



Organising small-holders into viable organizations has long been considered critical to sustaining their livelihoods, especially in the hard times that India's agriculture is facing today. However, India's track record of forming robust, self-sustaining farmer cooperatives has been poor ever since the early 1990s when the movement began. For long, restrictive laws were blamed for their failure. But most of the 2,000 farmer producer companies (FPCs) registered under a new amendment to the Companies Act, 1956 appear like old wine in a new bottle. This highlight explores why, and argues for the need to focus on the logic and process of promoting new farmer cooperatives to improve their success rate.



Water Policy Research

HIGHLIGHT

FARMER PRODUCER COMPANIES

Fermenting New Wine for New Bottles

Tushaar Shah

FARMER PRODUCER COMPANIES

*Fermenting New Wine for New Bottles**

A revised version of this highlight has been published in the Economic & Political Weekly (Shah 2016).

1. THE CHALLENGE OF ORGANIZING SMALL FARMERS

With two back to back droughts, Indian agriculture is now in deep distress. Seldom in the past have the price risk and production risk in agriculture moved in unison as they are doing now. Normally, when production took a hit, farmers had less to sell but got a better price and vice versa. With globalization, the Indian farmer is also hit by the global freefall in commodity prices. When far more prosperous industrial farmers in California and Australia find the going tough, there is little wonder that India's small farmers are driven to the wall, at times, to take their own lives.

Things would arguably be much better had India succeeded in organizing small farmers into strong cooperatives that could guard against price as well as production risks as, for instance, dairy cooperatives have done in places where they have taken root. We seldom hear about dairy cooperative members in a state like Gujarat committing suicides. In semi-arid north Gujarat, the entire farming system is drought-proofed by strong dairy cooperatives which experience a spurt in milk production during a drought as farmers concentrate on increasing milk production to counter the income loss from crop failure.

The 1991 liberalization, which exposed Indian agriculture to international competition, had made it essential for small farmers to collectively fight for their interests. Member-controlled dairy and sugar cooperatives in western India have demonstrated formidable lobbying power in defending the interests of their members. Had we such strong member-controlled cooperatives in other spheres of the agricultural economy, the agrarian distress we witness today would have arguably been far less severe.

The trouble is that since the early 1900's, when the idea of cooperatives was mooted, India has found it hard to launch cooperatives that grow into robust, self-sustaining and member-controlled businesses. Especially after independence, governments and NGOs have made countless attempts and invested massive sums in founding all manner of farmer cooperatives. But most became known for corruption, apathy, inefficiency, lack of market orientation, bureaucratic lethargy and stagnation. A few cooperatives that did not, unleashed an enigmatic search for a theory of how to grow their tribe. A frequently asked question was:

under what conditions do cooperatives succeed in our small farmer context?

2. WHY SOME COOPERATIVES SUCCEED

A common explanation for a cooperative enterprise that succeeds is that it has an honest and selfless leader who enjoys the allegiance of its members. But this was based on study of stand-alone, unreplicable, 'boutique' cooperatives (such as the Gambhira Cooperative Farming Society in Gujarat led for decades by the Gandhian, Chhaganbhai Patel) and was of little use as a theory for cooperative action without a theory of leadership in a social enterprise. A more credible and interesting explanation was offered by sociologists Baviskar and Attwood (1991) in their 'fertile grounds' argument. They asked why successful cooperatives have emerged only in western Indian regions like central Gujarat and western Maharashtra. Their answer was that hardy and enterprising farming communities such as the *Patidars* in Gujarat and *Marathas* in western Maharashtra created a fertile ground for the seeds of cooperative action to take root. The reasoning was compelling, but of little use to practitioners unless they figured out how to imbue, for example, *Adivasi* farmers in central India with the social capital and entrepreneurial spirit that *Patidars* and *Marathas* had acquired over centuries of socio-cultural evolution. A third explanation that got wide appeal was advanced by a group of cooperative ideologues, mainly the late L.C. Jain, Mohan Dharia and V. Kurien. In their vision, farmer cooperatives of all manner would emerge and come into their own *if only* the legal and policy environment was more liberal and nurturant, instead of repressive and paternalistic as it had been so far.

In the early 1990's, a group of researchers at the Institute of Rural Management, Anand (IRMA), who were strongly influenced by the Amul experience, offered a fourth explanation. They asked why dozens of Amul pattern dairy cooperative unions and scores of large sugar cooperatives in western India had grown and multiplied into viable, self-sustaining and member-controlled cooperatives even without exceptional leadership and despite the repressive legal and policy environment. They found the organizing features and operating rules of successful cooperatives remarkably similar and argued that there was more to building strong farmer cooperatives than charismatic

*This Highlight is based on research carried out under the IWMI-Tata Program (ITP) with additional support from the CGIAR Research Program on Water, Land and Ecosystems (WLE). It is not externally peer-reviewed and the views expressed are of the author/s alone and not of ITP or its funding partners.

leadership, supportive laws and social capital; and that with some catalytic support, cooperatives can be *designed* and incubated to be viable, self-sustaining and member-controlled enterprises (Shah 1995 and 1996).

3. ROLE OF DESIGN THINKING

Many critics of the IRMA research mistook its use of the term 'design' to mean some kind of social engineering with all the manipulative connotations associated with that term. In retrospect, the use of design in IRMA studies was more akin to what is now known as *Design Thinking*, which Herbert Simon (1965: p. 55) suggested was about the transformation of existing conditions into preferred ones." Design thinking is always linked to an improved future, in this case, for farmer cooperatives and more so for their members. The IRMA studies suggested that the design of cooperative enterprises should be about constantly reimagining how thousands of potential members interact with their cooperative in ways that imparts strength and vitality to the cooperative. It argued that the failure of cooperatives was often rooted in the inability of their promoters to master this interaction.

Cooperatives in India have been organized following a set of ideological principles enunciated by the International Cooperative Alliance (ICA). These prescribe that: [i] a cooperative must follow voluntary and open membership; [ii] regardless of differing patronage stakes of different members, management committee/board should be elected on one-member-one-vote principle; [iii] the cooperative must give limited or token interest on share capital; [iv] surpluses must be distributed according to patronage; [v] a cooperative must cooperate with other cooperatives but retain its autonomy; and [vi] cooperatives should invest in wider community development activities.

ICA principles were part of the vision of a just, socialist society. But there is no evidence to suggest that adhering to the ICA principles strengthens cooperatives' organization development, or their business performance, or even their equitable management. Yet, cooperatives and cooperative laws have uncritically accepted these normative principles in designing members' interaction with their cooperative. In reality, the IRMA studies discovered that successful member-controlled cooperatives of sugar cane growers, dairy farmers and others tweaked the normative ICA principles in myriad ways to strengthen the instrumentality of their cooperative to further patronage priorities and interests of its members (Shah 1996). In many cases, ICA principles were followed in letter but in reality a different set of rules were in force. Shah (1996) argued that successful cooperatives sought not to maximize profits but their socio-economic significance in their domain. To this end, they constantly sought to enhance their member centrality (that is, the significance of the cooperative to member livelihoods), patronage centrality (significance in the sectoral economy) and domain centrality (significance in the local economy as a whole). They do this by choosing organizing and operating rules that ensure: [a] high propensity of the cooperative's governance structure to cohere around and promote patronage interests of members

(patronage cohesiveness); [b] a high level of tenacity and vigour in the governance process in holding the operating system accountable (governance effectiveness); and [c] performance pressure and support to the Operating System to respond creatively to patronage priorities of members and ensure that members remain faithful to the cooperative and its operative norms (operating effectiveness). Following only the ICA principles did not ensure these outcomes (Shah 1996).

4. DID LAW CATALYSE COOPERATIVES?

There was nothing novel or profound about this conclusion. New Generation Cooperatives in the US, Canada, Europe and other developed countries had already been tweaking cooperative ideology and experimenting with new design features for three decades (Singh 2008). Yet, new cooperatives in India continue to suffer 'external locus of control' and the nature of the discourse on cooperatives has hardly changed. Influential thinkers have demanded more liberal and supportive legal framework for cooperatives — without, of course, commensurate control from government and financiers.

In 1995, Chief Minister of Andhra Pradesh, NT Rama Rao (NTR) got the Mutually Aided Cooperative Societies Act passed following the recommendations of the Brahma Prakash Committee. One could scarcely ask for a better, more liberal cooperative law than what NTR gave Andhra Pradesh; and many protagonists of liberal cooperative law waited with bated breath for a groundswell of new viable, self-sustaining, member-controlled cooperatives to spring up in that state. But nothing of the sort has happened in 20 years after this dream law which was copied by nine other states, too. Meanwhile, Gujarat and Maharashtra — which have all of India's large, successful, member-controlled cooperatives — have steered clear of this liberal law while their cooperatives kept growing famously under their old, illiberal cooperative law. The states with Mutually Aided Cooperative Societies' Act neither had such strong cooperatives before the passage of the law nor after.

Following another such committee led by Y.K. Alagh, in 2003, the Companies Act 1956 was amended to provide registration of Producer Companies (PC). This provision liberated the cooperative from the arduous process of working under the Registrar of Cooperatives but the ICA cooperative principles remained the bedrock of the design of the PC with the same five organising principles: [a] voluntary and open membership; [b] equal voting right independent of shareholding; [c] elected board from amongst members; [d] limited return on share capital; and [e] distribution of surplus on patronage basis. This new legal facility was widely expected to unleash a new wave of farmers' cooperative enterprises, but now under the more business-friendly Companies Act of 1956.

5. PRODUCER COMPANIES

According to Sriram Singh (2015), by 2015, over 2,000 Farmer Producer Companies (FPCs) had been formed under

the new amendment of the Companies Act, 1956. Earlier, interference by politicians and bureaucrats was blamed for the poor state of cooperatives. But these are no longer a concern for FPCs with their new-found legal protection. There has been not a single case of supersession of a PC board by government, nor have any of them complained about political interference. Yet, a majority of FPCs have struggled to grow and become viable. Of the more than 2,000 registered, there are not even a dozen FPCs that have enrolled over 100,000 members and/or reached an annual business turnover of over ₹ 100 crore, the scale of a small-sized dairy cooperative union. Size may not be the only or even a major indicator of success; however, survival as a viable, self-sustaining, member-controlled producer organization is; but even on that count, most FPCs remain fragile, if a 2011 study of 24 FPCs by Sukhpal Singh and Tarunvir Singh (2013) is any guide. A spate of recent reviews and evaluations of PC has identified all manner of problems facing them. In sum, neither the ultra-liberal Mutually Aided Cooperative Societies Act, nor the Multi-State Cooperative Societies Act nor the Producer Company provision in the Companies Act, 1956 has in the past over 10 years given birth to a single farmer producer organization of the quality and size of Amul or Bardoli Sugar Cooperative.

A core issue is the logic of founding a FPC which should ideally arise from a new way of doing business — involving new technology, product development, and innovative promotional and marketing strategy. When Tribhuvandas and Kurien began organizing farmers into dairy cooperatives, they were confident that Bombay offered a much more lucrative market than milk producers converting surplus milk into *ghee* at household level, and that the Bombay market could be best conquered by a cooperative of milk producers equipped with a dairy plant to process liquid milk and manufacture milk powder. They did not first organise Amul and then look for opportunities for value-addition; but the opposite. Many FPCs formed under the new laws have nothing like a value-addition model as an organizing logic. Most were started to do what traders were doing anyways but with greater presumed efficiency and transparency. Notably, most FPCs were formed under some government program or the other which offered to cover the promotional cost incurred by the promoting NGO.

In Madhya Pradesh, Action for Social Advancement (ASA) and Professional Assistance for Development Action (PRADAN) formed dozens of PCs as part of the state government's District Poverty Initiatives Project which, by way of assistance, offered them little more than a management subsidy to cover the salaries of NGO staff for a few years. In Gujarat, Development Support Centre (DSC) and Aga Khan Rural Support Program (AKRSP) formed FPCs of farmers they were working with; but there was no clarity about how they will grow and become viable. Small Farmer Agri-Business Consortium (SFAC) became a catalyst for the formation of hundreds of FPCs, most without a compelling business model. Many FPCs were formed under the National

Vegetable Cluster and National Accelerated Pulses Production Program of Government of India under which SFAC provided 2-year management subsidy to NGO's for forming FPCs. It was as if the formation of FPCs itself was the beginning and end of the game.

It was one thing to register FPCs and enrol members; but quite another to grow them into viable entities. Farmers contributed initial token share capital, SFAC subsidy covered promotional costs, but as business grew, FPCs needed capital, management skills and other resources for further growth. During the 1970s and 80s, National Dairy Development Board (NDDB) played SFAC's role with dairy cooperatives and Industrial Finance Corporation of India (IFCI) played the same role with sugar cooperatives. But both these clusters began generating cash early in their lives and most pre-paid their term loans to reduce interest burden (and evict funding agencies' nominees from their boards) because they had strong business models. This is not the case with most FPCs today. Like early government-promoted cooperatives, the new generation of FPCs have also looked to the government / donors to provide it capital and capacities needed for growth. So the SFAC has now launched an Equity Grant Scheme to match member equity contribution 1:1 up to a limit of ₹ 10 lakh. In a separate Credit Guarantee Fund, the SFAC will offer 85 per cent guarantee for a bank loan of up to ₹ 1 crore to the FPC. Aside from government agencies, private financiers like the Rabo Bank Foundation, Ananya Finance and the IGS LAMP Fund of the Basix Social Enterprise Group have also offered loans to PCs. The National Bank for Agriculture and Rural Development (NABARD) too is likely to play some role (Mahajan 2015). While much energy is devoted to generate support from government, donors, CSR programs, there are not many examples of FPCs going to their members to contribute more share capital to finance growth and value addition. India's small farmers are resource-poor and risk averse; but the idea of a cooperative is not only pooling of produce but also members' equity capital. If FPCs promise attractive returns to investment and enjoy trust of their members, there is no reason why farmers would not provide them capital.

Is the experience with promoting PCs any different from earlier experience with promoting traditional cooperatives? In my view none. Like the old-world conventional cooperatives, most FPCs too are sheep in the skin of wolves. Their promotional process provides little evidence of 'design thinking' for *"transforming existing conditions into preferred ones"*. The discourse on the future of FPCs is not about how they can mobilise energy for growth from within but about how to garner resources and concessions from governments and external agencies. Had this not been the case, we would not hear promoting NGOs bemoaning lack of capital, capability and facilitation as key constraints facing FPCs. Had they thought about the future growth trajectory of FPCs at the time of formation, it would have been hard to ignore these as future challenges they needed to prepare for from

the beginning. The flaw lies not in FPCs but in the thinking and process of promoting them.

6. NEW GENERATION DAIRY COOPERATIVES SHOW THE WAY

Refreshingly different from the NGO-promoted FPCs is the manner in which NDDDB Dairy Services Company (NDS) has promoted five new Milk Producer Companies (MPCs). The hallmark of their promotional process is design thinking of a high quality. The NDDDB's trigger to create MPCs came from the dissatisfaction with infirmities in the Anand Pattern dairy cooperatives. Two of these were critical: first, Amul Pattern dairy cooperatives were thought vulnerable to growing political and bureaucratic interference; second, this vulnerability impaired their capacity to compete in a post-1991 liberalized economic environment which pitted cooperatives against multi-national dairy giants. In the NDDDB's vision, as New Generation Cooperatives, MPCs will have to be more robust producer organizations capable of defending member-control against political or bureaucratic capture or interference. The rapid growth and maturation of NDS's MPCs present a stark contrast to the 2,000 odd NGO-promoted fledgling FPCs. The first one, *Maahi*, based in Saurashtra and Kachchh, was incorporated as a Producer Company under the Companies Act amendment in 2012; and the other four thereafter. In a short period of three years, all five MPCs have achieved scale in terms of membership, business - turn over, market position and build-up of internally generated equity capital (Table 1).

NDS is a resourceful organization with a deep understanding of the dairy economy and formidable experience in organizing dairy farmers. It also has access to World Bank funding under the National Dairy Plan. One can understand that NGOs that have been engaged in promoting FPCs are no match for the NDS. Yet, what is remarkable about the NDS' promotional program are the design features that it has incorporated to enhance patronage cohesiveness, governance effectiveness and operating effectiveness of

these new businesses. Take, for example, their bye-laws governing the relationship between members and the MPC:

- [a] The MPC will do business *only* with registered members; members without business with the cooperative have to surrender their membership;ⁱⁱ
- [b] New members can join, but only during specific windows each year, by paying admission fee of ₹ 100 and buying five shares with a book value of ₹ 100 each; only those members can vote who have supplied at least 500 kg of milk and supplied milk for at least 200 days during the year;ⁱⁱⁱ
- [c] Members have to maintain a 3:1 flush to lean ratio of milk supply; that is, to be able to supply 300 litres to the MPC during flush months, a member should have supplied 100 litres during lean months;
- [d] After their first year of membership, members have to ramp up their equity capital *in proportion to* (at present @ ₹ 1/kg of milk supplied) their business with the MPC during the previous year; returns to members too are similarly tied to patronage and equity shares. During 2014-15, *Paayas* did a total business of ₹ 600 crore but gave ₹ 3 crore as loyalty incentive to members and ₹ 1.5 crore as dividend on equity on a total share capital of ₹ 16 crore, which is well over 25 per cent annual return on member-equity;
- [e] Voting members are divided into patronage classes A, B and C; each class sends to the board elected members *in proportion to* its share in the FPCs business;^{iv}
- [f] The face value of the equity share is to be revalued periodically; new members can join by buying shares at a re-valued price (net worth/number of shares);^v
- [g] Old members can exit the MPC and retire their equity capital at today's valuation;
- [h] Up to 1/5th of the directors on board can be co-opted experts.

Table 1: Growth of Milk Producer Companies promoted by NDDDB Dairy Services

Parameter	<i>Paayas</i> Rajasthan	<i>Maahi</i> Gujarat	<i>Shreeja</i> Andhra Pradesh	<i>Baani</i> Punjab	<i>Sahaj</i> Uttar Pradesh
Number of members	69,647	86,938	41,292	22,972	44,999
Women members as per cent of total members	37%	20%	100%	12%	22%
Smallholders as per cent of total members	47%	51%	75%	45%	43%
Paid up share capital (₹ million)	154.0	262.0	20.3	13.8	22.0
Average milk procurement ('000 kg per day)	412	536	236	170	425
Business Turnover 2014-15 (₹ million)	5,968	9,793	1,381	868	1,582

Source: Singh (2015)

Together, these provisions tweak three ICA principles. First, membership is open and voluntary but 'conditions apply'. Second, board is elected by one-member-one-vote rule; but vote comes only with threshold-level of patronage; moreover, A-class vote is weightier than C-class vote. The more business you do with the cooperative, the greater your say in its decision making. Finally, buying a share is not just a token admission fee; it is buying or selling a piece in the cooperative's accumulated net-worth in a manner that protects the senior rights of early members who are now incentivized to supply capital.

To enhance governance effectiveness, MPC Boards ensure that: [a] professional managers run the business efficiently in the interest of members; [b] the CEO serves at the pleasure of the elected MPC Board which is trained to view the CEO as the personification of the entire Operating System; [c] frequent board meetings^{vi}, continuous training and capacity building for the Board, managers, field staff and primary members places strong focus on building a common vision and mission, and an understanding of the 5-year business plan; [d] performance-linked managerial compensation at market rates^{vii}. Above all, the bye-laws of MPCs forbid elected board members from holding any political position; a few elected board members have had to resign MPC board membership when they got elected to political posts.

Finally, the key strength of the MPC is its Operating System designed as a value-adding machine that delivers high share of consumer rupee to farmers. *Paayas* in Rajasthan returns 85 per cent of consumer rupee to farmers, probably the highest by any dairy operator in the country. The highlights of the NGC business model are: [a] direct payment of milk price to members' bank account to ensure transparency and reduce transaction cost; [b] replacing the Village Dairy Cooperative by a *Sahayak* to operate and manage a frugal Village-Based Milk Procurement System (VBMPs) to ensure transparency, cut pooling costs, reduce milk souring and improve quality; [c] asset-light business model of owning low fixed assets and maintaining high asset turnover^{viii}; [e] low debt (or debt-free) capital structure with member equity dominating capital structure; [f] working capital generation through continuous cash generation and limited use of commercial bank credit; [g] variable cost model that reduces the business risk of sales slow-down; [h] healthy retention of earnings to build reserves and net worth to raise credit-worthiness; and [g] constant effort to accelerate value addition by reducing bulk institutional sales and enhancing branded retail sales. Thanks to these, all the five MPCs are already in healthy financial condition. *Maahi* MPC had a 7 year term loan of ₹ 19.26 crore from NDDDB which was due in 2019, but it fully repaid the loan in 2015 itself to reduce interest burden. All other MPCs are well on their way to retiring their debt.

What explains the gap between MPCs and NGO-created FPCs is the quality of the promotional process. In a short

period of time, in many geographies, MPCs are giving tough competition to long-established Amul pattern dairy unions, leave alone private players in organized and unorganized sectors. In Saurashtra and Kachchh region of Gujarat — which for 50 years were written off as unsuitable for cooperative dairy development — the formation of *Maahi* MPC forced Amul to quickly follow suit and organize village dairy cooperatives in a campaign mode. In 10 years, the contest between *Maahi* and Amul has transformed the dairy economy of this semi-arid landscape in ways that was hard to imagine at the turn of the millennium (Shah *et al.* 2014). Until 2005, dairy cooperatives collected less than 1 lakh litres/day (l/d) of milk from these regions; today, *Maahi* and Amul together collect over 20 lakh l/d pumping over ₹ 2,500 crore / year as milk income of farmers.

7. THE WAY FORWARD

In some ways, even more revealing than the NDDDB's MPCs has been the case of Mulukanoor Women's Cooperative Dairy Union as an example of design thinking in creating a robust farmer-owned business. In this case, the promoter, the Cooperative Development Foundation (CDF), was far less resourceful than NDDDB. Yet, this 20,000 member all-women MPC has, over a decade, built a turnover of ₹ 75 crore, markets its milk under its own brand *Swakrushni*, and returns 87 *paise* of each consumer rupee as producer price, besides an attractive year-end bonus. G.V. Krishnagopal^{ix}, who watched the cooperative closely as a CDF employee, attributed its economic success and robustness to a set of design features: [a] market only liquid milk and avoid product business to minimize working capital need; [b] avoid large cities and dominate tier II and III town markets within a radius of 100 km to minimize transport cost; [c] collect milk from 100 villages within a radius of 35 km to keep procurement cost at ₹ 0.60/l; [d] retain 5 per cent of milk payment as member deposit to raise capital; [e] hire and train local people to keep staff cost per litre to the minimum; [f] only active members are allowed to vote; each Board member is monitored for the performance of village cooperatives in her constituency.

In a recent visit to Amul cooperative in Anand, Arvind Subramanian, Government of India's chief economic advisor, asked if organizing pulse-growers into Amul-type cooperatives can help increase India's pulse production just as dairy cooperatives have helped India become the world's largest dairy producer. The answer is yes; but merely registering dozens of FPCs will clearly not help. Someone needs to engage in 'design thinking' about how best to turn around the country's pulse economy. FPCs can turn around the agricultural economy provided they promise farmers sustainably better returns to farming. Many NGO's promote FPCs using the good old 'forming, storming, norming, performing' model (Tuckman 2001). The trouble is, some tough norming to control free-riding and opportunism necessary for performing is hard to brainstorm when the FPC is formed without farmers buying into an exciting, self-sustaining business model.

The examples of promotion of MPCs discussed above suggest at least four stages involved in launching successful FPCs among farmers growing pulses or anything else: first, of creating and communicating a compelling vision of a potentially successful enterprise with significant rewards to farmer-members; second, of creating (and registering) the

member-organization best designed to actualize the vision; this done, the third stage is of utilising early success to institute rules/norms that reinforce patronage cohesiveness, governance effectiveness and operating performance; and finally, at maturity, utilise the strength from enterprise growth to enhance member, patronage and domain centrality.

REFERENCES

- Baviskar, B.S. and Attwood, D.W. (1991): "Fertile Grounds: Why Do Cooperatives Flourish in Western India?" *IASSI Quarterly*, 9(4).
- Mahajan, V. (2015): "Farmer Producer Companies: Need for Capital and Capacity to Capture Value Added", Hyderabad: BASIX Social Enterprises Group.
- Shah, T. (1995): "Making Farmer Co-operatives Work: Design, Governance and Management," New Delhi: SAGE Publications.
- Shah, T. (1996): "Catalysing Co-operation: Design of Self-governing Organizations," New Delhi: SAGE Publications.
- Shah, T. (2016): "Farmer Producer Companies: Fermenting new wine for new bottles", *Economic & Political Weekly*, 51(8): 15-20.
- Shah, T., Mehta, Y., Kher, V. and Palrecha, A. (2014): "Generating Agrarian Dynamism: Saurashtra's Lessons for Vidarbha." *Economic & Political Weekly*, 49(26 & 27): 86-94
- Simon, H. (1969): "Sciences of the Artificial", Cambridge: The MIT Press, p 55
- Singh, S. (2008): "Producer Companies as New Generation Cooperatives", *Economic & Political Weekly*, 43(20): 22-24
- Singh, S. (2015): "Promotion of Milk Producer Companies: Experiences of NDS", presentation in workshop on Producer Companies organized by the National Dairy Development Board, Anand, Gujarat, 8 October.
- Singh, S. and Singh, T. (2013): "Producer Companies in India: A study of organization and performance." Publication # 246, Ahmedabad Centre for Management in Agriculture, Indian Institute of Management. Available online: http://www.iimahd.ernet.in/users/webrequest/files/cmareports/14Producer_Company_Final.pdf
- Tuckman, B. (2001). "Developmental Sequence in Small Groups". *Psychological Bulletin*, 63(6): 384-399.

NOTES

ⁱ Worries about political interference have been increasingly validated with party politics playing increasingly strident role in dairy cooperative elections. Equally worrying is the wayward behaviour of elected boards of many celebrated Gujarat dairy unions leading to bitter controversies about corruption and nepotism. A common aspect of all such behaviours is that the board's decisions are not perceived to be in the best patronage interest of members.

ⁱⁱ Accordingly, in 2014, *Maahi* retired some 12,000 members who did not meet all membership criteria including maintaining the lean-flush milk supply ratio with the MPC.

ⁱⁱⁱ These bye laws are vigorously enforced. In the annual report of the *Maahi* MPC of Saurashtra, for example, of the 86,938 registered members, only 46,056 members enjoyed voting rights; the rest did not fulfil the patronage criterion and were denied a voting right in 2015 board election.

^{iv} According to *Maahi* MPC's annual report, in 2015 only 69 per cent of registered members were eligible for voting; of these, 8 per cent were A in class, 26 per cent were in B class and 66 per cent were in C class contributing 39, 34 and 29 per cent respectively of total milk procurement. In patronage based voting, A and B class members sent 4 board members each while C class members elected 3.

^v *Maahi* (Saurashtra-Kutch) and *Paayay* (Rajasthan) are likely in 2015 to revalue their ₹ 100 share to around ₹ 150 in keeping with their growing net worth.

^{vi} For example, the *Paayay* board met 23 times in 3 years.

^{vii} 10-15 per cent of the total compensation of top managers is variable pay linked to performance as are annual salary increments.

^{viii} None of the five dairy FPCs own dairy processing plants or even chilling plants which are all leased on rental; the only assets they own are electronic milk-testing and weighing machines at Milk Procurement Points (MPPs) at the village level.

^{ix} Email correspondence, 15 December 2015.



About the IWMI-Tata Program and Water Policy Highlights

The IWMI-Tata Water Policy Program (ITP) was launched in 2000 as a co-equal partnership between the International Water Management Institute (IWMI), Colombo and Sir Ratan Tata Trust (SRTT), Mumbai. The program presents new perspectives and practical solutions derived from the wealth of research done in India on water resource management. Its objective is to help policy makers at the central, state and local levels address their water challenges – in areas such as sustainable groundwater management, water scarcity, and rural poverty – by translating research findings into practical policy recommendations. Through this program, IWMI collaborates with a range of partners across India to identify, analyze and document relevant water management approaches and current practices. These practices are assessed and synthesized for maximum policy impact in the series on Water Policy Highlights and IWMI-Tata Comments.

Water Policy Highlights are pre-publication discussion papers developed primarily as the basis for discussion during ITP's Annual Partners' Meet. The research underlying these Highlights was funded with support from International Water Management Institute (IWMI), Tata Trusts, CGIAR Research Program on Water, Land and Ecosystems (WLE) and CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). However, the Highlights are not externally peer-reviewed and the views expressed are of the author/s alone and not of ITP or any of its funding partners.

IWMI Headquarters

127 Sunil Mawatha
Pelawatte, Battaramulla
Colombo, Sri Lanka

Mailing Address

P. O. Box 2075, Colombo, Sri Lanka
Tel: +94 11 2880000, 2784080 Fax: +94 11 2786854
Email: iwmi@cgiar.org Website: www.iwmi.org

IWMI-Tata Water Policy Program

"Jal Tarang"

Near Smruti Apartments, Behind IRMA Gate
Mangalpura, Anand 388001, Gujarat, India

Tel: +91 2692 263816, 263817

Email: iwmi-tata@cgiar.org



IWMI is a member of the CGIAR Consortium and leads the:



RESEARCH
PROGRAM ON
Water, Land and
Ecosystems