



Brief Assessment on Integrated Risk Management Solutions for Livestock and it's role in Securing Rural Livelihoods.

In the beginning of human civilization, the process of animal husbandry developed. Cows and buffaloes were given prime importance among all useful animals. Hence a person with more useful animals was regarded as having good financial condition. It was necessary that the cattle have the best milk giving capacity. In any religion, cow is regarded as the best. In Indian history, there are many mythological and spiritual stories which tell us that a cow has 33 crores of gods and goddesses in its body. Similarly the God of death *Yamaraj* has a male buffalo as his vehicle. Apart from this, Lord Shiva's vehicle is *Nandi* (Cattle bull). Lord Shiva is a symbol of existence and destruction. Due to the process of reproduction and rearing, a cow is regarded as a symbol of earth in human civilization. In the olden days, animals were used for many purposes. In those days, special scientific technique of reproduction was developed. Special lands were made available for grazing cattle. Milk was used directly for drinking or making butter in *vedic* system.

In the times of *Lord Shrikrishna*, people took curd, butter etc. from *Vrindavan* to Mathura. But later, producers of milk started selling milk in the market, keeping their families starved. They also started keeping the calves starved. To oppose this improper system Lord Krishna started '*dahi hand?*'. He and his friends would break the earthen pots carrying milk to the market. In the days of the *Pandavas*, *Nakul* and

Sabader were the experts in animal husbandry.

Later the level of milk production depended much on new born calves than the cows. The owner would take the milk for domestic use, only after 100% supplying it to the calf. After fulfilling the domestic needs, milk and milk products were sold in the market. Till the decade of 1980, selling milk was regarded as selling one's child in the northern parts of India.

In modern times, due to industrialization and automatic technology, need for fast life is created. It resulted into fast food and fast, easy money. Due to this, there was a tendency of milk adulteration. Considering the cycle of environment, herbivorous animals eat fodder, grass, plants etc. These animals are eaten by carnivorous animals. After they die, their dead bodies decompose, converting it into manure. This manure is used by the plants in and they grow on it. This was very simple and plain life style.

If we observe today's culture and civilization, we find that people made their colonies on the river banks. They did farming for getting food grains and fodder. Grains were used for humans and fodder for cattle. The milk was available from cows and buffaloes. There are proteins, carbo-hydrates, fats, vitamins and minerals in milk. Hence it is known as complete food. Cattle dung and parts of the plants is converted into manure which is very useful for agriculture. Now-a-days people have preferred industrial field for maximum profits. Jobs and trading have upper hand over plain agricultural business.



They don't think agriculture and dairy industry as profitable. In 1970, when I was in school, the children aimed to become farmers. But today the condition has changed. Business, service and trade have gained more importance.

This condition arised because agriculture and milk production fields are neglected. The report of the central government on 'Milk production development in India' and the report of 'Maharashtra government's department of animal wealth and agriculture', support this statement.

Sometimes, we have to decide whether people in the country like to drink milk or not? The reason for this is that man is the only social animal, who consumes milk all his life. Government has declared tea as national drink. Actually tea plantations are owned by a few rich people, not by common farmers. Moreover, the government has given approval to liquor, wine and such other beverages. Advertising of such beverages and cold drinks is done through different audio-visual media like T.V., Radio, newspapers, hoardings etc. The government should decide to promote milk in same way. National Egg-coordination Committee (N.E.C.C.) advertises '*Sunday ho ya Monday, Roj Khao Ande*' on T.V., Radio. On the same line milk can be advertised, '*Mangal ho ya Budh, roj piyo dudh*', but by whom it will be advertised? Some advertisements 'unless certain substances are mixed with milk, it doesn't become nutritious', should be studied carefully. *Ayurveda* states a person should drink a glass of water in the morning, a glass of buttermilk in the afternoon and a glass of milk at night. But today, the day begins with bed tea, lunch with cold drinks and ends with alcoholic drinks.

Father of our nation, *Late Mahatma Gandhi* had said that hard drinks should be banned. But the government didn't put a ban, due to taxes on liquor. Such liquor producing companies are owned by a few people. Hence government should take strict measures. Government should support agro based industries, supervise them and keep control on them. Because these industries are the supporting pillars of the country. Today, due to the rise and fall in cattle feed prices, production cost of milk, milk distribution, milk production business is not at all profitable.

The other reasons are low quality services in agriculture and milk production and lack of guidance from the experts. Developed countries are far ahead in this field. As there is no proper planning, sometimes agricultural and milk production is more than the demand. Hence the

problem which arises is, what to do of the excess production. Because milk is a perishable commodity, it spoils easily and then it has to be sold at low rates. Many times due to great losses incurred, farmers turn their back at this industry. As a result, there is shortage. Then prices of milk and agricultural produce go on increasing. Again people turn to these occupations. This is a vicious cycle.

One thing is to be noted that, even though the farmers have profits or losses, the agents or mediators always have profits. The agents can be from co-operative, private or government sectors or they may be even traders or consultants. They can be banks also. We have seen that onions are sold at 80 Paise to 80 Rs. per kg. In other industrial sectors such 100% ups and downs are not there. Therefore everyone selects industrial field. No one wants to take agriculture or dairy industry. Today, farmer's children take higher education and settle in urban areas. They are interested in service, but not farming. This condition arises just because there is no profit in it. The profit and production always depends on the fluctuation in the market. Such situation can be controlled through proper planning. The planning should be done by the persons in the government service or by sincere and responsible persons from other sectors. If a wrong decision leads to the loss in agriculture and dairy industry, then there should be a strict punishment. We have seen that giving punishment for adulteration in milk or corruption takes a long time because it is a long time process. It is said that justice delayed means justice denied.

Political decisions of the government like cancelling the principle amount or interest of the loans are deceiving. The reason of why people are unable to repay the debt should be found out. Agriculture and dairy industry cannot be saved just by giving first aid treatment. We should know the effective measures on such snake bite and its venom because thousands of farmers are committing suicides. Therefore such problems should be studied properly with the help of economics. Land and water should be used carefully. If water is to be supplied for irrigation, the concerned people should be taxed accordingly. Those who are displaced should be helped. Water supply meant for crops should be used mainly for main cereals, food crops and fodder and not for cash crops.

Due to drought like conditions, people are selling their cattle and are migrating to other places. Government has been spending a lot on such people. But this is just temporary external treatment. The



problems are not solved from the root. To protect the cattle in the rural area, insurance is secondary, compared to their basic needs. We can think of other needs once basic needs are fulfilled. It is necessary to satisfy basic needs of food, clothing and shelter. They should be fulfilled through available profits. But where are the profits? Generally the price of cow's milk is Rs. 26.50 but the government rate is Rs. 20.00. This means there is a loss of Rs. 6.50 per litre in the production of milk. Then a farmer can never win. Once he comes to know about the economics of farming and dairy, he will never do this business. Therefore development should take place in this field. The number of people working in this field is large. They can prepare nutritious food. Due to this, the problem of mal-nutrition can be easily solved.

The sun spreads its light in all directions, likewise there should be solution to all the problems of milk production and farming. There should be control over demand and production. Like the network of electricity board, there should be network of milk industry on national level. When there is need of more electricity, it is fulfilled by supplying it from other parts. Likewise the 'Milk grid' concept of National Dairy Development Board (N.D.D.B.) should be implemented properly. It should be implemented in such a way that, apart from the production cost the farmers will have 25% profit. Only then, the migrated people will come together and do the business. In rural areas they can fulfil the need of their livelihood.

Small scale industries are having profits in many fields. If they get 25% profits, the whole picture will change in ten years. The limits of 50% of rural population migrating to urban areas has been crossed. Hence there is shortage of manpower in the rural areas. More and more people are coming to the cities. As the migration of people from rural to urban region increases, there will be more need for houses. This will lead to the increase in the number of slum areas. There will be problems of law and order. This migration will go on till there is no profit in every sector or field. Proper planning right from the lower level, is the only solution to it. It should be controlled by able and responsible department. This scheme should be supported by the government and the politicians.

If we consider the number of people with insurance policies, its value is more than 100 crores. But when we consider the insurance policies of the cattle, they have not even crossed 50% of those of humans. Actually people will invest in it only if they have profit in it. It is a vicious circle. If there is no benefit, people won't pay the instalment of the policies. Hence there will be more risk and more loss in future.

To change the picture, it is necessary to give proper training. A committee with legal rights should supervise the agriculture and dairy industry. The committee should be trained regarding sensitive issues. A farmer is depressed when he can't repay the debt. He takes loans for many things like food, clothing and daughter's wedding. Problems like suicide are found more in the field of agriculture. Those who are aggressive become terrorists or naxalites. This creates a lot of problems. Now take the case of cows. When a cow grazes, a cattle egret eats insects on the cow. Thus the parasite insects harmful to the environment are destroyed. Cattle are also safe as no chemicals are used. The sector of insurance and veterinary medicines etc. depend on agricultural sector. There is risk involved in insurance policy and the medicines help to keep the cattle healthy. Profits are not considered in this business. But sometimes there are doubts about these services and the effectiveness of chemical substances. There should a system to keep a check on all this. The guilty should be punished and their names should be declared. To get the insurance for the animals is a kind of burden to their owners because the financial institutions that do the insurance business have to protect the funds of the banks. They don't see the welfare of the producers. Animals with defects, infected with brucellosis are sold in the animal market. Recovery of loans is made

by the banks. The veterinary doctor also gives the certificate of good health to such animals as he has got his share. Insurance companies get their instalment. But the farmer is nowhere in the scene. He becomes bankrupt. He doesn't have a single paisa in his pocket. To avoid this, there should be changes in the rural livelihood. If the government, politicians, non-government organisations work together it may be possible. It should be applicable not only to dairy industry but the whole agricultural sector.

Following are some measures

- 1) A committee should be formed for taking care of agriculture and dairy industry.
- 2) The rates of purchase and sale decided by the producer should be reasonable. Exploitation of producers and consumers should be stopped.
- 3) Prices should be controlled. When this happens, they will be confident.
- 4) Small scale training programmes should be organised explaining the positive and negative points. The training should include different government schemes, economic policies and the condition of the market etc. At present there are less than 10% of people involved in this, who are experienced and educated. Hence the supervisors also should be given training.
- 5) The funds given to the farmers should not be misused. They should be given proper information about the dealings in the market, like where they will get good raw material and how to sell their products in the market etc. The dairy industry should create a fund, for example, one rupee per litre should be collected from those who sell milk and milk products. The quantity of the milk required should be measured beforehand, according to the prices of the milk products. So that recovery from the consumers will be possible.

Apart from giving above Rs. one, extra one rupee per litre for milk, the government should give financial assistance for the development and livelihood of people in rural areas. This help should be done through the funds of M.P.s and M.L.As and other different schemes. The milk producers should also help the fund by giving 50 paise per litre. The money made available through this should be used to fulfil the needs of farmers; for example vaccination, interest on the loan, food,

clothing, farming, children's weddings, education, medical treatment etc. It should be done free of cost or by charging a little. The following committees should look after this.

- National animal husbandry welfare committee.
- Provincial animal husbandry welfare committee.
- Zilla animal husbandry welfare committee.
- Taluka animal husbandry welfare committee.

The available funds should be divided as follows

- Rs. 0.20 - Insurance and identity proof. Schemes like (R.F.I.D.) radio frequency identification device should be implemented. It should be legal like unique identification scheme. It should be used for every animal for its birth till death.
- Rs. 0.20 - To make medicines and treatment available free of cost in any part of the rural area. This service should be available twenty four hours for animals.
- Rs. 0.20 - Semen laboratories for artificial insemination and the elite female livestock to produce proven sires should be developed. Keeping registers and supervision should be done regularly.
- Rs. 0.20 - Radio and T.V. should be used for sale techniques and advertisements. Emphasis should be given on the training of producers and consumers for one brand.
- Rs. 0.20 - For the development of the good species of the local cattle and buffaloes.
- Rs. 0.20 - To encourage research and development in agricultural and veterinary colleges and universities, to achieve golden mean between lab to land.
- Rs. 0.20 - Sale and service of the animals, to open the market for their sale. Cattle of good quality and breed should be made available. If anyone has diseased cattle in his possession it should be taken back immediately. A special cattleshed should be developed on *taluka* and group level for the treatment of the cattle like vaccination, sterilization, treatment etc.

- Rs. 0.20 - Vaccination, deworming of internal and external parasites.
- Rs. 0.20 - Training, coordination and supervision.
- Rs. 0.20 - Cattle rearing centre on *taluka* or group level for looking after male and female calves.
- Rs. 0.20 - Biogas and bio-fertilizers development.
- Rs. 0.20 - Seeds for fodder, to supply animal feed for the cattle. Silage and urea treatment on straws.
- Rs. 0.10 - Available funds for emergency and registered fund from remaining amount or provision for future.

Total Rs. 2.50

This system can be applied to other animals for example : 25 paise per an egg, Chicken or hen Rs. 1.25 per kg, Mutton Rs. 30 per kg.

This means roughly 10% of the maximum retail price.

Aim - work for all on *taluka* level. Health is wealth for all.

Taluka level Panchayat Samiti (P.S.) - Taluka unions Co-operative sector - Private sector - other Private Companies - Media - Non-Government Organisation - Department of Dairy Development - Department of Animal Husbandry and local bodies etc.

District / Zilla level - District *Zilla* Co-operative Milk Organization - *Zilla Parishad* etc

Provincial / State level - Cooperative State Milk Federation, Livestock Development Board, State Dairy and Animal Husbandry Depts., BAIF like big NGO's

National level - N.D.D.B. i.e. National Dairy Development Board, NABARD

- N.C.D.F.I. i.e. National Co-operative Dairy Federation of India, N.C.D.C. Central Dairy, Agriculture, Animal Husbandry Departments

Why should we come together or why should we be united?

- 1) To bring stability in prices without competition
- 2) Vaccination of the livestock to avoid the diseases.

- 3) Better use of reproductive mechanism for better reproduction which is to be effectively beneficial for all.
- 4) One brand for sale for example - *Amul* on international level, Mother Dairy on national level, *Mahananda* on state level, or Gujarat's G.C.M.M.F. like Maharashtra's Milk Marketing Board (M.M.M.B.). It will include co-operative, private and government sector, where all three and or two who are existing.
- 5) For keeping control over the prices, for avoiding repetition of the work.
- 6) To make one window service available to the farmers for solving their problems.
- 7) Only one research institution will guide all industries and departments. For example, *Vasantdada* Co-operative Sugar Institute guides those who do sugarcane cultivation in Maharashtra.

To reduce the problems in rural areas:

Insurance services

- 1) Farmer couple (husband and wife)
- 2) Livestock
- 3) Cattleshed
- 4) Other material like machine for milking
- 5) Protection from the diseases that affect production capacity for example, infectious abortion (Brucellosis). Where animals are 55% affected, at many places.
- 6) These services should be convenient and compulsory and at the same time free of cost

Trusted and guaranteed service

- 1) Guidance for animal rearing training services
- 2) Agricultural services
- 3) Services regarding animal husbandry
- 4) Guidance about how to make milk products along with milk production services.
- 5) Marketing services
- 6) Extension services

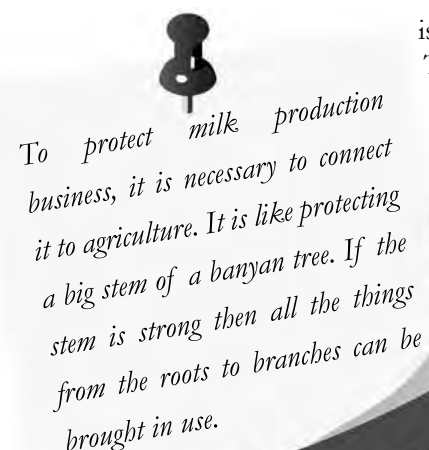
It is necessary to supervise the agriculture and dairy industry. Even small experiences should be collected and should be broadcasted among all.

Their effects should be worked out. Seminars should be organized. Then it will be easy to take the decisions. These decisions should be implemented. All this system should be planned and controlled.

The policy of livestock breeding and production is only on paper and unfortunately not implemented. There is no control over the employees involved. It is not known whether they have scientific attitude at the level of their work etc. There is no planning regarding the level of exotic animal's blood. There is no increase in the number of livestock and milk production. Farmers are not properly educated. If we consider the survey of 100% of artificial insemination, there is no information about the history of bulls. Workers in artificial insemination centre should register the information. They should be trained to give their services with responsibility. Low level of sperm seeds should be banned. Semen of a good bull should be used. We get many things by rearing cows and buffaloes. For example, milk, meat, hides, conversion of agricultural waste into manure and things made from horns and bone's etc. Thus trading by exchange of such goods, trading with money or mortgage for loan will help for economic development.

The important advantages of milk production are as follows

- 1) **Milk** - Milk is a highly nutritious food. If care is taken, while producing milk, high quality milk will be made available in the market.
- 2) **Calf (Female)** - Their upbringing programme should be sincerely worked out, to get good quality calves. Then cows will be available easily and at a cheaper rate to the farmers. But the number of deaths of the cows is more due to negligence, lack of perseverance and tolerance and not rearing them scientifically.
- 3) **Calf (Male)** - In many areas, the death rate of male calves is 100%. They die of starvation. The small or baby calves are not given enough milk. This picture can be changed easily. To rear them collectively, there should be special cattle sheds. For natural insemination, such calves should be made available in remote areas for eg - they can be used for particular purposes or for beef. There can be increase in the income source from milk production.
- 4) **Dung** - Economically, by erecting goober gas plant, we get energy. Such plant can be started by a person or collectively by the society for not only getting good manure but also for maintaining cleanliness. It



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is important for good health. Thus there will be more saving, in the rural area due to preservation of energy, protection of environment and encouragement for plantation.

Besides, while upbringing the cattle, they give love and affection to humans, which cannot be compared with money. We come to know about the cycle of life and death.

Youth get sex-education.

Milk can be converted into many by-products like curd, butter, cheese, ice-cream etc. All these things are very nutritious. In India the availability of milk per capita is 250 milligrams a day. But in developed countries like Israel and America it is more than one litre per capita. So India has four times more opportunity in this business. Veterinary medicines, chemical substances, other means etc. are also included in it. Hence to protect milk business, it is necessary to connect it to agriculture. It is like protecting a big stem or trunk of a banyan tree. If the stem or trunk is strong then all the things from the roots to branches can be brought in use. Many branches will be formed. Same thing is true in case of milk and dairy industry. For this idealistic and dedicated manpower is necessary. This manpower can be obtained from government, private, co-operative sectors or N.G.Os.

In vehicle business, there are big showrooms, where the vehicles are tested, sold and also we get after sale service. Likewise, there should be a trusted market of the livestock for their sale. The farmer should be free to sell or purchase the cattle, without getting exploited. Veterinary doctors who are sincere, dedicated ready to give twenty four hours service should be available for the milk - producers and their livestock. There should be good quality fodder. While deciding the quality and rate of the animals, the attitude should be positive and co-operative. So that risky situations can be avoided and of course, means of livelihood in rural areas will be safe.

For this it is necessary to intervene through the control of legal department. Good manpower, proper laws, training and execution of extension programmes are required to change the present situation and the present picture. Guiding programmes should be undertaken on experimental basis. It can be implemented in the smallest part or *zilla* of a state. Due to this, the future of the milk production business, which is in loss today, will be brightest in the coming years.



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