



# Implications of changing extension strategies for veterinarians in 21<sup>st</sup> century

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## Introduction

**7**he linkages between the Research, Extension and Farmer decide the efficiency of technology or information transfer in animal husbandry or agriculture. The last few decades of diffusion research had been focusing on strategies based on the transfer of technologies from Research through Extension to Farmers. Owing to the compelling reasons of Complex, Diversified and Risk prone (CDR) Agriculture (some were consequences of technologies) the thrusts on these components are varying. Within the CDR agriculture the farmers themselves are continuously experimenting and adapting the information and technology in their local conditions (Chambers 1993, Ramkumar 1998).

## Recent trends in extension

The present emphasis of Extension is on a farmer-centred approach. There is a greater focus, in the rhetoric if not the practice of extension, on farmers and farms, and their particular resources, potential and problems,

rather than on the delivery or transfer of agricultural technology per se. It is recognized that farmer-focused extension requires staff at field level with enhanced technical competence so that they can offer advice based on the farm situation rather than simply offering textbook recipes for action (Garforth 1995). Blanket recommendation of technologies (irrespective of farming systems) was identified as one of the important reasons for low adoption of technologies.

Recent trend in extension is to view farmer within a system thinking. This has led to the idea of Agricultural Knowledge and Information System (AKIS: Roling 1988) and Agricultural Information Systems (AIS: Ramkumar and Rolls 1995). Barring the differences on philosophical lines between these approaches there is concurrence on the fact that the farmer seeks relevant information and advice from a variety of sources within a system and "other farmers" are the most common source of new ideas. Hayward (1990) sees the future as one where the extension worker becomes the focus of a local information, advisory and support system, using modern communication technology to link farmers to wide range of technical, market and policy information.

## Changing roles of veterinarian

A livestock revolution is underway in the developing countries, with profound implications for global agriculture, health, livelihoods, and the environment (Pinstrup Anderson, 2000). Livestock rearing continues to gain importance as a rewarding study for farmers as far as its potential and prospects in India are concerned. Many studies conducted in India project dairying and other livestock avocations as income generat-

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ing occupation and one, which gives employment for rural poor especially landless agricultural labourers. The employment in Animal Husbandry sector was estimated to be 9.8 million in principal status and 8.6 million in subsidiary status which accounted for 5% of the total working population (The National Sample Survey 1993-94). The progress of livestock sector is an important matter for rural reconstruction and development. According to the estimates of Central Statistical Organisation the gross value of output from livestock and fisheries in 1996-97 was Rs.1037 billions out of which Rs.897 billions was the contribution from the livestock sector excluding draught power. The livestock and fisheries contribution was estimated to be 29% of the value of the output of Rs.3570 billions from Agriculture. The emphasis on definitions of Development and Extension are undergoing constant change with situation and time. Of the total milk production in India, 65% is from the dairy animals reared by the landless, small and marginal farmers, who form 75% of the total dairy animal keepers (de jong 1996). In India, undoubtedly, the importance of livestock for poor farmers is increasing adding to the responsibility of the veterinarian.

A large number of veterinarian (out of 26, 874 in the country) serve in over 5500 veterinary hospitals and 10,000 veterinary dispensaries, poly clinics and Animal Husbandry centres of State Government in our country. In addition to the major role of being a clinician they have the added responsibility of involving in the development of the livestock situation and thereby the development of the area. The veterinarians usually commit more towards the animal health care aspects compared to the extension educational aspects of livestock keeping which is in tune with the emphasis of the Animal Husbandry Developments. Health care was ranked by the veterinarians as the prime preference compared to the educational responsibilities which was ranked fourth, among six responsibilities studied (Rao and Sohal 1982). At present there is an institutional problem of veterinarian's marginal position between animal health services and extension. The staffs of De-

partment of Animal Husbandry at present are involved in informal extension activities (while treating animals, participating in seminars for some projects, during artificial insemination of livestock, livestock fairs or rallies). They lack a formal extension structure. This inturn reflects on the weaknesses in identification of information needs of farmers.

The extension role of a veterinarian is limited to supply of inputs. There is a direct relationship between information needs and input requirements. In the years to come the veterinarian has to play an important role as livestock advisor in view of the increasing demand for livestock products (Saxena, 1997) and emerging complexities in the farming situations.

The arena of activity of a veterinarian in our country is diverse: livestock owners are different (attitudes vary), the livestock are different, farming systems are different, geographical locations are different. The various components mentioned above are themselves changing. Even within a locality there are inter-household differences in livestock keeping which are to be taken into account by a veterinarian while addressing their problems. As urban population grows the urban and peri-urban livestock raising is also gaining importance. Such systems demand for information of (and) techniques different from the rural setting. It was a challenge for the livestock owners operating in a variety of farming systems. The challenge remains insurmountable even till today.

These explicitly place the veterinarian in a very complex, vaguely issues before arriving at an advice for the farmer. Various studies all over the world point to the importance of personal media in information transfer. Over years although electronic media and to some extent print media had a boom, farmers still rely upon personal sources like the friends, neighbors, veterinarians, cooperatives and extension workers for useful and reliable information (Fliegel 1993, Ramkumar 1998). Veterinarian is the important formal source of information on livestock rearing in a vil-



lage.

It is important that the stock knowledge of these professionals should take into account what the farmers are actually practicing. As professionals (knowing the various aspects of livestock rearing scientifically) they will have the role of on-farm validators of various farmer practices.

Through documentation it is possible to identify the beneficial aspects of Indigenous Technical Knowledge (ITK) as well as those which could be improved through technologies (De and Rao 1995). This calls in for short-term training for veterinarians in problem-related topics such as problem identification and screening of technologies, conducting on-farm trials and evaluation of technologies. This implies that the veterinarians have to accept livestock owners not as clients but as partners in sustainable livestock development. It is also necessary for them to realize that the livestock owner though dependent upon the veterinarians and stockmen in adopting scientific methods of livestock rearing, is in fact the one who decides on various aspects of livestock rearing on his farm. In this context the veterinarians' role as livestock advisor in providing the livestock owners the necessary, timely and reliable information to facilitate them to take appropriate decisions will be of paramount importance. Participatory approaches to livestock keeping will form the foundation for the sustainable livestock development in the years to come.

To cope up with these challenges the veterinarian in addition to his knowledge has to incorporate the farmers' knowledge also before prescribing a solution. Farmers have their own working knowledge. Their decisions depend on various factors, which the veterinarians may be unable to find out unless asked for. Veterinarians have to probe into the farmers' decisions and incorporate them in their decision making. The increasing role of livestock owners in the decision making of the veterinarians is to be seen in the coming century.

Such a role demands more confidence from a vet-

erinarian in decision-making within strange, and with new information (s) he receives from the new situations. As a student of science (s) he is in a confused context in approving the Indigenous practices that the farmers follow. Within the framework of sustainability of livestock keeping farmers' ideas have greater importance.

In the 21<sup>st</sup> century

Extension in this new century will be more diverse and farmer-focussed in nature and it has to be geared up to address the problems with accumulated learning from the experiences gained in the 20<sup>th</sup> century. Greater flexibility in and more decentralization of programme planning and implementation are expected.

There are three conceptually linked (bottom up approach) but distinguishable imperatives for livestock production extension:

- Participatory needs assessment
- Responsiveness to inter-household variation
- Ability to address information needs as they arise, (Matthewman and Morton 1996)

The veterinarian should have adequate dialogues with the farmers in his/her locality to identify useful technologies and information for the farmers. In fact the veterinarian being very close to the livestock owners can very well utilise his/her interaction with them for problem identification. In this process one has to recognise and honour the Indigenous Technical Knowledge and Ethno Veterinary Practices followed by the Farmers. The concept of accommodating Ethno Veterinary Medicine (EVM) with the modern veterinary practice gained importance in the mid eighties. We are moving towards the next century when ethnoveterinary practices are widely accepted globally as complementary to the existing modern practices. Presently technologies are rarely built on ITK of farmers. In the new approach, technological options presented to farmers originate from the farmers' own knowledge (Rajasekaran et al., 1993). Veterinarians have to remember their moral responsibility towards the increasing number of poor farmers for whom cost effective treatment will remain a priority.



A veterinarian passing out of the college is at present not exposed to the concept of “accepting what the farmers are doing” and “learning from farmers”. The stock knowledge that (s) he receives from five years of intensive training does not include something that provides him/her confidence to accept more than what (s) he learns from the formal system. Practically (s) he faces the question of whether it is right or wrong to preach

for farmers’ knowledge.

The following table attempts to compare the previous/existing focus of activities of veterinarians with the future focus, considering the points discussed in the paper.

Table: Table showing the comparison of the existing and future focus of activities of veterinarians

Sl. No.	Previous/existing focus	Future Focus
1	Animal health specialist	Livestock advisor and animal health specialist
2.	Prescribes solutions based on veterinarians’ rationale	Suggests options considering farmers’ rationale
3.	Advocates of modern technologies	Proponents of sustainable technologies
4.	Intermediary for transfer of technologies	Facilitator to identify and choose useful farmer practices
5.	Heavily dependent on the “stock knowledge” of the veterinarian	Combination of veterinarians’ knowledge and farmers’ wisdom; accepts and judiciously used Indigenous Technical Knowledge (ITK)
6.	Adherence to modern Veterinary Practice	Softer approach to the use of Ethno veterinary Medicine along with modern practices
7.	Client oriented approach	Farmer-focused, systems oriented approach
8.	Justifies scientific practices to farmers	Justifies useful ITK and EVM, initiates their validation
9.	Increasing production	Sustaining production
10.	No role in technology production and evaluation	Active role in technology generation as well as its evaluation.

### Implications

Analysis of the situation and need identification of the farmers with their participation is very important in sustainable livestock farming. Identifying farmers’ working knowledge should be the first step of any livestock development programme, involving farmers would help in better understanding of the farming situation by the veterinarian also. This understanding will help the professional in formulating useful propositions

for the farmer.

At present the diverse nature, non-documentation and lack of validity of Ethno Veterinary Medicine inhibits its scope of inclusion in modern veterinary practice. The veterinarians have the increasing role of working with the farmers to identify and validate the EVM that will be of use to the farmers.

The veterinarians’ skills should be periodically reinforced through appropriate trainings so as to make



him/her capable to address location specific problems faced by the farmers. The dimensions of location specificity and the advise on sustainable livestock keeping demands reducing the jurisdiction of activity of the local veterinarian. By this he can take care of the inter-household variations with participatory and systems approaches. This in turn calls in for the recruitment of more veterinarians in the State services. Doing so the veterinarians can efficiently attend to the problems of lesser, manageable number of farmers.

Extension needs to be accountable. Decentralisation of administration will help in understanding and solving location specific issues adding to accountability. At present the Central and State Governments, NGOs, cooperatives, Universities, research institutes and commercial sector provide extension services. Veterinarian working in any organisation should have a working relationship and coordination with other organisations involved in Livestock development in that area. Not many may disagree with the idea that privatisation of extension can result in better accountability. Privatisation can be thought of as an effective way of accountability at least for the affordable farmers. One cannot imagine its practicality for the poor farmers. The issue of 'paid extension' needs to be debated in detail in the Indian context before arriving at a conclusion.

Livestock extension should emphasise and appreciate education and supply of inputs for sustainable livestock development. The programmes should be inclined towards the resource poor farmers. India is the largest producer of milk in the world (80 million tones in 1999). If we need to exploit this position we need to emphasis on clean milk. The globalisation phenomenon happening in our country will demand hygienic milk production. At present the milk fat (& SNF) more than milk purity is considered for pricing the milk. It is becoming more important to assess the bacteriological quality of milk; unless it is done so it will never make the grade that developed countries insist upon – think about what that means at WTO. (India Today 2000). Strategies should be properly chalked out to expose ru-

ral women to appropriate information who are very often the real custodians of livestock.

Although one could think of delinking the extension aspects of livestock keeping from the veterinarians, it is almost impractical in our country considering the scientific and comprehensive knowledge the veterinarian posses on livestock rearing. Moreover veterinarians are the most widely used, accessible and valued formal information source of expertise for a farmer. Considering the complexities associated with the sustainability issues the information processing abilities and technical skills required need a qualitatively improved research and extension effort; in livestock development extension effort to a large extent is veterinarians' effort.

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