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Assessment and Reflections on Livestock Service Delivery in Andhra Pradesh: A Synthesis

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1. Introduction

Andhra Pradesh has a strong, well qualified, committed and forward looking State Animal Husbandry Department (AHD). The state has a large animal health and production support infrastructure - veterinary dispensaries, hospitals and polyclinics, rural livestock units, AI centres and so on - and individuals - professional veterinarians, para-veterinary and other support staff. Livestock keepers have generally appreciated the support received from the Animal Husbandry Department either in terms of routine animal health and breeding services or emergency response at the time of disease outbreaks.

Within the constraints posed by the political environment and the human, physical and financial resources, the department has been doing a commendable job. However, changing market conditions (rapid growth in demand for livestock products, consumer demands for quality and consistency, food safety and environmental regulations, dwindling public resources for service delivery, etc) are putting additional pressures on service delivery systems to become more dynamic and needs-oriented, financially sustainable, and closer to the ground.

This report synthesises the studies and consultations undertaken by the CALPI-PPLPI-AHD initiative in support of developing a framework for effective and efficient delivery of livestock services.

2. Improving Animal Health & Breeding Service Delivery Systems

In order to better support its large number of livestock keepers, the state of Andhra Pradesh must strive hard towards moving all livestock services (closer) to farmers' doorsteps. This would mean (i) moving away from a system of stationary veterinary dispensaries and hospitals and (ii) partnering with other agencies and individuals (cooperatives, NGOs and private entrepreneurs) in extending the outreach of services to farmers. Many of the required outreach services can be provided by para-veterinary staff.

The state has rich experience with delivery of services with the help of Animal Health Workers (AHW), either private such as Gopalamitras (with appropriate technical and input supply support from the state) or those employed and supported by NGOs. In general, farmers appreciate the services rendered by these service providers as they are able to reach much closer to the farmers than the AHD. But, there remain concerns about service quality, specially the impact of some undesirable practices in the long run.

One of the studies undertaken under the auspices of the PPLPI-CALPI-AHD initiative found that para-veterinarians and AHWs often go beyond their brief and perform services that they are not equipped or trained for. It is, therefore, important to have in place a strong monitoring, regulating and support system to strengthen and mainstream service delivery by para-veterinarians and AHWs. Under the auspices of this initiative, the Government of Andhra Pradesh set-up an Expert Group to carry out stakeholder consultations, debate and suggest ways of 'Mainstreaming Minor Veterinary Services in Andhra Pradesh'.

Based on an extended debate and wider consultations, the expert committee identified seven broad areas encompassing different services that can be rendered by Animal Health Workers. These include:

1. Extension and advisory services
2. Fodder development
3. Preventive health and disease reporting
4. Minor procedures in first aid
5. General dispensations
6. Doorstep inseminations
7. Castration

The services have been categorized as Schedule I, II and III services. The spirit underlying the scheduling was to visualize the extent of training, handholding and supervision, which in turn will provide clues in formulating meaningful curricula. The essence of each schedule is given below:

Schedule I	All general extension and fodder development services (which require basic orientation training).
Schedule II	All services that require systematic skill development and guidance of a registered veterinary practitioner
Schedule III	All services that require advanced training and supervisory guidance of a registered veterinary practitioner

It is further recommended that Diploma holders from the University and one year certificate holders from the AHD and those employed in the latter, the Veterinary University and NGO institutions etc. may be termed as para-veterinarians whereas all other personnel with shorter duration of training providing minor veterinary services as per Schedule I, II and III may be broadly classified as Animal Health Workers (AHWs). This will include service providers like Gopalmitras, link workers, sheep and goat extension workers, Sanghamitras etc., among many others. The training duration and qualifications for both para-veterinarians and Animal Health Workers, certification and identification mechanisms and the basic framework for support and supervision have been elaborated in detail.

The spirit of the recommendations however is that:

Animal Health Workers are a critical link in the overall animal health system and provide an effective model for extending the outreach of animal health service delivery to poor and marginalized areas. However, the realization of their full potential requires a strong linkage and referral system for the purpose of ethical and professional supervision and technical support. It is therefore essential that they become an integral part of the animal health system.

In that context, the Expert Committee has strongly recommended strengthening the linkage between professional veterinarians, para-veterinarians and AHWs, and extending it beyond input supply support. The system must provide technical back-up and formal referral support, professional and ethical supervision, and the enforcement of regulatory measures. The government is already responsible for ethical/professional supervision, technical back-up and referral support of para-veterinarians employed by it. It is recommended that this function be extended to private and non-government organizations who seek such support and are not able to cover the costs of setting this up.

The linkage of the para-veterinarians and the AHWs with the registered veterinary practitioners should be multi-dimensional, going well beyond the mere legal requirements, in order to evolve and render the para-veterinarians and AHWs into multi-skilled service providers satisfying both the needs of the farmers and the regulatory requirements under the Veterinary Council of India (VCI) Act. As private registered veterinary practitioners are few and far between in Andhra

Pradesh and the Veterinary Assistant Surgeon (VAS) of the AHD is the most accessible registered veterinary practitioner state wide, the VAS will naturally be the key nodal point in the regulatory/supervisory support set up.

The AHD should formally link with each VAS up to 5 Gopalamitras/AHWs working within his/her jurisdiction for providing technical and referral support, professional supervision, and the enforcement of the VCI act. For the AHWs employed by NGOs and private institutions who have registered veterinary practitioners employed by them, the role of the VAS may be limited to the enforcement of necessary regulations for minor veterinary services dispensation. In the case of the Gopalamitras, the responsibility of the VAS will also include continued and on-the-job/hands-on training over a three year period to improve the Gopalamitras's proficiency in minor veterinary/AI services; technical support in terms of referral services for treatment of cases/AI; and opening up with the Gopalamitras a two-way professional and extension communication channel. The AHD should ensure that these tasks are reflected in the job chart of the VAS as the normal responsibility attached to the position she/he holds.

The Gopalamitras, on their part, will function as the non-governmental extension of the AHD services delivery chain: the third tier in livestock services delivery, expanding the AHD's reach right into the villages and as a force multiplier in the AHD's fight against animal epidemics. They will remain independent private practitioners, home delivering minor veterinary and AI services as paid inputs, with add-on skills from time to time when necessary. The Gopalamitras/AHWs will, however, be obliged to complement the government's efforts in disease surveillance, outbreak reporting and disease control campaigns as paid associates.

While strengthening the current system and sharpening the focus on disease control, the state must also initiate thinking towards cost recovery in service delivery to ensure financial sustainability of service delivery and to build genuine quality control mechanisms. At least in the progressive and relatively wealthier areas there may be significant scope of introducing some user charges for selected treatment and breeding services. However, the introduction of user charges should be accompanied by (i) a strengthening of the preventive health care system with a sharper focus on disease surveillance, diagnostics, reporting and control measures, and (ii) a system to ensure that the revenue so collected can be utilized for improving service quality. It is the responsibility of the Animal Husbandry Department to ensure that the incidence of diseases - especially those diseases that have serious livelihood implications for the poor - is reduced to a minimum to curb the financial losses for the farmers and for reducing the cost of treatment.

There is an element of bias in service delivery towards larger animals. It is the desi fowls in the backyard units and small ruminants that provide much more livelihood support to the poorest strata of livestock farmers but the existing animal health system (including Gopalamitras and

AHWs employed by NGOs) ignores backyard poultry for preventive health care. This results in heavy mortality and economic losses for the poorest farmers. All village service providers, therefore, should be sensitised and mandated to regularly and at the appropriate intervals, vaccinate desi fowl and small ruminants in all villages they cover.

3. Strengthening Preventive Animal Health Programmes

As noted above, there is a need to bring sharper focus on disease prevention and control of major infectious livestock diseases. This can have great potential to improve the quality of life of rural people. The high incidence of livestock and poultry diseases, often year round, demands long-term sustainable approaches including provision of operational infrastructure, organised disease monitoring and timely reporting, mobility, biologicals (vaccines and diagnostics) and professional veterinary service providers.

Under the CALPI-PPLPI-AHD initiative, an effort was made to identify the most common diseases that cause significant economic losses for the poor in the state of Andhra Pradesh. The objective was to help the state administration fine tune its initiatives to provide timely livestock healthcare to the rural poor to prevent disease outbreaks.

A total of five diseases - haemorrhagic septicaemia (HS), Peste des Petits Ruminants (PPR), black quarter (BQ), enterotoxaemia (ET) and Newcastle disease (ND) - were identified as priority diseases for poor livestock keepers. In absence of precise data/estimates on the extent of economic losses caused by different diseases, the selection of these diseases was done in a brainstorming session comprising representatives of PPLPI, CALPI, AHD, selected professional veterinarians and epidemiologists and NGO representatives.

The scope and mandate of this exercise was to evolve 'Action Plans' to control the identified diseases in AP. Keeping this in mind, a focused epidemiological analysis of the retrospective seven-year (1998 to 2004) disease outbreak data of AP was attempted to delineate the long-term trends of these diseases. In addition, collateral information on number of outbreaks, attacks and deaths and villages affected, weather parameters, migration profiles, livestock density, infectivity and ecological aspects of the associated pathogens was reviewed to assess their impact on the long term disease trends. This was done with a view to understand specific temporal and spatial parameters associated with the disease trends in the livestock population and their usefulness in evolving control strategies and action plans.

Based on the analysis and general epidemiological considerations, a three-pronged approach to disease control is recommended, which involves,

1. Massive annual vaccination in the top ten 'high-risk' districts in one-go at the epidemiologically best time for 3 to 5 years (or longer). This is ideal for PPR, HS, BQ and ET but not for ND.
2. Restricted vaccination in previous outbreak locations and post outbreak 'ring vaccination' in villages / Mandals reporting fresh outbreaks in 'low-risk' districts. Areas without previous history of 'selected diseases' outbreaks to remain unvaccinated.
3. No-vaccination strategy in districts which have either very low incidence or not reported disease outbreaks at all in the past to allow 'lurking' disease if any, to reappear. Limited vaccination can be initiated as and when outbreaks occur.

In this context it is recommended to provide additional training to the village women already trained under the Development of Women and Children in Rural Areas (DWACRA) program. It is recommended that the department should train one woman in every village for poultry vaccination, along with providing them access to poultry vaccines.

4. Summary of Recommendations

Extension Support and Training of Farmers

1. Launch through the DAH, APLDA/VLDA, Cooperatives, and NGOs in the region a capacity building and empowerment programme for livestock farmers through Village Based Training
2. GoAP should structure a livestock extension cell to promote decentralised, independent, village-based farmer to farmer livestock extension networks, outside of the Government, involving skilled farmers in the village, women's self help groups, Gopalamitras and grass root level local NGOs.
3. Mobilise grass root level local NGOs to build training teams and organise VBTs and skill transfers in all villages / Panchayats falling within their areas of operation and to generate large numbers of skilled farmers to act as the extension constituency for the village and link them to the government departments and rural financial institutions for networking through Mandal Veterinary Officers and Gopalamitras.
4. Create in every village at least one skilled *female animal health worker* (FAHW) exclusively committed to vaccination of small ruminants and poultry; and provide them constant access through local trade to poultry / small ruminant vaccines. These trained FAHWs will door-deliver timely vaccinations for small ruminants and poultry in their respective villages as paid inputs.

5. Train and encourage sheep/goat owners to stall feed small ruminants and provide them a package of assistance for stall feeding like: financial support for animal shelters, feeding mangers, chaff cutters, biogas generators and door delivery of animal health services.

Poor and Marginal Areas (tribal groups, dalits, etc)

1. Certain identifiable groups (such as tribal households, Dalits, etc) are extremely poor and their livelihoods barely allow them to manage food and subsistence. They have no elasticity for experimenting with new practices, however good they are in the long term. Special support packages for helping them to grow out of their subsistence livelihood system are essential to help them become productive livestock farmers.
2. A village-based livestock service delivery mechanism, community-driven but initially paid for by public funds, would be the first step in any development effort: timely availability of vaccinations, minor veterinary services will reduce production losses, drastically cut down mortality of livestock, increase output, protect farmer investments and will help to appreciably increase household incomes.
3. A massive campaign involving grass root level local NGOs to launch capacity building and empowerment of the village communities will act as the harbinger of change and technology adoption and to establish the foundation for a farmer to farmer livestock extension mechanism, village-based, independent and outside of the government.
4. As many of the minor veterinary services such as the vaccination of day old chicks and timely protection against poultry diseases are inaccessible to the poorest groups (specially in marginal areas), several rounds of vaccination of fowls during the year can be possible only if such skills are available among farmers themselves. It would therefore be essential to impart skill trainings to farmers to promote self-help and self-reliance for individual and community benefit.

Feed and Fodder/Livestock Product Marketing

1. 'Access to remunerative markets for livestock products' and 'feed and fodder availability' are among the most important issues on the minds of farmers. Given that the scope of current initiative was more on animal health and breeding services, this issue could not be explored in detail. There is, however, a need to examine, more closely, issues in marketing of livestock products and feed and fodder availability and it is recommended that Government of Andhra Pradesh initiates appropriate measures to understand farmer concerns in this respect and undertakes necessary actions to address these.

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