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Rapporteur's Report: Learning from Success: Analytical Review of Case Studies of Successful Farmers and Farmers' Co-operatives

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I

INTRODUCTION

This report reviews a total of 29 papers on the theme of case studies of successful farmers (10), private consultancies and other support organisations (6) and co-operative societies(13) accepted for discussion at the 50th Annual Conference of the Indian Society of Agricultural Economics. The main objective of this review is to identify common patterns and issues in each group of these case studies to facilitate productive discussion and set future research agenda. This has been possible to some extent with the first group and to a much greater extent with the third group of case studies; but not with the second group of studies.

The second group includes, for example, a study by B.D. Bhole and S.B. Undirwade of a private tractor dealer who used imaginative and aggressive business strategies to raise his sales and in the process became instrumental in promoting rapid tractorisation of agriculture in four districts of Vidarbha; a study by S.M. Patil of the economics of drip irrigation system in banana cultivation; a comparative analysis of the performance of Land Reclamation Corporations in Punjab, Haryana and Uttar Pradesh by K.K. Datta and P.K. Joshi; a study by P.B. Parthasarathy and K. Hemachandrudu of the impact of Bhagavatula Charitable Trust, an NGO working with the poor and women through imaginative 'capacity building' programmes in Visakhapatnam district; and finally, a study by G.S. Kainth and P.L. Mehra which assesses a 'Lab-to-Land' scheme of the ICAR on a sample of 260 families selected from eight villages of Amritsar district. Each of these is in itself a valuable and insightful documentation of the subject institution; however, there is little commonality and much diversity among the situations studied. As a result, it is not easy to raise questions of general importance based on the second group of studies.

II

SUCCESSFUL FARMERS

Outstanding Farmers

We have two types of case studies of successful farmers: one is of farmers with outstanding resource productivity; the second includes two studies of individuals who were more than just successful farmers. A majority of the studies are about ordinary people who use diligence, hard work and experimental knowledge to achieve success. For example, Karuppiah, an illiterate paddy grower from Puddukkottai studied by A. Narayanamoorthy obtained 3,600 kg. of paddy per acre by combining farmyard manure with chemical fertiliser, by intensive management of his small plot, by timely action against pest attack and by depending on his own experience and advice of other experienced farmers rather than on the recommendations of the farm demonstration officer. Two outstanding pulse growers

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from the same district studied by S. Iyyampillai too use a good deal of farmyard manure; but they have larger and better land holdings than other farmers in their village, their own private irrigation sources, and depend on extension officers for advice. A study by Joginder Singh and I.S. Chatha of a six-acre, ex-serviceman farmer highlights the successive experimentation tried by him with the help of experts in identifying return-maximising enterprise mixes. Use of formal farm budgets, elaborate record keeping and regular consultation with Punjab Agricultural University scientists are identified as the factors behind success.

What is the secret of the success of these outstanding farmers? Naturally, part of the answer lies in the intensive use of land and other inputs to secure high output per acre; but the other part - and probably more important one - lies in the intensity with which each of these farmers applies himself to excelling in his profession. These case studies remind one of Kusum Nair's work (1961) in the sixties in which she compared rice growers from Tanjore with much more productive Japanese farmers and found that there was little by way of technology and management that the Japanese farmer could teach a Tanjore farmer; what explained the productivity differences was the attitude and the mind set which made the Japanese farmer lavish much more care and labour, besides fertilisers and pesticides and other inputs, on his tiny holding.

The importance of capital intensity in high land productivity and farm business viability is confirmed by other studies in this group involving comparative analysis of groups of successful and not-so-successful farmers in the same region. Foremost amongst these is the study by M. Satyanarayana and K.J.S. Satya Sai on farmers in Jayakwadi command in Maharashtra which applied regression and discriminant analysis to two groups of ten farmers each. The main differences between successful and unsuccessful farmers relate to the volume, efficiency and nature of farm business. The successful typically operate at higher volume of business, use their resources more efficiently, use less family labour relative to total labour used and more fertiliser per acre as compared to the less successful. Profit per acre depends primarily on cropping intensity and interest on working capital on successful farms. R.D. Khodaskar's study of five successful farmers in Urali Kanchan in Pune district too highlights intensive use of land and other inputs - especially, fertiliser and pesticide - explaining 50 per cent higher than average yields per acre on these farms. Being based on case studies, this paper also highlights the contribution of skilful diversification of cropping pattern in favour of cash crops like sugarcane and vegetables and of the exploitation of the complementarities between farming and dairying by successful farmers. Rakesh Singh and S.P.R. Chaurasia's linear programming analysis for a sample of 60 East Uttar Pradesh vegetable growers suggests stronger influence on the margin of low implicit wage rates for family labour; therefore, the average grower in their sample is guided more by employment raising than income raising options. But this is not the case with their successful farmers who use their land more intensively with borrowed capital.

Entrepreneurs

In the second category, we have the case study of Hukumchand Jain who, after graduating from the university, came to farming new. After initial setbacks, Jain began learning the ropes of the new trade by share-cropping; and soon became an opinion leader. He first invested in irrigation; and then expanded his land holding with the help of bank finance. At the same time, he added livestock and diversified his cropping pattern to include trees and horticultural crops. Having established himself, Jain began working with local tribals to help them improve their farming.

D.K. Marothia, the author, is pained that Jain's success has had little demonstration effect in the area. In contrast, in his case study on the tribals of Bastar district, H.P. Yadav has documented experiences of eight first generation farmers who did well in paddy cultivation without the benefit of a model like Jain to guide them. Among the factors identified to explain their good performance are: own irrigation (in addition to canal); working capital support; good management of resources; and fairly high level of education. Marothia attributes the limited demonstration effect of Jain's success to the fact that most families depend primarily on forest labour for their livelihood with agriculture being relegated to secondary importance. The other reason that Marothia overlooks could be that Jain is widely perceived to be very different from local farmers in his education, resource endowments, social and economic status, etc.; and communication theory is now unequivocal on the point that the learning from someone else's success is quicker and greater, the more the target learner perceives the model to be similar to him.

There are similarities between Jain and Vasantrao Arwe, a major grape grower of Sangli district studied by N.P. Ranbhise. Arwe too came to grape cultivation from traditional farming-cum-trading background and struck it rich. Both the cases suggest patterns about the transition to capitalist farming and the important role of capital - own as well as borrowed, of innovation and adaptation, and of using the institutional structure for research and extension. One respect in which the two are different is that while Jain adjusted to the market conditions, Arwe tried - albeit unsuccessfully - to alter the working of the grape market by exploring on his own export markets for grapes, and then by playing important role in the Maharashtra Draksha Bagayatdar Sangh, Pune (MDBS) and as the president of the All-India Grape Growers' Association.

The MDBS has interesting history; set up in 1967 with six grape growers of Tasgaon as members, the association began providing technical know-how and inputs (such as gibrallic acid, insecticides, fungicides, growth retardents, packing materials, etc.) at cost. The association came to be known as the House of Scientific Grape Growers producing the famous 'Tasgaon Chaman' grapes; since the inputs and technical support were much valued, the MDBS membership grew rapidly first to 64 and then to 298. The most valuable service provided by the Sangh to members was however the pooling, grading and marketing of the grape output of the members. The MDBS kept in constant touch with 19 markets through-out the country; and agents from all over used to flock around the office of the MDBS to bid for Tasgaon Chaman offering handsome prices to the growers.

After a brief glorious history, however, the MDBS failed. It became difficult to maintain strict quality control; members also did not adhere to the technical specifications which earned for Tasgaon Chaman its great reputation; as a result, grapes grown by different growers began commanding different prices; agents began contacting individual growers who developed alternative sources for inputs and technical advice and eventually fell out from the MDBS. In 1978, MDBS was closed; from then on, instead of agents queueing up outside the MDBS's office, grape growers of Tasgaon began waiting outside the agents' offices. The grape growers are now trying to form a marketing co-operative; however, the big growers are not very keen; and small growers are too scattered to easily come together.

This is the classic example that illustrates the theses of organisation theorists like Olson (1965) and highlights the difficulties in organising farmers even around a cause as obviously beneficial to everyone concerned as was promoted by the MDBS. That an economic goal is commonly shared by a group is seldom enough for a community organisation to emerge and function well. There are complex issues of organisational dynamics and design which have to be tackled before an organisation can begin to function and prosper. Some of these are outlined in R.S. Deshpande and V. Ratna Reddy's paper on Pani Panchayats. However, even when success has been achieved in organising local communities, there is a host of issues that becomes pertinent in on-going organisations. The third set of papers highlight some of these.

III

CO-OPERATIVES AND LOCAL INSTITUTIONS

1. Variety of Co-operative Experiences

By far the largest number of contributions related to co-operatives and other local institutions providing variegated services to farmers. The issues arising from these vary greatly: what constitutes a successful co-operative? what factors determine success? what are the social impacts of successful co-operatives and other community organisations? what are the managerial and organisational issues important in running successful local community organisations? while most successful experiments seem to have a strong, charismatic leader behind them, what exactly is it that the leader does that inspires success?

At the outset, it is important to recognise the enormous variety in sectoral, regional and sociological contexts in which the societies studied are grounded. The papers include, for example, four studies of dairy co-operatives from Maharashtra, Orissa, Punjab and Gujarat; farmers' service societies from Punjab, Andhra Pradesh and Maharashtra; agricultural processing and marketing societies from Haryana and Maharashtra; vegetable marketing co-operatives from Himachal and Kerala; two water users' organisations from Maharashtra; and two joint farming co-operatives from Gujarat and Maharashtra; a lone weavers' co-operative from Himachal which too is more of a labour co-operative. Finally, there are the Pani Panchayats of Purandhar taluka in Maharashtra (Deshpande and Reddy) which combine some of the ideological features of co-operatives but, on equity count, even surpass them.

2. Domain

Comparing a dairy co-operative with a credit co-operative is difficult enough; but even comparing a dairy co-operative in Gujarat with one in Maharashtra is not easy. For example, the Punjab dairy co-operatives studied by J.S. Sidhu and R.S. Sidhu are an example of the single commodity, vertically integrated Anand Pattern Co-operatives in which village level co-operatives are federated into a district union which owns processing facilities. In the Anand pattern, the geographic domain of a co-operative is limited typically to one or two villages and a fixed, dairy related set of services and inputs. But the dairy co-operatives in Maharashtra have found ways of expanding their domains. The well-known Pravara and Warana Dairy Co-operatives in Maharashtra operate in more or less the same activity range as the Anand pattern co-operatives but have emerged as a compact sub-district union covering 40 to 60 villages from several adjoining tehsils complete with their own processing and marketing outfit (Apte, 1988). The Hanuman dairy in Kolhapur district (D.B. Yadav, R.K. Rahane and D.S. Rasane), on the other hand, has remained confined to the spatial boundaries of a single village but diversified its activities manifold - and by no means in areas related to its original business; besides collecting member's milk, paying for it on the basis of quality, and providing a range of technical inputs to members as all Anand pattern co-operatives do, this old co-operative (established in 1967) with 1,500 members also helps members with bank loans which it guarantees, supplies pedigreed calves, processes and markets milk in its own plant, prepares and markets indigenous products such as basundi, peda, burfi, gulab jamun, chikki, sweets, etc.; runs a bakery to produce and market bread, biscuits, cakes; supplies poultry feed to its members and markets their egg production; supplies agricultural inputs such as seeds, pesticides and fertilisers; runs a general grocery store; sells diesel and kerosene; operates a farm equipment leasing business; and in addition also dabbles in family planning, schooling, and yield competitions to encourage higher productivity.

Similarly, vast differences obtain in farmers' service-cum-credit co-operatives. The service co-operatives from Sangrur district of the Punjab studied by Sidhu and Sidhu started several decades ago with credit business; one of them grew and diversified its services to include the marketing of members' farm outputs; the other remained only a credit co-operative and eventually failed. The only other pure credit co-operative studied is the Kharsoli credit co-operative reported by A.K. Vitonde and V.M. Koranne; this has a membership of 126, but only 15 of them, and that too large holders, are served; large farmers are the prominent defaulters (half of the large farmer borrowers and a quarter of the rest are defaulters). It thus provides a good example of what a credit co-operative ought not to be like.

Comparing these primarily credit based service societies with two more diversified service societies suggests the likelihood that growth and diversification do indeed reinforce each other. The Gattududdenapalli (G-palli) credit society in Karimnagar district of Andhra Pradesh studied by D.S. Raju, V. Ram Mohan and Seema established in 1959 broke the credit barrier early on and moved into several new areas of service including supply of quality seeds, fertilisers and plant protection chemicals, sale of electric motors and other farm equipments, procurement of paddy and maize from its 1,100 strong membership and its further processing and marketing, operation of fair price shops; supply of poultry feeds, training and extension services, etc. However, in terms of the range of activities undertaken, this co-operative does not in any way compare with the extraordinary example of the Hanuman dairy co-operative (Yadav *et al.*), as noted above.

3. *What is a Successful Co-operative?*

Service to members

What is a successful co-operative? In the simplest sense, it is the one which provides to its members a service/services important to them at terms they find attractive enough to patronise the co-operative on a continuing basis. Like any other business, a co-operative too is a business; and therefore, its viability and financial growth are important indicators of its success. In the case of most co-operatives, however, viability depends critically on patronage which in turn depends upon (and, eventually, also determines) the range and usefulness of the services offered and the attractiveness of the terms.

Financial indicators

Most of the case studies surveyed here define success in terms of financial viability and growth of assets and/or turnover. Sidhu and Sidhu also use internal capital formation as an index of health. In the case of the service co-operatives studied by them, the percentage of own funds to loans made is taken as an index of self-reliance. In their studies of two dairy co-operatives too, mobilisation of internal capital is the major feature that distinguished the successful from the unsuccessful co-operative.

In the case of the service co-operatives, Sidhu and Sidhu use loan per borrower, growth rate in loan per borrower, loans overdue percentage, etc., as measures of performance. In order to understand the internal dynamics of the co-operative, they also compare these indices for ordinary members and management committee members. To be sure, they do report major differences in favour of the latter; but in the co-operative that failed, the differences are unjustifiably large; "the leaders themselves set a bad precedent and they could not persuade others to repay the loans."

Financial indicators may however often be misleading. For example, average loan per borrower may be an inadequate indicator of service where the reach of the credit co-operative itself is very limited. In the case of the Kharsoli credit co-operative from Nagpur district, no more than 10 per cent of the members could be provided with credit in any single year; even then, the loan provided covered only 5.5 per cent of the total cost of cultivation of borrowers. Further, though repayment capacity tends to increase with farm size, repayment 'propensity' at least in this case declined with farm size; thus, large farmers who dominate the co-operative also proved the major defaulters.

Autonomy and self-reliance

Other than financial indicators, the structure and size of the membership, self-reliance and asset/business growth too are widely used criteria to measure co-operative success. Few authors have, however, looked at the basic composition of the membership; and this may sometimes be important. For example, Sidhu and Sidhu note that among the two dairy co-operatives they studied in Sangrur district, "marginal farmers constituted the largest percentage of the members of the successful society .... whereas the pattern of membership was exactly the reverse in the case of the unsuccessful society." In contrast, in Haryana, we have a case study by M.K. Chaudhary and D.R. Aneja of two agricultural marketing societies - one from Karnal and the other from Samalkha - which have in addition to farmers, credit societies in the area, registrar of co-operatives, traders and commission agents, nominees of the government, and those co-opted by elected members as ordinary members of the co-operatives. This is somewhat curious since the membership itself consists of those with direct conflict of interests. It is therefore not surprising that these rather large co-operatives function more as extensions of the State Government and the National Co-operative Development Corporation rather than as independent co-operatives and are heavily dependent on them for working capital and subsidies.

Thus if autonomy and self-reliance are important criteria to judge the success of co-operatives, the Haryana co-operatives would not pass the test. In contrast, M.L. Sharma, D.V. Singh and C.S. Nadda adjudge the Lahaul Potato Growers' Processing and Marketing Co-operative in Himachal Pradesh to be a success because of its self-reliant growth fuelled by the co-operative rendering useful services to members; in their assessment, the success of the Lahaul co-operative stems from growing membership, patronage and services to members.

Impact on member incomes

Increase in member incomes is an important criterion; relatively greater increases in the incomes of the poorer members is another. In their study of the Bhutti weavers' co-operative in Himachal Pradesh, D.S. Thakur, D.R. Thakur and A.S. Saini consider both income to members from the co-operative and employment available to them; they note for example that 77 per cent of the members of the co-operative belong to weaker sections; that members get 60 per cent of their total income from their work with the co-operative's loomshed; and that the income from the co-operative has more than doubled during 1981-82 to 1988-89.

Criteria not included

None of the case studies on co-operatives investigates whether the institution studied operates really as a co-operative. By definition, a co-operative must have a democratic governance structure (one man, one vote); and it must distribute surpluses in proportion to patronage. The former ensures democratic control; the latter ensures the generation of a driving force that propels a co-operative to viability and growth. None of the case studies reports any data on either; and this is their major shortcoming. Most authors have viewed a co-operative as just another business or development organisation and have ignored the fact that a true co-operative sustains business as well as development through adherence to the basic principles of co-operation.

4. Socio-Economic Impacts of Co-operatives

The social impact of rural co-operatives is of two types: direct impact reflected in improved incomes, better services, reduced costs, etc., for its members; and strategic impact arising out of the countervailing force created by the co-operative in the output and factor markets in the area. Most 'with and without' studies invariably ignore the strategic impact of a successful co-operative on the working of factor and product markets which may confer substantial benefits to non-members in the area. This lacunae has been particularly observed in the studies of social impacts of dairy co-operatives which typically cover a majority of the villages of a milkshed district and therefore have an enduring impact on the economic behaviour of private milk traders for whom the procurement price of the co-operatives specifies the floor below which they cannot attract sufficient milk supplies.

However, this phenomenon is by no means limited to dairy co-operatives; the study of G-palli multi-co-operative indicates that, in addition to conferring direct and substantial benefits on members, the availability of credit, input supply and output marketing facilities through a well-run organisation also benefits non-members in the area substantially by 'regulating' the behaviour of private moneylenders, input marketers and grain traders. This effect is particularly highlighted in the case study of the Lahaul potato growers' co-operative by Sharma *et al.*, which shows that while the co-operative cannot compete effectively with the private trade now, the trade would have offered far inferior terms to members and non-member farmers if the co-operative had not been around than they are doing now.

The social impact analysis needs to take special care to incorporate socio-economic differentiation amongst members and between members and the rest of the community particularly when the co-operative has been formed specially to help a weaker section. This is important, for example, in the labour co-operatives - such as the Bhutti weavers' co-operative in Himachal studied by Thakur *et al.*, the Vitthal joint farming co-operative of the dalits of Mhaisal village in Sangli studied by V.B. Jugale, and the Gambhira joint farming co-operative in Gujarat (B.L. Kumar) - where the success of the co-operative can be judged over time in terms of its contribution to improving the quality of life for its members. The evidence we have from the three studies suggests that all the three would pass this litmus test admirably well.

In the Bhutti weavers' co-operative, the members earn over 60 per cent of their total income as wages for working on the co-operative's looms; the per household annual income of the members is substantially higher than the average in the area and has nearly doubled since 1981-82; and the co-operative has built a weavers' colony for the members and so on. In Mhaisal, the dalit members of the Vitthal co-operative whose appalling poverty energised Madhukar Dewal to form the co-operative earned an average annual income of Rs.11,500 in 1984-85, way above the poverty line; this was derived only partly from the joint farming activity; a quarter of the income came from milk sale; also, like the Bhutti co-operative, the Mhaisal untouchables too formed their housing co-operative and built themselves better quarters. In Gambhira, the benefits of co-operative growth went to members mostly in the form of higher wages and patronage bonuses; here too, per member income in 1988-89 was 30 times higher than in 1953-54 when the co-operative first started. Unlike in Vitthal, most members of the Gambhira co-operative have acquired their own land through their share of the co-operative income which now forms only part (but probably a substantial one) of their total income.

5. Strategies for Viability and Growth

Most co-operatives are established to offer a more efficient and just alternative to private trade. A co-operative can realise this goal only if it can compete with the private trade on a one-to-one footing. This seldom happens. Co-operatives typically have higher unit costs than small time village traders; and when it comes to a crunch, traders often can and do operate on surprisingly narrow margins. There are several other factors which make it difficult for co-operatives to compete with trade on a one-to-one basis: traders can operate far more flexibly; they can often evade taxes and other legal stipulations which co-operatives cannot do; even small co-operative acquire some characteristics of a bureaucracy since the member goals do not coincide fully with employee goals, a problem small time traders do not face.

A natural question then is: if a co-operative cannot compete with trade on efficiency ground, why does and should it continue to survive? It does because most successful co-operatives seem to consciously evolve strategies which help them to overcome the efficiency barrier and remain in business viably. It is far more difficult to answer the second part of the question since at least some of the answer has to do with the value of self-reliance and of co-operation. However, it is certain that the trade will pass on to the producers a large part of the benefits of efficiency only if it has to. This can happen only if those using trade channels have access to a ready alternative which a functioning co-operative typically provides.

This is best highlighted by the study of Sharma *et al.* of the Lahaul Potato Growers' Processing and Marketing Co-operative. The Lahaul co-operative is locked into a stiff competition with private potato buyers who ruled the roost in the area until the co-operative was formed in 1973. Now, being a tehsil level co-operative, Lahaul co-operative procures potato from even the interior villages of the valley whereas the traders restrict themselves only to road side villages; as a result, transport (which is 45 per cent of all costs) and other marketing costs of the co-operative are higher. The co-operative is therefore not able to pay prices for potato which match traders' prices. As a result, members are reluctant to market potato - at least, all of their produce - through the co-operative. This sets into motion the downward spin that typically results in the failure of a co-operative. It is also certain that as soon as the co-operative stops potato business, the trade will begin to act funny with potato growers. Therefore, the co-operative needs to devise ways to stay in business in spite of its efficiency disadvantages.

Tied contracts

How does the Lahaul potato co-operative continue to attract patronage? Firstly, through its system of pool pricing which is attractive to its suppliers since 85 per cent of the potato marketed to the co-operative falls in A1 grade (compared to 71 per cent for potato sold to traders). Secondly, the co-operative offers to members pre-harvest input supply facilities including fertiliser, insecticide, pesticide, cattle feed, etc., in which traders cannot compete with their cash advances (Sharma *et al.*). But the most important is the tying of consumer goods supply to members (which is highly valued) with 'potato deposits'. Thus those members who market their potato through the co-operative can buy their daily necessities from the co-operative's consumer stores through the long winter months when the valley remains completely snow-laden.

Tied contracts are used by the Karnal and Samalkha agricultural marketing co-operatives in Haryana too; these co-operatives charge 2 per cent commission on inputs supplied to members; but only one per cent is leviable to members who also market their output to the Haryana Agricultural Marketing Federation (HAFED) through the co-operatives. This is in addition to a part (80 per cent for Karnal and 50 per cent for Samalkha) of the commission the co-operative gets from HAFED being passed on to the members; and yet, most members prefer not to market their produce to them because of their inefficiency. Unlike in the case of the Lahaul co-operative where tied contracts are used to sustain an otherwise self-reliant co-operative, in these latter co-operatives tied contracts are used as crutches by what are in essence 'government co-operatives'. Both the co-operatives rely heavily on monopoly business in controlled commodities - Karnal on fertiliser sale and Samalkha on kerosene and sugar. Neither of them do any agricultural marketing worth the name; they have no godowns, nor any processing facilities.

Amalgamation

Amalgamation has been often used to improve the viability of co-operatives. However, this may not work in all conditions. In case of the two farmers' service co-operatives studied by Sidhu and Sidhu in the Punjab, in order to revive a defunct co-operative, three neighbouring co-operatives were merged into it to form a new service co-operative under what the authors call the Amalgamation Programme of the State. This did not work, and what were earlier healthy functional co-operatives became defunct. The leaders of another successful society refused to accept such amalgamation for, clearly it would be a millstone around the neck of an otherwise well functioning institution.

Amalgamation of societies was, however, effectively used by Bank of India to create a stronger farmers' service society (FSS) in Junnar taluka of Pune district studied by S.M. Pathak and S.D. Desai. The Bank merged three agricultural credit societies - Shiroli, Ozar and Hivare Khurd - into a single Shiroli FSS in 1975. The new co-operative now serves a membership of 2,645 from nine villages and representing farmers, labourers, artisans and other members from the weaker sections. This is larger and different from the earlier co-operatives which together had just 685 members drawn mostly from amongst large farmers. The new co-operative thus not only grew rapidly but also operates in a more equitable manner.

The enlarged Shiroli co-operative diversified rapidly to bring about enduring changes in the economy of the nine villages with irrigation development as the fulcrum of the development process. It financed group lift irrigation schemes on a major scale and supported the subsequent changes in cropping pattern and technology by an intensive and diversified extension-cum-demonstration campaign. It also established a series of godowns which apparently have given private warehouses in the area good run for their money; opened a new credit line for purchase of milch animals and followed it up by a tie-up with a government milk procurement scheme; in 1981, it established its own 1,250 t/d sugar mill, with sizable employment creation in secondary and tertiary activities linked to sugar cane transport, and threw it open to non-members from within and outside the area. A small survey of 26 members of the co-operative by Pathak and Desai showed that as a result of its work, the average income of small farmers increased from Rs.3,200 in 1975 to Rs.43,600 in 1989 and of large farmers, from Rs.7,500 to Rs.53,000 during the same period.

Exploring new market opportunities

Success on these lines appears on a magnified scale in the multipurpose co-operatives which have grown in Telangana region in Andhra Pradesh. The G-palli co-operative, for example, grew from a membership of 275 in 1959 when it was established to 1,100 in 1986. However, unlike the successful service co-operative from the Punjab that the Sidhus studied, the leadership of the G-palli co-operative could not save some of their members being snatched away due to an amalgamation programme that covered some neighbouring villages. As a result, its membership fell to 813 in 1989. The G-palli and other multi-co-operatives in Karimnagar established strong backward and forward linkages through a range of diversified activities to enhance their viability and loyalty of members. However, the most important move was to encourage their members to grow seed plot maize and offer them a Rs.10/qtl bonus over the prevailing market price for paddy and maize marketed through the co-operative.

Quality

Many private businesses, large and small, build a large client system around an almost irrational insistence on quality. In co-operatives, stress on selling quality output or service is seldom used as the core of a business strategy; indeed, poor quality - of inputs, services, products, etc. - is the bane of co-operative business in India. We have two cases which provide some evidence of the departure from this trend. One is the Hanuman dairy in Kolhapur where Yadav *et al.* argue that the undisputed leader of the co-operative has built a great reputation for its diversified range of products through accent on quality.

The other co-operative which has used quality as the core of its business strategy is the Bhutti weavers' co-operative of Himachal Pradesh studied by Thakur *et al.* This old co-operative (established in 1944 with 12 members) in Kullu valley now has a membership of 210 and an annual turnover of nearly one crore of rupees mainly from Kullu shawls, fur caps, mufflers, pattos and few other products woven by the members at its loomshed and marketed through its own retail outlets and through exhibitions, fairs and festivals as quality products. It has also begun export of its speciality products in a modest way. Peculiarly, it is a rare co-operative whose main problem is not marketing but production and of meeting the orders in spite of adopting modern weaving technologies. This marketing strength is achieved through using trained, professional staff, something which co-operatives in India are yet to do on a requisite scale. One major implication of this strategy appears to be the relatively high profile of officers and staff in the functioning of the co-operative. For one, it has as many as 45 officers and staff to service a membership of 167 which appears too high a staff to member ratio for any co-operative.

Incentive compatibility

In the two joint farming co-operatives covered by our studies, - namely, Gambhira in Gujarat by Kumar and Vitthal in Sangli by Jugale, success seems to have depended greatly on devising internal systems of incentives and control since the members' contribution of effort seems to be strongly influenced by the implicit piece rate of wages. Thakur *et al.* too count the piece rate system of payment of wages to be an important factor explaining Bhutti co-operative's success. Similarly, Gambhira co-operative's method of surplus distribution too establishes close instrumentality between a member's share in the gains with his contribution of effort. As a result, the Gambhira co-operative has achieved productivity levels above or comparable to best private farms in the region. This does not seem to have happened in the Vitthal co-operative where sugarcane yields are lower than in comparable private farms.

Diversification

In service co-operatives, diversification is a major instrument of business growth; however, for this to happen, standard strategic management framework presumes that diversification is orchestrated properly to fit with the existing business and with the strengths and expertise of the organisation. The study of the formidable Hanuman dairy (Yadav *et al.*) raises peculiar questions in this regard; for, it provides no indications of such careful 'orchestration'; instead, diversification of the dairy co-operative's business looks much like indiscriminate attempts to respond to each and every need of the members and/or to exploit every opportunity for business expansion. Otherwise, how can one explain a village dairy co-operative making and marketing bakery products through one line, selling poultry feeds and marketing eggs through another and hiring out tractors and agricultural implements through yet another. No one can say that any of these is a business that does not require a certain special expertise.

Unfortunately, the study by Yadav *et al.* does not throw light on the logic behind this choice of businesses for diversification. We may however note that the real issue is not why the Hanuman dairy co-operative diversified the way it did; for it is not unusual to come across inexplicable or amateurish business decisions in co-operatives as in other forms of businesses; the real question is how has the Hanuman dairy co-operative got away with it; since over its 23-year operation, the co-operative has posted singularly impressive and steadily improving results as suggested by the financial analysis presented in the case study. These suggest that either there might indeed be masterful orchestration of an apparently weird business strategy which waits to be discovered and understood, or that the organisation has unique capacity to quickly learn and master new businesses. In either case, the Hanuman dairy co-operative offers a priceless example of business strategy in co-operatives which deserves a detailed study.

6. *Leadership and Management*

For success in co-operative enterprises, strong and honest leadership appears both necessary and sufficient condition at once. This is, for example, evident in the case studies of Gattududdenapalli multi-co-operative in Karimnagar district, of the Shiroli Bhadruk co-operative in Pune district, the Bhutti weavers' co-operative in the Kullu valley, the Mhaisal and Gambhira group farming co-operatives in Sangli and Kheda districts respectively and the Hanuman dairy in Kolhapur district. In contrast, low performance of the co-operatives too is attributed among other things to the absence of strong, honest leadership (see, for example, the case studies of the Karnal and Samalkha service co-operatives in Haryana, by Sidhu and Sidhu of their unsuccessful dairy as well as service co-operatives in Punjab; Kharsoli credit co-operative in Nagpur tehsil, etc.).

Regrettably, the case studies provide few insights into what exactly do 'strong, effective' leaders do that the lesser leaders do not. Where provided, the evidence is sketchy and offered by way of casual remarks. Thus in their study of the Bhutti weavers' co-operative, though they eulogise the leadership and management, Thakur *et al.* tell us little about how the leadership of this highly successful co-operative evolved their distinctive marketing strength which became the hallmark of its success. Similarly, in their narrative on the successful dairy co-operative, Sidhu and Sidhu write: "This decrease in the sale of milk took place because the secretary of the society became corrupt and the members lost their faith in the society. The management committee promptly terminated his services and the society again started showing good results." There was also a problem of factions over the location and leadership of the co-operative and on the domination by big farmers. But the authors do not deal with these important aspects in detail.

Where they do provide some evidence on these aspects, the studies raise important issues for social science research. The Hanuman dairy, for example, is the work of a leader who has ruled the co-operative from 1967 todate; who is authoritarian, apolitical, and a stickler for discipline. He has apparently masterminded carefully each expansion and diversification of its activities; has established systems of "daily reporting, surprise checks, visits of mahila watch committees, daily internal auditing, fortnightly meetings, transfers of milk collection staff regularly every eleven days", etc. To manage the none-too-simple diversification plans from dairying to milk-sweets marketing to bakery to poultry and to pesticides and so on "young, bright and intelligent staff members are selected for training in different faculties such as bakery, poultry, LDC, GDC, AI, LSSC, etc., at the cost of the society."

In some of the older co-operatives, the problems and processes of succession and adjustment to new leadership must have been as complex and painful as they would be in a large corporation or indeed at the level of a nation state. The study of Hanuman dairy co-operative deals with the important issue of the continuity in leadership over its 23-year history but only cursorily. A more careful and detailed investigation of this issue in a co-operative like this could throw up important insights on the problem of leadership that social science has yet not understood properly.

Institutions created and run by strong leaders always run the danger of falling apart or at least of degenerating into much lesser institutions when the leader is withdrawn from the scene. The Vitthal joint farming co-operative studied by Jugale which has been the work of Madhukar Dewal, an outstanding leader and reformer, has just entered that critical transition as Dewal recently passed away. How well does it learn to overcome these 'withdrawal symptoms' would be important to study. The Gambhira joint farming co-operative is in much too similar a phase with Chhaganbhai Patel, its founder and guiding spirit through its long and illustrious history, in his 90's and unable to lead as vigorously as he has done all his life. Prima facie, it would appear that both these outstanding leaders have carefully created systems and procedures that simplify decision-making and routine management. Thus both these co-operatives have strong tradition of group decision-making using a set of ground rules. It remains to be seen whether these systems and procedures can make up for the leader.

IV

CONCLUDING REMARKS

This review has been decidedly lopsided in favour of co-operatives. However, this could not be helped; over two thirds of the contributions submitted related to co-operatives; these also offered rich experiences and insights tempting to a reviewer; on the other hand, studies on consultancies, though insightful, were too few and diverse to afford useful generalisations. Finally, the generalisations from studies of successful farmers seem to tell us little that the agricultural economists of India have not already found out from years of research in farm productivity and resource use efficiency.

As a professional community, however, agricultural economists have, by and large, neglected the study of the economics of co-operatives and community organisations. Studies in this area so far have been the mainstay of sociologists and organisation theorists. However, there are aspects of the emergence and working of these organisations that offer singular advantage to economists. These include, for example, the economic theory of the co-operative firm, the problem of incentive compatibility in the design of co-operative or community organisations, the peculiar conflict in a co-operative between democratic control and patronage (see, *e.g.* Shah, 1990), the economic role and functions of leaders, etc. This review and the conference discussions will hopefully stimulate some of us to commit ourselves to a serious study of these economic dimensions of development organisations.

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