/welfare	Mutual benefit	Patronage/welfare	Patronage/commercial	Charity/welfare	Commercial
Accountable to	Promoters/Social entrepreneurs	Members	Members	Members	Promoters/social entrepreneurs	Shareholders
Registration under which Act/law	Societies Registration Act, 1860	Public Trust Acts under different states	Cooperative Act, under different states	Section 581 Companies Act, 1956	Section 25 Companies Act, 1956	Companies Act, 1956
Registration procedures and authority	Simple; Registrar of Societies	Simple; Charity Commissioner	Moderate but can vary from state to state; Registrar of Co-operatives	Moderate; Registrar of Companies	Simple; Registrar of Companies	Moderate; Registrar of Companies
Minimum number of members/promoters for registration	At least 7	At least 2	At least 10; At least 100 in case of credit co-operatives	10 primary producers as members; and at least 5 directors	At least 2 directors	At least two directors
Registration costs	Very low	Very low	Moderate to high*	Moderate	Moderate	Moderate
Startup capital	No Minimum requirement	No minimum requirement	Initial share capital varies by type of cooperative; at least Rs. 1 lakh for credit coops	At least Rs.1 lakh	None required	At least Rs. 1 lakh
Governance structure	Governing Council	Board of Trustees	Executive Committee	Board of Directors	Board of Directors	Board of Directors
Producer control	Difficult	Difficult	Built over time	Built over time	Difficult	Open
Scope of disposal of surplus to members	Not possible	Possible	Expected	Expected	Not possible	Possible
Tax benefits	++++	+++	++	++++	++++	+
Scope of equity-participation by members	Not possible	Possible	Expected	Expected	Possible	Expected
Scope for external equity participation	Not possible	Possible	Not possible	Not possible	Difficult	Easy
Govt. support	Easy	Difficult	Possible	Possible	Possible	Difficult
Ability to access commercial loans	Difficult	Difficult	Possible	Possible	Possible	Easy

Source: Pastakia and Oza, 2011, Vol .4, pp.78-79.

The various producer organisations promoted in India can be categorised into those promoted by non-profits with inward orientation and welfare focus; those which move to more business like arrangements after initial experimentation; and those promoted by for-profit entities. The producer organisation can be categorised into four types based on stakeholder threat to the organisation and stakeholder potential for co-operation being high or low (Dey, 2018). These institutions can also be exclusively designed for the poor, if they are excluded from social and economic systems or as multi-stakeholder institutions with positive discrimination for the poor stakeholders (Pastakia and Oza, 2011).

The major research questions regarding the role of collectives and community institutions include: under what conditions do collective actions at community level succeed? Is there a design aspect of the community institutions which matters and should be provided for adequately in an intervention? How far Producer Companies (PCs) are an improvement over the existing co-operative or other models of producer organisation? How relevant and appropriate are the PCs in the context of globalised markets? What is the most appropriate form of small producer organisation? Is there any specificity about the crop or enterprise or activity which matters, e.g., commodities or high value crops? It is also suggested that farmer organisations with higher levels of skills and capabilities are more successful in working with modern markets (Hellin *et al.*, 2009) as scale and scope become important to do viable business. In the context of PCs, it is also being emphasised that who (state or NGOs or private) promote such entities and what kind of orientation (inward or outward) these institutions have, also matter for performance (Rosairo *et al.* 2012; Trebbin, 2014). What kind of policy treatment do the PCs need to grow as vibrant producer entities and to make an impact on the livelihoods of small producers? Which model of promotion is more robust and viable? What conditions are necessary for business and economic viability of such organisations? And how to attend to larger objectives, i.e., inclusiveness, democracy, and community orientation, through such organisations? How do institutional innovations take place and what makes them scale up or inclusive and sustainable?

This paper reviews the experience across types of collective enterprises in the agricultural sector to assess the performance of such entities in terms of their viability, impact on stakeholders and sustainability with the help of case studies and examples to distil major factors in such performance. The paper focuses on aspects of smallholder inclusion, environmental or natural resource sustainability, and economic viability and sustainability of the enterprises across regions and types of business within agribusiness, especially the more recent legal entity called 'producer company' which is being promoted in a big way by the state and the development agencies. The paper relies on recent evidence on the performance of self-help groups, water users' associations, co-operatives, and PCs and their role in smallholder viability and environmental sustainability. The paper finally identifies major determinants of better and more sustainable performance on triple-bottom line of such entities and

challenges in terms of design, policy support, member buy in, and business management. It aims at also identifying the processes which should go into setting up such entities and managing them viably and sustainably for making better impact on stakeholders and sustainability.

The paper focuses on land, water, and pre- and post-production domain for institutional contribution and effectiveness. Section II examines the magnitude and performance of local level community organisations like co-operatives, SHGs and water users' associations (WUAs). Section III analyses the experience of setting up and management of PCs and their performance and contribution across states and promoters in India. Section IV infers on determinants of collective success followed by major policy and practical ways towards better performance and sustainability of such organisations in this domain in the conclusion section.

## II

### SELF-HELP GROUPS (SHGS), WATER USERS ASSOCIATIONS (WUAS) AND FOREST PROTECTION COMMITTEES (FPCS) AND THEIR PERFORMANCE

The community organisations are generally registered as trusts and societies and do activities in sectors of agriculture, livelihoods, women development, health, education and local governance besides child rights and natural resource management and focus on poor, tribal, marginalised, Dalit, small farmers, workers, and disabled, and operate with local level social agencies like SHGs, joint liability groups (JLGs), federations at local levels and/or at higher levels and, in some cases, even apex specialised organisations covering only women or predominantly women (Shylendra, 2012). But, most SHGs in India are financial or non-financial associations of 10-20 poor women for financial services, are autonomous, self-managed, and are mostly part of some federation of such groups. There were 1.71507 lakh primary federations, 7091 secondary federations and 132 tertiary federations of SHGs totalling 178664 such federations in India in 2013 (APMAS, 2017). There were 85.77 lakh SHGs in India in 2016-17 which was more than double of their number in 2006-07 and they had 40 million borrowers in 2016-17 (Kumra and Sharma, 2018). Further, 79.03 lakh SHGs had savings accounts with banks and 46.72 lakh of them were having bank accounts under the SHG-Bank Linkage Program (SHGBLP) launched by NABARD in 1992 which is the most distinctive aspect of the Indian SHG model (APMAS, 2017). These groups are promoted by government agencies, banks or NGOS, and have a diverse membership profile covering different social and economic categories. SHGs in some states covered as much as 29 per cent of the households at the village level and there were cases of self-exclusion due to structural financial constraints of some households or group rules which led to drop out rate of 10 per cent. The SHGs led to enhancing the political role of women members by involving them in local politics like Panchayat bodies where one out of four SHGs, there was a woman member who ran for political office of panchayat and in one out of every five groups,

a woman member was elected as well and 50 per cent were active as office bearers. But, most were not dealing with issues of social justice, especially with regard to women though one-third did deal with community services like water, health, and infrastructure though these were one off actions. Only 21 per cent were into some group based enterprise (EDARS and APMAS, 2006). Unlike co-operatives, there is no elite capture in SHGs. There was significant coverage of poorest of the poor with SCs being 26 per cent, STs 7 per cent, women headed households 16 per cent and migrants 17 per cent (APMAS, 2017). The repayment rate was 95 per cent in the Bank linked (BL) SHGs (APMAS, 2017). But, many studies also found these groups financially unprofitable in this linkage (CGAP, 2007). There are also variations in performance of SHGs across state e.g., Gujarat and Andhra Pradesh had higher quality and successful functioning of groups compared with those in Bihar and Uttar Pradesh. Further, by 2016, non-performing asset (NPAs) of SHGs had increased to 6.45 per cent of the total and in major states like Andhra Pradesh, Uttar Pradesh, Karnataka, Maharashtra, Odisha and Assam, 57 per cent of BLSHG had outstanding loan with the average amount of loan per SHG being Rs. 2.33 lakh with NPA loans being 12.2 per cent of the total and average savings only Rs. 51680 per SHG or Rs. 4583 per member. In these states, repayment rate was 88 per cent (APMAS, 2017). There were problems of lack of capacity building of SHGs, their members and that of the NGOs organising them (VOICE, 2008). Major issues in the functioning and performance of the SHGs include: idle funds with groups, lack of micro credit plans, high transaction cost involved in linking with the bank, demand for collateral by banks despite RBI mandate to lend without collateral upto a limit, and lack of awareness about cash credit limit among SHGs (APMAS, 2017). Further, there were issues of regional imbalance in their spread, low average loan size, lack of monitoring and training support, impounding of SHG savings by banks as collateral, and increasing NPAs of bank SHG loans (Sharma and Chatterjee, 2016).

In India, the state has also been participating in promoting community organisations in some parts of India. For example, Kudumbashree- a Kerala government project, involves four million women below the poverty line as a government run programme initiated 20 years ago as part of its poverty eradication programme aimed at tackling social exclusion, especially of women. The programme integrates itself into the three level (group, area and community) decentralised planning process in the state allowing local communities greater opportunity to determine their own priorities and implement their own solutions. One third of the total development funds is set aside for CDS plans. The basic premise of Kudumbashree was that the poor needed to be active agents in their own development. Kudumbashree has developed a variety of income and employment schemes in the form of micro and group enterprise ranging from group agriculture and animal husbandry to garment manufacturing and food processing to recycling, tourism, and information technology. The programme has been also able to leverage some of the union government funded rights based public programmes like Mahatma

Gandhi National Rural Employment Guarantee Scheme (MGNREGs), wherein the mates (supervisors) are appointed from among the Kudumbashree ADSs making Kerala the only state in India with 100 per cent women mates. The Kudumbashree groups also led to higher and active participation in planning for NREGS and its uptake. As a result of this, 110,000 poor women participate in this programme and Kerala ranked first in India in terms of women participation in MGNREGS with women days accounting for 93 per cent of total person days in 2011-12. Further, over 11,000 women from these groups contested village council (panchayat) elections in 2011 and 50 per cent of them won them as well. As a result, while only 50 per cent of seats are reserved for women, 60 per cent of all women elected in Gram Panchayat were members of Kudumbashree. The group agriculture initiative under Kudumbashree has brought over 2,50,000 poor women into farming with 61000 small collectives (JLGs) whose members now cultivate more than 35000 hectares across the state though only 6 per cent group members were into agricultural and allied activities with more group members being in other agribusinesses like grocery and snack shop (17 per cent) and textile and weaving shop (30 per cent) (Praveen and Suresh, 2015) and earned Rs.15,000-20,000 per year depending on crops grown. The benefits of Kudumbashree include: greater social inclusion especially for women, transformation of wage labour into independent producers and higher production of food crops to promote food sovereignty (Mukherjee-Reed and Darryl Reed, 2013). Twenty-three per cent of the female population was member of the Kudumbashree groups with 66 per cent groups involved in micro finance and 80 per cent groups had formal institutional linkage for credit. Forty-one per cent of sample groups were more than five-year-old, 77 per cent were composed of SC/ST and OBC while 20 per cent were mixed caste with 75 per cent groups having at least 50 per cent members of below poverty line (BPL) status. The sustainability of the groups was positively influenced by share of BPL members, the amount of loan availed, and that outstanding (Praveen and Suresh, 2015). The nature and level of state agencies in promotion of SHGs is also important and this varied across states (VOICE, 2008).

The factors responsible for better performance of group farms in Kerala than their individual counterparts included technical training and support through the decentralised institutional structure, the social heterogeneity of the group which led to social capital base, their affordable credit linkages with bank and focus on commercial crops. Further, the age and caste profile of groups also played a role besides the level of education and social networks. Infact, Kerala's farming project focused on livelihood enhancement (Agarwal, 2018). Similarly, in Andhra Pradesh, the non-pesticidal management (NPM) of crops program was implemented through community based organisations which include local SHGs, mutually aided co-operative societies (MACS) at village level, mandal samakhyas at the taluka (sub-district) level as federations of co-operatives and jilla samakhya as the highest federated bodies at the district level (Nayak, 2013).



There are traditional institutions which are more in the nature of common property resource institutions prevalent at the village hamlet or group level and culturally embedded institutions prevalent at society, village or cluster level besides those based on reciprocity for resource or labour sharing. The major traditional institutions in water distribution included: Varabandhi in North India, Shejpli in Western India, Sadda in North East, and Phad found in Maharashtra (Namboodiri and Gandhi, 2009). But, many of the traditional innovative local institutions have also declined over time as was the case with Pani panchayats in Maharashtra which managed community lift irrigation schemes. Though these institutions promoted equitable and sustainable use of water, but they failed due to lack of enforcement of rules of their governance, lack of effective conflict resolution and lack of support from state and other stakeholders (Keremane *et al.*, 2006). On the other hand, modern institutions which attend to the three functions of Common Property resources (CPRs), culture and reciprocity, besides access to livelihoods, include: FPCs, check dams and well groups, community fodder and food banks, SHGs and common interest groups (CIGs), and village knowledge centres which operate from group to hamlet to village to cluster depending on the context. The major difference between traditional and modern institutions is in the nature of relationship between and among members, commitment, motivation, shared norms and values, leadership, autonomy, power and influence, and governance besides concern for sustainability (Pastakia and Oza, 2011).

The WUAs have mechanisms to promote participatory irrigation management (PIM) of canal water and predominantly exist in Andhra Pradesh, Madhya Pradesh and Maharashtra which have adopted the PIM legislation to promote these associations. These associations are responsible for operation and maintenance of irrigation networks. The structure of PIM includes an apex committee at the top followed by project and distributary committees and territory committees for the local irrigated area for both land owning and tenant, voters and other water using non-voters. They also differ in terms of their promoters being government, local groups or NGOs. On the other hand, irrigation co-operatives are governed by a general body and decide charges for water. In many states like Gujarat, the state has transferred responsibility of management of water distribution system to co-operatives. The various canal irrigation institutions and tank irrigation institutions, the latter being much more diversely managed like the groundwater irrigation institutions, differ on their design features which include: clarity of objectives, inter-connectedness with other institutions, adaptiveness, appropriate scale and compliance capacity. The outcome of rules of PIM institutions for improving performance of canal irrigation systems has been mixed for various reasons (Ananda 2009). Some of the major questions about the irrigation water institution in India pertain to their design to reflect scarcity and efficiency and equity, besides financial viability and sustainable use of water (Gandhi and Namboodiri 2009).

A study of 40 WUAs (20 functioning and 20 non-functioning) and their member and non-member farm households in a canal irrigation project in Palghat district of Kerala showed that factors of age, location of field, non-farm income and group size

were found to significantly influence collective participation negatively which is known from other studies also that larger size of the user group negatively affects the probability of a household's contribution. The participation had higher influence on the use of various inputs in case of older, more educated households besides the location of a field under a WUA (Durga *et al.*, 2018).

One major differentiation of India's PIM programme is that no attention has been paid to the specification of water rights other than the fact that only land owners who are in the catchment of the WUA can be members. This has meant that government's rights to water are largely unchallenged and its obligation to deliver water to the WUAs is rarely legally binding. Only Andhra Pradesh and Chhattisgarh Acts specify the rights and responsibilities of WUAs and users wherein the WUAs have the right to participate in planning and design of Micro Irrigation Systems (MIS), suggest improvements in the layout of field channels, plan and promote the use of groundwater, carry out other agro based activities for its members and use the canal bunds to plant timber, fuel, fruit, trees and grass for the farmer organisations. But, their practice on the ground does not necessarily match these rights (Upadhyay, 2009). Various local water institutions ranging from check dam groups to canal co-operatives to WUAs and tubewell co-operatives and partnerships in the states of Gujarat, Maharashtra and Andhra were found efficient by less than half of the respondents though there was much bigger impact in terms of cropping pattern diversification, equity, social cohesion and empowerment where 62-75 per cent of the respondents agreed (Gandhi *et al.*, 2009).

Studies of the informally organised self-managed tubewell companies in north Gujarat where there were more than 12000 deep tubewells, organised and operated under collective arrangements showed that differences in economic and demographic attributes of individuals impacted trust and co-operation while caste differences did not really matter. But, households with greater assets like land and dairy animals exhibited more trust which could be driven by their need to access groundwater with the help of others and needing help from others for other needs like labour and risk of failure of tubewell. Further, households with smaller incomes perceived the contribution to the collective action as fair and problem solving (Diwakara, 2006).

Joint Forest Management (JFM) is another significant community based arrangement in India with 84000 FPCs, besides other institutions like forest councils (van panchayats) and tree growers' co-operatives, involving more than 75 million people wherein FPCs work with forest department to manage 17 million hectares of forest land (Ray and Bhattacharya, 2011). A study of FPCs under JFM in Orissa revealed that poor and landless households derived 54-64 per cent of their income from forest resources compared with 32-36 per cent in case of small and marginal farmers and only 9-13 per cent in case of medium farmers or landholders reflecting the role of CPRs in livelihoods and the role of local institutions in taking these benefits to the poor and marginalised (Sahu, 2008). A similar and more analytical study of FPCs from a transaction cost perspective in the case of co-management of forest in the form of FPCs in two regions of West Bengal revealed that cost effective management of CPRs is very

important for equity and efficiency and found that factors like caste heterogeneity, distance to forest, land inequality, political heterogeneity and trust influenced transaction cost involved in collective action and its effectiveness and it was the robustness of the institution defined as dual enforcement of rules, nestedness of FPCs, internally adaptive mechanisms and ownership claim by resource users, which lowered the transaction cost and helped in success of co-management. The start-up cost of JFM and collective action scores differed significantly across FPCs as did the amount of transaction cost borne by better off members. All of these higher transaction costs led to lower level of collective action and poor robustness of FPCs. This made these FPCs less sustainable than others (Ray and Bhattacharya, 2011). In another context of common forests in Himachal Pradesh, it was found that high level of social diversity led to higher collective management while moderate wealth heterogeneity was beneficial for collective management but high level of wealth heterogeneity in the presence of benefit heterogeneity led to reduced collective management, as did the heterogeneity of both wealth and benefits (Naidu, 2009).

### III

#### CO-OPERATIVES AND PRODUCER COMPANIES

Until recently, in India and many other developing countries, traditional co-operatives were mostly organised under the co-operative structure, like State Co-operative Societies Acts in India. However, due to political interference, corruption, elite capture, and similar issues, the co-operatives soon lost their vibrancy and became known for their poor efficiency and loss-making ways with a few exceptions (Ebrahim, 2000). The government support to these co-operatives 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 co-operatives due to state withdrawal and deregulation. And, there is increased need and relevance of co-operatives due to the structural adjustment programme, and globalisation policies, which are marginalising the resource-poor producers. The new and potential role of co-operatives 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 in the value chain. Co-operatives 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 the 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 grassroot level (Singh, 2008). The major problems of traditional co-operatives 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 and horizon problems for members. In fact, internal and external free riding problems originate in the very nature of the co-operative as an institution as it distributes profits based on patronage, not investment, and because non-members are allowed to do business with the co-operative on same terms as members. The horizontal problem occurs as members cannot trade shares at market price, and thus, they cannot capitalise their gains when they leave the co-operative. This provision also creates portfolio problem as members cannot diversify their portfolio to reflect their risk preferences. The control problem refers to difficulty of monitoring and controlling management as there is no share market. Finally, influence problem distances investors from control as there is only one member one vote. These problems also make it difficult for co-operatives to borrow as lenders prefer their loans to be covered by equity against default (Rosairo *et al.*, 2012).

Though in India, there were attempts to promote co-operatives in farming or farm production in the form of better farming societies, tenant farming societies, joint farming societies, and collective farming societies since the 1950s, but mostly joint farming societies were formed and they were non-starters and more of co-operation happened in higher stages of the value chains of farm commodities, i.e., in procurement, processing and marketing, besides credit (Ebrahim, 2000). The only exceptions with limited success are the ground water irrigation co-operatives/groups and participatory irrigation management (PIM) societies in states like Gujarat and Andhra Pradesh (Shah, 1996; Aggarwal, 2000). Also, there are a few successful women's farming groups in Andhra Pradesh and a farming co-operative (Gambhira) in Gujarat (Agarwal, 2010; Naidu, 2012), the latter being so due to a conditionality of the state for transferring the land to it. It is still argued that they (groups/co-operatives) are the appropriate institutions to manage small holder agriculture in India for poverty reduction (Agarwal, 2010). But, studies of small farm efficiency and productivity show (Gaurav and Mishra, 2011; Singh *et al.*, 2011; Singh, 2017b) that since the Green Revolution technology/package is, by and large, scale neutral, there is no major rationale for collectivising small farms, though there could be still economies of scale in resources needed for modern farming like credit or access to markets which could be attended by way of post-production aggregation through marketing processing or service co-operatives like Primary Agricultural Co-operative Societies (PACS) for services like custom rentals of farm machinery and equipment for small farmers. The latter are already in place in many states of India and growing in importance due to the policy recognition and farmer uptake (Singh, 2017a). In this context, there has been a constant search for alternative forms of collectivisation or co-operation to achieve the objectives of development of poor people though some researchers also differentiate between collectivisation and co-operation in that whereas former refers to organising to avoid exploitation in markets and the latter as organising in situations of missing markets (Shah, 1996).

The traditional co-operative form of organisation has suffered from various constraints, which have had a negative effect on the day-to-day operations and performance of co-operatives. These constraints, which originate in the very nature and principles of the co-operative 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. This co-operative failure was attributed to political capture, political interference, elite capture and mismanagement or to the very lack of 'fertile grounds' in most parts of India with the exception of Gujarat and Maharashtra (Shah, 1996; Baviskar and Attwood, 1991; Ebrahim, 2000). Therefore, in the search for a better form of collective organisation of small producers, the producer company (PC) was born in the early 2000s as a legal institutional innovation. India is the second Asian country after Sri Lanka to try this form of producer organisation. These entities tried in the 1990s had mostly failed in Sri Lanka, but, in India, there seems a better promise of their success (Singh, 2016a). Much later, a similar entity called Farmer professional co-operatives - in China were granted clear legal status as independent and democratically administered organisations in 2007 which are registered under the State Administration of Industry and Commerce (SAIC) (Vorley *et al.*, 2012).

These entities are more like New Generation Co-operatives (NGCs) in many developed countries which has restricted or limited membership, link product delivery rights to producer member equity, raise capital through tradable equity shares among membership, enforce contractual delivery of produce by members, distribute returns based on patronage, go for value addition through processing or marketing, and make use of information efficiently throughout the vertical system. However, they retain one member – one vote principle for major policy decisions. This kind of restructuring, especially equity linked delivery shares and contractual delivery of produce helps co-operatives 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 co-operative. This arrangement by co-operatives has helped them become economically efficient, financially viable, and obtain member loyalty wherever it has been tried. It was also found that the NGCs in New Zealand in kiwi fruit, FMCG (Fonterra) and Sealord (seafood) had more sustained long term success in branding and building long term channel relationships with buyers than their traditional counterparts like NZGIB (deer meat) or Merino wool where funding was from state levy, as NGC shareholding members were able to capture the equity of the intangible assets such as brand value which encouraged them to take actions consistent with building a sustainable long term positioning and market thru new channels an partnerships as the new structure allowed it (Beverland, 2007). In practice, though the NGCs have been able to raise 30-50 per cent of their total capital through delivery rights issues, the problems of off market purchases to meet contract terms by the growers, leasing of delivery rights by members and

dependence on non-producer member equity and non-member business have been also reported (Singh, 2008).

A producer company operates under the regulatory framework that applies to corporate entities which is distinctly different from that of the cooperatives. 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 (Singh, 2008). Producer companies is a 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, 2014).

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 co-operative company (Singh and Singh, 2014).

The membership/shareholding of PCs in India ranges from individual producers to informal self-help groups and individual producers, registered SHGs and individual members, and only institutional members. In India, 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 Madhya Pradesh, the state government which was also the promoting body and based the PCs on CIGs created for the purpose, the members of which were given 95 per cent of investment as subsidy, and each PC provided a one-time grant of Rs. 25 lakh 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 per cent in first year, 85 per cent in second year (Rs. 5,90,000), 70 per cent in third year (Rs. 4,90,000), 55 per cent in fourth year (Rs. 3,85,000) and 40 per cent in fifth year (Rs. 2,80,000). Further, interest subsidy up to a limit of Rs. two lakh was provided on any term loan taken by the PC and a grant of upto 75 per cent of the cost up to a maximum of Rs. 2 lakh was given for any certification expenses like Food Products Order (FPO), Global gap etc. (NABCONS, 2011). For availing of this grant from the DPIP, it was mandatory for every PC to have 70 per cent of all shareholders from the Below Poverty Line (BPL) category households. 14 PCs were formed in 14 districts covering 32000 small farmers under DPIP. All the PCs started with seed production and input supply as their main activity and still continue to do that (SFAC, 2013).

### *3.1. Performance and Challenges of PCs*

There are not many serious academic studies on PCs in India so far with a few exceptions like Trebbin and Hassler, 2012, and Singh and Singh, 2014 despite the fact that PC Act has existed since 2003. Of the 17 PCs promoted by the District Poverty Initiative Project (DPIP), eight were financially successful, 7 at breakeven point and two were into losses. 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. The member awareness index was low at 34 per cent and knowledge level index was at 30 per cent. 63 per cent of the member farmers were not satisfied with the prices offered by PCs. Savings on input purchase through the PCs were very modest at Rs. 453 as reported by 31 per cent members. The additional sale proceeds realisation due to PC was 7.6 per cent of their household income. Thus, compared with members who did not transact with the PC, the members transacting were better off to the extent of Rs. 4193 in their total income. In terms of patronage, only 5 per cent members had sold

100 per cent of their produce through the PC, another 32 per cent only less than 25 per cent of their total produce and 56 per cent did not transact with the PC for the sale of their produce. Only 5 per cent were aware that PC was owned by them (Purushotham, 2012).

The performance of PCs in Madhya Pradesh differed not so much across promoters as across businesses undertaken and linkages established besides equity mobilisation. Since most of the DPIP PCs were in similar business (production and sale of certified seeds), their performance was largely dependent on this business, but some of them were able to make profit due to scale, other businesses and better and professional business and market management. Most of the MP DPIP PCs were into seed production business, which involved a small number of members and a high cost business. Therefore, it did not create member centrality and large patronage needed for the PC to scale up. In Gujarat, NGO promoted PCs were not able to raise authorised capital and shareholding was restricted to a few groups and farmers. They did not have many professional managers. They sold mostly inputs and facilitated produce selling. On the other hand, the farmer organisation {(Bhartiya Kissan Sangh (BKS) and Onion Growers Co-operative Federation (OGCF)} promoted PCs were doing better in terms of business volumes as well as profits. The PCs in Rajasthan were relatively very new and in some of the PCs, non-member dependence was high (20-60 per cent) though farmer base was really made up of marginal and small farmers, that too, in tribal areas. Though most of them were also into input supply, two of them also ventured into facilitation of seed contract farming and ginger production and marketing. All of them were into modest profits. The PCs in Maharashtra presented a mixed bag with some being extremely genuine and other completely fake. Of the two NGO promoted PCs, capital base as well as number of shareholders was small and professional help was missing. Similar was the case of one farmer group promoted PC which had similar profile. In one case, non-member dependence was very high (70 per cent of business). All of them made losses and suffered from capital shortage. The PCs in India, in general, appeared to be product focused rather than producer/farmer focused (Singh and Singh, 2014).

The viability of the PCs is dependent on different factors. In case of Maha Gujarat Agricotton PC, it was more of scale, type of farmers, and crops handled. In case of Nimad and Khargone PCs, it was again the high value crop-cotton, which was sustainable because of support from ASA. Another explanation for most PCs being in loss could be that as PC income was taxable until 2019, the PCs tended to pass on the surplus generated to members as price benefit to avoid taxation (Singh and Singh, 2014). Gujarat showed a more successful case scenario of PCs than that in Punjab, as lack of trust among farmer members as well as the promoting agencies was quite prominent in Punjab. The PCs in Punjab failed to find potential buyers for the produce and matching grant was not utilised properly. Some of the PCs in Gujarat, on other hand, were involved in processing as well as branding of the produce which was a very important factor in their success (Singh *et al.*, 2018). Membership in PCs



in Karnataka was predominantly male (87 per cent). Women participation in PCs in animal husbandry based activity was quite prominent compared to other PCs (Chandre Gowda *et al.*, 2018).

Almost all of the PCs have suffered from lack of working capital support (NABCONS, 2011), difficulty in access to loans, and lack of finance in formative years (Singh and Singh, 2014) as the kind of support provided by the government in Madhya Pradesh state government was not there in other states or from the Indian Union Government until recently. In 2012, the Ministry of Agriculture has advised all the state governments to treat PCs on par with the co-operatives for various policy incentives. The union government has now made provision for PCs in the 2013-14 budget for matching equity grants up to Rs. one million per Farmer Producer Organisation (FPO)/PC with a provision of Rs. 50 crore and for a credit guarantee fund for FPOs through the Small Farmer Agribusiness Consortium (SFAC) with allocation of Rs. 100 crore. The Reserve Bank of India has put PCs under priority sector lending for loans upto Rs. 50 million per PC. National Bank for Agriculture and Rural Development (NABARD) has a fund for promotion of POs which provides for business plan based loans to PCs as well as capacity building grants to promoting agencies. The Department of Animal Husbandry, Dairying and Fisheries (DADF) has declared that in addition to co-operatives, Producer Companies shall also be eligible for assistance under National Dairy Plan (NDP). More recently, NABARD has been given a mandate to promote 2000 PCs in two years with Rs. 200 crore funds in 2014-15. This has led to the State government involvement in direct promotion of PCs, e.g., in Karnataka. Development agencies like FWFB and ICCO are helping PCs with loans and capacity building grants.

Singh and Singh (2014) revealed a number of problems faced by the PCs which included: low member equity base, lack of access to loans, poor member awareness, and lack of support from state agencies like banks and marketing agencies. Most of them were low on paid up capital –authorised capital ratio due to promoters mostly NGOs being producer oriented and lack of awareness among members about their ownership of the PC. Other major problems faced by PCs included: poor skills of professionals and directors of the PCs; lack of vision and direction from board of directors; inability to attract capital or credit from outside though some promoting agencies had routed grants to the PCs or managed credit through joint ventures, and most of the studied PCs had managed to obtain loans (investment and working capital); poor marketing and value addition expertise; and no or poor business plans which were needed for obtaining finance as well (NABCONS, 2011; Singh and Singh, 2014).

One of the core problems is in the outlook of the members as they are not sensitised with the concept of PC reflected in their opportunistic behaviour and free riding. Other challenges include social capital formation, governance and management capabilities, scope and scale of PC business, market landscape and ownership issues of such agencies besides the institutional context and conversion of resources (Mahajan, 2015).

The major challenges faced by FPCs thus include: member loyalty, finance, overhead cost, capacity for governance, lack of awareness among the shareholders, lack of business planning, and free riding and opportunistic behaviour by members. Only state of Madhya Pradesh, Karnataka, Maharashtra West Bengal and Rajasthan seem to have a conducive policy environment for producer companies (Dey, 2018).

## IV

## DETERMINANTS OF PERFORMANCE OF COLLECTIVE INSTITUTIONS

What matters in institutional success is the adaptiveness of the institutions which includes principles of persistence, purposefulness, information richness and sensitivity, inclusiveness, flexibility and scale appropriateness (Pagan, 2009). The design principles which determine the efficiency of an institution include: the purpose, sub-sector, operating system, governance structure and aspects of member patronage and loyalty (Pastakia and Oza, 2011). Further, the overlap between institutions at local level also affects performance of the institutions. For example, in a canal command, in West Bengal, both WUAs and Panchayat failed to make the field channel system operate at optimal level and ended up being a low level of equilibrium at 52 per cent of the potential as panchayat had institutional power at macro level, structural power at meso level and political power at micro level (Choudhury *et al.*, 2009). But, West Bengal also has examples of Panchayats coming in to ensure access to tubewell water for smallholders through regulation of groundwater prices, and organising co-operative tubewells by small and marginal farmers which improved efficiency (lower cost) and equity in water access, and reduced reverse tenancy (Rawal, 2002).

An important question is to find an appropriate design of a producer institution which can make it more likely to succeed given other factors. In this context, Shah (1995;1996) identifies member centrality and member control as crucial which also come from patronage system and governance structure, besides being facilitated by the operating system. The performance of PCs depends on governance structure, external linkages, access to capital and technology, member contribution to business and financial performance. The stakeholder strategies for co-operation and market orientation with business expansion leads to viability. The health of a farmer organisation is determined by diversity in member risk preference and effectuation of collective investment. The consistency in patronise distribution among member producers is critical for the sustenance of FPC. The leadership, managerial skills, formulation of organisational structure, participatory decision making and collective resource management also help viability and sustainability of an organisation, and understanding of the organisation life cycle also explains a producer organisational health. The replication of producer organisation business model depends on group attributes, institutional arrangements, the context, enablers, and policy environment (Dey, 2018).

Further, it is the group characteristics, institutional arrangements to organise and manage group activity, type of products or commodities (perishable or staples or high or low value), markets (local, national or global) and the external environment which determines whether the group or collective can successfully achieve effective market access for small producers (Markelova *et al.*, 2009).

In case of WUAs, factors which determine effectiveness of a collective institution included: size of membership, the size of resource of the members and the heterogeneity of the members in the context of irrigation institutions. It was found that variables like absence of conflicts over water, low frequency of violation of rules of water allocation and maintenance of distribution channels contributed to success (Herath, 2009). In the context of major canal irrigation projects in Karnataka and Rajasthan, proximity to the market, size of the command, leadership and education were found as the major determinants of the effective maintenance of the system. Studies on the irrigation tanks in Tamil Nadu find that the poorer members devoted more than twice as much labour on the maintenance of the tank than their more resourceful counterparts because they were highly dependent on tank water. On the other hand, the increase in the number of wells in the tank led to decline in collective action, migration and adoption of non-farm activities by the poor households (Herath, 2009).

The institutional sustainability depends on institutional health and institutional strength. The former includes: shared vision and value system, member centric inclusive governance structure, effective leadership, participatory government system, members' allegiance and loyalty, human resources for self-reliance, financial self-reliance, optimal redundancy, balance of power and earned autonomy. On the other hand, institutional strength is made up of social strength, legitimacy, organisational strength, economic and entrepreneurial strength and political strength (Pastakia and Oza, 2011).

Further, most of the PCs lacked serious business plans and depended too much on promoting agencies- state or NGO- even many years after their formation. Most of them did not have wide spread market linkages and were confined to one or two agencies or buyers of their produce. Another distinguishing feature of the NGO promoted PCs was extent of non-member business and size of membership. All those with high non-member business and large membership base suffered poor performance which perhaps shows that it is difficult for PCs to manage scale beyond a point and risky to work with non-members especially when capital equity base is small (Singh and Singh, 2014).

But, it is the business domain i.e. nature of crop or commodity or enterprise and its dynamics in which PCs operate which makes the difference to performance besides the role of capital and expertise. For example, milk PCs also do better as dairy activity is more stable and resilient unlike crops and farm produce and also because the frequency of the transaction in case of milk is much higher than that in farm produce. Further, milk is a homogeneous commodity, easy to aggregate and store and provides

immediate returns. On the other hand, all these characteristics are missing in agricultural produce. Further, most of the milk PCs have mixed membership unlike FPCs. Even though FPCs may not make large profits by undertaking activities like farm input supply, they provide significant savings for the shareholders because of the assured supply and quality of inputs. Finally, it is also the nature and type of promoter which makes a difference (Ganesh, 2017).

The performance of FPCs depends on governance structure, external linkages, access to capital and technology, member contribution to business and financial performance (Dey, 2018). First of all, equity mobilisation should be higher in such entities to create member stakes and interest other business entities in undertaking business with these companies. It is possible to mobilise more equity from within the membership. For example, some PCs have attempted variation in shareholding related patronage to mobilise capital. Others like MPCs had minimum patronage in terms of sale or purchase transactions annually with the PC to remain members (NABCONS, 2011; Shah, 2016)). Further, dividends can be used to build equity. The PCs also lead to define their boundaries in terms of member treatment versus non-member treatment and membership should be rewarded more than non-members.

The PCs also need to choose their activity portfolio carefully keeping in mind the member centrality. For this, they should do adequate value chain mapping of the relevant commodity sector before undertaking any intervention for farmer benefit (Mahajan, 2015). It is possible to identify new activities in local areas which are valuable for small farmers e.g. custom hiring of farm machinery and equipment which they can't afford to buy but can rent in.

Large member base and involvement is crucial as also suggested by National Dairy Development Board (NDDB) experience across states to achieve economies of scale and scope and obtain member centrality and patronage. NDDB's model of promoting milk PCs is based on certain rules of governance to enhance patronise cohesiveness and governance and operating effectiveness which are: one, they will do business with only members, new members can join only during specific windows in each year and only those with minimum supplies of milk can vote, they have to maintain a ratio of 3:1 flush to lean milk supply and they have to increase their shareholding after one year; two, there are classes of membership and face value of the share is revalued periodically and old members can leave the PC and retire their equity capital at present valuation besides 20 per cent of the Directors being co-opted experts; three, the elected board members were forbidden from holding any political office, and four, value addition was the *mantra* for their success. Further, the MPCs have an asset light business model of owning low fixed assets and maintaining high turnover. Most importantly, member equity dominates capital structure and healthy retention of earning is practiced to build reserves and raise credit worthiness (Shah, 2016). Therefore, there is some merit in mixed member PCs in terms of farmer base as that helps achieve scale and mobilise more equity. But, scale is only one factor and others like differentiation and meeting buyer preferences or serving niches are also

important as part of strategy (Penrose-Buckley, 2007). For example, entry into fair trade channel by some PCs in groundnut in Gujarat wherein their produce is going into processing by well recognised companies in India is about high value premium markets, not just volumes or scale.

Initial spadework in member mobilisation is a must with wide stakeholder consultations, and some pre-existing structures of collectivisation like WUAs, FIGs are helpful as it takes time to make farmers appreciate that they are building their own enterprise. but, the promoter should have a definite time bound withdrawal strategy for PCs to become self-sustaining. It's also important to have the basic units of producer company organisation at a local level legally structured which can also undertake some business activities. Therefore, only informal collectives building up to the PC may not be desirable.

Very few PCs or their promoters have made use of the subsidiary clause of the Act wherein PCs can promote subsidiary companies as has been done by Yuva Mitra NGO in Maharashtra where eight PCs have jointly floated a subsidiary for agro processing and marketing with external equity being provided under CSR.

In order for PCs to achieve producer risk reduction (production and market), they should involve in contract farming, and crop insurance facilitation and even base their member economic relations on contract farming type of structure as in a competitive market it is important to have assured and reliable supplies from members. Like China, where the emerging farmer professional co-operatives (FPCs) introduced written contracts with their members at least in 32 per cent FPCs mostly in case of livestock and horticultural products (Jia and Huang, 2011), there is a need to tighten the commercial relations with members of the PCs for better demand and efficiency management in a competitive market.

## V

### CONCLUSIONS

The experience of collective institutions in formal and informal domains shows that it is possible to bring together community members to help themselves through collective platforms provided the initial group conditions are available and there is a felt need among the potential members. Smallholders can be profitably linked with markets and enable them to 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. 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 (Singh, 1997).

What is also needed is to bring together various types of institutional arrangements to attend to the problem at hand. A comparative study of contract farming and PO in terms of its impact on small farmers in floriculture in South India revealed that the small holders perceive both of them beneficial for their economic risk management. Whereas contract farming benefitted production and value chain efficiency and created higher value in the chain, the PO helped to capture value for the benefit of the producers. Therefore, the two institutions together supplemented the producer well-being rather than competing with each other and can be used in combination (Gersch, 2018). Public-Private Partnerships (PPPs) are also an important institutional mechanism to leverage strengths of private sector and co-operatives at the same time as was the case with respect to Mahagrapes in India which led to the revival of grape exports from India when there were serious problems of chemical residues in grapes and their rejection (Singh, 2011).

The experience of the new entity of PCs shows that they need to achieve scale and scale economies to be viable in competitive markets as they really still operate in mainstream markets and to that extent they suffer from same pressures as capitalist enterprises. The case of a PC in Gujarat demonstrates the benefits of achieving scale and scope economies. In some cases, role of social capital and state could also be seen as a positive one in determining performance. More importantly, what comes out from analysis is that the state should not promote such collectives directly, but rather, support from outside and they should be organised based on felt need and after adequate spadework with potential members and stakeholders.

A mechanism assess the value of shares held by the farmers and declare a fair value periodically is desirable. This is expected to incentivise members to acquire more shares. Secondly, a provision to enable transfer of shares within membership at freshly assessed value rather than at par value as well as issue new shares at new fair value of a share can bring in vibrancy (NRCRL, 2009).

Since any producer collective generally comes up in situations of partial or complete market failure or state failure for small primary producers, they attempt to do a doubly difficult job of making a successful business in such situations. Therefore, governmental support in the form of grants during the early stages of the PC should be made available. In India, banks give collateral free loans to Small and Medium Enterprises (SMEs) which can also cover PCs. Similarly, a PC can be treated as Non-Banking Financial Company (NBFC) to provide loans to farmer members. On the financing front, designing innovative products for financing of PCs needs to be appreciated by banks and other funding agencies like NBFCs as FWWB has done since 2011 and have financed 80 such FPOs, mostly in terms of working capital to PCs, Co-operatives and Societies for procurement of output, credit services to members, input supply, and infrastructure with first two dominating the loans (FWWB, 2018).

Other than the basic matching equity grants or credit guarantees of such other handholding support, the promotional agencies should also reward better performing

PCs with more business opportunities and lower cost capital and grants. The use of warehouse receipts for non-perishable commodities and even some perishables like potatoes can help in mobilising working capital for producer companies. There is also need for an agency to promote PCs with grants and disseminate awareness about the concept and practices of PCs among farmer producers and other stakeholders. This can be done at the state level too.

The PCs practicing organic farming can be designated as certifying agencies for third parties and individual growers by the union government agencies like the Agricultural and Processed Foods Products Export Development Authority (APEDA). The promotional and non-governmental organisations supporting these PCs should be given project based grants by the state/union government. Further, the state can incentivise private sector to work with PCs when it undertakes procurement through contract farming or direct purchase which are now legal and the state can incentivise it by lower market fee or bank guarantees or the like. Under the amended APMC Act, it should also provide market space to PCs in APMC and other markets. The state should treat PCs as social enterprises for their role in transactional services (basic market services) and transformational services- like social inclusion (75 per cent members in Madhya Pradesh PCs from marginalised producers), and in more sustainable practices like organic or fair trade and the like.

The analysis of issues of mobilising capital and building capacity in PCs reveals that it involves many steps and can take 5-7 years in order to create a sustainable institution. Many times PCs also undertake high volume low margin businesses and treat scale and margin as mutually exclusive categories. For value addition, what is needed is patient capital to support basic infrastructure and capacity building. Business plans are must for successful launch and stay of a PC in a competitive market which requires professional inputs and marketing research. It is here that promoting agencies should also be business-like and the resource provider should choose them carefully. The state policy should be enabling and supportive of PCs in the form of creation of space for them e.g. in case of FDI supermarket procurement or other private sector market linkages which can be incentivised or mandated. The PC by-laws should also encourage more member involvement and commitment with contract-like member business relations with the PC. These internal governance mechanisms and external facilitation can be crucial in growth and sustainability of the PCs to contribute to small producer growth and development.

There is need for capacity building training of collectivities like SHGs and PCs and their members for making them capable of understanding the dynamics of group action and also the dynamics of modern markets and basic business management and development. For this, public resources are a must as initially, this cannot be provided in-house.

#### REFERENCES

- Agarwal, B. (2010), "Rethinking Agricultural Production Collectivities", *Economic and Political Weekly*, Vol.45, No.9, 27 February, pp.64-78.

- Agarwal, B. (2018), "Can Group Farms Outperform Individual Family Farms? Empirical Insights from India", *World Development*, Vol.108, pp.57-73.
- Aggarwal, R. (2000), "Possibilities and Limitations of Co-Operation in Small Groups: The Case of Group Owned Wells in Southern India", *World Development*, Vol.28, No.8, pp.1481-1497.
- Ananda, J. (2009), Water Institutions in India; An Institutional Design Perspective, in L. Crase and V.P. Gandhi (Eds) (2009), *Reforming Institutions In Water Resource Management – Policy and Performance for Sustainable Development*, Earth Scan, London, pp.100-122.
- APMAS (2017), *Impact and Sustainability of Self Help Group Bank Linkage Programme in India*, APMAS, Hyderabad.
- Bachke, M.E. (n.d.), Are Farmers' Organisations a Good Tool to Improve Small-Scale Farmers' Welfare?", An Unpublished Paper, Downloaded on October 24, 2011.
- Baviskar, B.S. and D.W. Attwood, (1991), "Fertile Grounds: Why do Co-Operatives Flourish in Western India", *IASSI Quarterly*, Vol.9, No.4, pp.82-99.
- Beverland, M. (2007), "Can Cooperatives Brand? Exploring the interplay Between Cooperative Structure and Sustained Brand Marketing Success", *Food Policy*, Vol.32, pp.48-495.
- Chand, R.; P.A.L. Prasanna and A. Singh (2011), "Farm Size and Productivity: Understanding the Strengths of Smallholders and Improving their Livelihoods", *Economic and Political Weekly*, Vol.46 Nos.26/27, 25 June, pp.5-11.
- Chandre Gowda, M.J.; S. Dixit and H.L. Megha (2018), "Women's Participation in Karnataka's FPOs", *Economic and Political Weekly*, Vol.53, No.45, 17 November, pp.20-22.
- CGAP (2007), *Sustainability of Self-Help Groups in India- Two Analyses*, Consultative Group to Assist the Poor (CGAP), Occasional Paper No. 12, August.
- Choudhury, N.; P. Banerjee and D. Roy (2009), "Panchayat Irrigation Management: A Case Study of Institutional Reform Programme over Teesta Command in West Bengal", *International Journal of Rural Management*, Vol.5, No.1, pp.1-20.
- Devaux, A.; D. Horton, C. Velasco, G. Thiele, G. Lopez, T. Bernet, I. Reinoso, and M. Ordinola (2009), "Collective Action for Market Chain Innovation in the Andes", *Food Policy*, Vol.34, pp.31-38.
- Dey, K. (2018), "Farmer Producer Companies in India; Determinants of Performance and Viability", *Economic and Political Weekly*, Vol.53, No.35, 1 September, pp.44-52.
- Diwakara, H. (2006), "Determinants of Trust and Co-operation: Case Study of Self-Managed Tubewell Organisations in North Gujarat, India", *International Journal of Rural Management*, Vol.2, No.2, pp.163-189.
- Durga, A.R.; K. Chandran and S. Kumar (2018), "Canal Irrigation and Collective Action: The Case of Water User Associations in Southern India", *Indian Journal of Agricultural Economics*, Vol.73, No.1, January-March pp.133-148,.
- Ebrahim, A. (2000), "Agricultural Co-Operatives in Gujarat, India: Agents of Equity or Differentiation?", *Development in Practice*, Vol.10, No.20, pp.178-188.
- EDARS and APMAS (2006), *Self Help Groups in India- a Study of the Lights and Shades*, EDA Rural Systems (EDARS), New Delhi and Andhra Pradesh Mahila Abhivruddhi Society (APMAS), Hyderabad.
- Gandhi, V. and N.V. Namboodiri (2009), "Water Resource Development and Institutions in India; Overview and Profile" in Crase and Gandhi (Eds.), *op. cit.*, pp.146-165.
- Gandhi, V. and A. Roy (2009), "Institutional Analysis of the Performance of Ground Water Institutions in India", in Crase and Gandhi (Eds.), *op. cit.*, pp.237-277.
- Ganesh, V. (2017), "Farmer Producer Companies: A Response", *Economic and Political Weekly*, Vol.52, No.40, 7 October.
- Gaurav, S. and S. Mishra (2011), Size Class and Returns to Cultivation in India- A Cold Case Reopened, IGIDR Working Paper no. 27, Indira Gandhi Institute of Development and Research, Mumbai.
- Gersch, I. (2018), Producer Organizations and Contract Farming: A Comparative Study of Smallholders Market Strategies in South India, *Zeitschrift fur Wirtschaftsgeographie*, January, <http://doi.org/10.1515/zfw-2017-0026>.



- Gulati, A. and R. Juneja (2018), "Sardar's Unfinished Task", *The Indian Express*, Ahmedabad, October 29, pp.9
- Gruere, G.; L. Nagarajan, and E.D.I.O. King (2009), "The Role of Collective Action in the Marketing of Underutilised Plant Species: Lessons from a Case Study of Minor Millets in South India", *Food Policy*, Vol.34, pp.39-45.
- Hellin, J.; M. Lundy and M. Meijer (2009), "Farmer Organisation, Collective Action and Market Access in Meso-America", *Food Policy*, Vol.34, pp.16-22.
- Herath, G. (2009), Institutions for Water Management in Developing Countries; their Role, Nature and Analysis in Crase and Gandhi (Eds.), *op. cit.*, pp.83-99.
- Jia, X. and J. Huang (2011), "Contractual Arrangements between Farmer Cooperatives and Buyers in China", *Food Policy*, Vol.36, pp.656-666.
- Kaganzi, E.; S. Ferris, J. Barham, A. Abenakyo, P. Sanginga and J. Njuki (2009), "Sustaining Linkages to High Value Markets through Collective Action in Uganda", *Food Policy*, Vol.34, pp.23-3.
- Keremane, G.B.; J. McKay and A. Narayanamoorthy (2006), "The Decline of Innovative Local Self-Governing Institutions for Water Management: The Case of Panipanchayats", *International Journal of Rural Management*, Vol.2, No.1, pp.107-122.
- Kruijssen, F.; M. Keizr and A. Giuliani (2009), "Collective Action for Small Scale Producers of Agricultural Biodiversity Products", *Food Policy*, Vol.34, pp.46-5.
- Kumar, A.; P. Shinoj and S. Jee (2013): Do dairy Co-Operatives Enhance Milk Production, Productivity and Quality? Evidence from the Indo-Gangetic Plain of India, *Indian Journal of Agricultural Economics*, Vol.68, No.3, pp.457-468.
- Kumar, A.; S. Saroj, P.K. Joshi and H. Takeshima (2018), "Does Co-Operatives Improve Household Welfare? Evidence from a Panel Data Analysis of Smallholder Dairy Farmers in Bihar, India", *Food Policy*, Vol.75, pp.24-36.
- Kumra, Kand and V.K. Sharma (2018), "Progress of Microfinance in India under SHG-Bank linkage", *International Journal of Management Studies*, Vol.51, No.4, pp.120-126.
- Ma, W. and A. Abdulai (2016), "Does Co-Operative Membership Improve Household welfare? Evidence from Apple Farmers in China", *Food Policy*, Vol.58, pp.94-102.
- Mahajan, V. (2015), Farmers' Producer Companies: Need for Capital and Capability to Capture the Value Added in Access Development Services (Ed.), *State of India's Livelihoods Report*, OUP, New Delhi.
- Markelova, H.; R. Meinzen-Dick, J. Hellin and S. Dohrn (2009), "Collective Action for Smallholder Market Access", *Food Policy*, Vol.34, pp.1-7.
- Mukherjee-Reed, A. and Darryl Reed (2013), Taking Solidarity Seriously, Analysing Kudumbashree as a Women's Social and Solidarity Economy Experiment, Paper presented at UNRISD Conference—Potential and Limits of Social and Solidarity Economy, 6-8 May, Geneva, Switzerland.
- NABCONS (2011), *Integration of Small Producers into Producer Companies-Status and Scope*, NABARD Consultancy Services Pvt. Ltd., Hyderabad.
- Naidu, N.T.S. (2012), Co-operative Farming: A Case of Gambhira Collective Farming Society, IRMA Working Paper No. 229, IRMA, Anand.
- Naidu, S.C. (2009), "Heterogeneity and Collective Management: Evidence from Common Forests in Himachal Pradesh, India", *World Development*, Vol.37, No.3, pp.676-686.
- Namboodiri, N.V. and V. Gandhi (2009), Institutional Analysis of the Performance of Surface Water Institutions in India, in Crase and Gandhi (Eds.) (2009), *op. cit.*, pp.208-236.
- Nayak, A.K.J.R. (2013), A Report on Producer's Companies in India, DEAR, NABARD, Mumbai.
- NRCRL (National Resource Centre for Rural Livelihoods) (2009), Report of the Working Group on Producer Companies, NRCRL, PRADAN, January.
- Neilson, J. and B. Pritchard (2009), *Value Chain Struggles: Institutions and Governance in the Plantation Districts of South India*, Wiley-Blackwell, Chichester, U.K.
- Pagan, P. (2009), "Laws, Customs and Rules; Identifying the Characteristics of Water Institutions", in Crase and Gandhi (Eds.) (2009), *op. cit.*, 20-44.

- Pastakia, A. and S. Oza, (2011): *Creating Social Capital for Livelihood Interventions*, Volume, 4, under the *Livelihood, Augmentation, in Rainfed Areas-A Strategy Handbook for the Practitioner Series*, DSC Ahmedabad, Chapter 3.
- Patibandla, M. and T. Sastry (2004), "Capitalism and Co-operation: Co-operative Institutions in a Developing Economy", *Economic and Political Weekly*, 3 July, pp.2997-3004.
- Penrose-Buckley, C. (2007), *Producer Organisations: A Guide to Developing Collective Rural Enterprises*, Oxfam GB, Oxford.
- Praveen, K.V. and A. Suresh (2015), "Performance and Sustainability of Kudumbasree Neighbourhood Groups in Kerala: An Empirical Analysis", *Indian Journal of Agricultural Economics*, Vol.70, No.3, July-September, pp.417-425.
- Purushotham, P. (2012), Small producer Companies' Participation in Retail and Commodity Markets: A Case Study of Poor Farmers' SPCs in MP, Paper presented at the International Seminar on Organised Retailing vis-à-vis Farm Economy of India, September 21-22, at CESS, Hyderabad by ISAM, CESS and IPE, Hyderabad.
- Rawal, V. (2002), "Non-Market Interventions in Water-Sharing: Case Studies from West Bengal, India" *Journal of Agrarian Change*, Vol.2, No.4, pp.545-569.
- Ray, B. and R.N. Bhattacharya (2011), "Transaction Costs, Collective Action, and Survival of Heterogeneous Co-Management Institutions: Case Study of Forest Management Organisation in West Bengal, India", *Journal of Development Studies*, Vol.47, No.2, pp.253-273.
- Rosairo, H.S.R.; M.C. Lyne, S.K. Martin and K. Moore (2012), "Factors Affecting the Performance of Farmer Companies in Sri Lanka: Lessons for Farmer-Owned Marketing Firms", *Agribusiness*, Vol.28, No.4, pp.505-517.
- Sahu, N.C. (2008), "Socio-Economic Heterogeneity and Distributional Implications of JFM: An Empirical Investigation from Orissa", *Indian Journal of Agricultural Economics*, Vol.63, No.4, October-December, pp.614-628.
- SFAC (2013), *Krishi Sutra 2- Success Stories of Farmer Producer Organisations*, Small Farmers' Agribusiness Consortium (SFAC), DoAC, MoAC, Government of India, New Delhi.
- Shah, T. (1995), *Making Farmer Co-Operatives Work- Design, Governance and Management*, Sage, New Delhi.
- Shah, T (1996): *Catalysing Co-Operation- Design of Self-Governing Organisations*, Sage, New Delhi.
- Shah, T. (2016), Farmer Produce Companies: Fermenting New Wine for New Bottles, *Economic and Political Weekly*, Vol.51, No.8, 20 February, pp. 2015-20.
- Sharma, M. and S. Chatterjee (2016), Revitalising the Self-help Group Movement in India, at CGAP.org, June 2.
- Shylendra, H.S. (2012), "Community based Enabling Models of Microfinance: Praxis and Lessons from India", *Millennial Asia*, Vol.3, No.2, pp.139-168.
- Singh, A.; P.A.L. Prasanna and A. Singh (2011), "Farm Size and Productivity: Understanding the Strengths of Smallholders and Improving their Livelihoods", *Economic and Political Weekly*, Vol.46, Nos. 26/27, 25 June, pp.5-11.
- Singh, G.; P. Budhiraja and K. Vatta (2018), "Sustainability of Producer Organisations under Agricultural Value Networks in India: A Case of Punjab and Gujarat", *Indian Journal of Agricultural Economics*, Vol.73, No.3, July-September, pp.370-385
- Singh, S. (1997), "Managing Marketing: Co-operatives in Horticultural Business in South Gujarat", *Indian Journal of Agricultural Marketing*, Vol.11, Nos.1&2.
- Singh, S. (2008), "Producer Companies as New Generation Co-operatives", *Economic and Political Weekly*, Vol.43, No.20, 17 May, pp.22-24.
- Singh, S. (2011), Public-Private Partnerships for Agribusiness Development in Thailand and India: Experience, Issues, and Strategies, in C.A. da Silva and N. Mhlanga (Eds.) (2011) *Innovative Policies and Institutions to Support of Agro-industries Development*, FAO, Rome; Chapter 3, pp.41-62.
- Singh, S. (2012), "New Markets for Smallholders in India: Exclusion, Policy and Mechanisms", *Economic and Political Weekly*, Vol.47, No.52, 29 December, pp.95-105.

- Singh, S. (2016a), Smallholder Organisation through Farmer (Producer) Companies for Modern Markets: Experiences of Sri Lanka and India, in Jos Bijman, Roldan Muradian and JurSchuurman, (Eds.) (2016), *Cooperatives, Economic Democratization and Rural Development*, pp.75-99, Chapter 4, Edward Elgar, Cheltenham (U.K.).
- Singh, S. (2017a), "How Inclusive and Effective Are Farm Machinery Rental Services in India? Case Studies from Punjab", *Indian Journal of Agricultural Economics*, Vol.72, No.3, July-September, pp.230-250.
- Singh, S. (2017b), "Replicating Small Farms, Prosperous Farmers in India: Lessons for Policy and Practice", *Journal of Agribusiness Marketing*, Vol.8, pp.1-13.
- Singh, S. and T. Singh (2014), *Producer Companies in India: Organisation and Performance*, Allied, New Delhi.
- Trebbin, A. (2014), "Linking Small Farmers to Modern Retail Through Producer Organisations- Experience with Producer Companies in India", *Food Policy*, Vol.45, pp.35-44.
- Trebbin, A. and M. Hassler (2012), "Farmers' Producer Companies in India: A New Concept for Collective Action?", *Environment and Planning A*, Vol.44, pp.411-427.
- Upadhyay, V. (2009), Legal Dimensions of Water Resource Management in India; A Review of Legal Instruments Controlling Extraction to Sustainable Limits, in Crase and Gandhi (Eds.) (2009), *op.cit.*, pp.123-145.
- VOICE (2008), *A Report on the Success and Failure of SHGs in India- Impediments and Paradigm of Success*, Voluntary Operation in Community and Environment (VOICE), New Delhi.
- Vorley, B.; L. Cotula and M. Chan (2012), *Tipping the Balance: Policies to Shape Agricultural Investments and Markets in Favour of Small-Scale Farmers*, Research Report, IIED London and Oxfam, December.