


Sustainable livestock development strategies

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Livestock development depends on the judicious utilisation of animals and natural resources in a balanced way. Massive and intensive campaigns are required to create awareness among farmers about scientific animal management practices that would give tangible economic benefits to them by way of increased income. This can only be achieved through effective implementation of technology and management. The economic benefits arising from improvement in productivity would adequately justify the investment required for modernizing the existing system. In this juncture many non-governmental organizations play a key role.

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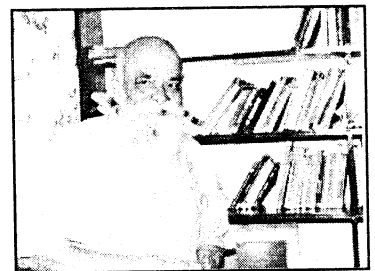
 ARTMAN is a non-governmental organization

based at Bangalore with funding support from Ministry of environment and forests engaged in research and extension activities for

- ☐ Fostering harmonious relationship between man, animal and nature.
- ☐ Upgrading livestock systems for increasing productivity

- ☐ Improving bullock carts and slaughterhouses to improve productivity and to reduce animal suffering.
- ☐ Providing veterinary care, feed and nutrition to livestock
- ☐ Popularizing stunning
- ☐ Conserving biodiversity and protecting environment from pollution
- ☐ Promoting vegetarianism.
- ☐ Arresting degradation of plant life and depletion of forests.

Prof. N. S. Ramaswamy, Director, CARTMAN and former chairman of Animal welfare Board of India is having more than 50 years of pioneering experience in the area of livestock and development. As a management consultant he has rich experience in meat sector, rural development, transportation, education, health services, animals and environment. Excerpts from Prof. Ramaswamy's paper on livestock and sustainable development presented during the International Conference on Small holder Livestock production systems in Developing Countries, Opportunities and Challenges held at Thrissur, Kerala from 24th-27th November 2000 is included in this chapter.



Domestication of livestock for milk and draught power was a major milestone in the development from primitive existence to civilized life. Moreover India's economic progress is heavily dependent on livestock. But this sector is in a neglected state, resulting in wast-



age and losses to the economy, particularly to the rural poor who raise and utilize livestock for milk, ploughing, carting, dung and meat.

The annual output value of foodgrain sector is estimated to be about Rs.120, 000 crores, which gets massive support from the Government, by way of subsidies for fertilizer, water, power, credit, support price, transport, storage, handling, administration, etc. which is estimated to be around Rs.20, 000 crores. Whereas annual market value of the outputs from livestock sector is estimated to be around Rs.80, 000 crores. But this sector gets only not more than Rs.100 crores per year. They contribute food products valued at Rs.70, 000 crores (milk, meat and eggs). Moreover work animals contribute power for ploughing and carting, valued at Rs.6, 000 crores per year. Dung is used as manure and fuel, which may be worth around Rs.5, 000 crores.

Draught power and meat sectors do not get any support. For around 300 million marginal and small farmers, to whom along with livestock, agri-implements and carts are the main instruments of production. Lack of organizational support and inefficient design of equipment have affected the productivity in the livestock and food grain sector. With improved implements, carts and equipment, farmers could benefit directly by way of increased food grain output employment and earnings. Thus Poverty level will come down and sufferings of work animals would be reduced.

Draught Animal Power Sector

0 2. 80 million draught animals with a market value of Rs.15, 000 crores make available 40 million horsepower. Work animals provide energy for ploughing 100 million hectares, which forms two-third of the area cultivated in the country. They haul 25,000 million tonne kms of freight per year and save at least six million tonnes of petroleum fuel, valued at Rs.12, 000 crores per year. Replacement by petroleum-based mechanical power will take several years, and would need an investment of over Rs.100,000 crore, which is be-

yond the reach of marginal and small farmers in the country.

As many as 70 million rural-based work animals are used only for 100 days a year. During the rest of the 250 days, when animals are idle, they can be put to work for an additional 100 days. Additional 7,000 million animal's days of work can be generated. Incremental net earning may be as much as Rs.10, 000 crores per year, which will directly benefit 70 crores of rural people.

By improving the design of agricultural implements and million bullock carts, effectiveness of the animal's draught power can be doubled. Moreover animals can be worked for longer hours, at reduced work effort, with less fatigue and injury to them. Rural Development schemes should give attention to the modernization of the Draught animal power system.

Improved carts are made of steel, fitted with pneumatic tyres and smooth bearings, which reduces tear and axle and rolling friction. Four-wheel carts eliminate neck load and injury. Better harnesses increase efficiency of draught effort. Double piece yoke and even bar system of harnessing will enable use of young animals and females for work. Animals of different species, size and strengths can be put to work.

Meat Sector need total revamping

Eventhough meat is an item for human consumption meat production and processing are the most neglected sector in the country, resulting in wastage, environmental pollution, health hazard to public and unnecessary suffering to animals. Annual meat output in the country is around five million tonnes, valued about 15,000 crore rupees. Out of the 3,000 legal Municipal abattoirs, only a very few slaughterhouses have been modernized. Mostly under unhygienic conditions, slaughter takes place in the unorganized sector. Wastage in meat production and distribution causes an annual loss of 3000 crore of rupees. Large animals are mostly trekked on foot 200 to 800 miles without food, water or rest en-route, resulting in loss of up to 10kg of meat per animal. They are prodded by beatings, which



damage their skin. They undergo terrible suffering during transit and in the process of slaughter. Stunning before slaughter will reduce pain, which is yet to be introduced.

Modernisation includes health and veterinary care, supply of feed and water, transport of animals in well designed trucks or wagons, adoption of stunning prior to slaughter, modern abattoir operations and marketing methods, processing of slaughter by products and elimination of all avoidable cruelty to animals.

Most Slaughterhouses were established in the early years of this century, and were far from the city centres. But they are now in central parts of cities, crowded and congested, surrounded by bus stands, bazaars, worship centres, schools and residential buildings having no space for expansion. Efforts in the past to relocate them away from city centres have failed due to protests from residents and butchers. The solution lies in shifting slaughterhouses away from cities to rural areas, where animals are born, raised and utilized for milk and work. After

their productive life, they become available for meat. Such Rural-based Abattoirs will eliminate most of the ill effects of City-based Municipal Abattoirs. In the proposed scheme, animals would be slaughtered in rural abattoirs, and only the meat would be brought to consuming points in towns in air cooled or refrigerated vans. Thus environmental pollution in towns and cities will be eliminated. Here transport of animals is eliminated, resulting in reduced transport cost. Moreover middlemen, who now take away bulk of the margin, will be eliminated. Employment in rural abattoirs and associated industries, for processing skin and slaughter by-products, will increase rural income. Meat animals, valued around Rs.10,000 crores, ultimately fetch Rs.20,000 crores of meat, skin and slaughter by-products. This means that about Rs.10, 000 crores can be retained in rural areas. Industries for processing of skin, rendering plants which would use the non-edible parts of animals and several other industries can be established in rural areas, all of which would create employment and increased earnings.

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Various Associations of livestock industry have taken up the issue of import with suggestion to protect the industry. If livestock industry is affected the feed industry will also be affected. Government of India has raised tariff on poultry and poultry products from 35% to W.T.O. bound level of 100%.

It appears that there will be a level playing field. The dairy industry, which is co-operative based is growing with the increase in capacities of milk processing units. Population of crossbred Cows and Buffaloes is growing and poultry industry is developing into an integrated system. Few multinational companies have already entered the the Indian poultry business. Although, current live bird market is about 90%, it is expected that the consumption of dressed chicken will go from current 10% to 25% or more in the next 5 years. This would

mean establishing the very hygienic and scientific processing units. Cold chains, branded chicken and chicken cuts will be sold. Depending upon the success and consistent quality, consumer preference for dressed meat will grow.

This decade will see significant changes in restructuring, merger, acquisition, amalgamations, joint ventures, diversifications and efficient service chains. E-commerce and using the latest information technology in global tenders, trading, export-import and connected commercial activities will become more prevalent. Indian feed industry will increasingly use biotechnology, more scientific formulations, new molecules etc. to improve productivity. Indian Agriculture will use biotechnology to support Indian feed industry, which in turn is entering a very exciting phase of growth.

