

## IMPERATIVES OF SOCIOLOGICAL AND EXTENSION MANAGEMENT TECHNIQUES IN ORGANIZATION OF DAIRY COOPERATIVES IN HARYANA, INDIA - A LESSON FOR MASTER TRAINERS\*

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There has always existed socio-cultural and economic symbiosis between crop and cattle production, besides being complementary, supplementary and synergistic relationships between them. Indian agriculture is characterised by increasing fragmentation of land holdings and declining contribution of agriculture to Gross Domestic Product (GDP) nearly 32 per cent. In spite of the green revolution, the food grain productivity in India is very low just 1.6 tonnes per hectare against world's best of 5 tonnes per hectare. Recurring natural disasters (flood, drought, hailstorms and cyclones, etc., etc.) have further contributed to the misery of human population specially engaged in agriculture and dairy farming.

Even though the foodgrain production in India has increased from 55 million tonnes in 1947 to 180 million tonnes, the target of reaching 220 million tonnes to meet the basic needs of the projected population exceeding one billion by 2000 A.D. has become a formidable task. Even the most optimistic estimates indicate that the population of India may stabilize only at 1.8 billion by 2050 AD which will result in further decrease of the available per capita arable land from 0.17 hectare to less than 0.1 hectare. Swaminathan (1989) argues that absolute number of people dependent on agriculture for jobs and income are increasing. These calls for expansion of emerging high demand sub-sectors chiefly horticulture, forestry, fishery, poultry, livestock and dairying, and etc.

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The contribution of livestock to the agriculture sector stands at nearly 24 per cent. But the contribution of dairy sub-sector alone accounts for nearly 2/3rd of the total livestock contribution (Patel, 1993). However, in terms of per capita availability of milk, India ranked 57th in the world, whereas in terms of milk production, it has acquired number one position in the world next only to the USA. The per capita low nutritive intake among the Indian rural-urban and slum communities is indicated in Table 1 as given below:

**Table I. The Indian Rural-Urban Slum Differentials in Terms of Nutrient Intake including Milk are shown as under (in grams)**

Sl. No.	Food stuff	Rural (Av.)	Urban (MIG)*	Slum
1	Cereals and millets	446	361	416
2	Pulses	32	49	33
3	Leafy vegetables	10	21	11
4	Other vegetables	48	89	40
5	Fruits	15	66	26
6	Milk	70	250	42
7	Fish and flesh foods	11	22	19
8	Fats and oils	09	35	13
9	Sugar/Jaggery	18	31	20

\* Middle income group

Source: National Institute of Nutrition, Nutritive Value of Indian Foods. In Gupta, P.R. (1997) Dairy India. Baba Barkha Nath Printers 26/7, Najafgarh, Industrial Area, New Delhi.

The data from the Table 1 reveal that in rural areas, cereals and millets dominate the food expenditure and livestock products are comparatively taken in less quantity. The urban population consumes milk more than three times than what the rural people do consume. The nutrient intake of urban population is much higher than the population living in rural and slum areas. The nutrient intakes of pulses, leafy vegetables, other vegetables, fruits, fish and flesh foods, fats and oils and sugar/jaggery among rural people are found less as compared to even slum dwellers.

The recommended intake of pulses for adults is 45-50 grams per day per head. The recommended intake of milk for children between 1-3 years and between 10-12 years is 300-250 grams per day per head respectively. The recommended intake of oils and fats for adults is 40 grams per day per head and the recommended intake of sugar for adults is 35 grams per day per head (Singh and Goyal).

However, Sehgal (1996) points out that yet the country remains among the most inefficient producers of milk. It is endowed with a third of world's cattle population but accounts for only 12 per cent of the global production of milk. On an average, Indian cow yields 522 litres of milk per year, the rate is among the lowest in the world which is at least six to eight times less than in the top milk producing countries.

Sehgal (1996) further points out that most of India's cattle are unsuitable for dairy farming. In this context, genetic engineering will help provide a breeding stock that will yield five times more milk than India's current stock. This high technological mode of breeding has already yielded dividends in countries like Israel. Devashayam, M.G. (1995) also stresses that India should learn lessons from the major Israeli characteristics that enabled Israeli industry to become the most productive one in the world. These are as under:

1. Systems integrating between the different segments of the dairy industry-animal genetics, feeding strategies, farm management, product processing, marketing, etc.
2. Establishment of correct working and production environment with particular emphasis on feed and heat stress management.
3. Agro-waste management and recycling.
4. Augmenting milk production by participatory approach of farming through the regional farming concept and farmers' cooperatives.
5. Attracting the private sector and corporate investment by encouraging "integrated dairy production developments and centralized multi-farm developments".

6. Encouraging higher consumption of milk and milk products and production of a large variety of quality milk based products by the cottage, small and medium industries.

Since its very inception, National Dairy Development Board has made concerted efforts in flooding the urban centres with increased supply of milk. Consequently, the supply of per capita milk has increased more in urban markets than in rural areas. The table II portrays the rural urban differentials in terms of milk supply.

**Table II. Rural-Urban Differentials in Milk Supply**

Group	Population (Million)	Milk supply (Million Lpd)	Per capita Availability (gms/day)
<b>Urban areas</b>			
Class-I cities**	174.0 (19.0%)*	75.0 (41.4%)*	431
Other towns	80.0 (8.8%)	26.5 (14.6%)	331
Total	254.0 (27.8%)*	101.5 (56.0%)*	400 (av.)
<b>Rural areas</b>			
Milksheds	292.0 (32.0%)*	40.5 (22.2%)	140
Outside milk sheds	367.0 (40.2%)*	39.5 (21.8%)*	110
Total	659.0 (72.2%)*	80.0 (44.0%)	123 (av.)
All India	913.0 (100.0%)	181.5 (100%)	199

\* Indicates percentages to the All India population, g = grams; Lpd\* = Litres per day

\*\* Class I cities = Population of over 100,000

Source: Gupta, P.R. (1997) Dairy India, Baba Barkha Nath Printers, 26/7 Najafgarh Industrial Area, New Delhi

Note 1. Urban and rural population data are based on the 1991 census report, as projected to 1995.

2. The availability of milk production in rural areas has been calculated on the assumption that 36 per cent of the milk produced is retained by the producer and another 9 per cent are consumed by non-producers in the rural areas. The balance 56 per cent moves in to urban areas, with class I cities accounting for 74 per cent of this supply.



It is worth while to mention that Switzerland, New Zealand and Israel, which are among the rich countries of the world are famous as agricultural economies with great emphasis on the dairy industry. This is because these countries concentrated on the core competency of their people as well as agroclimatic factors. There is no reason why Haryana can not do the same and emerge as a strong agricultural economy comparable to the best in the world. With a large farming community that loves animals, the core competency of Haryana lies in dairy farming industry. To bring about such excellence, it is appropriate to have access technology and management systems from overseas. A technology which has the capacity to augment milk productivity of crossbred cows to 10 times and in the process rejuvenate the rural economy should be more welcome to a state like Haryana which lives in villages (Devashayam, M.G. 1995).

Agricultural based development model is compatible with the nature, needs, resources and rising socio-economic and cultural aspirations of the people of Haryana. Similarly, George Shanti (1994) emphasises that the relationship between a household and its livestock is conditioned not only by economic but also by social and demographic factors.

### **Post Independence Model of Socio-Economic and Technological Development**

Since independence in 1947, government of India has been following Nehru-Mahalanobis model of socio-economic and technological development, which could not come up to the rising expectations of the ever increasing population. Since 1947, half of the total savings of the country have been invested in public sector undertakings in manufacturing and services in direct competition with the country's nascent private sector. Huge sums of money that could have been spent on the social sectors (education, employment, family, health, sanitation and developing the rural institutions etc.) as well as on agriculture, animal husbandry and cooperative dairying etc. was spent instead on creating heavy industries in the public sector. Till the seventh plan, there was no attempt to slow down the growth of public investment and allow the private sector to take up more of the burden.

Instead, resources were shifted from the social sectors and after the early seventies, from agriculture and irrigation to keep on financing the loss making public sector.

Finally, in 1985 the centre turned to foreign borrowings to make good the public sector's deficits, and that mercifully brought on the crisis of 1991. The postponement of employment generation became permanent and the jobs seekers registered by the employment exchanges rose from 4 million in 1972-73 to 36 million two decades later. Moreover, the central and state governments together have about 17 million employees and about Rs. 70,000 crores are spent in salaries, pensions and arrears (Jha, 1998: 11). It is well known fact that had the green revolution not generated huge numbers of new jobs in agriculture, the country might have been destroyed by internal turmoil decades ago. But the success story of green revolution has been limited to certain crops and confined to some specific regions or states of Indian Union.

Devashayam (1995) argued that Nehru-Mahalanobis model could not bring desired results as it laid more emphasis on heavy capital investment coupled with it had high level of technology base. The model further suffered because large goods produced in these high profile industries could have been absorbed only by affluent markets located abroad.

The Nehru-Mahalanobis (N-M) model suffered the nation, as its trickle down effect was quite less sink proportion to heavy investments made in mega projects. The N-M model failed to develop from the below i.e. from the base of agriculture, horticulture, poultry, animal husbandry and cooperative dairying (except Gujarat), etc.

The model was thrust from the above and consequently, it could not sustain because the base was unable to provide adequate support to the top. The huge industrial projects could not generate enough capital an employment, etc. Moreover, the low purchasing power of the Indian masses could not sustain large markets. The N-M model was more dependent on heavy foreign aid and it craved for imported technology and relied on foreign markets and fetched meager export earnings.

## **Alternate Model of Development-Anand Model of Cooperative Dairying**

Alternately, Anand Model of cooperative dairying built from below i.e. with the participatory help of the milch cattle owners has acquired the status of success story all over the world.

India's most venerable milkman and carrier of Sardar Vallabh Bhai Patel's legacy in coöperatives, Dr. V. Kurien also argues that initiative for producer's cooperatives must come from producers themselves. Government sponsored cooperatives trigger disaster not only in India but also abroad. Anand is the best model of cooperatives in the country, which had been set up by the people at the inspiration of Sardar VallabhBhai Patel around 1944 against all odds when the Britishers were ruling the country. They suspected cooperatives and ensuing/nationalism. Dairy cooperatives succeeded in Gujarat but the experiment has not brought much desired cheers and results in Haryana and else where in the country. It is quite interesting to mention that the original and famous - Anand Milk Union got its start in 1946 from two tiny village dairy cooperatives started by the farmers to beat the Polson monopoly. Then it grew up from bottom up and finally in 1965 grew in even more powerful offspring, the National Dairy Development Board (NDDB). Since 1986, the NDDB is a part of the Central Government.

Dr. V. Kurien argues that the best way to keep Anand flourishing was through economic productive processes and induction of talented managers. Anand's processing plants are the best in the world. Managers are world class. The best way to do this is through professionalism. Milk cooperatives should be managed professionally. It is no good targeting for one-lakh cooperatives or so. What is important is that these cooperatives be run economically. Dr. Kurien points out that for a district milk cooperative to become economically viable, it requires the processing capacity of one lakh litres of milk a day. For the viability of a village milk cooperative, it is imperative it should be able to produce at least 100 litres of milk in the morning and 100 litres in the evening. Dr. Kurien wonders how the government could succeed in setting up one lakh more milk cooperatives (versus the existing 70,000 set up over the last 50 years or so) in barley 5 years from 1997 to 2002 (Shukla, 1996). Though the cooperative dairying has largely succeeded

in Gujarat, but the movement has not achieved the desired success elsewhere in the country. The researchers have investigated a number of constraints in the smooth functioning of cooperatives in India.

### **Constraints in Organisation of Cooperatives as Business Enterprises**

Singh, Katar (1997) concluded from a total of 58 research papers, a synthesis of the following constraints experienced in the functioning of cooperatives.

1. Lack of honest and committed leadership
2. Lack of professionalism in management
3. Frequent transfers of chief executive officers of the cooperatives
4. Corrupt practices adopted by the employees of the cooperatives
5. Lack of freedom to hire and fire cooperative employees
6. Collusion between employees of cooperatives and private traders
7. Tight government controls
8. Caste based politics and factionalism
9. Lack of freedom in fixation of prices for the produce and services
10. Employees not fully exposed to latest management techniques, tools and practices
11. The quality of training provided to the employees of cooperatives is very poor. The Japanese model of employing veteran cooperators as trainees may be followed.
12. Unnecessary government control and lack of autonomy
13. Growing alienation among members of cooperatives
14. Marketing methods and practices not modernized
15. Lack of finance and lack of innovative methods and practices
16. Cooperatives not succeeded uniformly everywhere. Self help group (SHG) and Non Government Organisations (NGOs) could serve as alternatives to cooperatives

17. Many cooperatives did not maintain credibility and image by not providing high quality of products and services.

The above mentioned constraints have caused obstacles in the functioning of cooperatives as business enterprises. The planners should keep the aforesaid constraints in view, while planning for establishing new dairy cooperatives.

### **Need of Dairy Cooperatives in Haryana**

Since centuries, agriculture, animal husbandry and dairying have truly proved to be complimentary and supplementary enterprises. During drought, flood or other natural calamities, agriculture and animal husbandry have complimented and supplemented each other. Rural people in Harlan are quite competent to do agriculture and dairy farming. They hold agriculture and dairying as dignified professions. People of Hayana, are the best milch cattle raisers, and they are the best judges of the potentialities of the milch cattle. The Murrah breeds of buffaloes of Haryana, are the best high milk yielders, known all over the world.

A concerted attempt should be made to organise cooperative dairies by the state political leadership in Haryana on the pattern of Sardar Patel's initiative in orgnaisation of cooperative dairies in Gujarat. The political initiative should be supplemented by strong existing institutional framework provided by the Veterinary, Animal Science colleges of Chaudhary Charan Singh Haryana Agricultural University, Hisar, National Dairy Research Institue, Karnal and the State Department of Animal Husbandry.

The state universities and department of cooperatives should undertake to impart training in cooperatives to the village rural youth both men and women especially in the age group of 15 to 25 years. When the cooperative dairy can be a successful venture/enterprise in Gujarat, why can't it be made to be a successful enterprise in Haryana. While Punjab and Haryana and many other parts of India possess far richer and greater physical resources as compared to Gujarat. Is only a question of organisation and management of resources that could build a strong movement for

cooperative dairying in other parts of India too. Hence, there is a strong need for organisation of dairy cooperatives in Haryana specially keeping in view of its strategic geographical proximity to National Capital of Delhi. Haryana should utilize the opportunity of biggest milk market available at its doorstep in Delhi.

### **Reasons for Organising Dairy Cooperatives in Haryana**

1. Existing low prices of milk makes it necessary to organise dairy cooperatives to stop exploitation.
2. Role of Sardar Patel to be followed in organising dairy cooperatives. Follow the footprints of a true patriot.
3. Agriculture is still not an industrial activity in Haryana.
4. Agriculture is still crop oriented and subsistence driven activity.
5. Agro-industry is weak and underdeveloped
6. Agro-climatic and feed stock similarities between Haryana and Israel
7. 6 million Israelis have 100 varieties of dairy products.
8. Coomercialization and diversification of milk products.
9. Dairying is a multi-produce export oriented industry.
10. Network of technical institutions such as NDRI, Karnal, CBRI, Hisar, veterinary and Animal Science colleges of CCSHAU, Hisar and state Department of Animal Husbandry are available for technical guidance for increasing the milk yield and treatment of diseases of milch cattle.
11. Milk yield can be increased many times in Haryana by adopting appropriate technologies.
12. Dairy based model is compatible with nature, needs, resources and aspirations of the rural people in Haryana (India). Michael E. Porter of Harvard Business School has rightly argued that adoption of such a model of economic growth is the key for India's economic growth.

## **Application of Sociological/Extension Education and Management Principles in Organisation of Dairy Cooperatives**

The concept of extension management is the blend of principles derived from both the disciplines of extension education and management. One of the leading practical and contemporary techniques in extension is that of Participatory Rural Appraisal which has proved quite useful over the years in carrying out rural development programmes successfully. This technique is also widely practiced for conducting research and solving intricate sociological problems. Moreover, the participatory approach also helps in bringing about equity and sustainable development. As per, United Nations Development Programme (1993:1) people's participation is becoming the central issue of our times. Mathur (1977: 61) rightly argues that in order for people to participate, it is essential that they have an organizational base for participation as participation pre-supposes group organization. It has been proved that high yielding social organisations are no less important for development than high yielding crop varieties and intensified agriculture can not occur without intensified human organization (Cernea, 1990: 26).

Though Haryana has vast paraphernalia and infrastructure of milk plants located at different district headquarters, but they have not paid rich dividends mainly because of lack of solid and firm organizational base to support the organisation and management of the cooperative dairies in Haryana. In absence of solid and strong base of cooperative dairy movement in Haryana, lakhs of rupces pumped in setting up of dairy plants in Haryana remain under utilized. The local organisations are a strategic resource to foster sustainable participatory development. Suitable investment should be made to strengthen the organisations and institutions, which can bring desired development. Many development failures can be averted by investing in the truthful organisations such as local and voluntary organisations. On similar pattern, Anna Hazare has created and nurtured the grassroots level committees and organisations of village "Rale Gaon Sidhi" in Maharashtra to carry out the multifarious developmental activities in his village. The application and use of sociological/extension principles especially

Participatory Rural Appraisal Technique should be supported and supplemented with the application of sound management principles. It is imperative, now to dwell on the principles of management and their various facets underlying the need to increase the efficacy and efficiency of human organisations to carry out developmental efforts.

### **Need for the Use of Management Principles in Increasing Efficiency in Human Organisations including that of Dairy Cooperatives**

#### **Definition of management**

*“Management is both an individualized activity as also a group activity both working together to achieve a set purpose”* - Subramanian (1995).

An extension manager or a leader has to motivate, guide, communicate, influence and direct the work of the other people. Dr.V. Kurien, Director, NDDDB has very ably applied these management principles in increasing the efficiency of dairy cooperative sector in Gujarat. It is imperative to mention some of the main functions of extension management as under:

1. Perceiving the essential elements of a situation
2. Analyzing the situation
3. Exploring the alternatives
4. Make a decision for a suitable line of action
5. Planning organization
6. Effective communication of the messages
7. Direction to various activities
8. Controlling the activities and affairs of the group
9. Organisation and attaining the objectives

It is also imperative to mention some of the common characteristics of high achiever managers or extension managers (Harvard Business School Survey) as under:

1. Use of the practice of analysis.
2. Allocation of time and focussing of energies.
3. Successful in motivation of the subordinates.
4. Manage themselves.
5. Discipline themselves to control anger, delay or domination that could be counter productive.
6. Modify the styles according to the needs of the situation.
7. Analysis to provide long and short term directional guidance for themselves.
8. They avoid stagnation in mental and physical diligence (Wickham Skinner and Earl Sasser-Harvard Business Review Nov.-Dec. 1977)

An extension manager or a leader is guided by his own background, his upbringing, and his set of values, his general disposition and mental attainment.

Algebraic equation of the aforesaid discussion is summed up as under:

1. Knowledge x skill = Ability
2. Attitudes x situation = Motivation
3. Ability x motivation = Human performance
4. Human performance x resources = Organisational performance

An extension manager or a leader uses three different skills i.e. technical, human as well as conceptual. An effective leader or an extension manager has to be good at skills, has to motivate and has to direct the organisation to achieve goals. The limitations of a leader or an extension manager are that an extension manager should understand himself, estimate his abilities and power to influence others.

## **Summary and Conclusions**

The research paper has made out a strong case for the urgent need of organising of dairy cooperatives in Haryana on the model of Anand Dairy

of Milk Cooperatives. The contribution of agriculture to Gross Domestic Product (GDP) is nearly 32% and the contribution of livestock to the agriculture sector stands at nearly 24%. The contribution of dairy sub sector alone accounts for nearly 2/3rd of the total livestock production. India has emerged as the second largest producer of milk in the world next only to the USA. However, India ranked 57th in the world in terms of per capita availability of milk. The per capita per day availability and consumption of milk among urban, rural and slum dwellers was found 250 grams, 70 grams and 42 grams, respectively. Majority of India's cattle are unsuitable for dairy farming, hence genetic engineering and better management practices can help in accelerating milk production from 5 to 10 times.

Nehru-Mahalanobis Model of Socio-Economic and technological development had ignored the primary and core area of cooperative dairying since 1947 and instead half of the national resources of our country were diverted to loss making public sector at the cost of social sector. Anand Model of cooperative dairy need to be replicated/adopted as an alternative model of rural development and for creating employment opportunities. Lack of honest and committed leadership, lack of professionalism in management, corrupt practices, lack of freedom, caste based politics and factionalism, etc. have been observed as major constraints in the proper functioning of dairy cooperatives in India. An urgent need of organising dairy cooperatives in Haryana has been emphasized because of some peculiar and favorable conditions obtaining in Haryana for organising dairy cooperatives on sound footing. Participatory Rural Appraisal Technique widely used in Sociology and Extension Education has been suggested to organise dairy cooperatives in Haryana. The application of the principles of management have been explained to increase the efficiency in human organisations such as that of dairy cooperatives or other related ventures.

The present study can prove to be a great boon for the Master Trainers engaged in imparting training to the workers and the staff engaged in cooperative dairy farming.

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