Chapter 7
The Local Livestock Resource Planning Process in Himachal Pradesh

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In 1991, the Government of India initiated a process of economic liberalisation. While planning livestock development and natural resource management, direct government intervention in areas such as provision of services, and processing and marketing has to be discouraged as it curbs the emergence of market-driven, private efforts. However, there are areas where there is no alternative to direct action by government. The most important is animal disease control and eradication. Others are reorganising breeding services for greater efficiency and results, and conservation of livestock germplasm in order to preserve genetic diversity.

While planning local livestock resource processes, promotion of programmes such as joint forest management, social forestry, fodder farms, and grazing land protection committees have to be given priority.

This paper attempts to focus on how the Himalayan regions of India can best navigate livestock sector policies over the coming decades. It cautions against environmental and ecological damage so that this sector can play a role in modernising the economy of hill people.

Livestock and the environment

The growing human population will have a crucial impact on the environment and ecology. Large-scale industrialisation, urbanisation, movement of people from rural to urban areas, abolition of the joint family culture, and small landholdings have negative effects on animal husbandry programmes. In addition, the terrain of hill zones has a negative impact on providing services to livestock owners. There is a large and expanding gap between feed requirements and fodder resource management. This will become progressively worse; the real problem will be availability of green and dry fodder. Concentrates may be imported. The problem can be resolved by reducing the number of indigenous animals that constitute a major proportion of the bovine population. This will reduce pressure on crops, crop residues, and grazing resources, thereby having beneficial environmental effects. The livestock sector requires a balance between man and animal to maintain the ecological biosphere and to enable economic exploitation of resources without causing irreversible damage to the environment.

Another area of environmental concern relating to the livestock sector is urban pollution caused by slaughterhouses. They are not only an environmental hazard but also a health hazard. Modern technologies and hygienic production facilities are required.

Livestock breeding plan

Emphasis should be placed on breeding plans so that animals not only produce more milk but are also resistant to disease.

Initially, government policy for the breeding plan was to introduce quality exotic milch breeds to crossbreed with local Indian cattle to boost milk production. Jersey cattle were introduced as it was believed that they thrive in a temperate to semi-temperate climate. Himachal Pradesh has the appropriate climate for Jersey cattle and was the first state to rear them.

In hill areas, Jersey crosses have proved satisfactory. Indigenous animals were crossed to Jersey bulls and a high milk yield with desired fat content was obtained. The economic status of farmers was raised; they started consuming and selling more milk. In plains and valley areas, both Jersey and Holstein breeds were adopted. However, it became more difficult to maintain the appropriate level of Jersey cross. Repeat breeding and infertility problems appeared, and people started to abandon their animals.

A new breeding plan has to be envisaged to meet the increasing demand for milk. It should provide more milk for the farmer, be more economically viable, and create fewer breeding problems and greater resistance to disease. It should augment the current breeding plan by crossing indigenous bulls or cows with Jersey cows or bulls to maintain a 50% blood level. This will be a cross that is resistant to disease and gives adequate milk with an acceptable fat content.

Aims in livestock resource planning

The following aims need to be considered while planning livestock development in the mountain areas of the Himalayas.

- Welfare of rural people
- Social justice and equality of opportunities
- Adequate distribution of income, parity in living standards, and poverty alleviation
- A progressively modern and dynamic animal economy with continuously expanding production, widest possible participation of weaker sections, and increasing self-reliance that leads ultimately to improved employment potential, increased income and self-sufficiency in food without upsetting the ecological balance

In Himachal Pradesh, the key factor in planning is budget allocation as an instrument of government policies through the Department of Animal Husbandry and other government institutions. Environmental concerns and natural resource management are directed through a regulatory framework including laws and policies that have resulted in increased green cover in the Himalayas. Direct or indirect subsidies are based on farmers' income although they are almost non-existent in the livestock sector. Communities such as shepherds and dairymen, scheduled castes and tribes, and other disadvantaged classes receive special attention in the plan programme through schemes such as the Special Component Plan, Backward Area Development Plan, and Tribal Area Sub-Plan.

While planning for livestock sector development, the major focus is on the following areas.

- Genetic upgrading of cattle and buffaloes, and expansion of existing infrastructure and delivery of inputs and services to farmers
- Systematic dissemination of appropriate technologies in such fields as animal production, management, and healthcare to increase production and productivity levels of livestock
- Intensification of sheep, goat, and dairy development
- Establishment of dairy processing and marketing infrastructure through cooperatives
- Promotion of cultivation of fodder crops and fodder trees to improve animal nutrition
- Development of adequate animal health services for protection of livestock with emphasis on the creation of disease-free zones and control of foot-and-mouth disease
- Improvement of slaughtering facilities with special emphasis on modernisation
- Extension of insurance cover to non-scheme animals of poor farmers through subsidised premium rates
- Development of poultry and Angora rabbits
- Development of equines and pack animals especially the conservation of chamurthi ponies and yaks
- Establishment and development of an information network to promote and propagate the latest animal husbandry practices and technologies, and create awareness among farmers and breeders about the potential of the livestock sector

A Livestock Development Board is being established by the government in 2001/02. It will be an autonomous body that will look after the breeding aspect of cattle and buffaloes for overall breed improvement of indigenous cattle and buffaloes through AI and embryo-transfer technology with the objective of covering 100% of the cattle and buffalo population preferably by providing facilities at the farmer's doorstep.

Conclusion

To implement cattle and buffalo development effectively, the infrastructure for doorstep delivery of the AI service needs to be expanded and strengthened. Its efficiency and effectiveness should be improved by use of frozen semen technology, and creation of a seed stock of superior bulls and bull mothers that would form the nucleus of a germplasm pool for building a herd of highly productive cattle and buffaloes. For this purpose, modern technological tools such as embryo transfer will be deployed with increasing frequency. Crossbreeding to improve low production stock, both for milk and draught purposes, should be undertaken. Indigenous breeds should be classified and preserved.

Plans should be made to intensify cooperative efforts in various sectors of animal husbandry, such as sheep, poultry, pigs, and rabbits, to prevent exploitation of primary producers by middlemen and provide requisite inputs at reasonable cost. This

will raise the incomes of the rural poor. Pasture land should be improved by introducing improved fodder seed. Wasteland should be used for fodder production, and fodder banks established for use during drought and periods of scarcity. Sheep, goat, and pig husbandry can provide livelihood support to smallholders. Planning should encourage medium-sized holdings. Angora rabbit development could be a good income-generating option.

Local planning should be as consultative as practical and elicit the participation of all stakeholders such as farmers, cooperatives, and the state and central government.