Indian Agribusiness Institutions for Small Farmers

Role, Issues and Challenges G. SRIDHAR

and VISHWA BALLABH Introduction

India is one of the very few countries in the world, endowed with rich and diverse agroclimatic zones, vast land resources for cultivation (about 160 million hectares), huge chunk of human resources in agriculture (nearly two-thirds of the population), wide variety of crops grown, and strong R&D facilities. Indian agriculture has performed at the most satisfactorily (Deshpande and Indira, 2004) and have comparative advantage in much farm production but does not enjoy competitive advantage (Bhalla, 2005). However, its share in world trade is insignificant though it has 20 per cent of world's irrigable land under foodgrains, is second largest grower of vegetables, and produces nearly 17 per cent of world's cotton (Firodia, 2006). Many paradoxes still exist, for instance, inspite of good surplus of food-grains there are millions of poor dying of hunger, many farmers are poor and in debt in spite of having reasonable marketable surplus, despite good R&D facilities, farmers still practice subsistence agriculture.

One of the underlying reasons for such paradoxes is the existence of a large number of small farmers. Through successive family generations and the resulting fragmentation of land, small farmers in India are poor, undernourished, poverty stricken, depend on monsoons

^{1.} India has more than 100 million small farmers with an average farm size of less than 1.2 hectares. The share of the small farmers (1 to 4 hectares of land) in the total number of holdings increased from 70 per cent in 1971 to 80 per cent in 1998 and is expected to reach 83 per cent by 2010 (GoI, 2003; Jha, 2001).

and, practice subsistence agriculture. As their risk-taking abilities are low, productivity declines. Poor market orientation and low value addition capacity, gives them low margins leading to low risk-taking abilities. Thus, small farmers enter a vicious circle and find it difficult to break. Little bargaining power and heavy dependence on their farm produce for basic needs, add to their woes and they end up becoming victims to the exploitative market intermediaries who deny them a fair share of the consumer rupee.

Small farmers in India in a bid to hedge their miseries embraced diversification of agriculture. During the past two decades, there has been a perceptible increase of incomes from livestock, fisheries and forestry. Food crops have been replaced by cash crops in many areas (Joshi, 2005). However, the experience of agricultural development in India has shown that benefits will not accrue to the small farmers unless they are integrated into the markets as recognisable players through innovative institutional arrangements. Institutions, especially cooperative and corporate, have attempted to integrate small farmers into the market by removing bottlenecks in marketing of agricultural produce and regulating the market in favour of small farmers. A few institutional arrangements have claimed to have reduced the transaction costs by steadily transforming from manpower driven to technology driven, from disintegrated supply chains to integrated supply chains, from finance as a source of control to information as a source of control.

Two institutional arrangements, namely, Anand pattern of cooperatives and *e-choupal* have received wide attention for the benefits they claim to have passed on to the small farmers. There have been various studies conducted to evaluate and verify such claims, but most of the studies evaluated these two institutions exclusively. Hardly any study has been conducted comparing and contrasting both. In this chapter, we attempt to do the job. The purpose of comparison is to bring out the salient features embedded into the arrangements that benefit small farmers and look for the institutional arrangement that offers better services to the small farmers. The outcome of the analysis would be helpful for policy makers to take appropriate initiatives.

In analysing the institutional arrangements we first look at how these institutional arrangements have reduced transaction costs in

terms of opportunism, information asymmetry and asset specificity at various levels. Our premise is that institutional arrangement that has been able to reduce transaction costs for the small farmers and for itself should be preferred. Our premise also configures design of the institution as a key determinant of transaction costs. Thus, in our analysis we go beyond organisational structure, physical layout of facilities and consider creative process of problem solving of the small farmers, services offered and procedures and policies of the institutions that expand the opportunities for the small farmers (Shah, 1996). The chapter is based on an exploratory study and does not empirically measure transaction costs or design elements but analyses theoretically. Our analysis is based on the available literature and field visits to a few select villages where the institutions are in operation.

Cooperative Institutions

Voluntary and democratic in nature, participatory in approach, commitment towards ethical standards, socially responsive, are some of the distinguishing and differentiating features of cooperatives (Vaswani *et al.*, 2003). Unlike corporates which have profit as major motive, cooperatives attempt to reduce income disparities, improve the social conditions, combat exploitation and strive for a better society through sustainable developmental activities.

Cooperatives offer a good alternative for small farmers when there are wider market imperfections. Cooperatives can procure supplies at lower transaction cost through suitable backward linkages and aggregate them appropriately to harness the benefits of economies of scale. They can be helpful to small farmers in providing credit, inputs and extension services. More often they are also involved in the processing of the produce so that a higher value can be generated. Noted among the agribusiness cooperatives in India and world across is the Anand pattern of cooperatives.

Anand Pattern of Cooperatives (Amul Model)—Gujarat

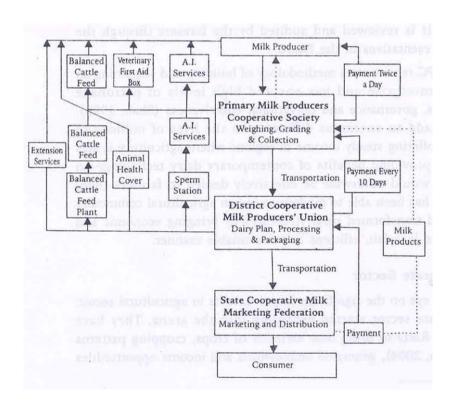
Anand pattern of cooperatives (APC) famously known as Amul model was initiated in 1946, by Sri Tribhuvandas Patel with 247 litres of milk in two villages. Later on, when Dr. V. Kurien took over the reins it turned into a mighty cooperative movement.

Two reasons provided the trigger for the establishment of APC in Gujarat. Firstly, as milk is extremely perishable, harvested daily by a large number of small producers on a subsistence basis in India, value addition becomes extremely difficult and a costly proposition at individual level. Secondly milk markets were highly unorganized and exploited by middlemen

APCs are organized on a three tire system, at the village level are primary co operatives, co operative union at the district level, and the co operative federation at the state level (fig. 12.1). Let us take a look at each of the levels in some details.

Figure 12.1

Anand Pattern of Coperatives in Gujarat



At the village level, a dairy cooperative society is formed with primary milk producers. A milk producer becomes a member by paying an entrance fee and buying a share of the society. A farmer producer becomes eligible to get a voting right in the society if s/he is a member and supplies at least 700 litres of milk per year and 180 days of supply in a year. The allocation of voting rights is one member-one vote and there is no reservation of seats on the basis of social class, caste or gender. Members of the society elect a managing committee as per the by-laws and the committee elects its chairman. Committee members are honorary and their role is restricted to policy formulation and overseeing the programme. The society has a few critical functions like collecting milk (twice a day), making regular payments to milk supplier members and providing cattle feed, fodder and animal breeding and health care services to members at their doorstep. Member producers bring milk to the collection centre in the village every morning and evening. Initially, union provides each collection centre with a fat testing machine free of cost. The cost of repairs or replacement of the machine is borne by the society. Once the quality (i.e. fat content) and quantity is assessed, cash payable to each producer is worked out. When the producer comes to the centre in the evening, s/he is paid for morning delivery and for the milk delivered in the evening; money is paid the next morning. Apart from the daily cash income, members also get bonus and a difference in price at the end of the year. Amount of bonus is pro rata to the value of milk supplied by the producers at the society. The society also makes profit on the milk it sold to the union and gets difference in price. However, the entire profit of the society is not distributed to member producers. A part is allotted for the developmental activities within the village and maintenance of the society. Societies also act as dissemination modes for various activities of the union programmes like member education, production enhancement and so on. The staff at the societies is trained to undertake the veterinary first aid and artificial insemination.

A cooperative union is the representative of all the village societies located at the district level which is governed by the Board of Directors having representatives from village societies, financial institutions, state cooperative department, dairy experts, federation, government nominees, individual shareholding members and the

managing director of the union. Allocation of voting rights is one society-one vote and there is no reservation for specific class of members. Zones are formed to coincide with talukas or equal number of primaries. The Board elects a Chairman and Vice Chairman and appoints a Managing Director who in turn appoints supporting staff. The Board is responsible for policy formulation and the staff is responsible for looking after the day to day operations. One-third of the village representatives in the Board retire every year and the vacancy is filled by election. Chairman is elected every year. Procuring, processing and managing macro-level inputs like veterinary health clinics, semen banks and cattle-feed distribution to village dairy cooperative societies are the tasks of the district milk unions. Given the perishable nature of milk, it was imperative for the cooperative to devise ways and means of transporting the milk procured from distant villages in the shortest possible time, and under refrigerated conditions to the processing units. Hence, milk routes are designed by the dairy unions in order to organise transportation routes in a manner that all villages are covered in the shortest possible time and in a cost-effective manner. Bulk cooling units and chilling centres are set up along these milk routes. Milk is lifted by unions from villages twice a day with the help of private transport vehicles on a contractual basis. At the dairy, milk is graded into two categories: good and sour. Good milk from the society is measured for its quantity and quality (Fats and SNFs i.e. Solids-Not-Fats). Each village-level society is paid by the union for the fat and SNF received in its milk. Low-grade milk gets low price. Payments to the societies are made for every 10 days. Cooperative unions provide extension services to its farmer members in addition to the supply of feed and credit. Unions run semen product centres, train the society staff in artificial insemination (AI), have veterinary dispensaries and conduct various programmes for increasing the productivity of milk.

Till 1974, milk and milk products were produced and marketed by unions all over the state. Later on, all the unions were federated in the state of Gujarat under Gujarat Cooperative Milk Marketing Federation (GCMMF). Since then, it is the sole marketing agency for the products produced by different cooperative unions of Gujarat under the brand names Amul' and 'Sagar'. The GCMMF plans what products would sell and arranges to manufacture for each year and

Indian Agribusiness Institutions for Small Farmers:... • G. SRIDHAR and V. BALLABH 317 how much. The key objectives of GCMMF are to market dairy and agricultural products of cooperatives through common branding, centralised marketing, centralised quality control, centralised purchases and pooling of milk efficiently (Kurien, 2003). With a dealer network of over 3,500 dealers and 5,00,000 outlets, the GCMMF provides quality products at the best price for the consumers (Subramanyam, 2004). At present, the GCMMF markets milk and milk products like ice cream, chocolates, cheese, bread spread worth above Rs. 3000 crores. It has a low-cost advantage over its competitors, the advantage acquired due to elimination of middle men, lean organisation and lower overheads. Its strong brand name "AMUL" stands for purity and quality and its scale and scope of operations are its assets. Ownership/control and operational management are well demarked in GCMMF. Farmer producers exercise control over the management of GCMMF and business operations are handled by qualified professionals.' The performance of the professionals is reviewed and audited by the farmers through the elected representatives in the Board.

Thus, APC represents a methodology of building and sustaining an economic enterprise and has ensured high levels of patronage cohesiveness, governance and operational effectiveness (Shah, 1996). APC has made an enormous difference in the lives of millions of farmers by offering steady income in regions where agriculture is still rainfed. By providing benefits of contemporary dairy technology—an access that would otherwise be effectively denied to farmers (Rao, 1990), APC has been able to modernise Indian agricultural commodity markets and transformed rural structures by bringing economic and social justice in a fair, efficient and sustainable manner.

The Corporate Sector

With an eye on the significant improvements in agricultural sector, the corporate sector started venturing into the arena. They have invested in R&D to bring new varieties of crops, cropping patterns (Pal and Jha, 2004), generated employment and income opportunities

Federation is highly professionalised, for example, it has 225 management graduates, 59 CAs/ICWAs, 37
dairy technologists, 76 post graduates, 25 computer graduates, 54 master degree holders, 229 degree
holders 49 undergraduates out of total 759 employees (Kurien, 2003).

and lessened the burden of marketing of produce from the farmer who can better concentrate on their production. Through backward linkages and aggregation, the corporate organisations have been able to reduce transaction costs. Leveraging the information technology (IT), they have brought about innovative business models to integrate farmers into the markets. One such widely recognised corporate initiative is ITC's e-choupal.

e-Choupal

Indian Tobacco Company's (ITC) pioneering agribusiness initiative 'e-choupal' is unique in many ways. The e-choupal:

is a complete end-to-end solution as it delivers real-time information and customised knowledge to improve farmers' decisionmaking ability to align farm output with market demands, and to improve productivity;

aggregates demand like a virtual producers' cooperative and provides access to highquality farm inputs at lower cost;

acts as a direct marketing channel with more efficient price discovery and lower transaction costs in output marketing;

is scalable as it is built on market principles;

is replicable across different crops and geography in India because of its conceptual strength; and

integrates farmers to the market place and simultaneously, meets the needs and challenges of consumers at the bottom of the economic pyramid (Prahalad, 2005). Currently, there are 5,500 choupals in 26,000 villages covering 2.6 million farmers spread across six states of India (personal communication, 2006). E-choupal, in addition to forward integrating farmers into the markets, sells agricultural inputs and other products of the organisations through backward supply chain movements. The extension services offered by e-choupal at the village level include e-governance, health and education services. A second layer of infrastructural facility 'choupal sagar' is also offered with facilities like warehousing, weighment of farmers' produce, soiltesting laboratory, training centre for farmers, life and general insurance, supermarket, e-health facility, pharmacy, diesel station and so on. In the next

years, e-choupal intends to be present in 15 states, one lakh villages, and deal with wider range of commodities like grains, oilseeds, coffee, spices, cotton, horticulture and aquaculture.

At present, there are four types of choupals tailored specifically for four different commodities, viz., soybean, wheat, coffee, and shrimps. We discuss the soy-choupal model for two reasons; firstly soya in India is grown largely by small farmers and secondly, it is the first commodity for the model becoming the benchmark for other choupal models.

Internet-enabled multimedia computers with solar power backup and VSAT connectivity is set up at company's cost for every 5 or 6 villages. This set up is called e-choupal and it is installed in a selected farmer's place called sanchalak who is chosen on the basis of high social status, entrepreneurial and development orientation. Sanchalaks once chosen, take an oath in public to serve the village and are given training by ITC on basics of computers and internet, design of echoupal and the role they need to play in villages. They receive 0.5 per cent of commission on the procured crop and bear the operational costs of the installed equipment.

The company has reintermediated rather than disintermediating the role of the traditional commission agents by making them sanyojaks (coordinators) in the network (Sawhney, 2002). They are the source of liquidity as they manage the physical flows of the soya, collect price information from the local mandis and maintain records. For these services, they are paid a commission of one per cent on the total procurement of soya by the e-choupal.

e-choupal design works as follows;

i. E-choupal offers daily price quotes of ITC for soya (generally prices are Rs. 15–20 per quintal more than mandi) on its website which can be accessed by farmers through the internet kiosk. Farmers get the ITC quote either by personally visiting Sanchalak's place or by calling him over phone. Information on price quotes of soya in various mandis and international markets, latest agricultural practices of various crops, weather, and news are also posted on the website to aid farmers' decision to sell the soya

If the quote is not up to the farmers' expectation, he is left to take a decision to sell the produce elsewhere. And, if the farmer is satisfied by the quote he can sell the produce to ITC by taking a sample of produce to local choupal and receive a spot quote from the sanchalak.

Depending on the fair average quality (FAQ) and quantity, farmers are paid immediately for selling their produce to ITC at hubs or sagars. Sometimes, if the farmer is located in some remote location he can sell his produce to sanchalak. Small farmers would prefer such an arrangement because of various transaction costs they are likely to incur. Payment is done at the e-choupal hub or sagar facilitated by the samyojak. E-choupal ensures material handling, weighbridges and transportation at the e-choupal hub/sagar.

Procured soya is sent to the processing unit which in turn, is sent to the e-choupal division. The processed soya is then marketed by ITC to various customers. Some of the processed produce like soya oil and atta are sent back to the hubs/sagar for selling it to farmers and other consumers.

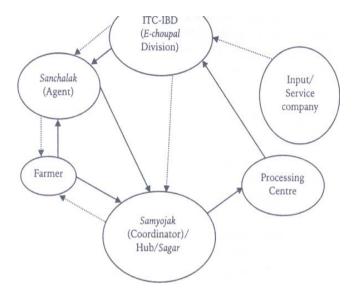
ITC also sells products of other organisations at it hubs like farm inputs, insurance, and various consumer products.

E-choupal also facilitates services for other organisations through its network like e-governance, education and health services and helps various NGOs in their work. The e-choupal charges these organisations for using its platform and network (see also chapter 10):

E-choupal has been successful in providing an alternative platform for the farmers and increases the competition in market to procure. Substantial commitment of financial and human resources from e-choupal has made possible its rapid expansion and acceptance from various segments of farming community. In a visit to villages in Sehore mandal of Madhya Pradesh, we found that farmers rate echoupal 60 per cent over and above the services and benefits of mandis. Through its design, farmers were offered good financial returns, freedom of choice to sell and reduce wastage.

Figure 12.2

Soy-Choupal Model



Comparing Transaction Costs

In transaction cost analysis, the extent of information available between the parties of exchange, opportunistic behaviour of the members in the exchange and the level of asset specificity to the transaction outline the cost (Williamson, 1975). Further, as exchange relations are not always cooperative in nature, the perspective of the implications would differ from the sellers to buyers (H\$kansson, 1993 cited from Loader, 1997). While comparing the transaction costs of two institutional arrangements discussed above, we consider these aspects. As mentioned earlier, the evaluation of institutions' performance and the choice of better institution emerging thereof is based on their ability to reduce transaction costs on various fronts and especially, for the small farmers.

Farmers have been able to reduce their transaction costs considerably, after becoming members of the cooperative society. As cooperatives did not act as any typical middlemen who hide market

information, the costs associated with information asymmetry were minimised to a great extent. As each member has equal voting rights, the opportunistic tendencies within the cooperative society are negligible provided the practices are institutionalised and rules and regulations enforced properly.

The Anand pattern of cooperatives has been able to cut transaction costs for itself on three fronts—information asymmetry, opportunism and asset specificity—by evolving governance structures which harmonise exchange relations across parties. Before the farmer sells his milk to the society, s/he knows the base price of procurement of milk offered by Union. In general practice, prices are same for a given district. Any change in the prices would be informed to the societies immediately and societies in turn inform the farmers. Such a mechanism removes any information asymmetry. As cooperatives at village level have continuing relationship with the farmer members, milk can be collected regularly and hedged to the uncertainties of markets and opportunistic behaviour of the trading partners/ middlemen. It has also avoided a major chunk of implied cost of agency by eliminating possible alienation across membership and conflict with management among the members. By training the society staff on specialised skills like artificial insemination and animal health care, it has reduced transaction costs considerably. Staff members of the cooperatives, including chairman are equal share holders in the society. They are equally benefited as any poor or low caste member of the society. Such an arrangement would also ensure little opportunity for transaction costs to arise due to opportunistic behaviour. Further, as membership of the cooperatives is long term, asset specificity-related transaction costs also are reduced to a considerable extent. Most importantly, if the cooperative society has been able to reduce transaction costs substantially, the benefits would be trickled down to each of its members. This kind of savings is unique to cooperative system which unfortunately is not possible in any other institutional arrangement, more so in a corporate.

By generating enough economies of scale, in terms of collection of milk and by routing appropriately so that maximum milk is collected within minimum distance of transportation, the union has been able to reduce transaction costs to a good extent. Costs in the way of asset specificity have been reduced for the union through outsourcing the

transportation activities. Supply of inputs and cattle feed is done through the same transport arrangement further reducing transaction costs. The arrangement of APC is such that all unions do not produce same milk products, thus nullifying costs arising out of conflict of interests and competition among unions. With ERP packages, federations have been able to network through the dealers and able to reduce transaction costs on all three aspects, viz., information asymmetry, opportunism and asset specificity in the forward supply chain.

E-choupal has also been able to reduce transaction costs for the farmers and in its own operations. Farmers have saved transaction costs approximating to Rs. 270 per MT which would have been incurred in mandi (trolley freight to mandi = 100, filling & weighing labour = 70, labour Khadi Karai = 50, Handling Loss = 50), (as given to us in presentation by the company officials). Another study stated that e-choupal has enabled the organisation to reduce transaction costs of procuring soya from 8 to 2 per cent. About half of these savings are shared by the farmers (Singh, 2004). As an institution, e-choupal has been able to considerably reduce transaction costs in terms of information asymmetry and asset specificity. However, we suspect that the transaction costs which might arise out of opportunism still need to be reduced. For example, one of the choice criteria for considering a farmer as sanchalak is his entrepreneurial aptitude. An entrepreneur in any system would always attempt to maximise his returns. This attitude would most likely make him more opportunistic, thus raising the scope for increase in the transaction costs. Therefore there is need to improve the accountability of Sanchalaks.

Comparing Design

Broadly, both the institutional arrangements have been successful in reducing transaction costs to a considerable extent and increase financial returns to the small farmers. However, Anand pattern of cooperatives' design scores as a better alternative compared to e-choupal in terms of the producers, control over the agribusiness, consistency in the share of consumer rupee, response to the farmer's needs, removal of intermediaries, transparency of operations from the small farmers' perspective and purchase guarantees (Table 12.1). E-choupal fares equal to Amul design on fronts like inputs and

technical assistance, and response to farmer requirements and fares better on response to market requirements.

Table 12.1 Comparative Analysis of Amul and E-Choupal Models

Comparative Analysis of Amul and E-Choupal Models		
Criteria	AMUL	E-choupal
	(Cooperative)	(Corporate)
Motive to establish	Better value and	Improve market
	increased returns for farmer	standing ton bottom line
Response to market requirements	Medium	Fast
Response to farmer requirements	Fast	Medium
Removal of intermediaries	Disintermediation	Reintermediatio
Transparency of operations (from small farmers' perspective) Cost of maintaining relationships	High	Moderate
with small farmers	Low	High
Discriminating small farmers		2
versus big farmers in procurement	No possibility	Possible
Impact on social structures of village	High and wide- spread	Moderate
Purchase guarantees	Yes	No
Inputs and technical assistance	Yes, at subsidised price	Yes, at market price
Propagating sustainable agricultural practices	High	Moderate, but a concern
Bargaining power of small farmers	Very high	Moderate to
Farmers' share in consumer rupee		Medium-high, varying
Farmers' control on agribusiness	Very high and independent	None and dependent

Some of the other design issues which can be compared between APC and e-choupal are:

a. Sanchalak versus Society Head: APC has successfully removed intermediaries but echoupal has reintermediated. These middlemen might act as a key source of discomfort once they start bargaining for more facilities and control over the supply chain. In fact, ITC is presently facing this problem. In some cases, election of sanchalaks by the farmers might unnecessarily lead to a spurt in the political activities in villages and might favour the strong against the week small farmers. This is not possible in case of Amul model as each member has one vote, irrespective of the size of their landholding and social status.

Area of Operations and Market Expansion: E-choupal has initiated its operations only in the areas endowed with rich agricultural practices and established markets of the commodity unlike Anand pattern which has been responsible in creating the market where there was no substantial milk market.

Risk: In providing information to the farmers, e-choupal might have reduced the transaction costs due to information asymmetry, but risk of taking decisions regarding prices is still with the farmer. Much of the price risk is absorved by the Union and Federation in vertically linked cooperative organisation. Farmers are paid the difference of price every year in case of Anand pattern which is not in case of e-choupal.

Peoples' Institution: Anand pattern is a testimony to what farmers can achieve when they exercise control over the resources they create. The Anand experience has established that agricultural development is not just a matter of technology but is a matter of building people's institutions (Singh, 1992). However, this is not the case in e-choupal which emphasises much on the information technology rather than building people.

Legal Issues: In few villages where we visited, sanchalaks who sell products like pesticides act as outlets for e-choupal. However, for offering such services to villages, they are not authorised legally to sell these products neither by e-choupal nor by any statutory body which might lead to complications. This does not happen in Anand pattern because inputs are sold through societies which are authorised legally.

Conclusion

Challenges before any agribusiness institution is to integrate small farmers into the market and benefit them in an efficient, equitable,

sustainable and transparent manner. Unless they are in control of the business, they will be in control of the business. Cooperatives have been successful in benefiting small farmers for a long time as they are owned and controlled by the farmers. Corporate on the other hand, is known for its shrewd profit motives and poor social concern. Their inclination towards sustainable agricultural practices is obviously less as they are neither owned nor controlled by the farmers. These

arguments have received support from our analysis of the two institutional arrangements; Anand pattern of cooperatives and echoupal. In most of the criteria for evaluation of the institutional offers

to the benefit of the small farmers, Anand pattern of cooperatives stand out. A World Bank report on Anand pattern of cooperatives and its replication across India has concluded "...there should be no

further lending to the dairy sector in states which have not yet adopted the full Anand Pattern of cooperatives or which do not treat these cooperatives equally with private cooperatives" (Candler and

Kumar, 1998). In another recent development, World Bank is attempting to replicate Anand pattern of cooperatives in South Africa

(Singh, 2006). In a statement, World Bank states,

The World Bank agrees that the model used in Operation Flood is a viable business model for farmers as it provides high returns. World Bank will now identify the African countries where Operation Flood could be replicated so that the poor farmers there could become self-sufficient.

These statements are the testimony of the success of Anand pattern. Hence, we strongly feel that policy formulators should encourage relatively more of cooperative form, more so, Anand pattern of institutions than that of corporate institutions.

However, we do not insist that the role of corporate institutions should be undermined and not encouraged. The comparison that we have done here is in the present context and only relative in nature, not in absolute terms of benefits offered. Further, Anand pattern of

cooperatives is more than half a century old which has withstood the test of time and has evolved over years. E-choupal is a recent emerging institutional arrangement and might take some time to settle down

and benefit the small farmers. Whether or not small farmers would benefit in same manner as the large farmers though e-choupal of ITC, would largely depend upon benevolence of top management and concern for small farmers. There is no inbuilt mechanism in e-choupal to ensure that the small farm households would not be ignored once their initial euphoria of social concern dies down and efficiency aspects begin to count more than equity and equal participation of all farm households.

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