

Volume 2

Para-veterinary Training Programmes in Andhra Pradesh  
Programmes, Curricula & Evaluation

Volume 1

**Assessment and Reflections on Livestock Service Delivery Systems in Andhra Pradesh**  
Presents the experiences from an initiative aimed at developing a widely owned reform action plan for livestock service delivery taken up in Andhra Pradesh through a multi-stakeholder, multi-tier, multi-regional consultative process.

With a view to extend livestock services to as wide areas as possible, the Andhra Pradesh state promoted delivery of animal health and breeding services through Para-veterinarians and Para-vet workers in a big way. This document provides an overview of the initiative taken up by CALPI, (Capitalisation of Livestock Programme Experiences India), a programme of the Swiss Agency for Development and Cooperation and the Intercooperation, the South Asia Hub of the Pro-Poor Livestock Policy Initiative (PPLPI) of the Food and Agriculture Organisation (FAO) and the Department of Animal Husbandry, Government of Andhra Pradesh to improve the training and performance of the Para-veterinarians and Para-veterinary workers in AP. The document presents a listing of all organizations providing such training, an assessment of the deficiencies and gaps in their training programmes and suggestions for improvement.

Volume 3

**Para-veterinarians and Animal Health Workers in Andhra Pradesh**  
Presents the profile of Para-veterinarians and the Animal Health Workers in Andhra Pradesh, their placement, service delivery, supplies, support, supervision, over reach beyond the scope of their training and suggestions for improvement.

The widespread consultations taken up under this initiative enabled the stakeholders to gain a better understanding of their needs in service delivery. They also enabled them to make informed decisions to widen the scope of the consultations and research in to newer topics as presented in volumes 1 to 5.

Volume 4

**Mainstreaming Minor Veterinary Services in Andhra Pradesh**  
Presents a definition of the Minor Veterinary Services recommended by the Expert Group to the Government of AP as required under the Veterinary Council of India Act 1984 and the participatory process gone through in arriving at the recommendations.

Volume 5

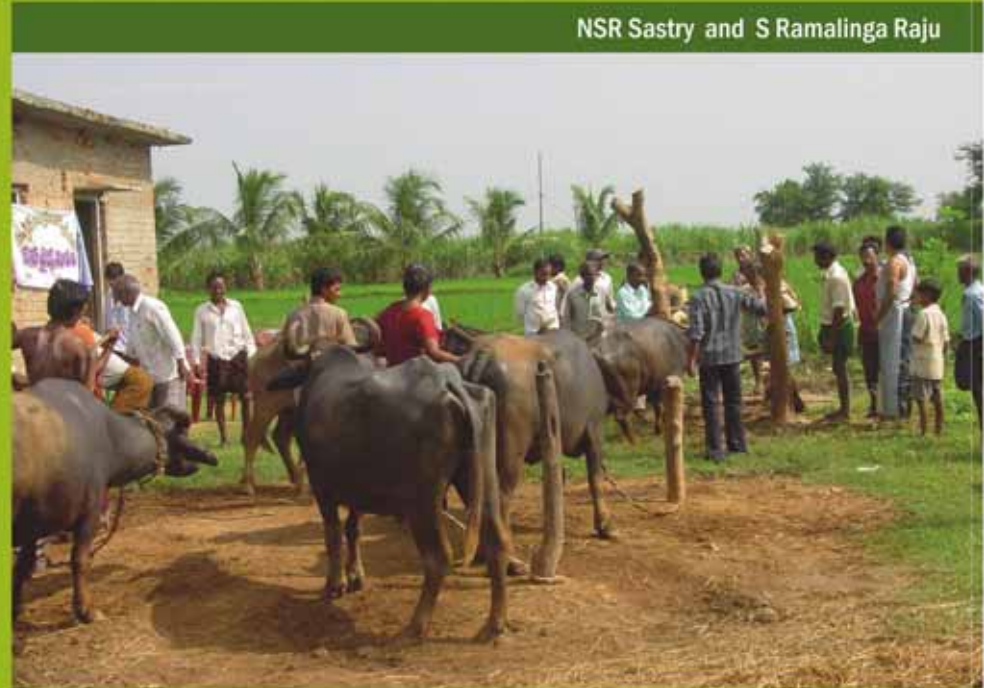
**Control strategy and Action Plan for Animal Diseases of Economic Importance in Andhra Pradesh**  
Covers the livestock demography, the Veterinary and Animal Husbandry infrastructures, disease investigation and reporting system, long term trends and profiles of the identified five diseases and the vaccinations and control strategy.

A separate document on each of these is presented as part of this compendium. The participatory process in which the state department of AH and the other stakeholders played a central role, improved the acceptability and implementability of the reforms proposed. As a result, the state department of Animal Husbandry has accepted and implemented many of the recommendations emerged from this initiative. With refinements, the process could demonstrate an effective model for service reforms elsewhere.

# Para-veterinary Training Programmes in Andhra Pradesh

## Programmes, Curricula & Evaluation

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Pro-Poor Livestock Policy Initiative (PPLPI),  
CALPI (Capitalisation of Livestock Programme  
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#### Editing

Team Lingua  
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Email: [info@teamlingua.com](mailto:info@teamlingua.com)

#### Publisher

Intercooperation in India,  
Hyderabad

#### Design, Layout and Printing

The Idea Workshop  
[www.ideaworkshop.info](http://www.ideaworkshop.info)

#### Citation

CALPI (2008) : Para-veterinary Training  
Programmes in Andhra Pradesh  
CALPI Programme Series 5  
Intercooperation Delegation  
Hyderabad, India

The use and sharing of information contained in this document is encouraged with due acknowledgement to the source.

# Para-veterinary Training Programmes in Andhra Pradesh

## Programmes, Curricula & Evaluation





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## Abbreviations

AHC	Animal Health Centre
AH & VS	Animal Husbandry & Veterinary Services Department
AI	Artificial Insemination
AP	Andhra Pradesh
APLDA	Andhra Pradesh Livestock Development Agency
BQ	<i>Black Quarter</i>
CALPI	Capitalisation of Livestock Programme Experiences India
DIS	Disease Information System
DAH	Department of Animal Husbandry
DPU	District Project Unit
DVO	District Veterinary Officer
ET	<i>Enterotoxaemia</i>
FAO	Food & Agriculture Organization of the United Nations
GDP	Gross Domestic Product
HS	<i>Hemorrhagic Septicemia</i>
IC	Intercooperation
ICAR	Indian Council of Agricultural Research
IVRI	Indian Veterinary Research Institute
PD_ADMAS	Project Directorate on Animal Disease Monitoring and Surveillance
PPR	<i>Peste des Petits Ruminants</i>
PPLPI	Pro-Poor Livestock Policy Initiative
NGO	Non-Governmental Organization
RD	<i>Ranikhet Disease</i>
SDC	Swiss Agency for Development and Cooperation
SMILDA	State Management Institute for Livestock Development, Andhra Pradesh
VBRI	Veterinary Biologicals Research Institute

### Disclaimer

The opinions expressed in this publication are solely those of the author(s) and do not constitute in any way the official position of the Food and Agriculture Organization of the United Nations (FAO), the Swiss Agency for Development and Cooperation (SDC), the Intercooperation (IC) and the Government of Andhra Pradesh.

### Keywords

Animal Health Workers, Para-Veterinary Workers, Livestock Service Delivery, Regulatory Framework, Field Livestock Services

Date of publication: March 2008

## Foreword

The Swiss Agency for Development and Cooperation (SDC) and the Intercooperation (IC) have been actively involved in livestock-based livelihoods and natural resource management in India for many decades. CALPI (Capitalisation of Livestock Programme Experiences India), a programme of the SDC and IC, capitalises on these vast experiences, competencies and partnerships to positively influence the economic, administrative, legal and policy frame conditions affecting the poor livestock keepers. One of the thrust areas of CALPI, the Livestock Service Delivery Systems, facilitates the establishment of a need-based livestock service delivery system for the benefit of small livestock holders.

The “Reforms in Livestock Service Delivery Systems –Experiences from a Participatory Process in Andhra Pradesh” formed one of the many initiatives taken up under this thrust area. This initiative was jointly implemented by CALPI, the South Asia Hub of the Pro-poor Livestock Policy Initiative (PPLPI) of FAO and the Government of Andhra Pradesh Animal Husbandry Department. The main aim of the initiative was to: (i) create a favourable environment for facilitating policy and structural adjustments in livestock service delivery, and (ii) develop a widely owned reform action plan for service delivery in the state. The multi-stakeholder participatory process enabled the stakeholders to identify the weaknesses and deficiencies of the prevailing service delivery systems and their unmet service needs. It also led to a further review, reflection and widening of the consultative process extending it to more villages and districts in the coastal and the tribal areas, members of the District Sheep Breeder’s Cooperative, Tribal Communities, their Networks and the Traditional Healers.

The initiative was guided by a Steering Committee (SC) which comprised of all the key stakeholder categories and was chaired by the Principal Secretary/Special Chief Secretary of the Departments of Animal Husbandry, Dairy Development and Fisheries of the State Government. In addition, a Common Task Force (TF) oversaw the meetings, workshops, consultations, studies and documentation. By remaining active at the centre of all multi-level consultative processes, the Government took ownership of the decisions taken and ensured better acceptability and implementability of the reforms proposed.

In the fast changing livestock production and trade environment, reforms of the type, particularly in livestock service delivery where the Government still continues to play a key role, are required to be taken up on a continuing basis. The process has also enabled the State Government to issue a Govt. Order defining minor veterinary services together with the skills and qualifications required to perform them, as required under the Veterinary Council of India (VCI) Act. In many respects, the participatory processes in which the Government played the key facilitating and steering role, is worth emulating by other State Governments in India as also other developing countries.

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## Message

March 26, 2008

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The 'Reforms in Livestock Service Delivery Systems - Experiences from a Participatory Process in Andhra Pradesh' is the outcome of a partnership amongst the Government of Andhra Pradesh Animal Husbandry Department, CALPI (Capitalisation of Livestock Programme Experiences India) - a programme of the Swiss Agency for Development and Cooperation and the Intercooperation and the South-Asia hub of the Pro-poor Livestock Policy Initiative (PPLPI) of FAO. The main aim of the initiative was to develop a widely owned reform action plan for livestock service delivery in the state.

The initiative was unique in many respects. Firstly, its open and flexible approach, inclusive frame, periodic review, reflection and adjustments and well-founded evidence base through research. Secondly, its multi-stakeholder, multi-regional, multi-tier consultative process participated by all key categories of stakeholders. It involved Participatory Rapid Appraisals (PRAs), meetings, workshops as well as individual consultations with farmers, farmer organisations, NGOs, veterinary students, village, district and state level functionaries of the government AH Department; the State Veterinary Council, planners and policy makers and an expert group. Thirdly, the Government played a central, active facilitating role at the grass roots and at the district levels and a guiding and steering role through the steering committee at the state level.

In the consultative process, all categories of stakeholders actively participated from the beginning. Such participation, especially of the Government functionaries, improved the ownership, acceptability and implementability of the reforms and provided a unique and interesting experience to all participants. As a result, most of the recommendations like improved attention to preventive health care by the Government, enhanced coverage of animals under the department's preventive health care programmes, enhanced production of vaccines especially for small ruminants, coverage of more animals of the poor under insurance, expansion of the para-veterinary programmes, etc. could be accepted and implemented. Similarly, the overall budgetary allocation for Animal Husbandry activities of the department has been expanded considerably as also is the capacity development activities for all categories of staff. In this respect, an open, flexible and participatory approach followed in the reforms process formed the key to its success and is worth emulating by other state Governments in India as also by other developing countries.

**Priyadarshi Dash**



## Preface

In the recent years there has been an increasing recognition of the role played by Para-professionals and Community Based Animal Health Workers (CBAHWs) in improving the availability of livestock services in poor and marginal areas and in reducing the overall cost of service delivery in developing countries. Due to their generally positive role, a number of livestock development projects now recognise para-professionals and AHWs as useful allies in achieving project objectives.

Over the last several years, Andhra Pradesh has also experimented with utilisation of CBAHWs for providing health and breeding services to poor farmers. Nearly all organisations engaged in livestock service delivery, both governmental and non-governmental, have employed AHWs for delivering services. While their contribution has been generally appreciated by the farmers, there are also concerns about their financial sustainability and the poor supervision and support systems leading to AHWs extending their brief and delivering services that they are not trained for.

This study was initiated to examine some of those concerns and to understand multiple perspectives on how CBAHWs could be better integrated into mainstream livestock service delivery systems. The study was undertaken under the auspices of a larger project to reflect and assess the effectiveness of livestock service delivery systems in Andhra Pradesh. The study was organised in two phases. The focus of the first phase was to create a comprehensive listing of all organisations providing training to para-veterinarians and AHWs in Andhra Pradesh, and to examine their curriculum and human and physical resources that have a bearing on the overall quality and the relevance of the training programs. The second phase then examined the ground situations of service delivery by trained AHWs based on a survey of rural households, AHWs, government officials, training institutions and local concerned persons. This report presents the results of the first phase of the study.

During the course of this study, we received immense cooperation and help from several individuals, professional experts, NGO's and Governmental institutions in the preparation of this document. We sincerely express our deepest gratitude to all of them.

Prof. Vinod Ahuja, Associate Professor, IIM Ahmedabad and Team Leader (PPLPI, South Asia), Dr. Meeta Punjabi, Consultant, PPLPI (South Asia), Dr. A.K. Joseph, Senior Program Coordinator and Mr. Padmakumar, Program Coordinator, CALPI, Dr. R.Mohan Rao – former Director, Dr. L. Mohan – present Director, Dr. Piedy Sreeramulu, Additional Director, of the State Animal Husbandry Department along with many of their very helpful field officers; Dr. Nissar Hussein, CEO, APLDA; and Ms. Rebecca Katticaren, Senior Programme Coordinator NRMPA (Natural Resource Management Program Andhra Pradesh) made valuable personal contributions to the successful completion of this study and report. We are indebted to them for their kindness.

If we could succeed in carrying out the most crucial and central aspect of this study, namely, a series of extensive field surveys, the credit goes to several nice people for their help and cooperation:

- a) The Joint Directors (AH) of Anantapur, East Godavari, Mahbubnagar, Nizamabad and Visakhapatnam districts and their field staff;
- b) Chiefs and their colleagues of NGOs – Dr. Sagari Ramadas of ANTHRA, Dr. G S Reddy and Mr. Sivarudrappa of BAIF (Bharat Agro Industries Foundation), Dr. B. Gurava Reddy of JK Trust and Sri Muniratnam Naidu garu of Ryalaseema Seva Samithi;

- c) In-charge persons of the Regional and the District Animal Husbandry Training Centres, Veterinary Polytechnic Training Centre of the State Agricultural University and Dr. B. Anantam, Joint Director SMILDA (State Management Institute for Livestock Development Andhra Pradesh) and his team of officers;
- d) The interviewed farmers of the above districts;
- e) The interviewed Animal Health Workers of the AH Dept and various NGOs; and
- f) The interviewed Local - concerned officers, veterinary assistant surgeons and Joint Veterinary Officers/Veterinary Assistants/Stockmen of the AH Department; field in-charges of NGOs; and concerned non-officials like elected representatives of Panchayats (grassroots level institution of local governance), Area Livestock Development Agencies/Breeders' Associations; and other concerned village leaders.

Finally, we are grateful to FAO (PPLPI) and CALPI for giving us the opportunity to explore the topic in detail. The financial and technical support of CALPI, PPLPI, the APLDA and the Animal Husbandry Department, Government of Andhra Pradesh, is gratefully acknowledged.

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## Executive Summary

This report is a part of the project to understand and analyse the performance of the para-veterinarians and the Animal Health Workers in Andhra Pradesh with a view to enhance their performance through restructuring the programme. In this context, the objectives of the current report is “to develop a clear understanding on the training provided to para-veterinarians and para-vet workers by various agencies including the deficiencies and gaps in their training, if any.”

For the purposes of this study, a para-worker or a Village-based Animal Health Worker (AHW) is defined as a community based or private village level worker trained to liaise between livestock owners and the veterinarians, besides him/herself being able to provide AI, basic veterinary and preventive health services to the livestock in the village itself.

In order to achieve the above stated objectives, a comprehensive listing of all organisations providing training to paravets in all sectors in Andhra Pradesh was prepared. These organisations were then mailed a specially developed questionnaire seeking information on various aspects of their training programmes. Approximately 65% (21 out of 33) responded to the questionnaire. The information so collected was further supplemented by personal interviews and visits to some institutions as well as by obtaining relevant documents from other sources such as the state AHD, etc.

### 1. The Training Institutions

The Department of Animal Husbandry, Government of Andhra Pradesh (DAHD) is the main paravet training agency in the state. It has a systematic approach at planning, curriculum building and the execution of paravet training programmes to meet its own requirements and of those of other government and bilateral development projects in the state. Out of a sample of 26 training programmes included in this study, 23 were from governmental and quasi-governmental organisations. The remaining three programmes were organised by NGOs—RAAS, ANTHRA, and JK Trust. These NGOs generally have good training

programmes tailored to meet their specific needs. Given below are some of the salient features of AHW training organisations in Andhra Pradesh:

- a) Almost all of these government organisations consider ‘Livestock Development’ and/or HRD as the main thrust of their activity.
- b) In general, training is open to candidates from all socio-economic backgrounds, though those belonging to weaker and poorer sections of the rural areas were the main trainees.
- c) The programmes are generally not targeted towards providing services to any specific agro-climatic areas or socio-economic target groups, though some were organised especially for women, tribal and marginalised communities and drought-prone areas. Such programmes are generally organised by voluntary organisations.
- d) Need for the service, the determined mandate and, in a few cases, the demand by farmers are the main reasons for the organisations undertaking paravet training.
- e) In assessing the usefulness of their programmes, about 1/3rd of the organisations felt that their paravet training efforts have been very useful to the farmers, while another 1/3rd felt the same to be useful.

From the information available to us, it appears that the training organisations in Andhra Pradesh are reasonably well-endowed to organise AHW trainings, though there is always a scope for improvement. Laboratories and sheds for conducting practical trainings with live animals seem to be the most important components to be improved uniformly at all places. The survey covered the following aspects of paravet training:

1. Overview of the paravet training programmes in Andhra Pradesh
2. Description of the main paravet training programmes
3. Assessment of the programmes
4. Service delivery by the paravets

5. Suggestions for improvement of the training programmes

## 2. Overview of the courses offered

Out of the nearly 40 offered courses by sample organisations –

- a) two courses were of one or two years duration for pre-service candidates,
- b) six courses were of one to four months duration for community/village based service providers who also act as the liaison between farmers and veterinarians, and
- c) the rest were of one to seven days duration that were either refresher courses for those under category 'b)' above or for other specific purposes, e.g.: Velugu Project.

The courses in category a) mentioned above are long-term courses, which are for training government paravets as future salaried employees of the department. The main objectives of this study were to understand the training programmes for animal health workers providing services in the villages. Thus, long-term courses were not included in this study. The key programmes covered in this study included:

1. Gopal Mitra programme focusing on cattle breeding through doorstep AI, fodder development and calf-rearing.
2. Sangh Mitra programme for veterinary first aid, preventive vaccination and livestock extension. These are for working in the Velugu Programme – AP Rural Livelihoods Project.
3. Sheep Extension Workers in Nalgonda district (with the help of ISNRMPA,



*An occasion to celebrate – inauguration of a trevis in a village*

Hyderabad) specialising in sheep development, rotation of breeding rams, and vaccination.

4. Woman Poultry Health Worker specialising in marketing network and vaccination. These are for working in the Velugu Programme – AP Rural Livelihoods Project. However, they are practically not working now. The Study Team could not locate even a single person working under this category; The AHD personnel informed us that they are not able to work now.
5. AI Technicians of the NGO BAIF in Mahabubnagar and Ananthapur districts
6. AI Technicians of the NGO JK Trust – in Anantapur district
7. Women Village Health Workers of the NGO Rayalaseema Sewa Samithi (RASS), working only in a limited area in two Mandals of Chittoor district amongst women SHGs as a sort of employees of the NGO RASS.
8. Women Village Health Workers of the NGO Girijana Deepika, who are trained by the NGO ANTHRA, Hyderabad. Girijana Deepika workers work in a tribal area of the Rampachodavaram Mandal of East Godavari district. Some information on their performance could be obtained from the farmers of the region and on their training from the NGO ANTHRA.
9. The Gopal Mitra programme promoted by the APLDA is the most widely taught course for paravet worker training in AP. This course is also used by some NGOs, development projects and dairy cooperatives, either in full or in part, to upgrade skills of their own village-based workers. For example, the Gopal programme of the JK Trust and the Velugu programme organised for the World Bank development projects, are based on the Gopal Mitra programme. However, the NGO ANTHRA develops specific courses to meet their actual requirements.

## 3. Training Trends

**Admission Criteria:** The minimum qualification for admission to the Gopal

Mitra and allied courses is 10th class pass. However in practice, candidates with lower and/or higher than required qualification (some even post-graduates) are attending the courses. For the Woman Poultry Extension Workers training programme, the minimum qualification is set at 7<sup>th</sup> class.

*Training intensity:* At least one category 'b' course is organised each year by the designated RAHTCs. Otherwise, the state organisations conduct three training programmes on an average every year. Out of the 454 trainees per year, only about 9% were females. The NGO ANTHRA, conducted six training courses where the number of trainees were 123, 40% of which were women, while all the 12 trainees in the one time paravet training of NGO RASS were women.

*Coverage:* In case of the governmental organisations (11), the coverage was the territory (state/district/block/village) for which they were mandated.

*Training Cost:* The total training cost of the four-month Gopal Mitra training programme was around Rs.19,500. ANTHRA'S costs varied between Rs.120 and Rs.300 per trainee per day depending upon the lodging and boarding costs. ANTHRA uses a graded system of charging for the training programmes depending upon the ability and willingness to pay. The duration of their programmes vary between 20 and 35 days.

*Trainers:* Most training organisations generally utilise in-house trainers, almost invariably veterinarians. Out of the 26 organisations/programmes considered for this study, 22 used in-house trainers whereas six organisations hired consultants.

*Certification:* For all the courses considered in this study, only a Participation Certificate is given. No certificate is given for most of the short duration (1-7 days) courses.

#### **4. Description of the Main Training Programmes**

Gopal Mitra is a four month long, most common modular (blocks) course, with modified versions for the up-gradation of skills of previously trained workers. The training includes reproduction, AI, common

diseases, vaccination, first aid, fodder production and feeding and management of animals. After training, the candidates are placed at a Gopal Mitra Centre, usually near their own village with a demarcated area of operation in the surrounding group of villages. Since the inception of the programme in 2000, the contents of the course have been modified periodically, learning from the strengths and weaknesses of the previous year, both in planning and actual organisation of the programmes.

Detailed curricula of the Gopal Mitra and other medium duration training programmes – Sanga Mitra, Sheep extension workers, woman poultry health workers, Gopal programme, Velugu programme, etc. are presented in the report.

#### **5. Assessment of the courses**

In assessing the courses, the official curriculum and the actual implementation of the programmes were compared. Results indicate that, by and large the actual training schedule goes on as planned.

In terms of the content of the course work, the emphasis seems to be on large ruminants (AI), and to some extent on small ruminants, much less on poultry and negligible on pigs. The reason for this is that the Gopal Mitra, the most widespread and common course focuses on AI in cattle and buffaloes. The NGOs do teach 'other' topics like gender issues, evaluation and herbal medicines. Nevertheless, AI is the most popular subject, while livestock management, health care, extension and feed and fodder rank a distant second.

Regarding the supervision and follow-up of the activities of the trained paravets, the main components include stock identification, supply of materials such as semen, liquid nitrogen and AI kit, evaluation of the para-vet work and providing technical backup to the paravets. In the authors' view, the supervision and evaluation of para-vet work needs to be improved significantly.

#### **6. Service Delivery by Paravets (Trainers' Views)**

*The Location of Service Delivery:* Most organisations reported that the para-vet delivers services both at the farmers'

doorsteps and also at a central meeting point. Out of the 23 organisations that responded to this question, 14 reported providing the services at both the locations, while 7 organisations provided services only at the doorsteps and two reported that the service delivery is exclusively at a fixed central point. Out of the 21 government organisations, three operated in peri-urban areas, while eight organisations each covered backward and low potential areas. The NGOs reported providing the services mostly in dry and disadvantaged areas. It is evident from the above discussion that large ruminants are the most served species, followed by small ruminants, poultry and pigs.

*Cost Recovery:* Not much information could be collected on user charges paid. Regarding AI, the NGOs BAIF and JKT charges for providing AI service in the areas of their operation although their areas of operation are relatively small. Apart from them, none of the NGOs charge user fee for other services. Over and above this, the NGOs BAIF, RASS and JKT pay their para-workers a monthly allowance of Rs.1,500 to 2,500 and some part of the user charges. The Gopal Mitras, on the other hand, collect Rs.40 to 50 (average Rs.35) from farmers when the services are provided at the doorsteps and Rs.20 when done at a central place. Veterinary first aid at the doorsteps may yield around Rs.20. Out of the user charges collected for AI, Rs.20 is paid to APLDA towards the cost of the materials. It appears that the amounts mentioned above are as and when paid by someone. The actual payment could appear

*Most often, it is Animal Health Workers who reach out to provide vaccination to the herds on migration.*



to be moderate in rich delta districts, but the payment for these services could be very difficult by the poor farmers of disadvantaged communities, especially the small ruminant keepers.

**Problems with service delivery:** Most of the para-vets (17 out of 23) were found using antibiotics, which is beyond their brief. The other undesirable acts observed were - carrying out surgery (3 out of 23), wrong doses (9 out of 23), wrong techniques (9 out of 23), and wrong care of equipment (7 out of 23).

## **7. Suggestions for improving the training programmes**

Suggestions for improving the delivery of these services were also solicited. The suggestions include:

- a) provision of an adequate budget, staff, infrastructure and transportation facilities at the training institution,
- b) advance planning of the actual conduct of the given training programmes and educational tours,
- c) the selection and intimation of trainees should be done well in advance, and
- d) a timely sanction and prompt payment of the travel costs and funds for providing refreshments to the trainees and honorarium to the trainers.

From the many suggestions coming from the actual organisers of training paravet programmes, it looks that once the courses are decided at the higher levels, the organisers are somewhat left to fend for themselves to their training tasks. This calls for greater monitoring and guidance by the higher authorities (SMILDA) of the paravet training programme. Supervision, monitoring and evaluation of the performance of the newly trained field workers are also some of the aspects that need vast improvements.

Thus, from the discussions with field staff and the senior officials of the AHD, it appears that, at present, the Gopal Mitra is 'no one's baby'. They have difficulties in earning their living, and are being taken to task for exceeding their brief. No institution, including ALDA, comes to their rescue in difficult professional situations, etc.



## 1. INTRODUCTION

This report is part of a project to understand and analyse the performance of the paravets in Andhra Pradesh. In this context, the objectives of the current assignment are “to develop a clear understanding of the trainings provided to para-veterinarians and animal health workers by various agencies and identify the deficiencies and gaps in training, if any.”

This report is organised in the following order – information on the data collection processes for the study, description of the organisations providing paravets training in Andhra Pradesh, overview of the training programmes, the curricula for the main paravet training programmes, service delivery by the paravets, suggestions for improvement of these courses as identified by the organisations and based on the information available from this study, the conclusions drawn with some insights into how these training programmes can be improved?

## 2. DATA COLLECTION

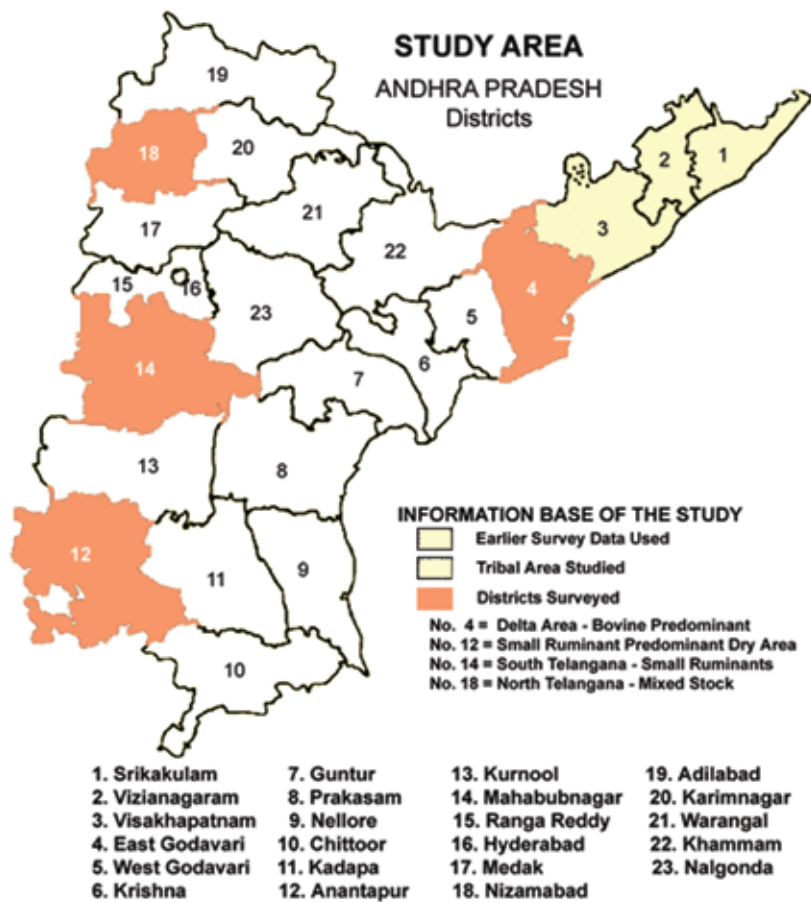
To collect the data for this analysis, all the organisations concerned with animal

husbandry and veterinary services in the various districts of Andhra Pradesh (see the Map given below) were contacted and inquiries were made on the various training programmes carried out by them and the other organisations.

From such enquiries, a detailed list of the organisations conducting paravet training in some form or the other was prepared. The State Management Institute for Livestock Development in AP (SMILDA), Hyderabad is the central HRD wing of the State AH Department. The organisations involved in paravet training programme in Andhra Pradesh that have responded are as follows:

- 7 of the 8 Regional AH Training Centres,
- 10 of the 22 District AH Training Centres,
- 3 of the 4 NGOs, and
- the lone Vet Polytechnic of the AP Agricultural University.

A detailed questionnaire was prepared, field-tested and finalised after discussion amongst the members of the study team. A copy of the Questionnaire was sent to the heads of all the training organisations



requesting them to provide particulars of their respective organisations. Wherever necessary, personal visits were made to obtain the necessary detailed information and collect relevant documents.

Out of the 38 training organisations of the State (35 of them training community based Health Workers) to which the questionnaires were sent, 21 organisations (71% of all those training community based Health Workers) responded. These included 17 of the 29 organisations of the state AH Department (Government), one Agricultural University (Quasi-Government), and four NGOs.

Also, the Regional Animal Husbandry Training Centre (RAHTC) at Visakhapatnam, the oldest and largest in the state, sent in six responses - one for each type of paravet course conducted by the organisation. This raises the number of responses to 26 (79% responses).

Although the total number of responses received is 26, the number of observations

cited in the following discussions may exceed that number because some questions are amenable to choosing more than one option. The received responses cover all of the agro-climatic regions of the state and all of the possible levels and types of paravet trainings, which give a rather comprehensive idea on the entire state of Andhra Pradesh.



*De-worming of a buffalo calf in a health camp*



### 3. DESCRIPTION OF THE ORGANISATION

Except the three non-governmental organisations, all the training centres are with the government- the state Animal Husbandry Department or the state Agricultural University. The various District Animal Husbandry Training Centres are generally located at the District Veterinary Polyclinic under the charge of the Deputy Director (Polyclinic) and are primarily concerned with practical training (around one month) of Gopal Mitras or refresher training (two to five days). The Regional Animal Husbandry Training Centres are the actual organisers of the paravet worker courses.

The State Management Institute for Livestock Development (SMILDA), which is the Apex HRD organisation of the Animal Husbandry Department (AHD), but is not directly involved in paravet training. But it focuses on developing curricula and strategies for providing basic and refresher training programmes for paravets (community based, private liaison between farmers and vets). This is achieved by setting up committees of experienced officers of the AHD and the consultants for each training programme.

On an average, the organisations covered in the study have been functioning for about 10 years (range 2 to 29 years). Most of them have trainings as part of their mandate since 2000 when the Gopal Mitra programme was initiated by the AP Livestock Development Agency (APLDA) under the National Project for Cattle & Buffalo Breeding of the Government of India.

#### 3.1 Main Thrust

Almost all of the governmental organisations (20) consider 'Livestock Development' and/or HRD as the main thrust of their activity, while the NGOs consider 'Rural Development' (2) and 'Women Empowerment' (2), of the marginalised communities in the areas that are poor in resources, as their main activity; livestock services being incidental to that.

#### 3.2 Social Background of the Trainees

In general, paravet training is open to

all candidates, with any socio-economic background, though those belonging to the weaker and poorer sections of the rural areas were the main (72%) focus. A few programmes (4-5%) were especially organised for tribal youth and for other beneficiary-oriented developmental projects.

#### 3.3 Area Specificity

The training programmes are mostly open for all agro-climatic areas (84%), though some (15%) were organised especially for women and the tribal and marginalised communities and in drought-prone areas, especially in the case of voluntary organisations.

#### 3.4 Purpose of Paravet Training

The need for the services (12-35%), mandate (9-26%) and, in some cases (3-9%), demand by the farmers were the main reasons for undertaking paravet training.

#### 3.5 Organisations' Perceived Usefulness

11-31% of the organisations felt that their paravet training efforts have been very useful to the farmers, while 10-29% felt the same to be useful. Others did not respond to this question.

#### 3.6 Training Infrastructure

65% of the organisations have the basic infrastructure like classrooms, A-V aids, models, facilities and animals for conducting practical training. ANTHRA and RASS, the NGOs, have an interest in creating means like Role-play, Drama, and Puppetry.

### 4. OVERVIEW OF THE COURSES OFFERED

The details like the courses offered, duration of the courses, admission criteria, total turnout, details of the trainers and trainees, etc. are discussed in this section.

#### 4.1 Types of Courses

A comparison of the official list of various paravet courses offered by government organisations with such a list as mentioned by the organisations in their responses indicated that there is a good match of the two. This indicates that what is planned

is also executed. The courses are good in number and variety and should be able to meet field requirements of most types. These courses can be categorised according to the duration of the training programmes as long, medium and short duration ones.

#### **4.1.1 Long-duration courses for paravet service of the AHD:**

The RAHTCs are concerned with the basic paravet training which comprises of the one year Pre-Service Training for Veterinary Assistants, who, though are basically paravets, are future salaried employees of the department. The same is the case with those passing the two year diploma course of the AH Polytechnic of the agricultural university. Both provide a Course Certificate to the successful candidates.

#### **4.1.2 Medium term courses:**

Most of the programmes fall under this category:

*Gopal Mitra programme* focusing on cattle breeding through doorsteps AI, fodder development, and calf rearing.

*Sangha Mitra programme* for veterinary first aid, preventive vaccination and livestock extension. These are to work in the Velugu Programs under the AP Rural Livelihoods Project. However, they are practically not working now.

*Sheep Extension Worker* in Nalgonda district (with the help of ISNRMPA, Hyderabad) specialising in sheep development, rotation of breeding rams, and vaccination.

*Women Poultry Health Workers* specialising in marketing network and vaccinations. These have to work in the Velugu Programs under the AP Rural Livelihoods Project. However, they are practically not working now. The Study Team could not locate even a single person; though an AHD personnel informed that they are able to work now.

*AI Technicians* of the NGO BAIF in Mahabubnagar and Ananthapur districts and that of the NGO JK Trust - in Anantapur district.

*Women Village Health Workers* of the NGO Rayalaseema Sewa Samithi (RASS): As per information obtained from the NGO, they are working amongst women SHGs only in a limited area of two Mandals of the



*Women health workers also joined the farmer's consultative groups*

Chittoor district as a sort of employees of the RASS.

Women Village Health Workers of the NGO Girijana Deepika were trained by the NGO ANTHRA, Hyderabad. They work in the tribal area of Rampachodavaram Mandal of the East Godavari district. Some information on their performance could be obtained from the farmers of the region and on their training from the NGO ANTHRA.

Apart from these, there are other mid-term courses organised by the NGOs, such as the Gopal programme of the JK Trust, Velugu programme of the World Bank development projects, etc., which are also organised along the lines of the Gopal Mitra.

Only a Participation Certificate is given to the trainees undergoing the above courses.

The Gopal Mitra programme developed by the APLDA is the most widely taught course for the paravet training in AP. This course is also used by some NGOs, developmental projects and dairy cooperatives either in full or in part to upgrade the skills of their own village based workers, e.g. Gopal programme of the JK Trust and the Velugu programme. However, the NGO ANTHRA develops tailor made courses to meet their requirements.

A comparison of the mid-duration paravet workers' courses is presented in *Table 1*.

#### **4.1.3 Short Term Courses:**

Apart from the long and medium term courses mentioned above, the DAHTC also

**Table 1: Mid-duration para-vet. training courses**

TYPE OF AHW	DURATION (DAYS)	CANDIDATES SELECTED BY	TRAINING COLLABORATION	CURRICULUM FOLLOWED
Gopal Mitra	120+15	ALDA & AHD officials	AHD; ALDA and District collector	Gopal Mitra Manual
Tribal Youth AHW	120	Mandal officer, Tribal Welfare Department	AHD & Tribal Welfare Dept	SMILDA curriculum (Gopal Mitra minus AI)
Sangh Mitra	45	District Water Management Agency	APRLP (AHD) DWMA	SMILDA curriculum
Sheep Ext. Worker	45	Breeders' Association, ISNRMPA	ISNRMPA, AHD	SMILDA Curriculum
ANTHRA's AHW	40	ANTHRA, NGOs	ANTHRA, NGOs	ANTHRA's (for other NGOs too)
BAIF AI Technician	180	Community + Organisation	BAIF	BAIF Model
JK Trust AI Technician	120	BAIF & Milk Union	Milk Union, JKT, AHD	Gopal Mitra Manual

organises a number of short term courses of 1-7 days duration for young farmers, women of self-help groups and field workers for the various projects with substantial livestock components, students, and workers of NGOs, etc.

#### 4.2 Admission criteria

The official admission criteria for Gopal Mitra is – a) He/she should be a local resident; b) He/she should have passed 10th class; c) He/she should be above 18 years of age; d) The selected candidate should invest or get a loan for a vehicle (for mobility).

Except for the RASS Health Worker and the Pre-service Veterinary Assistant, who have 12th Class pass as the admission criteria, all the other courses have Metric (10th class) as the minimum admission requirement (refer Table 1 above). Only the Women Poultry Extension Workers (7 day course) has Middle (7th class) schooling as the minimum educational qualification for admission.

Obviously, candidates with lower (in the beginning, when suitable candidates did not come forward!) and/or higher (Paid Secretaries of Dairy Coops and those in other business /vocations came forward to

capitalise on the Gopal Mitra programme!) than required qualification (some even graduates!) attended the courses. Even for the Women Poultry Extension Workers training programme, the minimum qualification is set as 7th class pass. The NGO RASS set up Intermediate as the minimum qualification for their 4 months course on “Women Village Veterinary Guides”, while ANTHRA has the minimum training criterion as ‘local women having an aptitude to work with animals’.

#### 4.3 Selection

AHD/APLDA has the main role in the actual selection of individual candidates for Gopal Mitra and Veterinary Assistant courses. The RASS, ANTHRA and BAIF do the selection of candidates by themselves, in conjunction with the HRD wings of the organisations that they serve (Table 1). For all other Project related courses, the Training Institution selects the candidates in collaboration with the stake holders – breeders associations/project managements/the concerned line departments etc.

#### 4.4 Curricula

Though the NGOs ANTHRA and BAIF have training programmes broadly similar to

the Gopal Mitra programme, they have their own course curricula. All other course programmes follow the SMILDA developed curriculum of the Gopal Mitra. This curriculum is also followed by the NGOs JKT and RASS. The Course curriculum/modules of Gopal Mitra training in practice now is as shown in *Table 2*.

#### 4.5 Training intensity

On an average, 14 batches were trained in three years or around 5 per year per organisation; the range being very wide, i.e. 1 to 71. The RAHTCs at Guntur (71, 24 per year), Visakhapatnam (64, 21 per year) and Kakinada (EG district, 26, 9 per year) are

**Table 2: Course Curricula/Modules of Gopal Mitra Training**

WEEK	DESCRIPTION OF THE SUBJECTS TAUGHT/MODULES	
1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Identification of the genitalia</li> <li>• Naked Eye</li> <li>• Blind folded</li> <li>• Palpation</li> </ul>	Simultaneous introduction of AI gun/rod into cervix/handling of Uterus/identification of OS by thumb to be practiced
2 -3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Examination of dummies per rectum</li> <li>• Examination of the external OS through speculum</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of the AI gun</li> <li>• Rectal palpation of OS/uterus/cervix</li> </ul>
4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Detection of heat</li> <li>• Handling of frozen semen</li> </ul>	<ul style="list-style-type: none"> <li>• Handling and Loading of the AI Gun</li> <li>• Seeing video cassettes on insemination techniques</li> </ul>
5-8 <sup>th</sup>	Taking the trainees to good identified field Centres (first 15 Days to one Centre and subsequent 15 days to another)	
9 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Doorstep Approach</li> <li>• Village-wise survey</li> </ul>	<ul style="list-style-type: none"> <li>• Enumerating breedable population, etc.</li> </ul>
10 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Approaching farmers</li> </ul>	<ul style="list-style-type: none"> <li>• Extension</li> </ul>
11 <sup>th</sup>	<ul style="list-style-type: none"> <li>• MIS</li> <li>• Administration</li> </ul>	<ul style="list-style-type: none"> <li>• Accountancy</li> </ul>
12 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Final reorientation</li> <li>• Evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Repacking (fine-tuning skills)</li> <li>• Summing up</li> </ul>
13-16 <sup>th</sup>	On-the -job training at the practicing area/ jurisdiction of the trainee (in the field)	
TOTAL DURATION = FOUR MONTHS (120 DAYS)		

The NGO ANTHRA's 8 basic modules of training programmes are of 5 days each and include:

- a) Indigenous knowledge systems and practices. Ethno-veterinary practices are a critical component at every stage,
- b) Linkages between Livestock, Livelihoods and Natural Resources and,
- c) Skills in extension communication like - i) Flash cards; ii) Flannel stories; iii) Role plays; iv) Theatre v) Puppetry.

the major training Centres with the highest intensity of training. As many as 1363 paravets of various categories were trained in 3 years (454 per year) out of which just 9% were females.

The NGO ANTHRA, conducted 6 training courses where the number of trainees were 123, 40% of which were women, while all the 12 trainees in the one time paravet training of NGO RASS were women. It may further be noted that the training programmes for Tribal AHWs, RASS, Sangh Mitra and Women Poultry

Extension Workers are for specific project works and are no longer carried out now.

#### 4.6 Training Cost

All the courses were free for the trainees, though they may meet their own lodging and boarding costs in non-project sponsored courses of the AHD (Gopal Mitra). In view of the importance of knowing the training costs involved, an attempt was made to estimate the cost of the Gopal Mitra training (4 months, 20 per batch) from budgetary information obtained from APLDA and RAHTCs at Visakhapatnam and Kakinada. These are presented in *Table 3*. This comes to a training cost of Rs.162.50 per day per trainee.

Similarly, the cost estimation from the

responses of training centres ranged from Rs.80.10 to Rs.106.50 as they did not consider the trainer and the infrastructure usage costs. The course duration during the inaugural year was six months and the training budget per trainee was Rs.74,000. After two years of experience, it was felt that a four month duration will suffice, but the budget needed an enhancement of up to Rs.99,000 per trainee, an annual increase of 25% in the cost of training.

In case of ANTHRA, the cost was on a graded basis; fee for each course being based on the 'ability to pay' of the organisation/trainees requesting the training. ANTHRA meets the rest of the costs from its own sources (*Table 4*). The comparative costs of programmes are given in *Table 5*.

**Table 3 : Cost of Training Gopal Mitra (in Indian rupees)**

Sl. No.	ITEM	COST/COURSE/ TRAINEE	COST/DAY/ TRAINEE	REMARKS
1.	Travel costs to & from the training	550.00		To be met out of Rs.9,900 granted per trainee by the AH Department to meet the training costs.
2.	Stipend for 3½ months of the training period	4,200.00	35.00	
3.	Stipend for 15 days of the on-job training period <sup>1</sup>	300.00	2.50	
4.	Institutional costs – stationary items, classroom recurring costs, cost of conducting exams, etc.	750.00		
5.	Raw materials costs – cost & fee for the trial animals and slaughter house samples (for conducting practical classes)	600.00	5.00	
6.	Tool kits to be provided (AI gun, catheter, kidney tray, small LN container, etc)	3500.00		
7.	Cost of trainers (1 AD and 2 VAS) some 100% & others 50% (the man months have been calculated accordingly)	9,500.00	79.00	<sup>2</sup> Estimated on the basis of the actual manpower used at RAHTC, Kakinada
5.	Power, telephone, etc approx. @ Rs.500 p.m.	100.00		
	<b>Total cost/Trainee/Course</b>	<b>19,500.00</b>	<b>162.50</b>	

<sup>1</sup> This is at his normal place of residence;

<sup>2</sup> Four Assistant Director Months @ Rs.15,000 per month and 13 VAS Months @ Rs.10,000 per month = Rs.1,90,000, i.e. Rs.9,500 per trainee

**Table 4: Training Costs Of NGOs**

TRAINING OF/FOR	TRAINING COSTS*	BOARD & LODGING*	KIT MATERIALS**	TOTAL COST**	ANTHRA'S FEE GRADE
ANTHRA (30 d., 25 persons)	60	150	750	7050	Low
NGO REALS (20 d., 28 persons)	36	50	500	2339	Low
NGO SAMUHA (30 d., 10 persons)	150	180	400	10300	Low
NGO KAWAD ( 35 d., 24 persons)	185	50	Included	4042	Mid-high

\*per day per trainee;

\*\*per trainee per programme; in the year 2003-2004 (Response of ANTHRA)

#### 4.7 Trainers

In-house trainers are in vogue (22 organisations), while six organisations hire consultants, one has volunteers and one (AH Polytechnic) has proper subject matter specialists. In case of four organisations, the sponsors provide the trainers. In terms of background, the trainers in most of the organisations are veterinarians (22). Apart from the veterinarians, there are one stockman, two experienced field workers and one traditional healer.

#### 4.8 Trainees

None of the organisations could provide precise information on the background of the trainees except ANTHRA. Out of the 87 individuals trained by ANTHRA in 2003-2005, 60% were females and 83% were from

BPL families. This shows that their thrust is to help the poor and marginalised people from rural areas.

#### 4.9 Coverage

While 11 organisations (government) cover the territory (state/district/block/village) for which they are mandated (targeted), three each also cover their target community (weaker sections exclusively), outside of their target area/community and topical (on request, once in a while) area/community any where in Andhra Pradesh.

#### 4.10 Certification

Only a Participation Certificate is given for all of the paravet courses (Gopal Mitra, etc.). No certificate whatsoever is given for most of the short duration (in days) courses.

**Table 5: Comparative Costs of Training Programmes**

TYPE OF AHW	TRAINING FEE (in Rs.)/TRAINEE	TRAINING FEE BORNE BY	B & LODGE COST/TRAINEE	STIPEND/MONTH
Anthra's AHW	4-10,000*	Sponsors, Anthra	Rs.150 per day	1000
BAIF AI Technician	7,200	BAIF/Milk Union	Rs.15,000/course	1000
Gopal Mitra	6,400	Govt (Gol Scheme)	To be borne by the Trainees	1000
JK Trust AI Technician	10,000	A.P. Govt	To be borne by Trainees	1000
RASS Primary Health Worker	22,500	RASS/STEPS (Gol)	Free	1500
Tribal Youth AHW	6,600	A.P. Govt	To be borne by the Trainees	1000

## 5. DESCRIPTION OF THE MAIN PARAVET-WORKER PROGRAMMES

As mentioned earlier, the programmes most relevant to this study are the mid-duration training programmes such as the Gopal Mitra (maximum trainees), Sangh Mitra, sheep extension worker, village poultry health worker, etc.

### 5.1 Gopal Mitra (4 months course)

High school pass unemployed village youth are trained for four months as Gopal Mitra (friends of the cattle keeper). The training includes reproduction, AI, common diseases, vaccination, first aid, fodder production and feeding and management of animals. It is a well-formulated curriculum covering all of the relevant topics in appropriate details to prepare the trainees for field work. From the course scheduling of the modules and the daily class schedules of two main Centres, it can be deduced that a precise teaching programme is in place with respect to the Gopal Mitra course.

After training, they are placed at a Gopal Mitra Centre (usually near his/her own village with a demarcated area of operation in a group of villages). They are provided with an AI kit and other equipments. Their main job is to provide AI at the farmer's doorstep collecting the user charges, out of which they have to meet the cost of the materials. Most of them do some vaccination and provide first aid. Some of them also perform clinical practice, which is viewed with concern. Nearly 2,200 youth have been trained so far and 1,000 more have to be trained. Many of the trained candidates



*Service delivery at the farmer's door step ensures better results*

establish themselves as Gopal Mitra with varying success. Some have not taken up the assignment, however, and took other jobs instead.

**Evolution of the Programme:** Since the inception of the programme in 2000, the contents of the course have been improved periodically, learning from the strengths and weaknesses of the previous year, both in the planning and the actual organisation of the programmes. Initially, the course was for six months duration and comprised of three months on-the-job training. After a couple of years, it was realised that the duration of the course was longer than needed and hence was reduced to four months. Fine-tuning of the course contents also took place.

**The location of the training** was also changed to enhance the effectiveness of the programme. During the one-day workshops organised after the first year in 15 districts, it was observed that some of the Gopal Mitras were still lagging behind in technical skills. The reason was that in most of the DAHTCs, there were no fully qualified technical persons. As a consequence, certain RAHTCs were selected based on their staff component and skill levels to provide better training. This NEW training was for 3 ½ months, while the remaining period was kept for on-the-job training at the respective centres.

**The selection process of candidates** has also changed over time. In the 1st year, a newspaper advertisement was put forth inviting interested candidates as potential Gopal Mitras. Selection of candidates was carried out by the Joint Director (AH) of the district and the DAHTCs gave the training. There were many starting troubles and the drop-out rate was more than 25 percent. In the second year, local organisations like ALDAs (Area Livestock Development Agency), Milk Cooperatives, Panchayats and Livestock Associations were requested to sponsor candidates who would promise to work in their locality and provide livestock services. Selection and training was the same as it was in the 1st year. The drop-out rate fell to 16%. In the third year, the above plus a local Veterinary Assistant Surgeon and the Assistant Director (AH) were

also involved in the selection procedure to ensure that age and qualification criteria were met. The ALDAs were formed for each area with an elected local progressive farmer as the Chairman and the concerned Assistant Director AH (Central Semen Collection Centre) of the locality as its Secretary (on deputation). The Chairman of the ALDA and the Joint Director selected the candidates sponsored as in the 3rd year. The drop-out rate came down to less than 5%.

Through monitoring, evaluation and workshops, the present version was found to be adequate. It may, however be modified in the future, if necessary.

**Input supply:** Requirement of inputs is assessed in the ALDA with the support of the local Veterinary Asst Surgeon and JD (AH). The ADCSCC provides all the required inputs to all the Gopal Mitras and departmental AI Centres. Now all the required inputs to the Gopal Mitras are supplied through the local VAS.

**Future of the Gopal Mitra:** From discussions with field staff and senior officials of the AHD, it seems that, at present, the Gopal Mitra is 'no one's baby'. A Gopal Mitra has difficulties in earning his/her living, being taken to task for exceeding their brief, no institution including the ALDA comes to their rescue when they need support in difficult professional situations, etc. These aspects need to be studied in greater detail in the next stage of the study so as to find appropriate solutions.

### 5.2 Small Ruminant Extension Worker (45 days course)

The Sheep Extension worker is trained as a village level worker to liaise between the shepherd community and the Department. He/she performs the basic Veterinary First aid and preventive health cover. His/her main jobs include -

- i) dissemination of management practices like avoiding in-breeding, providing effective breeding services and information,
- ii) Providing vaccinations as per the vaccination calendar,
- iii) Providing first aid to the needy shepherds on time;

iv) Providing information regarding prevailing diseases and preventive measures in advance;

v) Advise shepherds on the management of sheep;

vi) Advise shepherds on health management and pasture development;

vii) Convey messages through meetings, presentations, demonstrations and field visits;

viii) Organise camps like de-worming camp, vaccination camp;

ix) Assist in publicity campaigns; and

x) Assess the shepherd's needs. The course curriculum is well prepared, adequate and covers all the planned activities.

### 5.3 Sangh Mitra (45 days course)

The Sangh Mitras are expected - i) to provide proper guidance to farmers in Livestock management, ii) to provide first aid to ailing animals, and iii) to facilitate linkages between line departments, watershed committees (WSC), programme implementation agency (PIA), DPAP and other role players in livestock development. Curriculum-wise, it is a well planned course covering sheep management; breeding, feeding, and health management, economics as well as linkages for marketing, insurance, etc. This programme is meant for the Field Organisers of the World Bank aided project (Velugu Programme) for landless and marginal farmers in selected districts. But it looks like the trained Sangh Mitras have mostly gone out of business due to a lack of patronage and meagre income.



*Preventive health care and nutrition of lambs require special attention*



#### 5.4 Woman Poultry Health Worker (6 days course)

The woman poultry health worker is trained to assist and guide the women folk in poultry rearing, management and the marketing of the produce from the village backyard poultry. They also assist in the preservation of the existing desi-birds via health coverage, vaccination, education of the rural women in preparing low cost feeds and feed management practices, facilitating marketing network, propagation of cost effective management practices among the rural women etc. The curriculum of WPHW course is well planned, comprising of three days training on poultry management, two days training on preventive health and a day for farm visits. Unfortunately, the trainees have mostly gone out of business due to a lack of patronage and meagre income, just like the Sangh Mitras.

#### 5.5 Rayalaseema Seva Samithy

The curriculum of this training programme is similar to that of the Gopal Mitra programme. 12 women candidates selected from 30 primary health centres were trained at the Tirupati Veterinary College. The trainees had free training, boarding and lodging. After training they are working as a sort of employees of the NGO at their Village Veterinary Centres supervised by a retired veterinary doctor. A 2-wheeler with fuel, free medicines and other inputs and a decent monthly honorarium has helped these women doing a nice job albeit in a limited area (only a few blocks in Chittoor District).

#### 5.6 Gopal training by JK Trust (4 months)

Training is given using the facilities of the DAHTC at VPC, Chittoor. The Gopal Mitra manual is followed for training Gopals. So far, eight batches have been trained involving 20 persons per batch. As in the case of Gopal Mitra, the duration of the course is four months, which includes three months training at the initial stage. This is followed by a 15 days training at a good Veterinary Dispensary and 15 days at the Centre where they have to work. This one time course was meant for building the skills of the Gopals or the Village Veterinary

Workers of the J.K. Trust to the level of the Gopal Mitras.

#### 5.7 NGO Samskar (3 months)

Twenty candidates from Nizamabad are undergoing training at Chittoor. The training module of the Gopal Mitra is being followed. The JK Trust is giving training cost of Rs.31,000 per candidate. The minimum qualification for this course is 10th class. Duration for this course is two months classroom study plus one month at the ILD Centre of the respective Gopal. The study team interacted with all of the 20 members. Most of them do not know yet what they have to do after their training. Selection: 6 candidates from the places where veterinary institutions are working and 8 candidates from the villages where the Gopal Mitra are working.

#### 5.8 NGO Girijana Deepika

NGO ANTHRA, Hyderabad trained the women Health Workers of this NGO and are providing guidance in their field work. Working in the tribal (hilly) Rampachodavaram Mandal of East Godavari district, these workers carry out the basic health cover (first aid, vaccination, de-worming) and advisory work as per the ANTHRA pattern of service. Though the Study Team could not interview any of these workers directly despite their best efforts, the farmers covered by them were interviewed and their views obtained.

## 6. ASSESSMENT OF THE TRAINING PROGRAMMES & CURRICULA

An attempt was made to know the organisation of the different subjects in regard to the actual hours of theory and practical classes, emphasis on species and popularity of the various topics amongst the trainees as judged by the trainers (number of organisations so reporting). This data is compiled in *Table 6*.

A comparison of the theory and practical class hours with that laid down in the curricula indicates that, by and large, the actual training schedule goes on as planned. However, the emphasis seems to be on large ruminants (AI), to some extent on small ruminants, much less on poultry and negligible on pigs.

**Table 6: Organisation of Subjects and Species Orientation**

TOPIC OF TRAINING-SERVICE TO BE PROVIDED	HOURS OF TRAINING		SPECIES ORIENTATION				SUBJECT POPULARITY					
	Lecture	Practical	Large R	Small R	Poultry	Pigs	Top 3			Bottom 3		
							1	2	3	1	2	3
Artificial Insemination	16	20	16	-	-	-	10	0	4	0	0	0
Veterinary First Aid	21	12	10	8	3	-	3	4	2	0	0	1
Vaccination	10	5	10	7	6	1	1	3	1	0	2	2
Castration	8	6	8	3	0	0	1	2	0	2	1	0
De-worming	6	4	9	8	4	1	3	1	1	2	0	1
Other Minor Vet. Practices	10	8	7	5	1	0	1	0	3	1	1	0
Indigenous medicines (only ANTHRA)	12	13	3	2	2	-	2	0	0	0	0	1
Extension Communication	12	9	11	6	4	-	5	1	2	1	1	1
Fodder development	12	4	10	5	-	-	4	4	0	1	1	0
Livestock management	20	7	13	8	3	-	4	2	3	0	0	2
Topic-Mix (mostly 2-5 day courses)	13	4	3	2	2	-	0	0	1	0	0	0
Others (only NGOs)	16	8	3	3	1	-	0	1	0	0	0	0

This is because the Gopal Mitra, the most widespread programme focuses on AI in cattle and buffaloes. The NGOs do teach 'other' topics like gender issues, evaluation and herbal medicine. AI is the most popular subject, while livestock management, health care subjects, extension and fodder management are a distant second.

In terms of back-up support to the trained paravets, the main activities include stock identification, supply of materials such as liquid nitrogen, AI kit, etc., evaluation of the paravet's work and providing technical back-stopping of the paravets. In the author's view, the supervision, evaluation and backstopping support to the paravet needs to be improved significantly.

An attempt was also made to compare the actual curricula including the internship, of all the AHW courses in the state of

Andhra Pradesh. This comparison is based on a close scrutiny of the actual curricula of each course and a subjective analysis of the same by Veterinarians/ Consultants. Based on this subjective analysis, each subject/topic is judged as 'strong', 'Average', 'Light' or 'Not done'.

The comparison of the relative strengths and weaknesses of the curricula topics of the various programmes is presented in *Table 7*. As can be clearly seen, ANTHRA's paravet worker training programme for workers of other NGOs does not contain AI, though it does contain more topics on extension communication. Such topics are organised and presented in the local folk art forms. Hence they are more effective than a simple talk or a classroom lecture. Otherwise all of the paravet worker programmes for training AI Technicians have a more or less similar content.

**Table 7: Consultants' Broad Subjective Judgment**

(= +++ Strong, ++ Average, + Light, -Not done)

TYPE OF PARAVET WORKER	BROAD TOPICS													
	ABCs of Animals	Reproduction & AI	Basic Health Care (FA)	Vaccination & Deworming	Livestock Mgmt	Fodder-Grazing Development	Herbal Med. Use	S. Ruminant Development	Poultry Development	Swine Production	Extension Skills	Organisational Skills	Internship (days)	On-the-job training (days)
Gopal Mitra	+++	+++	+++	+++	++	++	-	-	-	-	+++	++	45	15
Tribal Youth AHW	+	-	++	+++	+	+	-	+	+	+	+	+	-	-
Sangh Mitra	++	-	+++	++	++	+	-	++	-	-	+++	-	-	-
SR Health Workers	++	-	++	++	++	++	-	+++	-	-	+++	+	21	-
ANTHRA's AHWs	++	++	+++	+++	+++	+++	+++	+++	+++	-	+++	++	30	15
BAIF AI Tech.	+++	+++	+	++	+++	++	-	-	-	-	+++	++	15	15
JKT AI Tech.	+++	+++	+++	++	+++	++	-	-	-	-	++	++	15	15
RASS Primary HWs	+++	+++	+++	-	+++	++	-	-	-	-	++	-	15	15
*Vet Poly-technique (after 10 <sup>th</sup> )	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	180 (@4 h/ Work day)	
Vet Asst. (After 12 <sup>th</sup> )	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	90	30

This comparison shows that the contents of the courses and the depth of coverage of each training topic is generally dependent upon the immediate pre-determined felt needs of the organisation. Thus AI and reproduction are the topics covered in greatest detail in Gopal Mitra, BAIF AI Tech and JKT AI Tech training programmes; their coverage being weak in all other programmes. Basics (ABCs) of animals, first aid, vaccination and de-worming as well as extension skills are some topics that are generally well covered by all programmes

and also in detail.

However, in case of the Gopal Mitra programme, topics like extension and organisational and fodder development skills are not actually mentioned in the curricula, but are imparted to the trainees during the internship period; even written notes are given to the trainees on these topics as "Dos" and "Don'ts" in tune with their job chart. ANTHRA is the only organisation that trains candidates in the preparation and usage of herbal/ayurvedic medicines.

Veterinary Assistant and the Vet. Poly Technique programmes are entirely different types of programmes – 1 or 2 years long and for the preparation of paravets to be absorbed into the government service. Because of the diverse duties (Job Charts) that these trainees have to perform, by necessity they are trained in greater depth on more topics (see Table 7, last two rows). Hence these programmes cannot be actually compared topic by topic with those of the community based AHW programmes.

Discussion on the comparative strengths and weaknesses of the various community-based AHW training programmes and scope for modification of the same towards their betterment will be discussed later in this

report. Since long (more than one year), the Veterinary Assistant and the Vet. Poly Technique programmes are meant for future paravets of the State AH Department and not for working as community-based AHWs and therefore. the same are not discussed in detail.

## 7. SERVICE DELIVERY BY PARAVETS (TRAINERS' VIEWS)

### 7.1 Place of Service Delivery

Most organisations reported that trained animal health workers deliver the services both at the farmers' doorsteps and at a central point. 14 = 61% deliver at the

**Table 8: Comparison of utilisation of different AHWs.**

TYPE OF AHW	USER FEE	CRITICAL COMPONENTS	PROVIDES WHAT SERVICES?
Gopal Mitra	Yes	AI service at doorstep	AI service at doorstep, First Aid, vaccination, de-worming and liaison between farmers and AHD
Tribal Youth AHW	Yes	First aid, vaccination & de-worming	First aid, disease reporting in tribal areas
Sangh Mitra	Yes	First aid, vaccination & de-worming of SR	Same, focus on sheep and goats
SR Health Workers	Yes	First aid, vaccination & de-worming of SR	Same in sheep and goat – also spraying animals and sheds against ticks, extension education, marketing assistance – weighing animals, keeping growth records, market information
ANTHRA's AHW	No	Ethno-vet practices; for marginalised areas & communities; also in other areas now;	Community -based AHW; Women workers in the main; First Aid, vaccination, de-worming; Fodder/Grazing Dev., Poultry; use of local and modern practices in feeding, fodder dev., grazing; improving local breeds; improving management & housing;
BAIF AI Technician	Yes	AI service at doorstep	AI service at doorstep, preventive vaccinations, de-worming, Fodder Development
JK Trust AI Technician	Yes (AI); No (Other)	AI service at doorstep	AI at Doorstep, first aid, preventive vaccination, de-worming
RASS Primary Health Worker	No	AI service at doorstep	AI at doorstep , first aid, preventive vaccination, poultry development
Veterinat Assistant	Placement dependent	Assistance to Vets in various services*	Multiple role – vet assistant, pharmacy asst, lab assistant etc.
Vet. polytechnique	Placement dependent	Assistance to Vets in various services,* Independent charge of rural AH institutions*;	Multiple role in advanced mode – also carries out Pet and Zoo Animal management, Meat Production & Handling, Veterinary Pharmacist, Feed Analytical Lab Assts, assistance in basic Veterinary Surgery, Diagnostic Lab Assistance, Biologicals and Vaccines production assistance;

farmer's door step and 7 = 31% deliver exclusively at a fixed central point. Amongst the government organisations, 3, 8 and 8 mentioned that they cover peri-urban, backward and low potential areas respectively.

The NGOs reported providing services mostly in dry and disadvantaged areas. As seen already, large ruminants are the most attended species (24) followed by small ruminants (16), poultry (12) and pigs (6).

### 7.2 Cost Recovery

Three NGOs- J.K. Trust, RASS and BAIF provide Vet. services free of cost in their areas of operation. However for AI, the NGOs BAIF and JKT charge a user fee for providing AI services in their areas of operation although their areas of operation are relatively small. Apart from those organisations, none of the NGOs charge a user fee for other services. However, their areas of operation are not very large. Apart from providing free AI, they pay their para-workers a monthly allowance of Rs.1,500 to 2,500 and some part of the user charges.

The Gopal Mitras collect Rs.40 to 50 when done at the farmers' doorsteps and Rs.20 when done at a central place. Veterinary aid at the doorsteps may yield around Rs.20 to the paravets. Out of the user charges collected for AI, Rs.20 is paid back to the APLDA towards the cost of materials. It appears that the rates mentioned above are as and when paid by someone. The actual payment could be moderate in the rich delta districts, but the payment for these services could be very difficult for poor farmers of disadvantaged communities, especially for the small ruminant keepers. Also please see *Table 8* above.

### 7.3 Incentives to AHWs

The JK Trust and the BAIF collect user charges for AI from Rs.10 to 30 while the other services are provided free of cost. The service providers are given vehicle, free fuel and a monthly allowance of Rs.1500. In addition to this, an incentive of Rs.50 is paid to the AHW for each confirmed pregnancy resulting from the services provided by them. RASS provides all of the services free of cost besides providing a free vehicle to each AHW and a monthly honorarium of

Rs.5000 and an incentive for calves born through AI.

These NGOs provide medicines, vaccines and other supplies to the farmers free of cost. Whereas, the Gopal Mitra collects Rs.40 for every AI and also collect user charges for other services provided to the farmers. They also make farmers pay for medicines, etc. Out of the AI charges collected by the Gopal Mitra, Rs.20 is paid to the APLDA towards the cost of frozen semen and LN. No other incentives are provided to the Gopal Mitra. Consequently the services provided by the Gopal Mitra to the farmers are obviously less endearing than those provided by the AHWs of the above NGOs. The study team heard from the field staff that the AHWs of the NGO Girijana Deepika also provide free service. It is understood that the AHWs of the NGO Girijana Deepika also provide free service.

### 7.4 Problems with Service Delivery

Most of the organisations (17 out of 23) found the paravets using antibiotics, which is beyond their brief. Other undesirable practises observed were - carrying out surgery (3 out of 23), wrong doses (9 out of 23), wrong techniques (9 out of 23), and wrong care of equipment (7 out of 23).

## 8. TRAINERS' SUGGESTIONS FOR THE IMPROVING TRAINING PROGRAMMES

### 8.1 Views of AHD/APLDA Trainers

The main suggestions include:

- Provision of an adequate budget, staff, infrastructure, and transportation facilities at the training institution;
- Advance planning of the actual conduct of the given training programmes and educational tours;
- Selection and intimation of trainees should be done well in advance, and;
- Timely sanction and prompt payment of travel costs to the trainees, honorarium to trainers and funds for providing refreshments to the trainees.

From the many suggestions coming from the actual organisers of the paravet training programmes, it looks that once the courses are decided at the higher

level, the organisers are somewhat left to fend for themselves during their training tasks. This calls for greater monitoring and guidance by the higher authorities (SMILDA) of the paravet training programme. Supervision, monitoring and evaluation of the performance of the newly trained field workers are some of the aspects that need vast improvements.

*A. Concerning Trainees:* Travel allowance and its prompt payment; transport for field visits; lodging & boarding facilities; tea/snacks/working lunch; educational tours & field trips needed - especially for fodder cultivation, livestock management; informing trainees well in advance; assessment of the trainees; Disciplining irregular and irresponsible trainees is needed.

*B. Concerning Trainers:* Transport for field visits; prompt payment of travel allowance, honorarium per diem to the trainers and payment for tea/snacks/working lunch etc.

*C. Concerning Training Institutions:*

Sufficient budget & staff (10 out of 27):

a) Infrastructure facilities (10 out of 27) - Animals for practical or an AI centre at the training institution; PP presentation facilities; Slaughter house specimens; dummy for AI training; dormitories for trainers; labs; Trainers' Trainers/Subject Matter Specialists; field training unit;

b) Introducing new/strengthening the existing topics to be taught - economics, PRA, storage and handling of vaccines, zoonotic diseases, de-budding/de-horning calves, demonstration of anatomic & physiological structures, symptoms and control/treatment of the common contagious diseases, strengthening extension, fodder development, modern stock management and preparing feeds with local stuffs;

c) Training should be need based - locality specific, in the subjects of interest to the trainees;

d) Upgrading the contents of certain courses;

e) Shift all paravet courses along with the trainer's posts and the infrastructure so as to standardise need-specific courses in the entire state;

f) Advance planning of the trainings;

g) Refresher courses for every GM once a year; Avoid Training in the Breeding Season/sowing & harvesting seasons;

h) Syllabus to contain theories, practicals, notes followed by field practice;

i) Training Trainer VAS once every three years;

j) Avoid overlapping of the courses at the district and regional training institutions by specifying when, where and which courses; Training in Modules;

k) Increase in duration of GM course, especially for AI;

l) Increase the practical for AI by reducing theory;

m) Evaluation by Trainers - at the work place of each candidate 3 months after training, with inputs from trainees

## 8.2 ANTHRA's Suggestions

*a) Training Efficacy:*

- Regular review within the organisation and the training team contributes towards a better planning;
- Critical feed back from the trainees after each training module on the methodology, the training aids, training content, the reading material, etc.
- A Regular follow up with the trainees after completion of the training;
- Evaluation of the performance of the paravets/health workers after one year of completion of the training.

*b) Training Utility and the Role of Paravets:* If the AHWs trained to deliver services have to be utilised fully, the farmers sustaining them through payment in our experience, is completely unrealistic and ineffective. To fully utilise their skills in extension, prevention of diseases, first aid and monitoring of diseases in collaboration with the local AHD, working to improve fodder and grazing resources, such para professionals need to be made sustainable.

## 8.3 General Observations

Ordinary looking things seem to be the ones that are most disturbing in the conduct of the training programmes. Such items include:

- a) provision of an adequate budget, staff, infrastructure and transportation facilities to the training institution,
- b) advance planning of the actual conduct of the training programmes and educational tours, and
- c) selection and intimation of candidates for training well in advance,
- d) small things like timely sanctions and prompt payment of the travel costs to the trainees, honorarium to the trainers and funds for providing refreshments to the trainees.

From the many suggestions coming from the actual organisers of the paravet training programmes, it looks that once the courses are decided at the higher level, the organisers are somewhat left to fend for themselves in their training tasks. This calls for greater monitoring, guidance and back up support by the higher authorities (SMILDA) of the paravet training programmes. Supervision, monitoring and evaluation of the performance of newly trained field workers are some of the aspects that need vast improvements.

## 9. VIEWS ON TRAININGS FROM THE FIELD

The present study also tried to know the views of the:

- a) trained AHWs of different types who are working in the field;

b) the farmers who have tried their services; and

c) the key local persons at the Mandal/ALDA level that are directly concerned with the performance of the AHWs. The findings of the same are discussed below (Fig. 1).

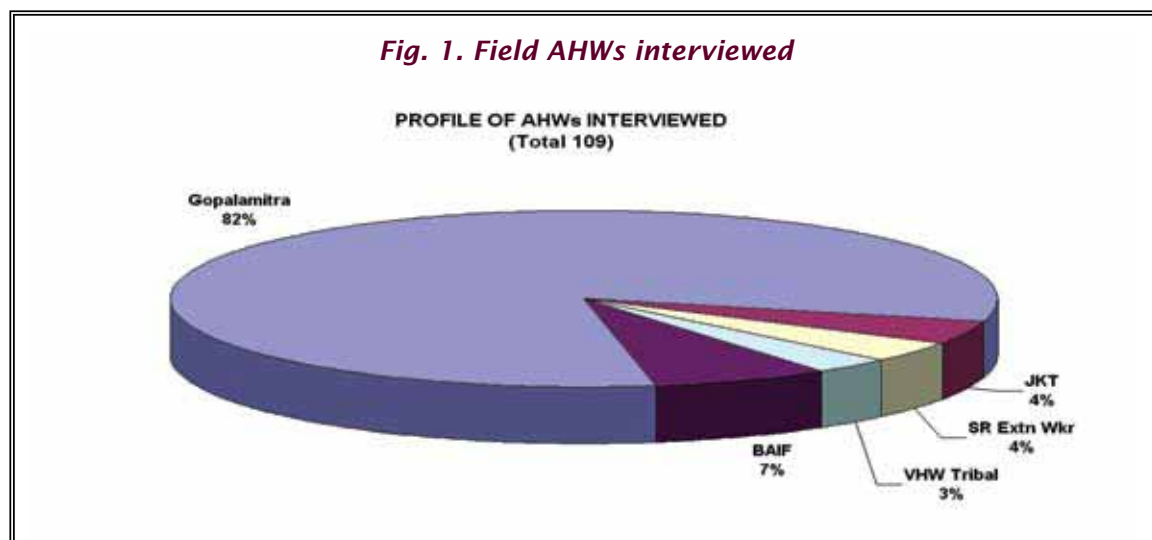
### 9.1 Views of the Trained AHWs Working in the Field

#### 9.1.1 Information about Trainings:

Trained AHWs already working in the field were asked (in Study II) about how they came to know of the training programmes in the first place. 77% of them learnt about this from local AHD officials – AD, VAS and Paravets, some 8%, 13% and 2% learnt about it from the media, the village elders and from other sources respectively. Village elders are the ones who encouraged and sent most of the youth for trainings in case of the SR Extension Worker and the BAIF AI Technician.

#### 9.1.2 Trainers:

A majority of the AHWs said that they were trained by APLDA/AHD; as a majority of them are Gopal Mitras. Though the AHD has trained the tribal VHWs from Visakhapatnam, they were sponsored by the Integrated Tribal Development Agency under which their native villages fall. All the Small Ruminant Extension workers were trained by the ISNRMPA. The NGOs ANTHRA, BAIF and JKT have their own programmes, though the latter two use the Gopal Mitra curriculum and takes the help



of the AHD. The NGO RASS also used the facilities and the faculty of the University Veterinary College and AHDs for their one time programmes.

### 9.1.3 Reasons for Undergoing Training:

The AHWs felt that the main reason for them to undergo an AHW training is the 'Need of the Farmers'; a third of them for 'Earning Money'.

### 9.1.4 Opinions on the Training Aspects:

The AHWs working in the field felt that the theory and practical classes and the course material that they received during training were good (90-94%), even very good (2%); the same being the case with the overall learning climate. However, they did have some dissatisfaction on the 'Food and Stay' arrangements during the training period (25% said "Not Good" and 12% said "Average"); only JKT and the ISNARMPA are reported to be good in this aspect and the worst experience in this respect is of the tribal youths trained as VHWs.

### 9.1.5 Opinions on the Training Topics/Subjects:

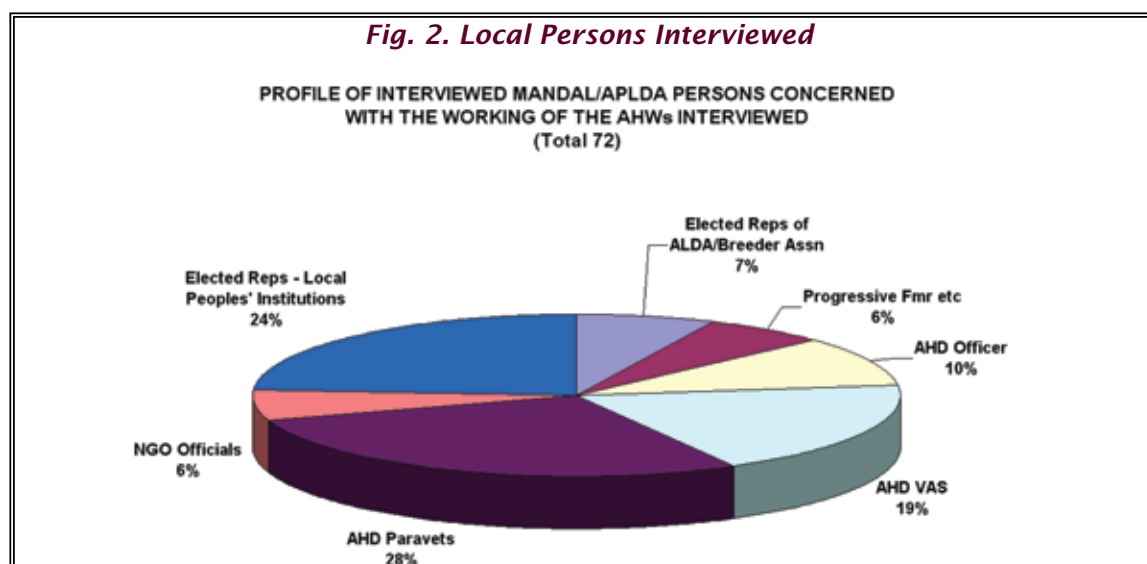
The AHWs working in the field felt that the trainings imparted to them were by far 'Good' and even 'Very Good' in AI, First Aid, Vaccination, De-worming, Livestock Management Advice, Fodder Development, Castration and the Use of Local Medicines; though there seems to be a considerable scope for improving the last two items, especially for Gopal Mitras and BAIF workers.

Apart from the above mentioned subjects, the AHWs were asked to give their opinion on any other topics. 'Organisation of Health Camps' emerged as the unanimous 'Other topic'.

## 9.2 Views of the Mandal/APLDA Level Persons Concerned with AHWs

To know the actual performance of the AHWs, both trained and the ones that are already working in the field, an attempt was made to interview those official and non-official individuals that are concerned with the work of the AHWs as technical supporters, supervisors, observers or leaders of stakeholders at the Mandal and/or ALDA level. Profiles of such persons concerned with and working in close acquaintance with the day-to-day working of the AHWs is shown in Figure 2.

The order of satisfaction of the various individual services being provided by the AHWs in the field as per the above mentioned local concerned persons can be grouped as follows: a) The Top Half - only around 5% saying 'Not Done' or 'Not Well' done and b) The Bottom Half - as many as 20 to 40% saying 'Not Done' or 'Not Well done'. The Top Half services in the descending order of their delivery quality were Vaccinations, De-worming, AI and First Aid, which may be considered as the services in which the AHWs are quite skillful and are doing a satisfactory job. Similarly the Bottom Half of the services in their descending order of





delivery quality were Fodder Development, Castration, Livestock Management Advice (Extension!), Use of Local Medicines and the Organisation of Health Camps.

Obviously the future training efforts have to be modified to pay a greater attention to the bottom half of the subjects in formulating their curricula. The topic/subject 'Use of Local Medicines' is crucial as it can make the AHWs, use less costly locally available medicaments (home remedies, herbal medicines etc.), which can perhaps reduce the tendency of the AHWs to use costly and often unnecessary antibiotics, anti-allergic and analgesic medicines – observed as part of the 'over-reach', which will be discussed elsewhere in the report.

The topic 'Organisation of Health Camps' emerged as an important one. The working AHWs, the local concerned persons as well as the farmers (albeit about 30–40% of them) have consistently mentioned this topic under the option 'Others' provided to them. Sastry (2004) in his pilot study has brought out that Health Camps are becoming important service innovations because - a) Many official and non-official organisations, charitable and religious trusts and endowments as well as individuals and corporate entities have been coming forward to sponsor them; b) Health Camps permit taking specialists nearer to the farmers; c) Farmers get an opportunity

to get the services and the advice on a wide range of their problems; d) There is a need for proper planning, scheduling and the organisation of the same by the AHD involving Local Bodies.

As a liaison person, the AHWs have a crucial role in the organisation of Health Camps. And hence the need to train them on all aspects of this service too.

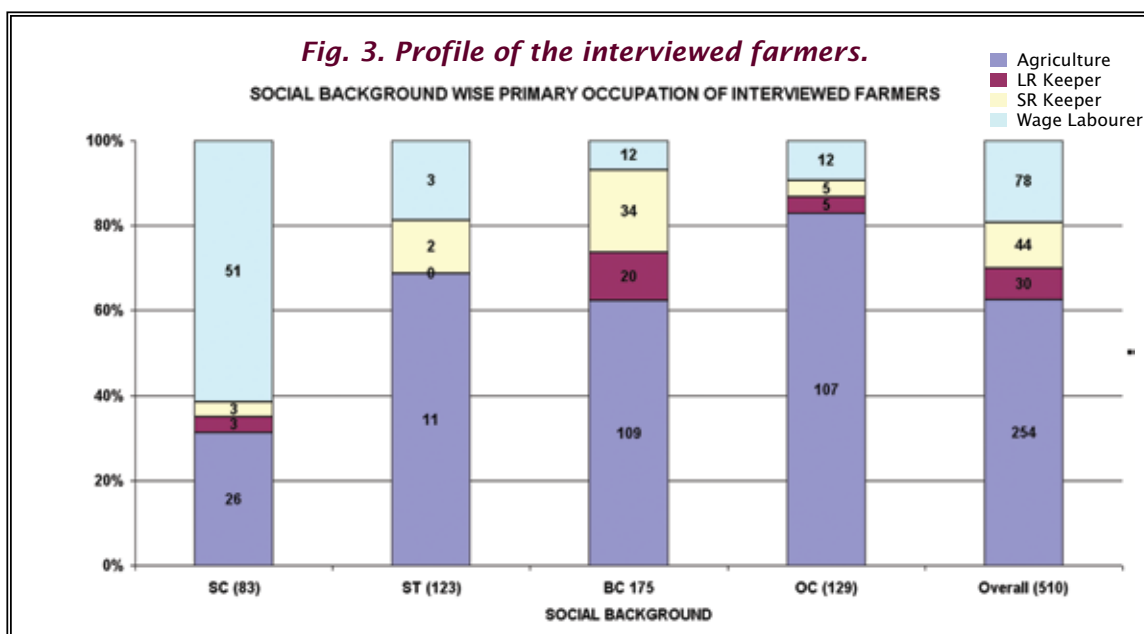
### 9.3 Views of Farmers - the Service Users

Opinions of the 409 farmers from different social backgrounds and primary occupations (see Figure 3) across four districts were also obtained on how they perceived the quality of the services provided by the AHWs already working in the field.

The idea was to see what bearing does their training have on the 'out-reach' and the 'over-reach' of the AHWs. For this purpose, the Mandals with different levels of livestock potentials and agro-climatic conditions were included in the sample within the four districts.

It can be safely said that, amongst the services studied, on the provision-wise quality, three categories emerge:

- a) 'AI', 'First Aid', Vaccination' and 'De-worming' whose quality was felt to be mostly better by the farmers;
- b) 'Livestock Management Advice', 'Fodder Development', 'Castration' and the 'Use of



Local Medicines' whose quality was felt to be inferior by the farmers; and

c) 'Other - Organisation of Health Camps' brought up by the farmers themselves under 'Other' and for which they felt that the AHWs are not up to the task. Details of the opinion differences across different possible influencing factors are as follows:

### **9.3.1 District wise Differences**

The extent of 'Very Good' and 'Good' coverage, in the farmers' opinion, for the provision of AI services was about 45% as a whole, ranging from 30% in Nizamabad district to 70% in Ananthapur district. Such a percentage response for First Aid was 70% and 50-85%, for Vaccination was 70% and 53-81% and for De-worming was 52% and 48-60% respectively in the two districts. Lower percentages of satisfactory coverage of AI may be due to higher levels of skills required for the same, which the AHWs might not have mastered yet.

Having said that, the higher levels of good AI coverage seems to be in Ananthapur district, a drought prone area, more known for small ruminants and surprisingly, at the lowest level, in Nizamabad district having higher number of breedable bovines. Maybe a greater importance of large ruminants in livelihood (crossbred cows being the most common assets provided under the various schemes).

Also, a healthy competition amongst the three types of service providers - Gopal Mitra, BAIF and JKT, leads to a better overall coverage. More or less similar trends are seen for the other services too. A generally lower coverage in the agriculturally developed East Godavari district could be the result of the more endowed farmers seeking the services of doctors rather than the AHWs and also a naturally lower AI success rate in buffaloes, the more predominant bovines in this district.

But the other services - 'Livestock Management Advice', 'Fodder Development', 'Castration' and the 'Use of Local Medicines' generally reported low - below 40% in all of the districts, indicates a need for more attention to these in future training programmes.

### **9.3.2 Difference amongst Mandals with Different Livestock Potential Levels**

All Mandals in Andhra Pradesh were classified according to their Livestock Potential in a study sponsored by the former ISPA, Hyderabad (Bovine Sector Study, 1991-2, carried out by ISPA, ASCI, CESS, NIRD & ANGRAU).

This potential score considered livestock density, net-sown area, availability of feed and fodder, amongst other things. Amongst the sample Mandals of this study, there was one 'Very High', eleven 'High', four 'Medium', three 'Low' and one 'Very Low' potential Mandals. Thus the study tried to see the quality of the services provided by the AHWs in areas with a limited livestock potential also; the so called marginalised areas.

A very high percentage of farmers (70-85% of the 20) of the 'Very Low' potential Mandal (hilly, tribal area) opined that either the AHWs have 'Not Done' any service or the quality of all the services provided by them was 'Not Good'. This is the hilly tribal area where distances are great, accessibility is difficult and the farmers are still under transition from tribal to livestock rearing categories.

But 45-77% of the farmers from the 'Low' potential Mandals felt that the services provided by the AHWs was 'Good' or even 'Very Good'; especially 'good' seems to be the quality of 'First Aid', 'Vaccination' and 'De-worming' services and the 'AI' being 'moderately good'.

Such 'Low' potential Mandals turn out to be the most successful terrain for AHWs; the animals being more important to the perhaps financially not so well-endowed farmers for livelihood. Farmers of the 'Medium' and 'High' potential Mandals are, in general, the next best in the satisfaction levels with the services of the AHWs.

Surprisingly, the coverage was as low as 22% for most services in the 'Very High' potential Mandal; this being a Mandal in the rich Godavari Delta region, the farmers possessing high valued and better quality animals may prefer the AHWs less and the doctors (even private) more.

As seen already, a high percentage of the farmers (55-82%) across all the potential Mandals felt that the service provision was either 'Not Good' or 'Not Done' for the services - 'Livestock Management Advice', 'Fodder Development', 'Castration' and the 'Use of Local Medicines' in all of the districts. This again indicates a need for more attention to these in the future training programmes.

### **9.3.3 Differences amongst Mandals with Different Agro-Climatic Conditions**

As per the Indian Council of Agricultural Research, delineation of the different agro-climatic sub-regions of AP (NART, ICAR, New Delhi, 1990), agro-climatic condition-wise, eight sample Mandals were 'Marginal', eight were 'Average' and five were 'Good'. There does not seem to be much of a difference amongst the three types of areas with respect to the perception of the farmers on the quality of different services provided by the AHWs.

### **9.3.4 Differences Due to the Primary Occupation of the Farmers**

The satisfaction of farmers with the quality of services provided by the AHWs seems to be highest amongst farmers with 'Agriculture' (70%) as the primary occupation, followed by 'Large Ruminant - LR Keeper' (65%), 'Small Ruminant - SR Keeper' (50%) and 'Wage Labourer' (42%).

As mentioned at the beginning of this section, a majority of the SCs are the 'Wage Labourers', who opined that 'AI' (68%) and 'De-worming' (55%) were either 'Not Done' or 'Not Good'; the other services being even more unsatisfactory to them. Thus the task of the planners is to see that the AHWs definitely reach out to the daily wage earning livestock keepers also.

### **9.3.5 Differences Due to the Social Backgrounds of the Farmers**

The general trend of the satisfaction levels of the farmers with the services provided by the AHWs was - a) highest for livestock keepers of 'Other' castes, of whom 82% are agriculturists; followed by b) 'Backward Castes', of whom 62% are agriculturists and 12% small ruminant keepers; c) 'Scheduled Tribes', of whom 69% are agriculturists,

albeit small, and 9% wage earners; and d) 'Scheduled Castes', of whom 60% are daily wage earners and 32% small-scale agriculturists. This trend is manifested for all the services provided by the AHWs. Thus, the neglect of the wage earning scheduled caste households with respect to the provision of livestock services is definite and disturbing.

### **9.3.6 Differences Due to the Main Service Providing Organisations Operating in the Sample Village**

The sample Mandals were selected in such a way that the operational areas of the main livestock service providing organisations in Andhra Pradesh were covered, to the extent possible. It should be remembered that such areas are not exclusive to the named organisation, but it is the main service provider, as the AHD has let certain NGOs and Gopal Mitras to operate in certain



*Small ruminant production needs assured preventive health service even during migration*

villages/areas. It should be further noted that, any farmer from the operational area of a given service providing organisation always has the option to seek services from some one else, even from outside that area, which many farmers often do.

In the operational village of the NGO Girijan Deepika (GD) in the hilly tribal region in the East Godavari district, whose AHWs were trained by NGO ANTHRA, one farmer had his animal artificially inseminated by some one else, as the mentioned AHWs of the GD are neither trained nor expected to provide

AI service. In this particular area, perhaps due to a lower density of AHWs or their restricted mobility or limited skill level or a combination of all the three factors coupled with the low intensity of livestock production and higher poverty in the region, almost all of the services were 'Not Done' as per the opinion of more than 70% of the farmers.

The study team feels that there is a definite need for a special in-depth study of the marginalised hilly tribal region of Andhra Pradesh spread across seven districts for evolving livestock development strategies appropriate to the local conditions and needs. It is difficult from a general study to get precise information about the problems specific to this region that would enable us to plan special strategies accordingly.

As regards AI, 40-45% of the farmers opined that the service was 'Very Good' and 'Good', the differences between the service provider organisations being marginal with the exception of the NGO JKT. While the performance of the workers of the NGO BAIF and Gopal Mitra were more or less similar (around 45%) to that of the RLUs (Rural Livestock Units headed by a government paravet), the VDs (Veterinary Dispensaries headed by veterinarians) and the workers of the NGO JKT gave satisfactory services as per 75% of the surveyed farmers. Thus, as regards AI, while there is not much of a difference between the different service provider AHWs and organisations, the JKT's services were the most appreciated ones.

Except in the tribal areas covered by the NGO GD (for reasons mentioned above), there is practically no significant differences among the different AHWs and the AHD institutions in the satisfaction levels for other services; only the JKT AHWs seem to be better in providing 'First Aid' and 'Vaccinations'.

### ***9.3.7 Differences in Services amongst Different Land Holding Classes***

Highly revealing are the opinions of the farmers of different land holding classes on the quality of livestock services provided by the AHWs. Both the 'Not Done' and 'Not Good'; responses of farmers for all the services were highest (60-80%) in case of the landless livestock keepers (who are generally the poorest). Such responses

decreased as the land holding size of the farmers increased; 60-80% of the farmers with more than 15 acres of total land holding said that the services provided were 'Good' and 'Very Good'.

### ***9.3.8 Differences in the Services amongst Different Small Ruminant Holding Classes***

The study also tried to look into the service patterns of farmers possessing different sizes of small ruminant flocks. Farmers of the '0' (No.) small ruminant class are virtually those who keep only bovines. Farmers of '<10' small ruminant classes are generally the keepers of goats alone for supplementary income. AHWs were providing reasonably satisfactory services to these categories of farmers. But as high as 65% (40-85%) of the '50-100' and '>100' categories of small ruminant classes, who are invariably traditional shepherds, felt that the services are not provided ('Not Done) by AHWs or they were 'Not Good'. Thus, traditional shepherds, especially those not having big flocks, seem to be at a disadvantage; more so because the deprived services include crucial vaccination and de-worming.

### ***9.3.9 Differences in Services amongst Different Backyard Poultry Holding Classes***

The study also tried to look into the service patterns of farmers possessing different sizes of backyard poultry units. As compared to small ruminants, the 'Vaccination' and 'De-worming' services provided by AHWs to the birds across different backyard poultry units were better as per the poultry keepers. 'First Aid' and especially 'Management Demos' (Extension!) services were rather unsatisfactory.

### ***9.3.10 Roles of the AHWs in Organising Health Camps***

This particular activity was not originally included as a service to be provided by the AHWs, at least in the study. But wherever an option "Any other" was given to the farmers, local concerned persons and even to the AHWs, invariably the 'Organisation of Health Camps' cropped up as an important activity or service. This and in the view of the findings of an earlier study (Sastry, 2004),

this aspect was also studied. The conclusion that can be formed from the trend is that, though every one feels that the organisation of health camps is an important service to the farmers' animals, such camps are not very frequent as of now. But this 'service' may be seriously considered in all of our future plans as this is actually a medium for providing a gamut of quality services to a large number of farmers periodically at least.

### 9.3.11 Over-Reach by the AHWs

All said and done, the AHWs were trained and deployed to provide a limited set services at the doorsteps of the farmers. They are neither trained for nor expected to do such things that can only be done by a qualified veterinarian. If the AHWs still carry out such services, they are clearly over-reaching their brief. To know of this they were asked in a very discrete and simple way (jumbled with other options) to tell whether they carry out any such activity (*Table 9*).

It is obvious from the data obtained that most of the AHWs, especially the Gopal Mitras (77 %) do undertake the actual 'Treatment' of animals (as against the provision of 'First Aid'). Thus Gopal Mitras are considered the most notorious in this respect (Please see the table below).

Only the Sheep Extension Workers were not indulging in such activities. Though BAIF AHWs are also good, they do use analgesics and anti-allergic medicines, undesirable by persons with their limited qualification. As mentioned earlier, the Tribal AHWs (three in the Visakaha area) are not cared for by any responsible agency. Hence they run riot with the use of undesirable medicines.

This tendency has a potential to become uncontrollable later, if immediate steps are not taken to prevent them. Apart from improving supervision and related procedures, trainings can also play a crucial part in this. It is during training that they have to be imparted with the appropriate knowledge on the dangers of their over-reach in the long run.

## 10. CONCLUSIONS & RECOMMENDATIONS

### 10.1 Training - Improvement

a) It is obvious from the discussion in this study that there are a variety of training programmes in Andhra Pradesh to meet the various needs of the livestock owners. Also, the study shows that the programmes are not only good on paper, but are implemented reasonably well. However, the study also highlights some weaknesses of the current programme. Addressing these issues can significantly enhance the effectiveness of the programmes in meeting the needs of the livestock farmers.

b) The number of women trained as paravets is only 9 % in the government programmes. It is common knowledge that women generally have a larger role in day to day livestock husbandry and thus they need better training. This crucial need has to be understood and appreciated. Thus, it is important to involve more women in trainings for AHWs, Gopal Mitras etc.

c) The government programmes focus mostly on the peri-urban areas, where as the backward and less-developed areas are covered by NGOs and voluntary

**Table 9: Paravets /AHWs carrying out activities for which they are not trained (in %)**

TYPE OF AHW	USE OF ANTIBIOTICS	USE OF ANALGESIC/ANTI-ALLERGENICS	PARENTRAL ADMINISTRATION	USING UTERINE PESSARIES	DOING SURGICAL PROCEDURES
BAIF_AHW	0	80	0	0	0
Gopal Mitra	69	76	91	48	15
JKT_AHW	63	50	63	50	0
Sheep EW	0	0	0	0	0
Tribal-AHW	100	100	100	0	0

organisations. This calls for enhanced efforts on the part of the government to extend their services in the remote and marginal areas.

**d)** Most of the programmes focus on large ruminants, where as there is not enough emphasis on the training programmes for small ruminants.

**e)** The Gopal Mitra programme needs to be appropriately supported and regulated to address the services provided by the paravets some of which are beyond their mandate. Finally, more efforts need to be put into provide back up and follow up support to the trainees after completion of their training and evaluation of the performance.

**f)** From the above observations, it emerges that there are three problem areas concerning the provision of livestock services by AHWs or any livestock service provider which need to receive high priority for service delivery. They are:

*I.* Marginal, hilly, tribal, low livestock potential areas of Andhra Pradesh spread across seven districts;

*II.* Landless, daily wage earning and scheduled caste livestock keepers; and

*III.* Medium and large small ruminant flock holding traditional shepherd communities. All of them belong to mostly poor farmers.

**g)** The two training programmes meant for those entering the AHD as employees, the Government Paravets, are a lot more advanced than the various training programmes meant for the community based para-workers. The AHD and ANGRAU have to consider together whether it is necessary for them to run two separate programmes (One-year Veterinary Assistant Programme by the AHD and the 2-year Veterinary Polytechnic Programmes by ANGRAU) to cater to the same purpose and the same client.

**h)** The Study Team feels that there is a necessity for merging the two as a two year joint programme after the 10th Class. While ANGRAU uses the infrastructure of the Polytechnics as the nucleus, more such units are to be opened at other places by the State Government.

## 10.2 Training of AHWs to Match Field Situations

### 10.2.1 Views of the Working AHWs

**a)** While all other aspects of the training were found to be reasonably good by the AHWs, they did have some dissatisfaction with the 'Food and Stay' arrangements during the training period.

**b)** The not-well covered subjects include castration and the use of local medicines; there is considerable scope for improvement in these two mentioned topics.

### 10.2.2 Views of the Mandal/APLDA Level Persons Concerned with the AHWs' Work

**a)** The Top Half (better) services in their descending order of delivery quality were Vaccinations, De-worming, AI and First Aid, which may be considered as the service in which the AHWs are quite skillful and are doing a satisfactory job.

**b)** The Bottom Half services in their descending order of delivery quality were Fodder Development, Castrations, Livestock Management Advice (Extension!), the Use of Local Medicines and the Organisation of Health Camps in which the AHWs were found wanting.

**c)** Obviously the future training efforts have to be modified to pay a greater attention to the bottom half of the subjects in formulating their curricula. The topic/subject 'Use of Local Medicines' is crucial as it can make the AHWs use less costly locally available medicaments (home remedies, herbal medicines, etc.), which can perhaps reduce the tendency of the AHWs to use costly and often unnecessary medicines.

**d)** The topic 'Organisation of Health Camps' emerged as an important one. The working AHWs, the local concerned persons as well as the farmers (albeit about 30-40% of them) have consistently mentioned this topic under the option 'Others' provided to them. As a liaison person, the AHWs have a crucial role in the organisation of Health Camps. And hence the need to train them on all aspects of this service too.

### 10.2.3 Views of the Farmer-Users

**a)** The quality of services in 'AI', 'First Aid', 'Vaccination' and 'De-worming' was felt to

be mostly better by the farmers, while the quality of services in 'Livestock Management Advice', 'Fodder Development', 'Castration' and the 'Use of Local Medicines' was felt to be inferior by the farmers.

**b)** A very high percentage of farmers (70-85% of the 20) of the 'Very Low' livestock potential Mandals (hilly, tribal areas) opined that either the AHWs have 'Not Done' any service or the quality of the services provided by them was 'Not Good'.

**c)** But 'Low' livestock potential Mandals turn out to be the most successful terrain for the AHWs; the animals being more important to the perhaps financially not so well endowed locals for livelihood.

**d)** Farmers of the 'Medium' and 'High' livestock potential Mandals are, in general, the next best in their satisfaction level with the services of the AHWs.

**e)** As seen already, a high percentage of the farmers (55-82%) across Mandals of all potential felt that the quality of the service provision was either 'Not Good' and 'Not Done' for the services - 'Livestock Management Advice', 'Fodder Development', 'Castration' and the 'Use of Local Medicines' in all of the districts, again indicating a need for more attention to these in any future training programme.

**f)** There does not seem to be much of a difference amongst the three different agro-climatic condition-wise Mandals ('Marginal', 'Average' and 'Good') with respect to the perception of the farmers of the quality of different services provided by the AHWs.

**g)** A majority of the SCs are 'Wage Labourers', who opined that 'AI' (68%) and 'De-worming' (55%) were either 'Not Done' or 'Not Good'; the other services being even more unsatisfactory to them. This trend is manifested for all of the services provided by the AHWs. This neglect of the wage earning scheduled caste households with respect to the provision of livestock services is quite definite and disturbing. The task of the planners is to see that the AHWs definitely reach out to the daily wage earning livestock keepers.

**h)** In hilly tribal area, perhaps due to a lower density of the AHWs or due to limitations

on their mobility or limitations of their skill level or a combination of all the three factors coupled with the low intensity of livestock production and greater poverty in this difficult region, almost all of the services are 'Not Done' as per the opinion of more than 70% (64-88%) of the farmers. This is a problem area - a challenge for the betterment of livestock services.

**i)** As regards AI, while there is not much of a difference among the different AHWs (Gopal Mitra, JKT and BAIF) and the AHD institutions (RLU & VD) the services of JKT are more appreciated.

**j)** Simply revealing are the opinions of the farmers of different land holding classes on the quality of livestock services provided by the AHWs. Both the 'Not Done' and 'Not Good' responses of the farmers for all of the services were highest (60-80%) in case of the landless livestock keepers (who are generally the poorest) and decreases as the land holding size of the farmers increased.

**k)** As high as 65% (40-85%) of the '50-100' and '>100' SR holding categories of small holders, who are invariably traditional shepherds felt that the services were either not provided ('Not Done) by AHWs or they were 'Not Good'. Thus, traditional shepherds, especially those having medium and big sized flocks, seem to be at a disadvantage; more so because the deprived services include crucial vaccination and de-worming.

**l)** 'Vaccination' and 'De-worming' services provided by the AHWs to birds across different backyard poultry units were better than that for small ruminants, as per the poultry keepers; however, 'First Aid' and 'Management Demo' (Extension!) services were rather unsatisfactory.



*Farmers always look forward to health camps for vaccination and de-worming of their stock.*

**m)** Though most of the farmers, local concerned persons and working AHWs feel that the organisation of health camps is an important service to the farmers, such camps are not very frequent as of now. But this 'service' may be seriously considered in all of our future plans as this is actually a medium for providing a gamut of quality services to a large number of farmers at least periodically.

**n)** Most of the AHWs, especially the Gopal Mitras, do undertake actual 'Treatment' of animals (as against the provision of 'First Aid'). This is a case of over-reach by them as they are indulging in—the Use of Antibiotics, Analgesics, Anti-Allergics, Injections, Uterine Pessaries and /or Surgical Procedures.

**o)** This tendency has a potential to become uncontrollable later, if immediate steps are not taken to control and regulate. Apart from improving the supervision and related procedures, trainings can also play a crucial part in this. It is during trainings that the need for quality of services has to be imparted along with the knowledge on the dangers of their over-reach in the long run.

#### **10.2.4 Remodelling of Training Programmes**

**a)** What is suggested in this section is designed to be an 'input' for an empowered committee, which has to do the actual remodelling of the AHW training programmes.

**b)** In the interest of providing satisfactory livestock services to the farmers, it is necessary to have similarly trained AHWs everywhere, which ever may be the service providing organisation. In other words, whether Gopal Mitra or AHWs of NGOs, it is imperative that all have a comprehensive broad-based training. Trainings exclusively for AI service, in the field context, is not desirable. The Gopal Mitras, BAIF AHWs and the JKT AHWs are carrying out other services also. It is inevitable in the field.

**c)** There are programmes lasting from 20 to 180 days for AHWs. One organisation may claim that they also teach a given subject (say First Aid) and hence their AHWs are

game for it in the field. But the same 'First Aid' dealt with in a 20-30 day programme would be superficial where as the same taught in a 3-4 months programme will be comprehensive. Hence, there is a need for standardising the course duration for all. A committee to review these should include representatives of the stakeholders, especially the NGOs.

**d)** After the successful completion of the trainings as judged by a committee (Concerned JD, Trainer AD and a Retired Veterinarian) through Practical and Viva tests, the trainee should be issued a proper 'Course Certificate'.

**e)** Such a Course Certificate should clearly mention that the person concerned is 'permitted to provide basic livestock services under the supervision of a qualified veterinarian'.

**f)** In the interest of uniformity, the future training programme may be organised utilising the infrastructure at RAHTCs used for the present Gopal Mitra programme with suitable modifications. The needy NGOs can get their candidates trained there or carry out the training themselves with the common curriculum as the basis, provided they have the necessary infrastructure.

**g)** So as to address the specific problems of the three problem areas, only candidates from the respective societies and localities should be selected in consultation with the society elders. However, the candidates must satisfy the minimum admission qualifications. They are:

i) Landless, daily wage earner, SC community-*From the same SC community*

ii) Hilly, tribal, low livestock potential area - *From the same Tribal community*

iii) Medium & large flock owning Shepherds-*From the same Shepherd community*

**h)** Based on the above broad guidelines, the AHD/APLDA may formulate the actual theory and practical class schedules for the day-to-day training organisation.

**i)** The whole training cost may be borne by the government. This expenditure may be considered as an investment for popularising the low cost services of the



department.

j) Boarding and lodging facilities are to be provided by the training organisations. If necessary, facilities available with the District Dairy Unions may be requested for the purpose.

### 10.2.5 Suggested Curriculum

Taking into consideration the issues that emerged from the study, broad suggestions of subjects and topics for a comprehensive basic AHW training course is given in *Table 10*.

Note: Following this study and generally in consonance with its recommendations, the Govt. of Andhra Pradesh appointed an Expert Committee as per the government order Rt. No.71 dated 23<sup>rd</sup> February 2005. The committee after careful assessment of all the aspects involved, recommended comprehensive course curriculum and modules for three deferent levels of paravet / AHW training, which the Govt. have accepted. Details of these are presented in the report 'Mainstreaming of Minor Veterinary Services in Andhra Pradesh'.

### 10.2.6 Follow-up as part of the Trainings

At present the trained AHWs, especially

Gopal Mitras constituting 80% of the AHWs, are on their own from day one with a rather weak back up support and supervision system in place. The 'nearest VAS' who is expected to supervise the work of the AHWs mostly remains very busy with a plethora of other technical and non-technical duties. This is an important reason for the not so good 'out-reach' and not so desirable 'over-reach' by them. The following system is suggested as a common solution for – a) improving the quality of services of the AHWs along the desired lines; b) making them responsible to the consequences – good and bad – of their activities; c) removing disparities between the Gopal Mitras and the AHWs of NGOs (BAIF, JKT, RASS) and c) integrating them into the overall service delivery system.

a) Provide a tapering stipend beginning from Rs.1,500 per month per trained and placed AHW for a period of one year so that they can establish themselves. This stipend may be for a suitably longer pseriod in case of the three categories of the AHWs listed under Item 7 above.

b) A cadre of the VAS, say 'VAS i/c AHWs', may be especially assigned in each Mandal just for back up support and supervision

**Table 10: Suggested topics for a basic AHW training course**

MODULE	SUGGESTED SUBJECTS & TOPICS	DAYS
1	REPRODUCTION & AI: Basics about Animals; Reproduction; AI Services; Bull, buck, ram management; Castration;	40
2	HEALTH CARE: Basics of the Health & Disease; First Aid; Vaccination; Handling vaccines during transit and usage; De-worming; Use of Herbal Medicines & Home Remedies, etc.; Disease Control - Disease Recording, Disease Reporting, Sample/Specimen Collection and Forwarding, 'Holding the Fort';	40
3	PRODUCTION & MANAGEMENT: Dairy Animal Management; Sheep & Goat Management, Backyard Poultry Farming; Swine Production; Fodder-Grazing Development; Feeding during Natural Calamities;	25
4	EXTENSION, LIAISON & ORGANISATION: Assessing Local Needs via PRA; Organising Trainings, Demonstrations, Meets, Fairs, Health Camps, Emergency Shelters/Camps, Pregnancy Diagnosis by VAS; Distribution of Extension Material; Spreading Extension Messages using local folk songs etc.; Referring & Reporting to designated VAS; Keeping Work Records; Care of Equipment; "Dos" and "Don'ts" in service provision with caution on the consequences of their over-reach; Main livestock schemes in operation;	25
5	INTERNSHIP: Field Extension Programmes (10 days), DI Lab + Semen Station (10 days); Hospital + Dispensary + RLU (30 days)	50

of the AHWs in that Mandal. He should be located at the Mandal level VH or VD, kept free from the other duties and provide TA/Transport for touring the Gopal Mitra Centres in the Mandal. The VAS manning the proposed Mobile Veterinary Clinics could be the ideal person for this task.

c) The stipend amount of the AHWs should be released only after this 'VAS i/c AHWs' issues a clearance stating that the work of the AHW during the month/quarter was satisfactory.

d) This assessment has to be done on the basis of - a) at least one visit by VAS to Gopal Mitra/AHW centre and b) at least one visit by the AHW/Gopal Mitra to the office of the VAS. During such visits, the following activities may be undertaken i) Verification of the records, ii) Technical back-stopping, iii) Issue of supplies (medicines, vaccines, semen, liquid nitrogen etc), iv) Problem solving and v) Quality control.

### 10.3 Need for Further Study

From the above observations and conclusions of the study, it emerges that

there are three problem areas concerning the provision of livestock services by the AHWs, or for that matter any service provider. They are:

a) Marginal, hilly, tribal, low livestock potential areas of Andhra Pradesh spread across seven districts;

b) Landless, daily wage earning, scheduled caste livestock keepers; and

c) Medium and large flock holding small ruminant holders especially traditional shepherd communities.

All of them are mostly poor farmers. It is difficult from a general study like the present one to get any precise information about the problems specific to such areas/communities, for whom such livestock are a crucial livelihood resource.

**The Study Team feels that there is a definite need for a special in-depth study with a focus on such areas/communities that would enable us to evolve livestock development strategies appropriate to the local conditions and needs.**

*Farmers now pay more attention to de-worming of calves.*





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The Swiss Agency for Development and Cooperation (SDC) is the development arm of the Federal Ministry of Foreign Affairs of the Government of Switzerland engaged in international development cooperation. SDC works in India with a focus on poverty reduction in the semi-arid rural regions of the country.

Started in 1963 with a technical collaboration in milk production, SDC's partnership with India's development agenda is spread over a diverse set of engagements covering natural resource management, rural finance and livelihoods, decentralisation, empowerment of the discriminated, environment and pollution, humanitarian assistance as well as human and institutional development. SDC India's partners include civil society organizations, Govt. departments, public sector entities, research advocacy groups, professional associations and other development agencies. Its goal is to support people initiated, people owned and people controlled processes that render sustainable and equitable rural development in India.



**South Asia Pro-Poor Livestock Policy Programme (SAPLPP)**,  
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The Pro-Poor Livestock Policy Initiative (PPLPI) of the Food and Agricultural Organisation (FAO), launched in 2001, aims to facilitate and support livestock-related policies and institutional changes that have a positive impact on the world's poor. The "Reforms in Livestock Service Delivery Systems - Experiences from a Participatory Process in Andhra Pradesh" constitute a prime example of national and international cooperation leading to an improved mutual understanding with ultimate benefits for the poor.

The South Asia Pro-Poor Livestock Policy Programme (SA PPLPP) was launched in July 2007 as the 'successor' of the PPLPI South Asia Hub through a partnership between the National Dairy Development Board of India (NDDB) and the FAO's PPLPI. The mission of SA PPLPP is 'to ensure that the interests of poor fe/male livestock keepers are reflected in national, regional and international policies and programmes affecting their livelihoods'. Up scaling the lessons learnt from the "Reforms in Livestock Service Delivery Systems" is an important item on the agenda of SA PPLPP.



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Intercooperation (IC) is a leading Swiss non-profit foundation engaged in the development and international cooperation for 25 years. IC is a resource and knowledge organisation with 550 professionals working in 22 countries including Afghanistan, India, Pakistan, Bangladesh and Nepal in South Asia. IC works with a number of agencies like SDC, World Bank, IFAD, GtZ, SECO, EU, ITTO, governments and NGOs.

During its early days, IC focused on providing technical expertise to livestock and dairy programmes of the SDC in many states. Its working domains further expanded to cover institutional development and capacity-building; watershed development and sustainable agriculture; decentralized planning and development and adaptation to climate change. Since 2006, IC operates as a registered entity in India, collaborating with governments and a wide variety of organizations. IC's working domains in India are Livestock, livelihoods and environment; Vulnerability and adaptation to climate change and Local governance & civil society.



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CALPI is a programme of the SDC implemented by the IC. Its objective is to capitalise on the rich experiences of SDC-IC to significantly inspire changes in the economic, administrative, legal and policy frame conditions in the livestock sector in such a way that the priorities and challenges of the rural livelihood systems are effectively addressed and the rural poor, particularly women, benefit from the emerging opportunities. In its first phase from May 2002 to July 2006, CALPI supported 17 projects and ten activities spread over seven thrust areas through a network of 27 partners. In its second phase (consolidation phase) of two years from August 2006, CALPI supports nine projects.

All the projects supported by CALPI function on a multi-partner, consortia/resource pooling mode following a participatory process, beginning with the capacity development of the partners and stakeholders. Most of them focus on niche areas and well identified support gaps of high impact potential on the poor. CALPI always focuses on building synergies and convergence with the Governments playing a facilitating and steering role.

