

Quality Veterinary Education for Effective Livestock Service Delivery

SVN Rao, S Ramkumar, K Natchimuthu and AK Joseph





Acharya NG Ranga Agricultural University, Rajendranagar,
Hyderabad, India
<http://www.angrau.net/>



Sri Venkateswara Veterinary University
Tirupati, India
<http://www.svuniversity.in/>



Rajiv Gandhi College of Veterinary and Animal Sciences, Pondicherry, India
Email: vetextension@vsnl.net



Capitalisation of Livestock Programme Experiences India, New Delhi, India
Email: calpi@intercooperation.org.in



Intercooperation in India (IC),
Hyderabad, India
Email: info@intercooperation.org.in



Swiss Agency for Development and Cooperation (SDC), New Delhi, India
Email: delhi@sdc.net

Authors

SVN Rao, Prof. & Head, Vet. & AH Extension, RAGACOVAS, Pondicherry,
S Ramkumar, Assoc. Prof; Vet. & AH Extension, RAGACOVAS, Pondicherry,
K Natchimuthu, Asstt. Prof; Vet. & AH Extension, RAGACOVAS, Pondicherry,
AK Joseph, Sr. Programme Coordinator, CALPI, New Delhi

Editing

Teamlingua
www.teamlingua.com
Email: info@teamlingua.com

Publisher

Intercooperation in India
Hyderabad

Photos

CALPI, RAGACOVAS and
the member Colleges of the Network

Design, Layout and Printing

The Idea Workshop
www.ideaworkshop.info

Citation

Quality Veterinary Education
for Effective Livestock Service Delivery
CALPI Programme Series 10

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

The presentation of material in this publication does not imply an expression of any opinion whatsoever on the part of SDC, IC, CALPI, RAGACOVAS and ANGRAU or SVVU. The opinions expressed are solely of the authors and do not constitute in any way, the official position of the above mentioned organisations.

Quality Veterinary Education for Effective Livestock Service Delivery

December 2008



Series 10





Abbreviations

AP	Andhra Pradesh
AH & VS	Animal Husbandry and Veterinary Services Department
ANGRAU	Acharya NG Ranga Agricultural University
ASCI	Administrative Staff College of Inida
CALPI	Capitalization of Livestock Programme Experiences India
DAH	Department of Animal Husbandry
FAO	Food and Agriculture Organization of the United Nations
FDP	Faculty Development Programme
HD	Human Development
IC	Intercooperation
ICAR	Indian Council of Agricultural Research
ID	Institutional Development
ILRI	International Livestock Research Institute
IVEF	Indian Veterinary Extension Forum
NDDDB	National Dairy Development Board
NDRI	National Dairy Research Institute
NGO	Non-Governmental Organisation
RAGACOVAS	Rajiv Gandhi College of Veterinary and Animal Sciences
SDC	Swiss Agency for Development and Cooperation
SH	Stakeholders
SHG	Self Help Group
SHL	Swiss College of Agriculture
SVVU	Sri Venkateswara Veterinary University
TNA	Training Need Assessment
TNI	Training Need Identification
ToT	Training of Trainers
WG	Working Group

Contents

Acknowledgement	i
Foreword	ii
Activities in a Nutshell	iii
1.0 Introduction	1
2.0 Reforms in Livestock Service Delivery	1
3.0 Stakeholder Consultations	2
3.1. Field Veterinarians	2
3.2. The Veterinary Council	3
4.0 Programmes in Acharya NG Ranga Agricultural University	4
4.1. Preliminary Consultation	4
4.2. Multi-stakeholder Workshop	5
4.3. First Level Training Need Identification	6
4.4. Resource Organisation for Faculty Development	8
4.5. First Faculty Development Programme in ANGRAU	9
4.6. Review, reflection and feedback	9
4.7. Second Faculty Development Programme	9
4.8. Third Faculty Development Programme	10
4.9. Second Level Training Need Identification in ANGRAU	10
4.10. Fourth Faculty Development Programme	13
5.0 Programmes in the Rajiv Gandhi College of Veterinary and Animal Sciences	13
5.1. Preliminary Consultation in RAGACOVAS	13
5.2. TNI cum Training Workshop	14
5.3. First Faculty Development Programme	15
5.4. Second Faculty Development Programme	15
5.5. Review, reflection and feedback	16
5.6. Impact Assessment	16
5.7. Third Faculty Development Programme	17
6.0 Working Group on Veterinary Education	17
6.1. First workshop of the Working Group	18
6.2. Second workshop of the Working Group	19
7.0 Performance of a Centre of Excellence	22
7.1. The First National Workshop	23
7.2. The Second National Workshop	25
7.3. The Third National Workshop	27
8.0 Partnership Programme with the Swiss College of Agriculture	29
8.1. Training Workshop	30
8.2. Training of Trainers	31
8.3. Dean's Meeting	32
9.0 Fourth National Workshop	34
10. Learning	35
11. Way Forward	38

Acknowledgement

This unique initiative is driven by the passion and commitment of a group of professionals determined to contribute towards improving the quality of Veterinary and Animal Husbandry Education in the pursuit of effective livestock service delivery to the small livestock producers.

The main drive which initially contributed to the conceptualization and planning of the initiative came from Dr. IV Subba Rao, the then Vice Chancellor and Dr. MV Subba Rao, the then Dean of Veterinary Science, Acharya NG Ranga Agricultural University (ANGRAU), Hyderabad and Dr. G. Butchaiah, the then Dean, Rajiv Gandhi College of Veterinary and Animal Sciences (RAGACOVAS), Pondicherry. Their contributions were ably matched by the professional support from Dr. Jayaram Krishna, Former Dean, ANGRAU, Mr. Umeshwar Pandey, Area Chairperson and Dr. RN Saxena, Professor HR from ASCI, the Associate Deans of the Veterinary Science Faculty of ANGRAU / Sri Venkateswara Veterinary University, Dr. Sudhakar Jogi and his team from the College of Veterinary Science, Durg, Dr. Andre Pittet of the Indian Institute of Science, Bangalore and the members and office bearers of the Indian Veterinary Extension Forum (IVEF).

The authors gratefully acknowledge the excellent support and cooperation provided by all the above persons and the enormous contribution and support provided by Mr. Francois Binder, Country Director and Dr. KR. Viswanathan, Team Leader of SDC, Ms. Rupa Mukerji, Delegate, Intercooperation, the CALPI Team, Prof. Fritz Schneider, Dr. Roland Staheli and Dr. Gabriel Kauffmann of the Swiss College of Agriculture, Zollikofen, Ms. Annet Wittween of IC, Bern and Dr. NG Hegde and Dr. BR Patil of BAIF. They also sincerely acknowledge the enormous contribution and encouragement by the Vice Chancellors, the Deans and the Faculty of the partner colleges and the State Animal Husbandry Departments, many of whom acted as versatile hosts for the events organized under the initiative. (list below).

1. College of Veterinary Science, Guwahati, Assam
2. College of Veterinary Science, Ranchi, Jharkhand
3. College of Veterinary Science, Bhubaneswar, Orissa
4. College of Veterinary Science, Hyderabad, Andhra Pradesh
5. College of Veterinary Science, Gannavaram, Andhra Pradesh
6. College of Veterinary Science, Tirupati, Andhra Pradesh
7. College of Veterinary Science, Bidar, Karnataka
8. College of Veterinary Science, Bangalore, Karnataka
9. College of Veterinary Science, Shimoga, Karnataka
10. College of Veterinary and Animal Sciences, Pookot, Kerala
11. College of Veterinary and Animal Sciences, Pondicherry
12. Madras Veterinary College, Chennai,
13. Tamilnadu Veterinary College and Research Institute, Namakkal, Tamilnadu
14. Central Avian Research Institute, (ICAR) Bareilly, Uttar Pradesh
15. National Dairy Research Institute, (ICAR) Karnal, Haryana

The State Departments of Animal Husbandry

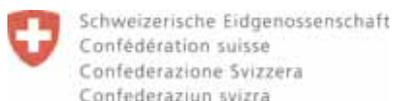
16. Directorate of Animal Husbandry, Andhra Pradesh
17. Directorate of Animal Husbandry, Karnataka
18. Directorate of Animal Husbandry, Kerala
19. Directorate of Animal Husbandry, Pondicherry

NGO

20. BAIF Development and Research Foundation, Pune

Authors
SVN Rao
S Ramkumar
K Natchimuthu
AK Joseph

Foreword



Embassy of Switzerland
Swiss Agency for Development and Cooperation - SDC

Swiss Agency for Development and Cooperation (SDC), a directorate under the Swiss Foreign Affairs Ministry together with Intercooperation (IC) as an implementation agency has been actively involved in promoting livestock-based livelihoods and natural resource management in India for several decades now. CALPI (Capitalisation of Livestock Programme Experiences India), a programme of the SDC implemented from 2002 to 2008, helped capitalise the vast experiences, competencies and partnerships to inspire and promote positive changes in the economic, administrative, legal and policy framework conditions in favour of the poor livestock keepers.

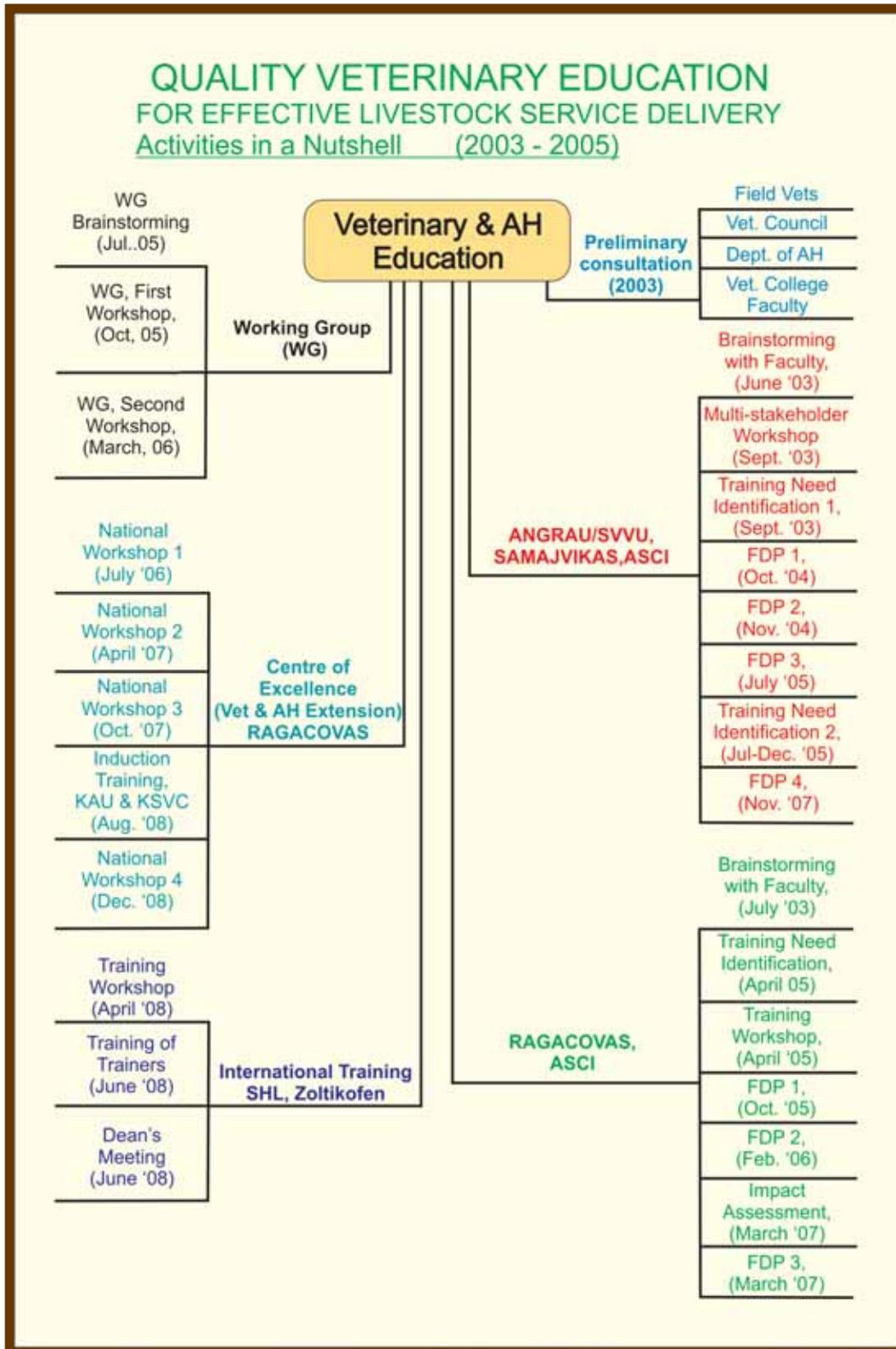
This publication documents an extremely interesting and successful intervention made by CALPI in one of the key areas of the livestock sectors: Veterinary and Animal Husbandry Education. In the frame of this project, CALPI was able to knit together a large functional network including Indian as well as Swiss institutions, which eventually led to the generation of innovative ideas towards improvement of the quality of Veterinary education and training. This was possible through a multi-stakeholder approach, involving universities, colleges, faculty, students, practising veterinarians, industry and the resource organisations, towards evolving practical models for problem solving.

The readers will find a detailed analysis of the results and the outcome of a number of key activities pursued under this initiative, including the organisation of different levels of training need assessments, programmes for faculty development and impact assessment, national level workshops and international training programmes. We strongly feel that such positive experiences should be disseminated and up-scaled, to help Veterinary institutions capitalise on these lessons and ensure that the professionals going out of the campuses are adequately equipped to address the emerging challenges of livestock sector in India.

We firmly believe that this publication will be of an immense value to not only all Veterinary and Agricultural universities, but also to other professional educational institutions in India, to fulfil their quest to remain relevant and to bring about far-reaching changes towards improving the quality and content of Veterinary and Animal Husbandry education and training.

Francois E. Binder
Country Director
Swiss Agency for Development and Cooperation (SDC)
Swiss Foreign Affairs Ministry
Embassy of Switzerland
New Delhi

Activities in a Nutshell





Quality Veterinary Education for Effective Livestock Service Delivery

1. Introduction

India's growth in the production of milk, meat and eggs has been quite impressive in the past three decades. It has been unique in dairy and small ruminant sectors where almost the entire production comes from small-holder livestock producers. But in the liberalised, globalised environment, the growth in urbanisation, income and demand for livestock products are bringing about fast changes in food production, delivery systems, retailing and the whole consumption pattern. Never before have the parameters like quality, quantity, scale of operations, economy of production, price, terms of delivery and food safety standards gained such prominence.

In this fast changing environment, the competitiveness of the small-holder acquires a high priority, both in terms of capturing the opportunities emerging

from a growing global market and also in ensuring the livelihood security of the small livestock producer. The choice the small livestock producers make - of either capitalising this opportunity or of quitting livestock production in search of other livelihood options - depends, to a large extent, on the quality, availability, price and timely delivery of livestock services and the skill and capacity of the service providers. It is in this context that CALPI (Capitalisation of Livestock Programme Experiences India) started supporting its partners and stakeholders, including the state governments to facilitate livestock service reforms.

2. Reforms in Livestock Service Delivery

The Swiss Agency for Development and Cooperation (SDC) and the Intercooperation (IC) are well known

development partners in the Livestock - Livelihood - Natural Resource Management (NRM) domains in India for over four decades. They have together implemented a number of successful programmes in India, which have earned them a high reputation, credibility and good will. CALPI is built on the strong foundations of these successful programmes. It capitalises SDC-IC's over 40 years of rich experiences to inspire changes in the economic, administrative and legal frame conditions in the livestock sector in favour of the poor. The programme has seven thrust areas supporting: (1) Livestock Policy Development, (2) Livestock Service Delivery Systems, (3) Livestock Environment Interactions, (4) Veterinary and Animal Husbandry Education, (5) Knowledge Networks and Research Partnerships, (6) Human & Institutional Development and (7) Livestock Products Marketing.

In achieving its objectives, CALPI has charted an approach that is quite unique. All the activities of CALPI are well-rooted in sound research base and over forty years of project experience in India. Wherever such sound research base is not available, CALPI commissions detailed desk studies / literature search to generate such information base. Similarly, all projects of CALPI are built-on well identified gaps and needs of the Livestock - Livelihood - Environment domains. It always operates on partnerships and consortia for sharing not only resources, but also experiences.

CALPI's interest in the Veterinary and Animal Husbandry Education domain is rooted in the SDC supported research on 'Agriculture Services and the Poor', which highlighted the major weaknesses of the livestock service delivery systems prevailing in many

states of India. An efficient and effective livestock service delivery forms a major prerequisite for livestock production by the resource poor smallholders. In this respect, the capacity and the skill levels of the service providers are considered key determinants of the quality of livestock services. CALPI, therefore, assigns a high priority to building the capacity and skill level of the service providers.

3. Stakeholder Consultations

3.1. Field Veterinarians

There was a general perception amongst many stakeholders in the livestock sector that fresh graduates emerging from Veterinary colleges do not have an opportunity to understand many of the important challenges in the livestock sector such as disease control and eradication, quarantine and certification and veterinary public health. The education is believed to be more geared towards securing 'government jobs and for clinical practice'. Important topics such as livestock-environment interactions, participatory processes, gender-balanced development, farmers' traditional wisdom, herbal medicine and the role as extension agents for small livestock farmers are also not covered adequately. The need to establish a well-balanced livestock service delivery system through a combination of public and private actors and the efforts to equip them to deliver effective services to the farmers also deserve an enhanced attention.

(In this respect, CALPI has supported the Government of Andhra Pradesh in taking up reforms in livestock service delivery systems including a definition of Para-veterinary services. There are a number of documents including a video already available on this pioneering initiative)

True to CALPI's approach in selecting its projects and processes based on extensive multi-stakeholder consultations and participatory approaches, its team travelled across many states like Rajasthan, Andhra Pradesh and Uttar Pradesh consulting Livestock Service Providers and other Key Stakeholders on the need and scope for livestock service reforms. In all such consultations, lack of opportunities for training, capacity development and continuing education of the service providers figured as the major impediment. Refer Box - 1. They always identified the need for (i) enhancing the knowledge, skills and competency levels of the service providers and (ii) influencing their attitudes and behaviour to effectively address the current and emerging challenges in the livestock sector as high priority.

Box - 1

Feedback from groups of field veterinarians

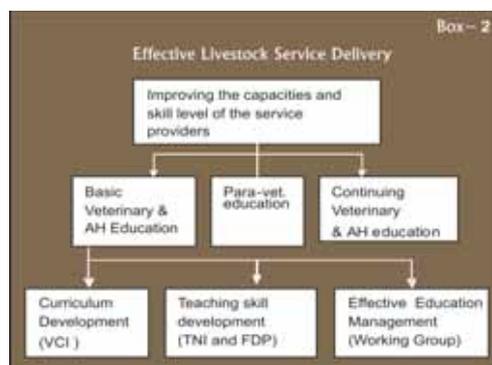
We are veterinarians working in the field for the last 15-20 years. During all these years, hardly we could avail of any opportunity to undergo training or to improve our skills. Even the sporadic short courses which a few of us could attend (i.e. Exposure to frozen semen programme, collection of laboratory samples, etc.), do not have much relevance to the tasks that we perform now.

Hardly any one of us could visit and see for ourselves any of the successful programmes like those of NDDDB, Amul, BAIF, the Central Frozen Semen Production and Training Institute, Hezerghetta, the Kerala Livestock Development Board, the Sabarmati Ashram Gaushala, etc.

3.2. Veterinary Council

Recognising the vast impact potential of orienting young veterinarians to the current and future challenges in the sector, CALPI collaborated with

several stakeholders under its thrust area 'Veterinary and Animal Husbandry Education'. Under this initiative, CALPI supported local partners and stakeholders to facilitate improvements in the formal and informal Veterinary and AH education and vocational/in-service training of veterinary and animal husbandry service providers. This was seen as an effective means to enable them to address emerging opportunities and challenges in livestock production and extend need based and effective services to the resource poor livestock holders. Refer Box - 2.



As is customary for CALPI to submit to stakeholder suggestions and feedback to conceptualise and develop a road map for its activities, the CALPI team held discussions: (i) internal within the team, (ii) with Prof. V. Ramakumar, former Secretary of the Veterinary Council of India (VCI) and, (iii) a few Heads of Departments of a well-known Veterinary College in South India (early 2003). While the first two discussions strongly pointed to the need for support in the area of veterinary and animal husbandry education, the CALPI team received a luke warm response from the Veterinary College. The college advised the CALPI team to approach the Veterinary Council of India (VCI) for action as deemed fit. This discussion gave an impression that

possibly many Veterinary colleges may not be willing, open and forthcoming to collaborate and contribute to this endeavour. However, instead of closing its efforts based exclusively on the response of just one Veterinary College, CALPI felt it necessary to have an interaction with one more College, preferably a newer one like the college at Gannavaram in Andhra Pradesh, to have a balanced view of the forward actions. It was also felt that CALPI should solicit the active participation and support of the Director of Animal Husbandry of the State that they proposed to cover.

There were also suggestions that other areas like standardisation of curriculum of para-veterinarians and para-veterinary workers (where there is a lot of diversity amongst states) and improvements in the system of skill up-gradation/continuing education of in-service veterinarians, para-veterinarians and para-vet workers might also be included under the CALPI mandate. The scope and extent of these activities were further expanded and taken-up under the participatory livestock service reforms initiative taken up in Andhra Pradesh in partnership with the Govt. of Andhra Pradesh, the Pro-Poor Livestock Policy Initiative of FAO and others. Extensive documentation on this in the form of printed documents, videos, etc. are available.

Although disheartened by the lukewarm response from the first Veterinary College consulted, CALPI approached the then un-divided Acharya NG Ranga Agricultural University (ANGRAU) under which there are three Veterinary colleges including the relatively newer Gannavaram College and another, the Rajiv Gandhi College of Veterinary and Animal Sciences (RAGACOVAS),

Pondicherry. The speed and the manner in which both these colleges responded to CALPI's request for a meeting, were indeed overwhelming.

4. Programmes in Acharya NG Ranga Agricultural University

4.1. Preliminary Consultation

At the appointed venue and time for the meeting at ANGRAU on 19th June 2003, the CALPI team was pleasantly surprised to meet the Dean, a group of about 25 to 30 Senior Faculty members, the Registrar of the University, the Director of Research and other senior people. The four hour meeting generated a lot of ideas and suggestions for 'improving the quality of Veterinary and Animal Husbandry education'. The general consensus emerged through this meeting was:

- i. The responsibility for review and modification of the Veterinary curriculum is vested with the Veterinary Council of India (VCI).
- ii. The curriculum introduced by VCI in 1993 has bridged most of the gaps and deficiencies identified till then. It has also incorporated some flexibility in the curriculum to meet the local needs.
- iii. The VCI has already initiated the process for reviewing the existing curriculum (though it might take 1-2 years for the curriculum to get actually revised).
- iv. It would therefore, be appropriate for ANGRAU to make the best use of the flexibility in the existing curriculum and to focus on effective operationalisation of the curriculum.



- v. Continuing education and skill-building of the teachers in the three Veterinary colleges are key areas that require priority attention by ANGRAU.

4.1.1. Specific action points from the meeting

- i. Identifying the operational gaps and deficiencies in Veterinary education, which could be made good within the framework of the existing curriculum, through stakeholder consultation.
- ii. Arranging need analysis for teaching skill up-gradation of the teachers. A system of skill up-gradation/re-training/continuing education should become an area of high priority.
- iii. Based on the above, preparing a detailed plan for improving Veterinary education in ANGRAU indicating the support expected from CALPI and the other concerned partners.
- iv. CALPI may solicit support of VCI in filling the gaps and deficiencies in Veterinary education, making best use of the flexibilities within the existing curriculum and if necessary, a review.
- v. Facilitate a landscaping of the Para-veterinary and Para-veterinary Worker training offered by various agencies in the concerned state, identify the gaps and deficiencies in the training and the additional needs to be met.

(This has been subsequently arranged through the Livestock Service Reforms Initiative taken up by the Department of Animal Husbandry, Government of Andhra Pradesh supported by CALPI).

In conclusion, the meeting with the senior faculty of ANGRAU finally proposed a well moderated 'brain storming session/workshop' participated by all the key stakeholders namely the faculty, students and practising veterinarians of the colleges under ANGRAU, the state AH department, the milk unions, the Non-Governmental sector, etc. to develop a road map for further actions.



Faculty provides crucial inputs to shaping FDPs

4.2. Multi-stakeholder Workshop

Based on the above, a multi-stakeholder Workshop on 'Veterinary Education, Emerging Perspectives' as mentioned under item i. above was jointly organised by ANGRAU and CALPI on 10th and 11th September 2003 at the Rajendranagar campus of ANGRAU. The major objectives of the Workshop were:

- (i) To identify the operational gaps and deficiencies in Veterinary education which could be bridged within the framework of the existing curriculum and,
- (ii) To generate ideas to bridge the gaps and deficiencies within the existing Veterinary curriculum so as to enable veterinary graduates to address the emerging challenges effectively.

The Workshop examined in detail the objectives, gaps and deficiencies in undergraduate veterinary education.



A multi-stakeholder workshop in progress in ANGRAU

The highlighted gaps and deficiencies included some, which required modification of the Veterinary curriculum (to be brought to the attention of VCI) and the others which could be made good within the framework of the existing curriculum. It also examined the perceived gaps and deficiencies in Veterinary education in the emerging context and the others as under:

- (i) Human, Administrative and Management Aspects of the operation and the flexibility in the curriculum,
- (ii) Farmer Focused Practical Orientation,
- (iii) Quality Service Delivery - changing needs and,
- (iv) Globalisation and Market Access, which have a high bearing on the quality of Veterinary education.

4.3. First Level Training Need Identification

The Workshop also included a half-day group exercises on the Training Need Identification (TNI) of teachers of the Veterinary colleges of ANGRAU with the help of Samaj Vikas Development

Support Organisation, an HR consulting firm based at Hyderabad. The main objectives of the TNI were:

Assess the training needs of selected teachers of the Veterinary colleges of ANGRAU with a view to update their knowledge, skills and attitude profile.

Gather opinions, ideas and other inputs from the teachers, students and practising field veterinarians so as to build an effective linkage between what is being taught by the teachers and what is being sought by the students and other practitioners.

These objectives were accomplished through the organisation of three parallel sessions of:

- (i) Faculty (teachers) drawn from the three Veterinary colleges under ANGRAU.
- (ii) Students drawn from the second, third and fourth years of the BVSc & AH classes.
- (iii) Practising veterinarians who are from the alumni of these colleges.

The methodology followed by Samaj Vikas included meetings, discussions, a questionnaire on identification of responsibilities and requirements of the faculty, students and field veterinarians and suggestions by them.

4.3.1. Assessment by the Faculty

For the teachers, the consulting firm used (i) a Structured Self-Reflection Checklist that categorised the training needs into ten areas to enable teachers to keep pace with the changes and, (ii) a discussion guideline to gather relevant information from the teachers. The training needs identified in the workshop are presented in Box - 3

Box - 3

Summary of training needs identified in the workshop

1. *Adult Learning Tools, Methods and Techniques*
2. *Latest Training Methodology and Technology*
3. *Subject Competence*
4. *Latest Developments in the Field*
5. *"Hands on" Experience*
6. *Cross-discipline Appreciation*
7. *Empathy Skills*
8. *Analytical Thinking*
9. *Motivating Students to Learn*
10. *Problem Solving through Creativity and Innovation*

4.3.2. Assessment by the Student group

In the student groups, the questionnaire covered their responsibilities and aspirations from the angle of the different positions they might be required to hold after they graduate from their Veterinary college. These positions included Research Scientist, Academicians, Field Veterinarians, Civil Services, Higher Education, Industrialists, Entrepreneurs, Government Services and Social Services. The students also identified the strengths and weaknesses of the different departments of the college and their enabling and disabling factors and presented department-wise suggestions for improvement. The final suggestions and recommendations from the Workshop listed four priority areas of effectiveness of training as identified by the teachers against which the success or failure of training interventions can be measured. These included:

- (i) Professional capability,
- (ii) Inter-personal flexibility,
- (iii) Teacher-Student relationship and,
- (iv) Change adaptation mindset.



Students provide key inputs to Faculty Development.

4.3.3. Assessment by Field Veterinarians

The group of Field Veterinarians, through a structured questionnaire, elaborated their responsibilities as Veterinarians in the field and identified the requirements to fulfill these responsibilities effectively. They also assisted in identifying the gaps and deficiencies of formal Veterinary education.

In the process, they examined in detail the improvements in skills, continued cycle of updating teachers on local problems and issues, personality development, drought/disaster management, social mobilisation, communication skills and rural psychology, disease diagnosis, post-mortem techniques and jurisprudence and wildlife sciences as a priority. The recommendations of the field veterinarians included:

- (i) Organisation of a common platform for field veterinarians and academicians to deal with field related issues and problems including training programmes,
- (ii) Updating training methodology and skills of the university teachers,
- (iii) Equipping classrooms with computerised teaching aids including multi-media projectors,
- (iv) Giving placements for experienced

and eligible field veterinarians for teaching to overcome the shortage of teachers in the Veterinary colleges,

- (v) Capacity building in wildlife science and strengthening diagnostic facilities

On the recommendations of all the three groups, the core issues identified during the TNA were:

- (i) Teachers' own attitudes, perceptions and a lack of organisational development at the veterinary college level.
- (ii) Need to strengthen teachers' skills in the context of introducing new and modern ways of imparting education and knowledge to students.

Finally, based on the multi-stakeholder workshop and the first level TNI, the topics listed in Box - 4 were identified for capacity building of the teachers.

Box - 4

Topics finally identified for capacity building of Teachers

1. Adult learning tools, methods and techniques
2. Latest training methodology and technology
3. Interpersonal communication skills
4. Latest developments in the field
5. Human resource management
6. Change management
7. Hands-on experience
8. Cross discipline appreciation
9. Analytical thinking
10. Problem solving through creativity and innovation
11. Motivation of students to learn
12. Empathy skills
13. Personality development
14. Coping strategies with new situations, and
15. Counselling skills



Blind folding also yields powerful signals on Training Need Assessment.

4.4. Resource Organisation for Faculty Development

Having elaborately identified the training needs of the faculty, based on a multi-stakeholder consultation and feedback, it was the turn of ANGRAU supported by CALPI, to identify a suitable resource organisation to facilitate human and institutional development and faculty development in the three Veterinary colleges of ANGRAU. ANGRAU/CALPI's search for a suitable partner to take the suggestions forward, took them, one by one, to many organisations beginning with the Academic Staff College of Jamia Millia Islamia University, New Delhi, the Academic Staff College of Osmania University, Hyderabad, and then to Dr. Marri Chenna Reddy, Human Resource Development Institute of AP. The sixth organisation to be explored was the Administrative Staff College of India (ASCI), Hyderabad which seemed to fit ANGRAU/ CALPI's requirements.

A meeting amongst Mr. Umeshwar Pandey, Area Chairperson HR of ASCI, Dr. MV Subba Rao, the then Dean, Faculty of Veterinary Science, ANGRAU and Dr. AK Joseph, Senior

Programme Coordinator, CALPI reached a consensus to initiate the first round of Faculty Development Programme (FDP) with the support of ASCI. Considering the highly laudable objectives of the FDPs and the challenges before it to tread the un-trodden path of 'Teaching the Learned', ASCI even offered some concessions to ANGRAU on its fees for such programmes. The hard work, sincerity and passion generously exhibited by the ASCI teams mainly led by Mr. Umeshwar Pandey and Dr. RN Saxena in arranging the Training Need Identification (TNI), FDP, Impact Assessment, etc. were well reciprocated by the faculty of these colleges through an enhanced demand and increased effectiveness of the FDPs.

4.5. First Faculty Development Programme in ANGRAU

The preliminary brainstorming exercise held with the Dean and the faculty of the three colleges of ANGRAU, the multi-stakeholder workshop and the TNI held at Rajendranagar, highlighted the need for developing the Knowledge, Skills and Attitudes (KSA) of the Veterinary Teachers. The topics that finally evolved, based on these exercises for capacity building of the teachers (shortlisted in Box - 4), formed the base for the ASCI resource team to develop the module for the first Faculty Development Programmes (FDP) in the Veterinary Colleges of ANGRAU.

The first FDP by ASCI was conducted in the Veterinary College, Rajendranagar, Hyderabad from 18th to 20th October 2004 for a batch of 25 faculty members - 15 from the Rajendranagar (host) college and 10 from the Tirupati and the Gannavaram colleges. The final list of topics covered in the first FDP is presented in Box - 5.

Box - 5

Major Topics covered under FDP-1

1. Role Clarity
2. Learning styles and Principles of adult Learning
3. Teaching/ Training methodologies
4. Transactional analysis
5. Case study method
6. Presentation Skills

4.6. Review, reflection and feedback

At the end of the FDP, the review involved a: (i) verbal feedback from the participants in a group interaction moderated by a person who was neither a part of the resource group, nor part of the faculty participants. The feedback was recorded and reported to the resource team and to the course coordinator. (ii) In addition, a structured questionnaire was administered seeking individual feedbacks from all the participants. The questionnaire covered aspects like achievement of the objectives, rating on individual sessions, the overall rating of the programme and suggestions for improvement. The feedback for improvement of the FDPs covered many practical and useful tips for the refinement of the FDP.

4.7. Second Faculty Development Programme

The second FDP based on this refined module was conducted in the college of Veterinary Sciences, Tirupati from 22nd to 24th November 2004. Based on the feedback and suggestions by the participants of the first FDP held at Rajendranagar, two more topics namely (i) Teaching Styles and, (ii) Use of Audio-Visual Aids were added to the list of topics for the second FDP.

Twenty five faculty members from all levels attended the second FDP for which 15 participants participated from the host college at Tirupati and the remaining from the other two colleges.

4.8. Third Faculty Development Programme

Based on the feedback from the participants at the end of the second FDP held at Tirupati, the module was further improved by including a new topic namely 'motivating students' in the course content and the session on 'case study method' was dropped. The refined module was used further for the third FDP held in the Veterinary College, Gannavaram from 25th to 27th July 2005. Here again, 25 Teachers participated in the FDP, 15 from the host college and the remaining from the other two colleges.

Thus, in all the three FDPs together, a total of 75 faculty members were trained to improve their skills and attitudes through these programmes.

4.9. Second Level Training Need Identification in ANGRAU

As elaborated in section 4.3, the first level of TNI was carried out in groups, held through three parallel workshops of the Faculty, Students and Practising Veterinary Professionals. Therefore, it did not have much scope to address the specific individual training needs of the faculty members. A detailed Training Need Identification of individual faculty members of these colleges was necessary to be carried out for further refinement of the FDPs, once an FDP was conducted in each of the three colleges. Thus, CALPI together with ANGRAU approached ASCI to carry out the TNI and an MOU was signed with ASCI to this effect in October 2004.

The second level TNI in the three colleges of ANGRAU went through a systematic 360 degree assessment of the individual training needs of all the faculty members. The ASCI team led by Dr. RN Saxena conducted Workshops in the veterinary colleges at Gannavaram, Rajendranagar and Tirupati on 28th July 2005, 14th October 2005 and 17th December 2005, respectively and interacted with the Faculty, Students, Dean and the Associate Deans of the colleges to assess the training needs of the faculty. The methodology included capturing:

4.9.1. Self Perception

To begin with, each faculty member responded to a questionnaire prepared by ASCI in the form of a 'Self Report Form' to capture the self perception of each faculty member about him/herself. It covered dimensions such as (i) Empathising and caring (ii) Adaptability (iii) Openness (iv) Communication Skills (v) Leadership Qualities (vi) Assertive Skills (vii) Anger Management (viii) Creativity (ix) Supportive, helpful and approachable and, (x) Building and Managing Relationships. In addition, individual faculty members' inputs were also received on a checklist of about 40 attributes of an ideal faculty member of the veterinary faculty (using a format developed at RAGACOVAS, Pondicherry).

4.9.2. Peer Perception

A questionnaire structured on the format of the 'Self Report Form' with modifications, was used to obtain the perception about the respondent faculty member from other faculty members who knew him/her well. In addition, a very short form was used to receive feedback from selected faculty members about each respon-

dent. The focus of such feedbacks was mainly to identify the strengths and weaknesses of the respondent faculty member.

4.9.3. Perception of Students

About fifteen students from the second, third and fourth year classes of each college individually prepared a wish list, containing ideas and suggestions on what their college/faculty members should do to enhance learning.



The much needed inputs for Training Need Identification came from the girl students also.

4.9.4. Personal Data

All the participants responded to a 'Personal Data Form' that highlighted their training needs in technical areas and the projects and places that they wished to visit for enhancing their knowledge and skills. Each member also gave suggestions to improve the overall competency of the Veterinary Science Faculty.

4.9.5. Personal Interview

Before finalising the individual training needs, each faculty member was interviewed personally by one of the ASCI faculty members after taking into consideration all the data collected through the various forms/questionnaires.

Altogether, some 112 faculty members (Rajendranagar-38, Tirupati-

46 and Gannavaram-28) participated in the second level TNI. The outputs of the assessment were presented in the form of:

- i) A compilation of individual training needs in their subjects areas.
- ii) A compilation of a list of various places of interest from the angle of Veterinary Science Education, which the individual faculty members would like to visit.
- iii) A compilation of an individual's training needs in the areas of teaching skills and personal skills.
- iv) Recommendations by way of human development strategies for Capacity Development of the faculty so that they:

1. Adopt the latest teaching methodologies and technologies
2. Focus on research work
3. Pursue doctoral work
4. Make teaching practical and field oriented
5. Increase informal interactions with students

- v) Recommendations by way of institutional development strategies, which focused on:

1. Improvement in infrastructure
2. Strengthening of extension activities
3. Interaction/networking with field practitioners, farmers and livestock industries
4. Partnership/networking with other Veterinary Science Colleges and Centres of excellence both in India and abroad

Based on the above compilations and recommendations, an analysis of the training needs of each member of the faculty was drawn-up and summarised.

These included three main training areas namely, technical (subject-matter) training, non-technical training and a list of organisations and places that the faculty desired to visit and learn from.

On a detailed analysis of the data from TNI, ASCI also developed elaborate Human and Institutional Development Strategies for the three colleges. The faculty members gave exhaustive recommendations on (i) how to improve the competencies of the veterinary faculty and, (ii) how the quality of teaching being imparted in each college may be improved. Similarly, in response to a feedback form for students, the students of all the three colleges also presented very pragmatic suggestions for improving the learning climate and their individual learning for each of the three colleges.

4.10. Fourth Faculty Development Programme

After the three FDPs, one in each of the three colleges, and based on the outcome of the individual Training Need Identification (TNI) as elaborated in section 4.9, an altogether new module of the FDP was designed by ASCI as indicated in Box - 6. Based on the new module, a three day Faculty Development Programme (FDP-4) was developed and conducted from 14th to 16th November 2007, at Tirupati where 29 faculty members from all the three colleges participated.

Following the bifurcation of ANGRAU in to ANGRAU and the Sri Venkateswara Veterinary University (SVVU), establishment of the new University HQ at Tirupati and the fast turnover in the posts of Dean, Associate Deans and Vice Chancellor

in the new University, the process of FDPs and the other activities in SVVU remained dormant for some time, although the faculty from all the three colleges continued to participate actively in the programmes organised in other colleges/universities.

Box - 6

Topics identified for the fourth FDP in the Veterinary College, Tirupati

1. *Communication skills including assertive communication, listening skills and conducting meetings*
2. *Presentation skills, managing anxiety, speaking confidently, managing students in the classroom, using audio/visual aids and lesson planning*
3. *Skill practice (each participant would develop and deliver a 5 to 6 minutes presentation to the faculty group, which will be recorded as a video. These videos will be open for critique by self, other participants and the ASCI faculty)*
4. *Teaching skills including educational technology & methodologies, student psychology, how to motivate students and counselling techniques*
5. *Principles of management and administration, people management*
6. *Leadership and decision making*
7. *Managing relationships, interpersonal relations*
8. *Stress management*
9. *Managing emotions including anger management*

5. Programmes in the Rajiv Gandhi College of Veterinary and Animal Sciences

5.1. Preliminary Consultation in RAGACOVAS

Similar to the stakeholder consultation held in ANGRAU mentioned at item 4.1. and in tune with CALPI's multi-stakeholder process, a team consisting of Mr. Frank Udo Hoeggel, Senior Advisor, CALPI, Dr. V

Ramakumar, Former Secretary, Veterinary Council of India (VCI), Dr. AK Joseph, Sr. Programme Coordinator and Mr. Padmakumar, Programme Officer, CALPI visited the Rajiv Gandhi College of Veterinary and Animal Sciences (RAGACOVAS), Pondicherry on 4th July 2003, to exchange ideas with the faculty and evolve a broad direction forward. The team accompanied by Dr. G Butchaiah, Dean of the college, first visited the Teaching Veterinary Hospital, the Exhibition Hall, the different Departments and the Instructional Farm Complex. Later, the team had a meeting with the faculty of the college in which the Director of Animal Husbandry and Animal Welfare, Dr. Alfred Gnanou also took active part.

Initially, Mr. Hoeggel presented an overview of CALPI (Capitalisation of Livestock Programme Experiences India), its objectives, thrust areas, guiding factors and activities. The CALPI team also gave its observations from many states on the scope of capacity building and continuing education of the livestock service providers. The Team also gave an overview of its interaction with the faculty of ANGRAU. There was excellent interaction between the faculty and the CALPI team on the possibility of improving the knowledge, skills and attitudes of the service providers as also the quality of Veterinary Education in the college. At the end, it was resolved to convene a meeting of the stake holders which included field veterinarians, final year students Farmers, NGOs and the faculty of the college to identify the needs of the veterinarians vis-a-vis requirements of the farmers. Later the team also had a discussion with Dr. R Padmanabhan, the Chief Secretary to the Government of Pondicherry.

These activities being path breaking efforts, the Steering Committee of CALPI however cautioned the CALPI team to move forward cautiously, stage by stage, instead of spreading too thin and expanding too fast. Therefore, the CALPI team waited for the TNI and FDPs of ANGRAU colleges to move forward first, so as to harvest the learning from there before taking up similar activities elsewhere.

5.2. TNI cum Training Workshop

Based on the success of the TNI and FDPs in the three colleges of ANGRAU and the highly positive feedback from their faculty, CALPI extended their support for similar activities in RAGACOVAS. As in ANGRAU, the expert resource support was extended through the experienced team of ASCI who had by then a good experience of taking up TNI and FDPs. The course content of the FDPs held at the ANGRAU colleges till now provided the background for the first Training Workshop held at RAGACOVAS from 16th to 19th April 2005, combined with the Training Need Identification (TNI). The Workshop led to the:

- i) Identification of training needs in the area of teaching and personal skills of 25 faculty members who attended the Workshop.
- ii) Drawing-up of the profiles of an excellent faculty.
- iii) Preparation of a vision statement for RAGACOVAS and strategies to achieve this vision.

During the Workshop, a 'Self-Report Questionnaire' was developed and the reports were collected from all participants. The questionnaire assessed

the perception of the participants on the following areas:

- i) Building and Managing Relationships
- ii) Being Supportive, Helpful and Approachable
- iii) Empathising and Caring
- iv) Adaptability
- v) Openness
- vi) Communication Skills
- vii) Leadership Qualities
- viii) Assertiveness Skills
- ix) Anger Management
- x) Creativity

5.3. First Faculty Development Programme

Based on this initiative, the first FDP was conducted at RAGACOVAS from 25th to 28th October 2005, with the course content as shown in the Box- 7. This programme was attended by 27 faculty members consisting of 21 Assistant Professors, 5 Associate Professors and only one Professor. The programme was highly rated.

Box -7

Course Content of the first FDP in RAGACOVAS

1. Communication Skills
2. Assertive Communication
3. Leadership
4. Developing Others
5. Decision-making
6. Team building
7. Motivation
8. Time-management
9. Managing Stress
10. Emotional Intelligence and Anger Management
11. Presentation Skills
12. Teaching Methodologies
13. Creativity in Teaching
14. Learning Styles
15. Teaching Styles



The participants listening keenly to a presentation

Feedback was collected from the participants both orally and also through a structured questionnaire.

5.4. Second Faculty Development Programme

On the basis of a review feedback, the following modifications were made in the course content for the subsequent FDP.

- i) Deletion of the learning styles, teaching styles and team building
- ii) Addition of three sessions on audio-visual aids, student psychology and student counselling

It was however decided to hold the next FDP at a gap of at least three months so that one could find out from the previous participants whether they were able to achieve the goals for improvements that they had set for themselves. Accordingly, the second FDP was conducted from 7th to 10th February 2006.

Altogether, 23 faculty members attended the second FDP. The attendance of the second FDP was characterised by participation from much higher levels. This consisted of 14 Professors, 7 Associate Professors and only 2 Assistant Professors. This showed that the programme was very well-received and that the initial reluctance to change at the senior

faculty levels had melted away, following the good results from the first FDP. In addition to the FDP, a meeting was also held with the participants of the first FDP. It was heartening to note that most of them were able to achieve the goals set for themselves in regards to quality of their teaching.

5.5. Review, reflection and feedback

As per the pattern followed in all of the previous FDPs (refer item 4.6), a review, reflection and feedback was arranged at the end of every FDP held at RAGACOVAS as well. It involved both a verbal feedback as well as feedback based on a structured questionnaire. The feedback covered every aspect of the FDP, beginning from the achievements of the objectives, rating on individual sessions, overall rating of the programme and suggestions for improvements. These, together with the outputs of the impact assessment, provided very valuable clues for a steady refinement of the course content.

5.6. Impact Assessment

The FDPs conducted were expected to bring about improvements in the teaching as well as promote behavioural changes amongst the teachers. Keeping this in mind, as also after allowing over a year after the second FDP for the faculty participants to internalise the learnings, CALPI and RAGACOVAS together decided to conduct an impact assessment of the first two FDPs with an objective to refine the future FDPs suitably. Under the Impact Assessment, it was planned to collect data on these improvements and behavioural changes, both from the faculty members as well as the students. Accordingly, a training

programme-cum-survey was conducted from 19th to 22nd March 2007, at RAGACOVAS, Puducherry. The ASCI team designed two questionnaires, one for the faculty and the other for the students, to assess the improvements/changes in the behaviour of the faculty members in the training areas covered under the first two FDPs during the one year, i.e. post the FDPs.

5.6.1. Response from the Faculty

A total of 41 faculty members responded to the questionnaire. An overwhelming majority of the faculty members reported that there was an improvement in all, except the following two areas:

1. Taking Students for Field Visits
2. Interaction with the Students outside the Classroom

5.6.2. Response from the students

A total of 50 students were selected from the second year onwards and were administered the second questionnaire covering altogether 15 parameters. More than 50% of the students reported an improvement in the teaching and behaviour of the faculty members, especially in the following areas:

1. Use of different teaching methods
2. More use of Audio-visual aids
3. Allowing more Questions to be asked
4. Encouraging more Discussions in the Classrooms
5. Overall Improvement in Teaching Skills
6. More Concern for the Development of Students
7. Getting Angry less often
8. Motivating Students often
9. Helping Students often

Thus, out of the 15 parameters covered by the questionnaire, the

students reported improvements in nine parameters. The faculty-wise feedback from the students was also prepared and submitted to the Dean to be communicated to the concerned faculty members for a corrective action wherever the ASCI team felt that the feedback had merit. As such, the whole initiative was a unique experiment in which, first the training needs were identified and then based on them, the FDPs were conducted to cover those aspects identified by the faculty. And finally, their impact was assessed to find if the training programme had actually resulted in any behavioural changes in the participants or not.

5.7. Third Faculty Development Programme

Based on the review feedback from the previous FDPs and the output of the impact assessment, the ASCI faculty was requested to design and plan for an advanced FDP (third FDP) for the faculty of RAGACOVAS. The third FDP conducted from March 19th to 22nd 2007 was thus on a very different course content based on the new areas identified by the RAGACOVAS.

The content identified by the faculty were:

- i) Student Psychology
- ii) Personality Development - Traits, Values, Positive Thinking, Self-esteem, etc.
- iii) Student Evaluation
- iv) Art of Memorising
- v) Personal change Process and Work Life Balance

The overall impact of these programmes on the faculty of

RAGACOVAS was excellent. Except a few very senior Professors due for a superannuation in the next 1-2 years, most of the faculty availed of the opportunity to improve their skills on various important parameters, which have a bearing on the quality of their teaching. These programmes reversed the common belief of many teachers and individuals that once a faculty member joins the college, he or she will be able to teach the students, without realising the fact that teaching is an art and that possessing subject matter knowledge alone does not ensure for an effective teaching. Through these programmes, the faculty members of RAGACOVAS also realised that they must possess necessary teaching skills to impart knowledge and also create a congenial environment in the classroom for the students to effectively grasp their teaching. All participants clearly understood that it is in these areas that the interventions through CALPI and ASCI help improve the teaching skills of the faculty of RAGACOVAS.

6. Working Group on Veterinary Education

Realising the impact of these programmes, Dr. MV Subba Rao, the then Dean of Veterinary Science Faculty, ANGRAU, extended invitations to the Deans of a few other selected colleges like Rajiv Gandhi College of Veterinary and Animal Sciences, Pondicherry, College of Veterinary and Animal Sciences, Durg, Chhattisgarh, etc. to join the programme on the occasion of the FDP at the Veterinary College Gannavaram from 25th to 27th July, 2005. The objective was to enable people who were not a part of the ANGRAU also, to see for themselves the developments taking place through the TNI, FDP,



Training Workshops, Impact Assessment, etc. At the sidelines of the FDP, these Deans, Associate Deans and the former Dean together with Dr. RN Saxena of ASCI and Dr. Joseph of CALPI, met under the leadership of Dr. MV Subba Rao for a brainstorming session on further steps aimed at improving the quality of Veterinary and AH Education.

Amongst other things, the meeting, decided to constitute a small Working Group (WG) on Veterinary Education to take the above activities forward vigorously, to explore newer options to improve the quality of Veterinary and AH Education and to develop a road map for effective education management beyond the scope of the TNI and FDPs. To begin with, the WG consisted of the Deans of ANGRAU, RAGACOVAS and the College of Veterinary Science, Durg together with the three Associate Deans and the former Dean of ANGRAU, one middle level faculty member from each of the three colleges of ANGRAU, two faculty members each from RAGACOVAS and Durg and a member of the CALPI team. Representatives of the AH Departments of Andhra Pradesh and Pondicherry were also inducted in the WG. The objectives of the WG included:

- i. To brainstorm, explore and suggest improvements to the quality of Veterinary and AH Education within the framework of the prescribed curriculum.
- ii. To suggest ways to motivate, energise and network the faculty and students of the Veterinary Colleges, the practising veterinary professionals and other stakeholders, to contribute towards improving the quality of Veterinary

and AH Education.

- iii. To suggest ways to forge an active cooperation and partnership amongst the Universities/Veterinary Colleges, the State Department of AH and allied organisations to complement each other's performance.

The brainstorming session held on 27th July, 2005 at Gannavaram broadly conceptualised the operational areas, responsibilities and the proposed actions for improving the quality of Veterinary and AH Education. These were broadly in-line with the recommendations of the stakeholder consultations held at ANGRAU and RAGACOVAS.

6.1. First Workshop of the Working Group



The Working Group listening attentively to a presentation.

The first Workshop of the Working Group held on 26th and 27th October, 2005 at ANGRAU, Rajendranagar, worked further on these broader ideas in a detailed manner and identified a list of the major activities to be pursued by the Working Group. The WG constituted a small subgroup each to develop ideas into draft operational plans through consultation with other faculty and students at their respective colleges, refine the plans and present them in a subsequent meeting of the working group.



6.2. Second Workshop of the Working Group

The second Meeting of the WG was arranged in the form of a well moderated Workshop from 6th to 7th March, 2006 at RAGACOVAS, Pondicherry. The Workshop was attended by members of the working group and senior representatives from the AH Departments of Andhra Pradesh and Pondicherry. The main objectives of the Workshop were to integrate the recommendations of the Training Need Identification and Faculty Development Programme with those of the WG, translate all the recommendations into action plans to improve the quality of veterinary education and develop ideas for institutionalisation within the small group of colleges. From the list of activities proposed by the WG in its earlier meetings, the WG short listed the following activities and developed plans to make them operational.

Topic 6.2.1: Strengthening partnership and interaction amongst the Universities/Colleges, the Animal Husbandry Departments and the Industry

This is aimed at improving the quality of Veterinary Education and the effectiveness of service delivery. The Workshop proposed the following specific activities:

- i. Continuing Veterinary Education for field Veterinarians (CVE)
- ii. Strengthening diagnostic and referral support
- iii. Identification of field veterinarians as resource persons in colleges

Topic 6.2.2: Strengthening partnership and interaction with farmers and farmer organisations:

This is expected to improve the effectiveness of teaching, research and extension. The topic is meant to strengthen the interaction amongst small livestock holders and the college so as to provide rural/small farmer orientation to students on a continuing basis. The desired outputs are meant to develop a better:

- * Understanding of the problems of livestock owners
- * Rapport with the livestock owners
- * Ideas/topics for need based research
- * Solutions/technologies

The subgroups of RAGACOVAS and ANGRAU together have recommended the following activities under this topic:

- i. Promotion of farmers' visits to the colleges, Kisan melas and visits of the faculty and students to dairy cooperatives, milk plants and other farmer institutions.
- ii. Adoption of an increasing number of villages by the University for animal health, breeding, fodder development, extension, clean milk production, calf rearing etc.
- iii. Promotion of NSS programmes (social awareness building, literacy, Aids prevention, animal health cover through ambulatory clinics, health camps, disease control, extension, etc.) to provide a hands-on training to the students.
- iv. Coordination of each activity to be entrusted to a specific department (as done with the Extension Department at RAGACOVAS).

- v. Formation of clubs comprising of all stakeholders

**Topic 6.2.3:
Establishment of a group/consortia of 3-5 universities to work together and exchange faculty, students and teaching material:**

The group recommended to begin with five participating (group) colleges and later on extend to other colleges. The activities proposed include:

- i. Identification of a department each for a subject from amongst the five colleges, as a Centre of Excellence to extend a need-based support to needy departments of the group colleges
- ii. Exchange of Faculty amongst the group colleges when required for bringing about necessary improvements
- iii. Develop/exchange teaching materials amongst the group colleges. Also identify departments/colleges, within and outside the country which already have developed or are in the process of developing good teaching materials/processes.
- iv. Exploration of collaborative research projects
- v. Organisation of a meeting of the Vice Chancellors and the Deans of the concerned Universities/ Colleges to keep them abreast with the programmes
- vi. Communication of innovative ideas/achievements amongst group colleges
- vii. Creation of a website to fan out the developments/achievements of the colleges
- viii. Explore the possibility of mobilising resources from other sources

The needs identified were to be prioritised on the basis of resource availability, administrative approvals, finance available for travel of faculty and students and the availability of time. To start with, those with the least constraints were planned to be taken up for implementation.

**Topic 6.2.4:
Motivating and energising students, faculty, practising Veterinarians and industry to contribute to strengthen Veterinary Education and Service Reforms:**



Breaking the barriers and heirarchy.
The Dean of the Veterinary College, Durg contributing to a Working Group discussion.

- i. **Congenial environment in the campuses**
Teachers should create a congenial learning situation for the students to acquire the necessary knowledge and skills. They should encourage students to interact with each other freely.
- ii. **Counselling/guidance**
Teachers should be open, unbiased and accessible to the students. The teacher-student relationship should be strengthened to encourage an unrestricted interaction. They should be aware of the various career options so that individual guidance can be given based on their abilities.

- iii. **Competent teacher**
Teachers should improve their knowledge, skills and attitude including presentation skills on a continuing basis so that students take interest in their teaching. They should be aware of the needs of the students and develop competence to guide them and to use the available resources effectively.
- iv. **Practical oriented Teaching**
The training should be well oriented towards imparting practical skills on real-time issues.

Topic 6.2.5: Faculty Development Programme

In addition to the three rounds of FDPs being taken up, the following Human and Institutional Development strategies were proposed

6.2.5.1. Human Development Strategies

- i. Prepare a database of the training/conferences attended by each faculty member
- ii. Arrange for FDPs with the new content to cover the remaining faculty
- iii. Arrange for a fresh round of FDPs with the new course content for those who have already attended the previous FDPs
- iv. Depute faculty for technical/subject matter training
- v. Arrange for exposure visits to the faculty to widen their knowledge base
- vi. Strengthen research work and form a committee to coordinate
- vii. Obtain feedback from students on the faculty at the end of each semester and share with the faculty
- viii. Monitor the use of the latest teaching methodology and technology

- ix. Encourage Doctoral work
- x. Make the teaching practical and field oriented
- xi. Institute a rewards system for outstanding research and best faculty in the form of deputation for foreign training
- xii. Increase the informal interactions between faculty and students - cultural activities, quiz, career counselling, Workshops, etc.
- xiii. Abandon the "Notes giving" culture

6.2.5.2. Institutional Development Strategies

- i. Provide for an adequate infrastructure - audio-visual aids, mike, internet, xerox, books
- ii. Review hostel, medical, bus facilities, sanitation and cleanliness in campus, etc.
- iii. Review Veterinary hospital and laboratory facilities - availability and upkeep of the instruments
- iv. Lesser workload for Principals so as to monitor the fulfilment of students' needs
- v. Clinical work in at least four semesters
- vi. Strengthening extension activities
- vii. Increased interaction amongst students, faculty and practitioners.
- viii. Networking with Centres of excellence both in India and abroad
- ix. Partnership/Networking between the University and the Field
- x. Interaction/Networking amongst Universities/Veterinary Colleges
- xi. Increase rapport between University/College and the Livestock industry
- xii. Induct students in the working group.

Topic 6.2.6: Continuing Veterinary Education (CVE) and Skill Development of Field Veterinarians and Faculty

The main objectives of the CVE are to:

- * Enable field veterinarians to obtain a 'hands-on' practical experience and to update them on the latest development in their subject/areas of work
- * Help the faculty to update their knowledge and skills in teaching, research and extension and achieving better academic standards

The identified activities are:

- i. Training programmes including: (i) Entry level training and (ii) Refresher training
- ii. Technical seminars/symposia /Workshops /guest lectures
- iii. Field/Industry exposure visits

The WG was of the opinion that instead of taking up all the activities together and thinly diluting the efforts, the participating colleges may prioritise and begin with one or two items. They may take up newer items only after a satisfactory level of progress is achieved in the initial items.

7. Performance of a Centre of Excellence - the Department of Veterinary and Animal Husbandry Extension, RAGACOVAS

The Second Workshop of the WG presented a number of recommendations which went beyond the scope of the TNI, FDP and the Impact Assessment focussing on improving the quality of Veterinary and Animal Husbandry Education. The WG has also identified nine departments out of

these five colleges as 'Centres of Excellence' to take on the lead role to translate the recommendations towards actions with regards to their respective subjects.

In general, CALPI does not support a wholesale up-scaling of such recommendations and plans across many partners/agencies. However, being an award winning extension department in the country, well-staffed with highly qualified and experienced faculty and excellent infrastructure facilities for:

- i) effective teaching of extension courses
- ii) undertaking quality research work
- iii) performing extension activities in the field, CALPI accepted RAGACOVAS's request for support, to demonstrate some of the key recommendations of the WG to actions.

As is customary for all CALPI supported programmes, the Department of Veterinary and Animal Husbandry Extension followed an open, flexible and a participatory process in finalising its plan of action. Together with the other departments of the college, the Extension Department took up the implementation of some of the recommendations of the WG as shown in Box - 8.

The activities taken up by RAGACOVAS to strengthen the partnership amongst the farmers and farmer organisations and the college included promotion of farmer visits to the college, Kisan Melas, visit of Faculty and students to dairy cooperatives, milk plants and other farmer institutions and adoption of an increasing number of villages for animal health cover, breeding, fodder development, extension, clean milk production, calf rearing, etc.

Box -8

Recommendations of the WG implemented by RAGACOVAS

1. *Strengthening partnership amongst Universities, AH Departments and the industry*
2. *Strengthening partnerships with the farmers and farmer organisations*
3. *Establishment of a group/consortia of Universities/colleges to work together*
4. *Motivating and energising Students and Faculty*
5. *Facilitating TNI and FDP including human and Institutional development, technical seminars, Workshops and exposure visits*
6. *Working towards a more practical oriented teaching*

One of the activities, very earnestly pursued by RAGACOVAS was the establishment of a group/consortia of Universities/ Colleges to work together for improving the teaching and practice of extension. Under this item, the Extension Department, of the College promoted:

- * Exchange of faculty
- * Development/exchange of teaching materials
- * Communication of innovative ideas/achievements among the network colleges
- * Creation of a website to fan out the developments/achievements of the network colleges amongst all other veterinary colleges

Together with CALPI and its other partner colleges, it structured the group into a Network of Colleges or a Community of Practice (CoP) (the essence of a CoP is in Box - 9), with a membership of 14 colleges, four State

Departments of AH and a National NGO. Through a series of National Workshops and meetings, the network/CoP followed a highly participatory process to evolve a roadmap and to implement it.

7.1. The First National Workshop on 'Improving the Quality of Teaching of Veterinary and AH Extension Courses for BVSc and AH programme'

With the support of CALPI, RAGACOVAS organised the first National Workshop of the network colleges on 'Improving the quality of teaching of the Veterinary and AH extension courses for BVSc and AH programme' from 20th to 21st July, 2006 at RAGACOVAS, Pondicherry. Twenty-one veterinary extension professionals representing 12 colleges from nine States, participated in the Workshop. While inaugurating the Workshop, Dr. AL Chaudhury, President, Veterinary Council of India (VCI) emphasised the necessity for bridging the gap between the Veterinary Colleges/ Universities as producers of technical manpower and the Departments of Animal Husbandry, as their users.

The main focus of the Workshop was on "effective teaching of extension courses" in the network colleges. At least four out of the twelve participating colleges were not able to organise field practicals due to logistical reasons like lack of transport, inadequate strength of the faculty, distant location of villages, etc. and as such the students were missing on the field exposure. A few other Colleges did not place enough emphasis on proper planning and execution of the field

Box -9

Communities of Practice (CoP)

1. CoPs are groups of people who share a concern or a set of problems and who deepen their Knowledge and expertise ('K') in the area by interacting on a continuing basis.
2. They are groups that are informally bound together by a shared expertise and a passion for a joint enterprise.
3. CoPs are peers in the execution of real work. What holds them together is a common sense of purpose and a real need to know what the other knows.
4. They are 'gift economies' - to give without immediately getting something.
5. CoPs are living repositories of 'K'.
6. Every Community is unique and has to find its own spirit, structure and processes.
7. CoPs are nodes of exchange and interpretation of information.
8. CoPs can retain 'K' in living ways.
9. They can enhance competencies to keep the organisation at the cutting edge.
10. They serve as an ongoing learning venue.
11. They respond rapidly to individual enquiries.
12. CoPs develop, capture and transfer best practices on specific topics by stimulating active sharing of 'K'.
13. CoPs link a diverse group of practitioners from different disciplines and origins
14. The Community, Domain and Practice are the three Pillars of any CoP.

practicals. Extension being an applied subject, the Workshop unanimously decided that all network colleges should invariably take their students to appropriate field locations while teaching extension practicals.

The discussions in the Workshop and the demonstration in the villages were specifically focussed on how best to plan and organise the theory and practical classes. These sessions were well appreciated by all participants and

helped them to reorient themselves to organise the practicals in the villages. The 'exchange market' organised as a part of the Workshop functioned in its literary sense for actively exchanging and sharing teaching aids and materials. In the Workshop, the participants pledged their commitment to fulfil the activities listed in Box - 10.

Box -10

Follow-up actions agreed in the First National Workshop

1. Ensure more field exposure to the students
2. Exchange of available practical manuals and other teaching materials and development of new ones.
3. Provision of short term visits of the faculty from the Centres of Excellence to the needy colleges.
4. Creation of a platform for sharing of knowledge, experience and teaching materials amongst teachers and practising professionals.
5. Organisation of Workshops to improve partnership amongst the Universities and Departments of AH.
6. Interactions through a website /group id.

In view of the importance assigned to Networking of Veterinary Colleges, RAGACOVAS invited Dr. Andre Pit-tet, Chief Technical Advisor, Indian Institute of Science, Bangalore, who is associated with the networking of Engineering colleges, to visit



When 14 colleges pool their teaching materials in a Market Stall, it is a feast never seen before.

RAGACOVAS for a discussion. Dr. Pittet made a brief presentation on the scope of networking to the Extension Faculty of RAGACOVAS at Pondicherry on 23rd March, 2007. The Dean and Extension Faculty of RAGACOVAS had a fruitful discussion with Dr. Pittet and Dr. Joseph of CALPI, which culminated with the planning for the second National Workshop.

Encouraged by the results of the first National Workshop and the outcome of the discussion with Dr. Pittet, CALPI sought the support of RAGACOVAS in establishing a Network of Veterinary Colleges/Community of Practice (CoP) on Veterinary and AH Extension and extending their support to other colleges. To give an impetus to these activities, it was agreed that the next National Workshop should be organised at a place where animal husbandry extension work was being done in an exemplary way. Accordingly, with the support of Dr. NG Hegde, President of BAIF, Pune, the second National Workshop was organised at the BAIF campus, Pune.

7.2. The Second National Workshop on "Addressing Challenges in Extension through Sharing of Experiences"

The second National Workshop of the network Veterinary Colleges was organised at the BAIF Development Research Foundation, Pune on the theme "Addressing challenges in extension through sharing of experiences" from 11th to 13th April, 2007. The objective of this Workshop was: learning and sharing of experiences in the teaching and practice of extension with the ultimate goal to improve the quality. The Workshop

was attended by 20 participants from 11 Veterinary Colleges, 3 State AH Departments, the BAIF, the Indian Institute of Science and CALPI. Under the guidance of Dr. Hegde, Dr. BR Patil, Vice President, BAIF ably coordinated all the activities of the Workshop.

In his inaugural address, Dr. Hegde, emphasised that the extension professionals should:

- * Identify the successful extension models
- * Contribute to demystify technology
- * Replicate through on-going schemes
- * Promote public-private partnerships

The Workshop began its professional tasks with individual feedback from the participants on the status of actions taken following the previous Workshop held on 20th and 21st July 2006 at Pondicherry. The benefits of these actions as narrated by the participants were: i) Realised the need for field visits, ii) Shifted the practicals from class rooms to the field, iii) Helped the participants to become active research partners in the collaborative research project (DePHE) with RAGACOVAS and other institutions, iv) Sensitised BVSc and AH students on aspects like the number of livestock owners, low productivity, farmer participation and better understanding of the role of Veterinarians in enhancing livestock production through smallholder production system. In a similar manner, the officials from the State Department of Animal Husbandry felt the need for bridging the gap between the Departments and the Colleges/Universities for mutual benefits. Based on the decisions in the previous Workshop, they introduced radical changes in the TNI and



organisation of induction programme for new Veterinarians.

There were group discussions and brain storming sessions on various issues concerning the teaching and practice of Veterinary extension in the country.

The major issues deliberated include:

- i) strengthening linkages between the Departments of Animal Husbandry and the Veterinary Universities/ Colleges,
- ii) Improving the quality of extension teaching,
- iii) Self experience in extension interventions and
- iv) the scope of Animal Husbandry Extension in India.

Later, the participants had a unique opportunity of visiting the Central Research Station, Urulikanchan and one of the adopted villages of BAIF (Yadavawadi) and had an interaction with goat keepers, dairy farmers and backyard poultry keepers. Dr. AB Pande, Programme Coordinator highlighted the reasons for the success of BAIF as: (i) Time bound and result-oriented programmes, (ii) Doorstep delivery of services and (iii) A committed staff. The Foundation aims at the bottom-up approach in planning, winning the confidence of the poor and ensuring transparency in their operations. In his concluding remarks, Dr. Hegde highlighted: "In BAIF, extension means the delivery of services, that too on payment. Livestock owners do not mind paying for the services provided the services are effective, transparent, competitive and adds a value".

The participants were given an overview of knowledge sharing and networking through a presentation by Dr. AK Joseph. They also benefited

immensely from an elaborate presentation by Dr. Pittet on networking at the end of which he posed some pertinent questions to the participants, which have a bearing on the future of networking amongst veterinary colleges. He advised the participants to find their own answers to the following:

Should we go ahead with networking?
If yes:

1. How do each one of us see one's involvement?
2. How do we want to go ahead in the next six months?
3. What should we do to achieve that?
4. How do we get organised towards that?

The consensus was to go ahead with the networking of the Extension departments and their professionals. The Workshop participants, listed the deliverables in the next 12 months as shown in Box - 11. With the technical inputs provided by Dr. Pittet, the partnership of CALPI and RAGACOVAS has finally succeeded in networking 14 veterinary colleges, four state Animal Husbandry Departments and a National NGO (BAIF Research and Development Foundation).

Based on the suggestions by Dr. Pittet, the Workshop also nominated the



For extension professionals, the activities of BAIF are always exciting.

Priority Actions Agreed to be Completed in the Second Workshop		Box 11
Sl. No	Activity	Volunteer responsible
1.	Developing a manual for Extension Course AHE 111	Dr.N.K.Sudeep Kumar
2.	Developing a manual for Extension Course AHE 411	Dr.D.Thammi Raju
3.	Developing comprehensive lecture notes for Economics course AHE 121	Dr. Pitambar Swain
4.	Developing an introductory presentation to undergraduate students on the importance of AH extension.	Dr. S. Ramkumar
5.	Support to extension departments in need (staff and resources)	Dr. S.V.N. Rao
6.	Creating a mailing list of Veterinary Extension Professionals and analysing existing extension models	Dr.P.V.K. Sasidhar
7.	Need assessment of extension departments	Dr.K.C. Veeranna

following committee to oversee and help members accomplish the above tasks.

1. Dr. G Butchiaiah, Dean, RAGACOVAS, Pondicherry - Chairman
2. Dr. BR Patil, Vice President, BAIF, Pune - Member
3. Dr. MV Reddy, Addl. Director, AHD, Andhra Pradesh - Member
4. Dr. K Udayavarman, Additional Director, AHD, Kerala - Member
5. Dr. Nisha PR, Asst. Professor, AHE, Madras Veterinary College - Member
6. Dr. SVN Rao, Prof, and Head, AHE. RAGACOVAS, Pondicherry - Member Secretary

7.3. The Third National Workshop on "Improving the Quality of Veterinary Extension Education through Learning and Sharing of Experiences"

The Third National Workshop on the theme was held at the College of

Veterinary and Animal Sciences, Pookod, Kerala from 24th to 26th October, 2007. The Workshop was inaugurated by Dr. PP Balakrishanan, Dean, Faculty of Veterinary Science, Pookod and was attended by 27 participants representing 14 Veterinary Colleges, three state Departments of Animal Husbandry, the Kerala Live-stock Development Board and the BAIF.

As was customary, the three-day Workshop began with a feedback by the participants on the actions taken on the commitments by the various participants in the previous Workshop. The presentations indicated that most of the activities committed in the previous workshop and even more, have been achieved.

Dr. SVN Rao informed that Dr. Butchiaiah had written to all of the Vice Chancellors and Deans of the participating colleges about the willingness and the preparedness of the RAGACOVAS extension department to extend a need-based support to the other colleges.

Dr. Anis Das, Managing Director, Kerala Livestock Development Board, gave a very good presentation on the Indo-Swiss Collaborative programme and the activities of the Kerala Livestock Development Board (KLDB).

As agreed in the previous Workshop, Dr. PVK Sasidhar presented his paper on the different extension approaches under the various livestock production systems. Dr. BR Patil of BAIF gave a presentation on contract farming systems in livestock production. Similarly, Dr. KC Veeranna presented his paper on the need assessment of the extension departments at Veterinary Colleges including the staff, space, equipment, teaching aids, books, etc.

Following an intensive group work, Dr. Andre Pittet, presented a systematic analysis of the duties and responsibilities of veterinary graduates, the products of veterinary colleges and the requirements of the teachers in terms of Knowledge, Skills and Attitudes (KSAs) to impart the desired training for the students. The analysis also presented the gaps between the required and the existing KSAs. In another presentation, Dr. Pittet also extracted the kind of information projected to the Veterinarians based on which the curriculum and the course content need to be modified. He emphasised that an effective teaching requires building-up of the attitude of the students to remain in tune with the course content.

Dr. Joseph presented a broad outline of the proposed partnership programme between the network colleges led by RAGACOVAS and the Swiss College of Agriculture (SHL), Zollikofen, Switzerland. The programme involved: (i) a Training Workshop on teaching methodologies, skills and research - extension linkages

for the veterinary extension faculty of the 14 colleges to be organised at Pondicherry and, (ii) a Training of Trainers (ToT) proposed to be organised at Chennai. For both programmes, the resource team will be from the faculty of the SHL. Dr. Joseph invited suggestions from the participants on the proposed programme.

The Workshop discussed many operational issues including the need for sensitising veterinarians on participatory approaches, the required changes to the curriculum, building a correct attitude amongst veterinary graduates, continuing veterinary education, etc. It also constituted three specific teams with the team leaders to prepare manuals of extension courses (AHE 111, AHE 411 and AHE 121), refined, edited and printed for circulation amongst the colleges.

The Workshop participants also had extensive field visits to: (i) URAVU, a bamboo conservation centre that cultivates and processes bamboo and prepares many products, (ii) a male SHG engaged in commercial cattle rearing at Thrikkaripetta, (iii) the Samabhavana SHG at Mandhapara and (iv) Gramashree SHG at Tondupalli village. These visits gave participants an insight into the operational and management details, the economics of livestock production and the dynamics of SHGs active in livestock rearing.

While summarising the actions proposed to be completed by the participants before the next Workshop, Dr. SVN Rao highlighted that in RAGACOVAS, a TNI and four rounds of FDPs (including the first training Workshop) have been completed already. These are followed by three National Workshops. These



programmes are found to be highly useful. (Box -12) There is a need to institutionalise such activities in all of the network colleges. He emphasised that these are by no means very expensive programmes and therefore, each college may keep aside about Rs. 20 lakh annually for such activities which go a long way towards capacity building of the faculty.

(Details of the fourth National Workshop on sustainable improvements in the quality of Veterinary and Animal Husbandry Extension held at Bhubaneswar from 18th to 20th December, 2008 are presented in section 9.0)

8. Partnership Programme with the Swiss College of Agriculture

As a part of the periodic review of specific project lines, CALPI had an occasion to review the progress of its activities under Veterinary and Animal

Box -12

Significant achievements of the National workshops

1. Exposure to the livestock farming situations in different locations and presentation of reports.
2. Extension faculty of the 14 net work colleges is energised to benefit the students who are to contribute to quality livestock services.
3. Identification of field practicals for the three undergraduate courses and development of field exercises.
4. Development of three practical manuals for extension in the UG courses.
5. Building of a dynamic team of extension professionals including officials from the State Departments of AH, BAIF and the Veterinary Extension Faculty.
6. The Faculty could improve their extension methodologies and skills in teaching extension courses and impart teaching skills to other faculty in their colleges.
7. The platform helped to revise the syllabus of the Masters programme in Veterinary and AH Extension approved by the ICAR.

Husbandry Education first with its Backstopper Prof. Fritz Schneider, Vice Director, Swiss College of Agriculture (SHL) on 30th and 31st April 2007 and later with the Team Leader and the Country Director of SDC and the Delegate, Intercooperation. The review brought to light the good progress being achieved under this project line. While appreciating the activities being facilitated under this project line, Prof. Schneider suggested that CALPI should explore the possibility of collaborating with some good international institutions to give a boost to the good work being done and to take the programme to the next higher level of achievement. Accordingly, a plan was approved by the CALPI Steering Committee to take up two collaborative programmes in partnership with the unit of 'Education Technology' in the Swiss College of Agriculture which provides training support in education not only to all the departments of SHL, but also to other colleges in Switzerland and even outside. The proposed programme included: (i) a Training Workshop on Teaching Methodologies, Skills and Research - Extension linkages and (ii) a programme for Training of Trainers (ToT). It was also expected that through these programmes, the participants would:



The thread is sacred even in an International Faculty Training Workshop - an exercise in networking

- * develop a clear understanding of improved teaching methodologies, procedures and aids used in colleges advanced in these areas and the ways of supporting other Veterinary Colleges/ Universities so as to enable them learn and adapt these methodologies with modifications as may be necessary.
- * understand the advantages of networking with other extension professionals and institutions towards improving the quality of education in a participative way and firm up modalities of strengthening the network to fulfill the objective.
- * understand the methodology and a road map for imparting effective ways of integrating education with ongoing extension programmes.
- * internalize the practice of demonstrating the principles and ways and means of improving the quality of teaching and practice of extension (covering both theory and practice) on a continuing basis.

8.1. Training Workshop on Teaching Methodologies, Skills and Research - Extension linkages

On the basis of the partnership programme agreed between RAGACOVAS and the Swiss College of Agriculture, the training workshop on teaching methodologies, skills and research-extension linkages was conducted at RAGACOVAS, Puducherry from 1st to 5th April 2008. Two faculty members from the Swiss College of Agriculture, Zollikofen, Dr. Roland Staehli and Dr. Gabriel Kaufmann, provided expert support for the training workshop. In addition, Prof. Fritz Schneider, Vice Director of

SHL also provided resource support on the first two days of the programme. A total of 18 veterinary extension faculty members representing nine Veterinary Colleges of the network, two ICAR institutes and the representatives of the Animal Husbandry Departments from two States, participated in the training workshop.

The objective of the Workshop was to improve the quality of teaching and practice of extension through effective teaching methodologies, skill improvement and research - extension linkages. The workshop exposed the participants to about six teaching methodologies including problem based learning, case study method, farmer field schools, participative rural appraisal, working groups to share experiences etc. Of these, the first two methodologies were taken up in detail covering field visits, demonstrations and presentation of reports. The salient differences among these teaching methodologies were also elaborated in the workshop.

The goal of Problem Based Learning (PBL) was to understand a real life problem, to put together, synthesize and apply information to the problem and efficiently learn from the group members as well as tutors (teachers). Problem Based Learning is quite different from problem solving and is expected to support students as stated in Box -13.

The Case Studies are written summaries of real-life business situations. They could include events such as changes and decisions within a given situation as well as external factors and influences. Case studies enable students to appreciate and analyse real problems and events. They are used to illustrate the theory studied

in the class and its further application. Unlike in PBL, in case studies, the students often develop solutions for the problem. The same requirements as for PBL would be supported with this methodology.

Box -13

Support to students through Problem based Learning

- ≡ to develop an understanding of the social setup of the village.
- ≡ to develop a concern for the resource poor livestock farmers
- ≡ to integrate education with the ongoing extension programmes.
- ≡ to understand the social and economic importance of livestock in the livelihoods of the poor and in the local, regional and national economy.
- ≡ to acquaint with the existing livestock production practices and their constraints.
- ≡ to identify field problems.

The importance of such training programmes in improving the skills of the faculty needs no emphasis. The Swiss Faculty had articulated the way the extension courses are to be taught i.e . from 'Practice to Theory' by exposing the participants first to the field situations and later guiding them to present their findings / observations with appropriate theories of learning and motivation. Through this programme, the Swiss Faculty emphasised the need for the extension faculty to expose the students to field situations and later explain the theories behind the learning, which enable the students to link the practice with theory and also improve their capacity to understand the field situation in the context of livestock production.

8.2. Training of Trainers

A second workshop on "Training of Trainers (ToT)" was conducted as a measure to improve the capacity of the faculty in teaching skills and methodologies from 2nd to 7th June, 2008 at the Tamil Nadu Agriculture University (TANUVAS), Chennai. The programme was essentially a follow up of the first one and was also facilitated by the Swiss College of Agriculture together with Intercooperation. Dr. Gabriel Kaufmann of SHL and Ms. Annet Wittweeen of Intercooperation Bern, supported by Mr. Padmakumar from CALPI constituted the resource team for the workshop.



An exciting session in the Training of Trainers with the Team Leader Agriculture, IC, Bern.

The objectives of the programme were:

- (i) to develop necessary skills of teacher trainers for effectively introducing the teaching methodologies and research -extension linkages to train other faculty members not only of the extension discipline, but also of other disciplines in each of the participating Colleges.
- (ii) to develop the necessary skills to analyse the extent to which the teaching methodologies and research -extension linkages acquired are put to practice.

The ToT essentially covered the following four topics:

- * Method of planning for the training programme and resource mobilization.
- * Assessing the training needs of the faculty members.
- * Monitoring and evaluation of the teaching programme.
- * Mechanism to motivate the teachers to impart quality education.

Box -14

The unique features of both the Training Workshops

1. *Less number of participants (around 25) to facilitate better interaction.*
2. *Identification of the tasks to be performed and feedback on what was learnt and practiced.*
3. *Field visits to observe extension activities supported by the Swiss Resource Team.*
4. *Group discussions/ brain storming on key extension issues. Presentation and sharing of the group findings.*
5. *Only a few important presentations were by eminent professionals.*
6. *Workshops in different locations to provide opportunity for local extension faculty.*
7. *Exposure to different extension methodologies.*

The ToT could enable and train the participants to conduct the training programme for effectively introducing the teaching methodologies of the first programme for the benefit of other faculty members. It could also enable the participants to understand the principles and methodology to identify the training needs of the faculty and to adapt the training programme to address those identified needs. They were also trained to understand the methodology to monitor and evaluate the extent to which the teaching

methodologies and extension methods acquired are put to effective practice.

In summing up, the participants appreciated the unique features of both the training workshop and the ToT as elaborated in Box- 14.

8.3. Meeting of the Deans

In continuation of the ToT, a meeting of the Deans of the Veterinary Colleges which are part of the net work was organized at the Madras Veterinary College on 6th and 7th June, 2008. Nine Deans and 18 faculty members of the network colleges and three member resource team from SHL, IC and CALPI and the Senior Programme Coordinator, CALPI attended the programme. Dr. G. Butchaiah, Dean, RAGACOVAS, Dr. Lalitha John, Dean, Madras Veterinary College, Ms. Annet Witteween, Team Leader Agriculture, Intercooperation, Dr. AK Joseph, CALPI and Dr. SVN Rao, Prof. of Extension, RAGACOVAS apprised the Deans of the objectives and progress of various activities taken up under the CALPI supported initiative on Veterinary Education.

Dr. SVN Rao explained that the objective of the training workshops was to develop trained faculty in selected colleges on teaching methodologies so that they could, in turn, train other faculty in their respective colleges not only of the extension discipline, but also of other disciplines. He impressed upon the Deans to utilise the faculty trained under the different phases in developing and organising training programmes in their respective colleges to improve the quality of teaching. Dr. S Ramkumar of RAGACOVAS gave a brief overview of the various teaching methodologies learned and



the learning principles involved. Dr. Gabriel Kaufmann gave an overview of the process gone through both in the Training Workshop as also the subsequent ToT Workshop. He called upon the participants and the Deans to work on a feasible methodology to capitalise on the learnings.



The Deans on high attention - listening to a presentation

Each of the Deans, together with their faculty Developed a road map for the proposed training programmes listed below for improving the capacity of the faculty in their respective colleges:

1. Start capitalization of the learning received and use one or two teaching methodologies in their teaching regularly (UG & PG) in each semester.
2. Sensitize all the faculty members to the new methods of teaching.
3. Train the new recruits to the colleges / university on the new methodologies. The concept of teaching methodologies will be taken up as a part of the compulsory induction training programme for the new recruits.
4. The plan for training included preparation of training manuals, work examples, collection of literature, mobilisation of support of other trainers from amongst the ToT participants etc.
5. Induction training to the faculty members working in the various colleges.

6. Refresher training of all the other faculty members at their respective colleges once a year.
7. Seminar(s) on teaching methodologies will be delivered by the trained faculty to sensitize the faculty and students.
8. Offer University level training programme to other faculty in a phased manner - to colleagues in the same college and to faculty in the other constituent colleges.
9. The Kerala Agricultural University proposed and planned a 5 day training programme on teaching methodologies with the support of the resource team from RAGACOVAS to train the new teachers already recruited to the Veterinary College. Everyone appreciated the need for organising faculty development programmes to upgrade the skills in teaching methodologies. It was agreed that faculty Development should be a continuous process and it needs to be undertaken at frequent intervals. Initially, these programmes must be organized for the new recruits and later for the senior faculty. Every participant felt that funds to organize such programmes within the respective campuses may not pose a problem. However, involving resource persons from other institutions may need support. For this, the resource support from CALPI was available till 31st December 2008.

9. Fourth National Workshop on Sustainable improvements in the quality of Veterinary and Animal Husbandry Extension

The 'Fourth National Workshop on Sustainable improvements in the quality of Veterinary and Animal

Husbandry Extension' was organised with the support of the Extension Department of the Orissa Veterinary College under the Orissa University of Agriculture and Technology from 18th to 20th Dec, 2008 at Bhubaneswar. The workshop was attended by 22 participants from 14 Veterinary Colleges and three state Departments of AH. In addition, the national seminar of the Indian Veterinary Extension Forum in which all the veterinary extension faculty are life members, was also held on 18th December 2008. Dr. D. P. Ray, the Vice Chancellor of the Orissa University of Agriculture and Technology in his inaugural address emphasized the need for imparting quality education. Dr. A.K. Joseph, Sr. Programme Coordinator, CALPI, Sri.B.P.Sethy, Director Veterinary and Animal Husbandry Services, Govt. of Orissa, Dr. B.K.Sahoo, Dean of the Veterinary College, Dr.D.V. Ranganekar, Livestock Consultant, FAO also participated and spoke on the occasion.

Dr. SVN Rao gave a brief overview of the CALPI interventions in improving the quality of veterinary education especially, extension education. All the participants of the workshop shared the progress of the activities taken up by them after the training workshop at Puducherry and the ToT at Chennai. During this period, many faculty members applied the teaching methodologies like Jigsaw, Socratic Dialogue, Problem Based Learning and Programmed Learning and Case Study in their regular teaching (Box - 15). Some have modified these methods to suite their requirements.

In the Dean's Meeting held on 6th and 7th June 2008 at Chennai, the Deans

together with their respective Faculty, had drawn up road maps of the training programme to be organized in their respective Colleges/ Universities. As per the programme, the Veterinary college at Mannuthy, Kerala had conducted a five day training programme for 31 newly recruited faculty from 1st to 5th July, 2008.



A farmer and his son in Orissa earnestly sharing their experiences in livestock production .

Dr.Ramkumar of RAGACOVAS, Pondicherry and Dr. Rajeev of Mannuthy, who took part in the two SHL Training Workshops, provided resource support for the programme.

The trainees appreciated the teaching methodologies elaborated in the workshop well. The resource team noticed that the faculty from the clinical side (Medicine, Surgery and Gynaecology) found it easier to adopt these methodologies in teaching their subjects compared to the faculty from the basic subjects (Anatomy, Physiology, Biochemistry). The reflections given by the participants of this workshop lend credence to the fact that these methodologies are very useful and versatile for the faculty in effectively teaching their subjects. The Veterinary College, Mannuthy (the producer of the graduates) and the Kerala State Veterinary Council (the user of the manpower) collaborated together in setting an example and demonstrating the way FDPs should be conducted for improving the capacity

Participants' Experiences in employing various teaching methodologies Box - 15

Participant	Target group	Methodology employed	Context/Subject matter
GRK Sharma	UG Students	Jigsaw and Socratic dialogue	NSS camps
KC Veeranna	UG Students PG students Vet. Faculty	Jigsaw PBL PBL and Case study	Field exposure Research project Exposure on new methodologies
KK Saharia	PG students	PBL, Case study	Marketing channels for Chicken
Alok Pandey	UG students	Case study	Outbreak of PPR
NK Sudeepkumar	UG students PG students	Jigsaw PBL, Case study	Field exposure Field exposure
TS Rajeev	New recruits (faculty)	All methods	Training
S Ramkumar	UG students	PBL	Field practicals
K. Natchimuthu	UG students PG students	Socratic dialogue Programmed learning	Question answer session. Sources of information
SVN Rao	PG students UG students	Case study Modified Jigsaw method	Women Self Help Group Social survey
P. Swain	UG Students	Case study	Livestock rearing
D. Thammiraju	Members of Self Help Group	Modified Jigsaw method	Training need identification as a part of DelPHE

of the faculty in teaching. Dr. Sasidhar, who was awarded the Norman Borlaug fellowship, presented a project proposal on "Internationalization of Veterinary Education and Curriculum through learning and sharing of experiences" submitted to the Tuskegee University in Alabama. This involves a net work of a few veterinary colleges in India as well as USA to work together. The workshop also committed to the deliverables as shown in Box 16 in the coming months:

10. Learning

The CALPI supported initiative in Veterinary and AH education has been a good learning for all members of the

fourteen college network, the AH departments of four states, the national NGO, the resource organizations like ASCI, Samajvikas, the Swiss College of Agriculture and others. The initiative could motivate its partners to take up a number of activities some of which are listed in Box -17.

The initial stakeholder consultations by the CALPI team indicated that those providing livestock services in the field, seldom have the opportunity for capacity development or skill up-gradation. This invariably pointed to the need for extensive capacity development of partners, stakeholders and field teams. The situation in the veterinary colleges, especially with

Actions pledged in the Fourth National Workshop		Box - 16
Sl. No.	Activity	Person responsible
1.	Participants from SVVU, Tirupati and KVFAU, Bidar to approach their respective VCs for FDP	Dr. GRK Sharma, Dr. D. Thammi Raju & Dr. K.C. Veeranna
2.	Cooperate with the Extension faculty in organising field practicals to the students of Veterinary colleges of AP	Dr. Manjuvani, Additional Director, DAH, AP.
3.	Explore possibility of organising the next workshop at Ranchi Veterinary College.	Dr. Alok Pandey & Dr. Oran
4.	Design a proper website	Dr. PVK Sasidhar & Dr. GRK. Sharma
5.	Approaching State Veterinary Councils to explore funds for organising FDPs, where ever resources of the College /University are inadequate	All participants
6.	Organize an FDP for the new recruits (Asst. Professors of the departments of Veterinary Extension) of the network colleges at Pondicherry	Dr.S.V.N. Rao, Dr.S. Ramkumar and Dr.K. Natchimuthu

Box -17

CALPI Supported Activities under Veterinary Education

1. Three levels of TNI.
2. FDPs for 8 batches in 4 colleges designed on TNI by the participants.
3. Impact assessment of FDPs.
4. Workshops by the Working Group
5. Follow up actions committed in the first national workshop (Box- 10).
6. Deliverables agreed in the second national workshop (Box- 11).
7. Commitments of the third national workshop (Item 7.3).
8. Actions pledged in the fourth national workshop (Box -16).
9. Two international training programmes on Teaching methodologies, Skills, Research-Extension linkages and ToT.
10. Extending professional support to the colleges under the net work.
11. Sensitisation of the Deans of the network colleges and plans to train other faculty members.
12. Institutionalisation of the activities in the network colleges, IVEF and other similar institutions.

regard to human and institutional development opportunities, also remain comparable. It is a paradox that for the teachers in our schools, including those at the kindergarten level, specific teacher's training is a prerequisite, where as for teachers in the professional colleges, only a qualification in the subject matter is adequate to start teaching. CALPI recognized the strength of convergence and synergies amongst its partners, departments and agencies and always solicited the same. In this initiative, the biggest contributing factors have been the highly proactive support, cooperation and guidance from partners like ANGRAU under the leadership of Dr. IV Subba Rao, the then Vice Chancellor, Dr. MV Subba Rao, the Dean and others and similarly from RAGACOVAS, Dr. G. Butachaiah, the then Dean, Prof. SVN Rao, Dr. Ramkumar and Dr.K. Natchimuthu of its Extension Department and others.

The Team from ASCI under the leadership of Mr. Umeswar Pandey, the Area Chairperson HR and Prof. RN. Saxena of HR Department have also reciprocated their proactive professional support in a larger measure. Similarly, the State Departments of AH of Andhra Pradesh, Kerala, Karnataka and Pondicherry and the BAIF echoed their support and cooperation in an equal measure. The open, flexible and transparent way the partner colleges got motivated and responded to the lead shown by RAGACOVAS and ANGRAU /SVVU have been enormous.



Prof. Fritz Schneider, Vice Director of the Swiss College of Agriculture having a dialogue with the faculty of the 14th college network.

With the extensive exposure to both international and national academic and livestock development domains, the Swiss College of Agriculture (SHL) has been able to extend high quality support to the network colleges. This linkage enabled the network to enrich its knowledge /experience and skill base and set its functioning in tune with the high SHL standards.

The main responsibilities of CALPI under this initiative has been overall coordination, liaison, networking, nurturing and managing an enabling

environment. It also facilitated the much needed openness, transparency, flexibility and process approach. These contributions of CALPI are well recognized and appreciated by the partners (Box - 18, 19 & 20).

Box -18

Reflections of some CALPI Partners

It was a great learning experience working and interacting with CALPI team. We at Catalysts cherished every moment of it. The PASSION that we always saw and admired in CALPI team has been a great motivator for all of us.

What we learnt from CALPI is not just the output of the project. It has made us think differently with a passion.

*N.Raghunathan,
Director
Catalyst Management Services*

CALPI, with its fairly flat, least hierarchical structure, demonstrated the principle of "ownership without control" in its facilitation, always extending need based support, with minimum interference and no over - riding of partners. For many junior faculty members, the sight of the senior Deans physically working together with their Junior faculty

Box -19

Reflections of some CALPI Partners

"The way CALPI went about in improving veterinary education through a systematic, multi-stakeholder oriented, participatory approach is indeed laudable and we could, to a fair measure, echo the passion CALPI demonstrated"

*Dr G. Butchaiah, Dean
RAGACOVAS*

Box -20

Reflections of some CALPI Partners

It is true that CALPI had a short but purposeful life. We are very happy to be associated with CALPI programme. Indeed this partnership had wide opened many vistas for us to work upon. We wish CALPI should have been there for some time more to consolidate the gains of the programmes.

With a three member army, CALPI could demonstrate very well what was possible with a small budget. As Schumacher's book title (Small is beautiful), CALPI though small, is really beautiful. Congratulations to all the team members who have demonstrated that it is possible to achieve things even with limited budgets, provided we have "a few committed people with clear goals.

*Dr. SVN Rao
Prof. & HoD of Extension
RAGACOVAS*

colleagues, fixing flash cards, writing flip charts etc. in their group work, have been a pleasant surprise. The impact of these highly participatory/consultative processes, devoid of any strong hierarchy, gradually spreading to the participating colleges/departments, has been a major gain of these partners. This motivated the faculty and students and provided a conducive environment for learning and teaching.

Similarly, the small 3 - 4 member CALPI team functioning on a highly favourable cost : benefit relationship has been a good learning for its partners. In this respect, the support received by the initiative from CALPI, SDC and IC by way of coordination and handholding have been of exceptionally high order and a model

to be emulated in any set up. A unique feature of the support has been that it was always need based, spontaneous and abundantly available on request or otherwise.

As is typical of the CALPI projects, the one on Veterinary and Animal Husbandry Education is one of the best documented project lines. In addition to this synthesis report, there are more than 12 documents on individual activities under this initiative.

11. Way Forward

Under its initiative to improve the quality of Veterinary and Animal Husbandry Education, CALPI could knit together a group of partners of high repute and motivation. The network of colleges under the leadership of the Extension Department of RAGACOVAS has demonstrated a high level of achievement towards improving the quality of Veterinary Education. In this respect, it has echoed the CALPI passion. Keeping these in mind, the way forward is indicated in Box - 21.



Charting an effective way forward is always cumbersome

Tips for the Future

1. *The Vice Chancellors, Deans and the Senior Faculty need to be sensitised on the ongoing programmes, their impact and benefits. Their support should facilitate systematic faculty, human and institutional development activities as a part of the regular academic programme. The programmes may remain voluntary, but with discernible incentives.*
2. *Specific departments of a group of 14-15 colleges should organize themselves in to a network or CoP as done by RAGACOVAS. Each University/ College/ network should find its own resources in terms of funds, a motivated nodal team and faculty time to ensure that the knowledge, skills and attitudes of the faculty and the quality of education offered remain in tune with the emerging times.*
3. *These initiatives should not remain one time efforts; they need to continue.*
4. *The activities already taken up have produced quite encouraging results; but they are only a tip of the iceberg. More and more such departments should get networked around Centres of Excellence for each subject to spearhead such development.*
5. *All the Colleges and AH Departments should set up induction training for the new entrants to the College / Department as was demonstrated by the Kerala State Veterinary Council in collaboration with the Kerala Agricultural University. They should also arrange Training Need Assessment and Faculty Development Programmes / Continuing Veterinary Education on an ongoing basis, based on new TNA.*
6. *The principle of 'practice to theory' should be demonstrated wherever feasible.*
7. *The activities of professional associations of Faculty and Veterinary Professionals should include programmes to improve the knowledge, skills and attitudes of their members as a part of their agenda and pursue them vigorously. How to teach a particular subject must be high on the agenda of national conferences of such associations.*
8. *One special unit or department each among 14 - 15 colleges, as in the Swiss College of Agriculture, may be established to facilitate such development programmes among these colleges. National and international support may also be mobilized for such training institutions.*
9. *In addition to ASCI, Samajvikas and SHL, other resource organizations may be identified to extend support to the expanded college network.*
10. *Such innovative activities are unlikely to become sustainable when thrust upon as an officially driven programme. They should be structured as informal, self motivated programmes, nurtured through a passion for professional growth and satisfaction.*

The CALPI initiative on Veterinary Education has already started demonstrating its impact on the quality of Education in the colleges covered. It has contributed immensely to a long felt need affecting a well identified gap in a niche area. The programme is cost effective, affordable and adoptable by any Veterinary /Professional College /

University. Similarly, they do not place high demands in terms of human power, funds and time of the faculty and therefore, should find place in the agenda of every College/ University. Every member of the faculty / practicing veterinary professional should find time to participate and contribute to this endeavour.



Swiss Agency for Development and Cooperation (SDC)

New Delhi -110 021
Tel: + (91) 11 - 2687 7819 / 20
Web site: www.sdcindia.in

The Swiss Agency for Development and Cooperation (SDC) is a directorate under the Swiss Foreign Affairs Ministry 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.

Starting 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.



Rajiv Gandhi College of Veterinary and Animal Sciences,

Pondicherry - 605 009
Telephone: +91 413 - 2271671,
2279468
Email: vetextension@vsnl.net

The Rajiv Gandhi College of Veterinary and Animal Sciences (RAGACOVAS) Pondicherry was established on 14th of October 1994. It is wholly funded by the Government of Pondicherry and is managed by a Board of Governors with the Chief Secretary to the Government of Pondicherry as its Chairman. The main objectives of the College are to impart quality education in undergraduate and post graduate levels and to undertake research and extension activities in the field of veterinary and animal sciences for improving the health and production of livestock in Pondicherry Union Territory.

The Department of Veterinary and Animal Husbandry Extension of RAGACOVAS is involved in field extension work to train students in planning and implementing various extension programmes. It helps the livestock farmers in improving their knowledge and skills in scientific management of livestock. The department is implementing several externally aided projects with focus on landless dairy farming, sustainable livelihoods, fodder development, poverty alleviation, innovative knowledge dissemination and Women Self Help Groups in addition to capacity development of veterinary extension professionals.



Intercooperation in India (IC)

Hyderabad - 500 034
Tel: + (91) 40 - 2335 5891 / 2
Web site:
www.intercooperation.org.in

Intercooperation (IC) is a leading Swiss non-profit foundation engaged in 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, Govt. and NGOs.

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



Capitalisation of Livestock Programme Experiences India New Delhi - 110 016,

Tel: 91 11 26868536 /41829717
E mail: calpi@intercooperation.org.in

CALPI is a programme of SDC implemented by IC. Its objective is to capitalize on SDC-IC's rich experiences 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 other activities spread over 7 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 multi-stakeholder and consortia / resource pooling mode following multi-stakeholder participatory approaches and networking, beginning with capacity development of 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 networking and building synergies and convergence with the Governments playing a facilitating and steering role.



This document describes a unique collaboration between a network of Veterinary Colleges, State Departments of Animal Husbandry and a National NGO, supported by CALPI (a programme of the SDC and Intercooperation) to improve upon the quality of Veterinary education in some practical ways.

A proper orientation of the young Veterinarians towards emerging issues in the livestock sector is likely to have an impact on their work approach for the next 40 years. This document captures the quest to find a right means to influence their training and the serendipitous road by which a group of committed individuals and institutions fashioned these innovative approaches, to improve the quality of Veterinary Education. A Community of Practice/ Network that emerged from this initiative shall continue the collaboration and support other educational institutions.

We believe that this document will be valuable for Vice Chancellors, Deans and the Faculty of Veterinary /Agriculture Universities/ Colleges and the state AH Departments as well as others interested in improving the quality of Veterinary education in the pursuit of effective service delivery in a highly competitive, liberalised global market.

This report is available from:

 Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC

Soft Copies:
www.sdccindia.in
www.intercooperation.org.in/km/livestock

Delegation
Intercooperation in India
8-2-351/r/8, Road No. 3
Hyderabad 500 034, India
Tel: +91 40 2335 6275
Email: info@intercooperation.org.in

