

People Centered Livestock Service Reforms

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Abstract

Livestock sector has registered vast growth in India during the past twenty five years. The growth has been phenomenal in milk, egg and poultry meat. The Indo Swiss partnership projects in the livestock livelihood domain have contributed immensely to this growth. These projects have produced corresponding impact on income, employment, nutrition and women's empowerment. They triggered a variety of progressive changes in livestock service delivery and have contributed immensely to sustainable livelihoods through livestock production. This paper focuses on the contribution of livestock services under the Indo Swiss collaboration projects in shaping India's livestock sector of today.

1.0. Introduction

Livestock Sector in India is extremely livelihood intensive: over 70 per cent of all species of livestock are owned by the marginal farmers, some 70 per cent of all rural households own livestock of one species or the other, often a mix of several; and almost 80 per cent of all livestock produce in India (except eggs / poultry meat from the organized poultry industry) come from small holder households. In the last four decades, the livestock sector has demonstrated its vast potential as one of the fastest growing sectors of India's rural economy. India became the largest producer of milk (97.1 million MT in 2005-06) and the fifth largest producer of eggs (46,166 million in 2005-06). As per the 2003 Livestock Census, the country has the second highest number of goats (124 million), third highest number of sheep (61 million) and the fifth highest number of chicken (457 million) in the world. This led to widespread growth in rural employment, household income, family nutrition and women's empowerment, affecting the lives of millions of resource poor livestock producers in India's rural hinterland. The Govt's efforts in liberalization and globalization of the Indian economy have helped to further stimulate and nurture these dramatic changes.

The changes witnessed in the livestock sector in India in the past twenty five years have followed an evolutionary pattern. The Indo Swiss collaboration projects have triggered and catalyzed some of these changes. More dramatic were those which were triggered when the Swiss Agency for Development and Cooperation (SDC), the development arm of the govt. of Switzerland, and the Intercooperation (IC), the Swiss Foundation engaged in international development, worked together.

Most of the projects initially supported under the Swiss collaborations highlighted economic, nutritional and social changes affecting millions of resource poor livestock farmers. Intercooperation, working hand in hand with SDC, has contributed immensely to these progressive changes. They focused mainly on sustainable livelihoods through livestock production and became turning points in India's livestock sector growth. The changes have impacted the economic, administrative, social and institutional frame conditions in the livestock sector.

The livestock service segment in India also witnessed notable changes during this period. Some of the Indo Swiss collaboration projects supported by SDC and IC, have triggered a variety of progressive changes in livestock services through a variety of ways including testing, piloting and up-scaling of far reaching innovations. The changes, being fully need based, followed an evolutionary pattern identified, guided and directed by the stake holders themselves with the concerned governments always playing a central role in the process. This paper specifically focuses on the contribution of Livestock Services under the Indo Swiss collaboration projects in shaping India's livestock sector of today.

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2.0. Indo-Swiss Project Kerala (ISPK) – the back drop of a revolution in tandem with technology

The beginning of this project (1963) does not fall within the time horizon of the past 25 years covered in this paper. However, it provides the back drop and the momentum for the consequent rapid changes which took place in the last 25 years. It is still considered by many as the flagship of the Indo Swiss collaboration projects in India. The objective of the project and the strategy applied are presented in Box-1.

The project impact was so widespread that close to about 83 % of the adult cattle of the state got converted to the new breed – Sunandini-, the milk production increased by over ten times and the per capita availability of milk increased by over 7 times with over a million families dependant on milk production. The project has succeeded in integrating better technology and management to the traditional small holder production system. It also demonstrated how the high productive, semi stall fed cows led to a spontaneous decline in the total bovine population of the state from 34.6 lakh in 1977 to 21.86 lakh in 2003 when the total bovine population of India went through an upsurge. This contributed immensely to environmental sustainability. By demonstrating a growth model for productivity enhancement, the project not only impacted the million small livestock holders in Kerala, but also millions outside the state.

Box : 1
Indo Swiss Project Kerala (ISPK)

Objective : to enhance the income of small holders by developing animals which are well suited to the local ecology and which could be fed and managed economically by small holders

Strategy:

1. Widespread application of frozen semen & AI Technology.
2. Application of FPR, bull selection, progeny testing & MOET.
3. Modernization of inputs production and supply
4. Institutional innovations
5. Fodder development & extension
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The project demonstrated revolutionary institutional changes beginning with the Indo Swiss project of Kerala, an autonomous institution under the govt. of Kerala to the Livestock Development and Milk Marketing Board and then to the present autonomous company - the Kerala Livestock Development Board, with the formidable dairy cooperative system under the Kerala Cooperative Milk Marketing Federation (MILMA) spun off as an independent entity.

Similar dramatic changes in cattle development took place in varying degrees across the country, particularly in Andhra Pradesh and Rajasthan, under the Indo Swiss collaborations. Together with the Govt. of Kerala and the NDDDB, the Swiss collaboration also supported the north Kerala Dairy Project in an area considered unsuitable for dairy development to establish the North Kerala Dairy Project (NKDP), an efficiently managed and economically viable cooperative dairy in the state.

3.0. National Livestock Policy Perspectives (NLP-1996) – a frame work for growth

The National Livestock Policy (NLP) Exercise could well be stated as the first major attempt in setting the policy frame for the livestock sector in India. The NLP Exercise evolved as an effective platform for the SDC / IC for sectoral policy dialogue with the National and State Governments. It involved a three tier consultative process spread over some 32 months bringing together a knowledge pool of about 160 professionals, consultants, scientists, policy makers, planners, farmers / farmer leaders, co-operators, trade and industry to set the draft policy frame for India. The SDC / IC: long time partners of the Governments in livestock sector development in India, initiated the process and supported the exercise both financially and thematically over the entire duration of the exercise.

The livestock policy exercise involved a set of three stage outputs: (i) the livestock situation and policies spread over 15 situational analysis and 5 other reports (ii) the likely implications of the changing national and global economic environment and (iii) an outline of the direction in which the country's livestock policies should change. A high level Steering Group constituted by the Gol in September 1993 under the Chairmanship of Dr. S.Z. Qasim, guided and supported the process. The attempt clearly focused on how best India should navigate its livestock sector policies to modernize and globalize the sector. The major recommendations pertaining to livestock services are presented in Box-2.

There are a number of other recommendations linked to macro-economic policies, institutional restructuring, government's promotional role in livestock sector, inclusive growth and balanced development of the sector, empowerment and capacity building of small holders, promotion of intermediate technologies for sustainable development, monitoring of the environmental implications of livestock sector growth etc. Though the NLP is yet to be formally adopted by the Govt., many of its recommendations on service delivery are already operationalised in the National Project for Cattle and Buffalo Breeding, the IX Plan and other programmes.

4.0. Vishakha Livestock Development Association (VLDA, 1997) – a model for up-scaling.

Box-2

Major Recommendations of National Livestock Policy

Govt. should:

1. Promote and facilitate autonomous organizations to create a market for quality AI and health care services.
2. Encourage them to produce and supply progeny tested bulls, frozen semen etc.
3. Directly provide services or incentives in poor and marginal areas.
4. Focus its direct action on services which generate public good like disease control & eradication, enforcement of quality standards, accreditation of bulls etc. . . .
5. Enable small holders to reach global levels of efficiency through quality, information & extension. Help them to integrate high productive modern technology & management in traditional system.
6. Not provide services which produce private benefits.
7. Promote marketisation of livestock services through farmer institutions, breeder's associations etc.
8. Conserve and develop indigenous livestock germ plasm.

While the National Livestock Policy was in its final stage of formulation, the Govt. of Andhra Pradesh mandated the Indo Swiss Project Andhra Pradesh (ISPA) together with the AH Dept of AP and the AP Dairy Development Cooperative Federation (APDDCF) to develop strategies for administrative and institutional restructuring of the animal breeding programmes in the state. The Govt. approved their proposal for restructuring of the activities to be piloted in the Vishakha Dairy Union area of Vishakhapatnam, Vizhiyanagaram and Srikakulam districts. As a result, the Vishakha Livestock Development Association (VLDA) emerged as a farmer based economically sustainable breeders' organization (a society) and a regional platform for livestock development. The major goals of the VLDA are given in Box-3.

Initially, VLDA also took up production and selection of bulls, production and distribution of frozen semen and liquid nitrogen and their quality control. For these, VLDA was provided on lease/ lien the assets like land, buildings, equipment, staff etc. of the Frozen Semen Station, the FS Depots, the Andrology lab and the Training Centre at Vishakhapatnam. It also piloted the Para-vet system 'Gopalmitra' on public- private partnership The AH department extends it the training, handholding and referral support. About 250 'Gopalmitra' are functioning now, in these three districts. Together, they deliver about 150000 doorstep inseminations annually on cost sharing basis. This initiative has thus demonstrated a road map for a national programme for cattle and buffalo breeding.

While the VLDA was in the process of consolidating its model for delivery of breeding and health services, the Govt. of India approved (1998) the National Project for Cattle and Buffalo Breeding (NPCBB). Though not supported under Swiss collaboration, the project was structured in line with the recommendations of the NLP and the model piloted by the VLDA. As per the project, the Andhra Pradesh Livestock Development Agency (APLDA) was established in 1999 as a regulatory and supervisory body on the principle of people's participation in livestock service delivery. The APLDA is the agency responsible for production and supply of inputs for breeding services and it manages all the Govt. semen stations in the state. Excluding those under the JK Trust and BAIF, there are about 1780 Para-vets (Gopalmitras) functioning in the state, performing annually about 5 lakh doorstep inseminations on a cost sharing bases.

Box -3
Goals of VLDA
<ol style="list-style-type: none"> 1. Genetic improvement of cattle and buffaloes through AI at farmer's door step. 2. Also extend Vet. First aid, vaccination and extension. 3. Improve sustainability of service delivery through user fee, membership fee etc. 4. Training and capacity building 5. Farmer ownership and control

5.0. Agricultural Services and the Poor (2000) – the quest for evidence

It was well recognized that the livestock sector's ability to capitalize liberalization, globalization and the market driven opportunities are constrained by the lack of availability and quality of livestock services. The study, 'Agricultural Services and the Poor' supported by SDC – IC and the World Bank, aimed at developing valuable insights in to all aspects of livestock service delivery and the future policy directions. It was conducted by three premier management institutions under the leadership of IIM, Ahmedabad. It initially covered three states (Gujarat, Rajasthan and Kerala) and later extended to Orissa. The study recognized that the subsidized services intended for poor do not necessarily reach the poor; the farmers are any way paying to Govt. service providers a price which is closer to that paid to Pvt. providers for door delivery of service and that the quality of service provided from Govt. centres are poor. Based on these findings, the study presented far reaching recommendations a gist of which is given in Box-4.

Box – 4
Recommendations of the study 'Agricultural Services and the Poor'
<ol style="list-style-type: none"> 1. Redefine role of govt. to focus on services which generate public good. Govt. to distance from delivery of Pvt. good services. 2. Improve financial autonomy of Govt. centres through cost recovery 3. quality of service and a level playing field. 4. Convert all Govt. centres to deliver service at farmer's doorstep as private arrangement and charge fees at market rate. Allow VRS to enable them set up Pvt. practice at place of their choice. 5. Promote private practitioners to succeed when one on service retires. 6. Enable higher private sector participation and move curative and breeding services to them. Lease Govt. centres to Pvt. professionals. 7. Encourage autonomous institutions and Pvt. breeding Cos. to establish. 8. Shift Govt. centres from high potential to poor and marginal areas.

In general, the recommendations of the National Livestock Policy together with these, paved way the for restructuring the animal health and breeding services in many states.

6.0. Diversified Agricultural Support Project of UP (UP DASP, 1999 – 2004)

The DASP financed by the IDA and the IBRD, has completed its five and a half years' first phase in March 2004. Its principal objective was to accelerate the growth of UP's diversified agricultural production systems. SDC extended financial assistance to facilitate technical support to one of its sub-components namely Breed Conservation and Development (BCD) through the Intercooperation. The BCD coordinated by the Pradeshik Cooperative Dairy Federation (PCDF) showed considerable progress in respect of its following two components:

6.1. Conservation and Development of local breeds: The programme is in line with national priority for conservation and development of indigenous breeds. It covers identification, registration, field performance recording and selective breeding of animals of three breeds of cattle (Sahiwal, Haryana and Gangateeri) and two breeds of Buffaloes (Murrah and Bhadawari). This has demonstrated a pathway for conservation and development of fast declining breeds like Sahiwal. Repeated use of high quality pure Sahiwal germ plasm on mixed population of the available animals has helped to increase the number of such animals and shift the new generation closer to the pure breed. One noteworthy feature of this component is the participation of the poorest segment of the population with whom these animals are more identified.

6.2. Para-Vet Programme: A second major component supported by SDC and IC was service delivery at farmers' doorstep through a cadre of Para-vets who work on private basis and on cost recovery principles. The programme has made considerable progress in creating a cadre of Para-vets who are not bound by prescribed fees as is practised elsewhere. The flexible approach has made the services more accessible to the weaker sections who pay a lower fee while the better off farmers pay more for the same services. With the flexible system of payment in place, the farmers demand doorstep service of good quality to be delivered in time.

7.0. Community Based Livestock Health Workers of Orissa

The Indo Swiss Natural Resource Management Programme, Orissa positioned about 30 Community Based Link Workers (CLWs) in the Gajapathy district of Orissa. They perform vaccination against most of the common diseases, castration of small animals, wound dressing and de-worming. Most of these CLWs are practising in their own villages and some 32 % of them are also covering the neighbouring village. The link work for them is tertiary after cultivation and Agriculture labour as the primary and secondary occupations respectively. Their linkage with Veterinary institutions and support from them need special attention. Their general weaknesses include poor economies of scale of operations and low income from their work.

8.0. Multi-utility Animal Health Workers of Sikkim

The Indo Swiss project Sikkim supported the Sikkim Milk Union to position Multi Utility Animal Health Workers (AHWs) to provide veterinary first aid and vaccination in villages where the AH Department services are unable to reach. They were provided training in first aid for about 40 days in the AH Department training centres. For delivering services, they are given a free first aid kit with medicines for the first time which, they are required to replenish on their own when exhausted. These AHWs together purchase medicines in wholesale for replacement and supply them to the farmers at the MRP. The monitoring committee in the AHD training centre monitor their performance. They are provided an honorarium of Rs. 1000/- per month in the first year and Rs. 500 in the second year after which they are expected to function on a self sustainable basis.

9.0. Livestock Development Policy of Chhathisgarh (under finalization)

CALPI supports the govt. of Chhathisgarh in the development of a livestock development policy for the state through a multi-stakeholder participatory process. The draft policy which is at its final stages is evolved on the basis of detailed sub-sector studies carried out by resource teams representing various stake holders within the state. The policy includes far reaching recommendations linked to livestock service delivery, a gist of which is in Box-5.

The recommendations also include restructuring of AH Dept. and moving the department away from delivery of breeding and curative services and promoting contract farming and enacting a policy clearly defining measures that safeguard the interests of local farmers. This is expected to lead to a relationship that is based on mutual trust and a common economic interest.

10.0. Participatory Livestock Service Reforms in Andhra Pradesh:

Stakeholder owned reform action plan through multi-tier consultative process.

Livestock Service Delivery (LSD) is one of the most critical areas impacting the poor. A few studies undertaken have pointed to many deficiencies in service delivery specifically related to quality, reach, affordability and price. Following these studies, CALPI in partnership with the Dept. of AH, Govt. of AP, the Pro Poor Livestock Policy Initiative of FAO and others, took up a participatory livestock service reforms initiative in AP. It envisaged a multi-tier, multi-stakeholder participatory process for service reforms under the guidance of a Steering Committee chaired by the Principal Secretary of the Govt. A Technical Committee oversaw the process and outcomes. The initiative which began with one objective of developing a reform action plan, took up additional components as under on stakeholder demand:

Box-5

Broad recommendations of draft livestock development policy of Chhathisgarh

1. Improve farmer's access to quality health & breeding services by re-structuring public delivery system & forging Pvt. Sector participation.
2. Improve productivity through breeding policy integrating traditional and modern technologies.
3. Improve feed and fodder resources through information, skills, technology and management.
4. Strengthen linkage between research and extension

10.1. Assessment and Reflections on Livestock Service Delivery Systems in AP: The main aim of this component was to develop a widely owned reform action plan for service delivery in the state. The three tier consultative process involved PRAs, meetings and workshops with farmers and farmer organisations, NGOs, veterinary students and village, district and state level functionaries. The initiative led to a better understanding among key stakeholders on the status of livestock service delivery, its gaps, deficiencies and emerging needs and take informed decisions to address these needs.

10.2. Study of the Problems and Potential of Livestock Service Delivery in A.P:

The multi-stakeholder consultations mentioned above as also the desk study carried out on the "Potentials and Problems of Livestock Service Delivery" pointed to the need for an in depth study of the topic. The field study covered four districts. The findings and recommendations are presented in two separate reports: (i) One entitled '*Para-vet training Programmes in Andhra Pradesh*' and the other (ii) "*Para-vets and Animal Health Workers in the Field in Andhra Pradesh: Service Delivery, Supplies, and Support & Supervision*".

10.3. Development of Basic Definition of Minor Veterinary Services in AP: This was taken up to evolve a formal definition of 'Minor Veterinary Services' (MVS), identify the skills

and training required to perform them and develop a framework for regulation and monitoring as required under the Indian Veterinary Council (VCI) Act 1984. In the final report submitted, the MVSs were defined and classified under three schedules with corresponding levels of training and supervision. The Govt. order on this is expected to be issued shortly.

10.4. Development of a disease prevention and control strategy for selected animal diseases of economic importance to the poor in AP : To underpin the Govt's role in delivering public good services, the initiative took up '*Identification and prioritization of diseases of economic importance for the poor and developing a prevention and control strategy for AP*' for five key diseases - Peste des Petits Ruminants (PPR), - Enterotoxaemia (ET), Ranikhet Disease (Newcastle Disease), Haemorrhagic Septicaemia (HS) and Black Quarter (BQ). Among others, it assessed the vaccine production infrastructure, capacity, demand, Q.A. facilities & cold chain, the prevention & control strategies for these diseases.

The reforms are characterized by unique process features as in Box-6, which enriched the ownership and implementability.

11.0. Veterinary and Animal Husbandry Education

For efficient and effective Livestock service delivery, enhancing the skill and competence level of livestock service providers and influencing their attitudes in favour of the service needs of small producers are considered essential prerequisites. CALPI therefore, supports improvement in the quality of Vet. and AH education so as to enable the livestock service providers to address the emerging opportunities and challenges in livestock production. Through a participatory process involving discussion with field staff of selected state AH Departments, the Deans and the Senior Faculty of five Veterinary Colleges and a multi-stakeholder workshop held in the Acharya NG Ranga Agri. University (ANGRAU), Hyderabad, the following activities were supported by CALPI:

11.1. Faculty Development Programme (FDP): Based on the inputs of various consultative processes including a multi-stakeholder workshop and Training Need Assessment, a Faculty Development Programme (FDP) was developed by the Administrative Staff College of India (ASCI), Hyderabad. The three-day programme was conducted for a batch of 25 -30 participants in each of the three colleges of ANGRAU and two batches of the Pondicherry Vet. College (RAGACOVAS). Each programme went through a process of review, assessment and reflection at its close leading to refinements in the subsequent batches.

11.2. Training Needs identification (TNI): The Training Need Assessment was carried out in two phases. First a simple group exercise identified the major training needs. Subsequently, detailed assessment was carried out through self-perception exercises and perceptions of peers, seniors and students. These were further triangulated through personal interviews with the faculty by the ASCI team. Based on these, tailor made FDPs were held in RAGACOVAS. Similar FDPs are proposed in the colleges of Sree Venkateswara Veterinary University (SVVU).

Box-6

Unique features of AP Livestock service reforms

1. Founded on sound research & field Realities.
2. Multi-tier, multi-stakeholder, consultative process covering all agro-eco-zones
3. Process open, flexible, evolving & need based.
4. Improved acceptability through review, reflection and midcourse correction.
5. Govt's participation, guidance & steering improved the ownership & implementability.
6. Enabled Govt. to review priorities and focus on public good services.

11.3. Working Group on Veterinary Education: In order to hasten the activities identified for improving Vet. Education, a small Working Group (WG) of five Deans/Associate Deans and seven middle level faculty members from the five Vet. Colleges were formed. The WG has drawn up concrete action plans ranging from partnership among Vet. Colleges, AH Departments and Industry; formation of a group/consortia of 5 Vet. colleges, exchange of teachers & teaching materials among them, identification of departments of excellence and their support to other colleges in the group, training of young faculty at entry level etc. to improve the quality of education. In line with these, the Extension Department of RAGACOVAS, one of the identified centres of excellence, organised a national workshop on 'Building partnership among Vet. Colleges to address emerging challenges in Extension'. The Centre has also initiated steps to organise a Community of Practice (CoP) for sharing of knowledge and experience on teaching and practice of extension. Similarly, to facilitate synergy through mutual collaboration and to provide additional 'hands on' training to the students, partnerships are being strengthened among Vet. Colleges, AH Departments and Industry in extension and disease reporting and surveillance.

12.0. Drivers and elements of change in livestock services

12.1. Technological innovation and modernization (ISPK, ISPA, UP DASP)

Most of the Indo Swiss projects in states like Kerala and Andhra Pradesh and support to UP DASP were built on a strong technological foundation as detailed in Box-7. These innovations were well backed by fodder development, extension and capacity development. It was indeed the technological changes which brought about a spurt in productivity, farmer's income, employment and nutrition leading to widespread acceptance and adoption of the programme by millions of resource poor farmers across these states. The sub-component under the UP DASP supported by SDC-IC also demonstrated similar technological breakthrough in conservation and development of fast declining indigenous breeds. Wide spread application of items 3, 4 and 5 in box -7 requires high attention by Govt. and autonomous inputs supply agencies.

12.2. Quality Improvement (ISPK, ISPA, VLDA)

All the Indo Swiss projects paid high attention to quality improvement of the inputs, services and the human resources. Modernization of inputs (bulls, frozen semen and LN) production and delivery system, standardization of quality (Andrology lab etc.), FPR, bull selection, PT, door step delivery and training and capacity development aimed at quality, received high priority under these projects. Following this tradition, Govt. should continue to encourage integration of high productive modern technologies and management to the traditional system while minimizing and covering risks of such technology application.

Box – 7
Technology innovation & applications
1. Wide spread application of AI
2. Production & supply of high quality frozen semen
3. Field Performance Recording (FPR)
4. Field Progeny Testing (PT) and Bull Selection
5. Multiple Ovulation and Embryo Transfer (MOET).

12.3. Door-step delivery (ISPK, VLDA, UP DASP)

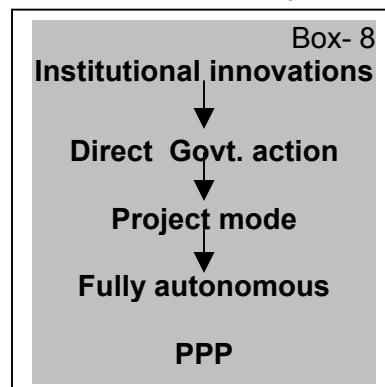
The door step delivery of services, particularly AI service, leads to better conception rate and enhanced accessibility and demand for these services. The enhanced quality allows the value addition thru the service to neutralize the burden of service charges.

12.4. Enhanced animal productivity and farmer Income (ISPK, VLDA, UP DASP)

Widespread adoption of frozen semen technology and AI resulting in substantial productivity enhancement and a spurt in farmer income led to adoption of dairy production as one of the major livelihood avenues in most of the states. The door delivery of breeding services and the resultant higher rate of conception became further incentives in this direction. Integration of a year round remunerative market (KLD & MMB / MILMA in Kerala and Vishakha Milk Union in Vishakhapattanam) together with fodder production and extension support to the farmers boosted the productivity further. As a result of the combined impact of all these, the milk production increased many fold in most states (10 times in Kerala).

12.5. Institutional innovations and reorientation of roles

(ISPK, VLDA-APLDA, UP DASP) Govt. being the largest service provider and policy maker, it rightly remained at the centre of all the strategic changes - guiding, directing and catalyzing. With improving economic sustainability in service delivery, gradual institutional changes as in Box-8 and reorientation of their roles have started emerging. The present form of public – private partnerships enables the institution to ensure door delivery of service and economic sustainability. It also reflects a shift from direct Govt. control to stakeholder / community control (VLDA). The inevitable market linkage led the ISPK to position itself initially as KLD and MMB and, then realizing the enormity of the operations, carved out milk marketing functions to MILMA (farmer owned and managed institution).



With increasing shift of animal breeding, first aid and preventive vaccinations to the Para-vet system, a steady increase in the number of Para-vets, especially under PPP and private, delivering these services and improvement in their service quality are visible. Through the National Livestock Policy, the study 'Agricultural Services and the Poor' and others, considerable attention is now focused on Govt's responsibility for delivering services which generate public good. However, except for modernization of some of the frozen semen stations, AI system and some attention to disease reporting, surveillance and control (Kerala, AP) these have not started receiving their due priority.

12.6. User charges and economic self sustainability (ISPK, VLDA, UP DASP)

The decision to introduce a price for supply of inputs (frozen semen, liquid nitrogen etc.) even at the govt. centres and charge a user fee for AI delivered to the farmers has been a major departure from the conventional system. In fact, the charges levied by KLDB for semen, LN etc. still remains high among such autonomous institutions. The value addition through better quality of service, door step delivery and spurt in productivity largely neutralized the extra burden of user charges. Even large private networks of Para-vets (Dr. SK Sinha's network operating in Bihar and West Bengal) started becoming a reality. This enables the dwindling resources of the Govt. to be spared for expansion of the service coverage providing better access to farmers in the less intensive areas. There are also evolutionary changes in which the service providers under VLDA charges a fee prescribed by the VLDA / APLDA where as under the Para-vet system of UP DASP; such restrictions on user fees are not enforced. The results and the market seem to determine the price.

12.7. Accessibility and coverage

The steady increase in demand for first aid and breeding services, the consequent increase in the scale of operations of service providers, the introduction of user charges and the resultant economic self sustainability of operations enabled more and more

service providers to set up practice. Thus even large scale Para-vet services, some entirely private (Dr. SK Sinha operating over 600 units), started operations on a self sustainable basis enhancing farmer's accessibility to breeding and first aid services in previously uncovered areas.

12.8. Environmental sustainability

In the case of Kerala, the steady improvement in the quality of milch cattle and their higher productivity had a pronounced suppressing effect on the livestock system (shift to semi / stall fed system) and possibly also on the number of cattle in the population (example Kerala). It is however, not sure if the declining trend in cattle population is solely a consequence of improvement in the quality of animals or is also influenced by other socio- economic factors.

12.9. Focus on niche areas /small animals and poultry

In line with the higher economic contribution from large bovines, the focus of the initial Indo Swiss collaborations was also large bovines – cattle development and allied areas. However, increasing attention was paid over time by the Indo Swiss projects, particularly by the Natural Resource Management Projects, Goat Project etc. to small ruminants (AP, Orissa and Rajasthan) and poultry (Orissa and Chhathisgarh). A common feature of all these projects, was that all of them focused on niche areas (Frozen semen technology, AI, FPR etc.) devoid of any crowding by donors, Govts, partners or experts.

12.10.Indigenous breed conservation and development

This is indeed a critical issue confronting the country. India has over 26 well defined breeds of cattle and over 15 breeds of buffaloes, most of them fast declining in their population size. Some well known breeds like Red Sindhi, Sahiwal and Tharparkar are at the verge of extinction. The technical pathway for conservation and development of indigenous breeds (Sahiwal) demonstrated through the UP DASP shows high hope. This involves repeated use of well selected purebred Sahiwal semen on varying mixed populations of Sahiwal cows to take successive generations as close as possible to purebred Sahiwal. Once the number of animals in the population increases, Field Performance Recording, Bull Selection etc. could be resorted systematically to stimulate faster growth. Similarly the 'Sunandini' breed of Kerala is indeed another pioneering example of systematic breed development efforts under the Indo-Swiss collaborations.

13.0. Process of Change

The process of bringing about change in livestock services more or less remained common to almost all the Indo Swiss projects. These were evolved and refined over time and time tested and practical. The major components of the change process are listed below:

13.1. Training and capacity development : To enable partners and stakeholders to understand and appreciate the needs and processes of change in the right perspective and to actively participate in the reform process, training, capacity development, exposure visits etc. of partners and stakeholders were identified as essential prerequisites in almost all Indo Swiss projects. These enabled them to take informed decisions on the issues confronting them and improve the acceptability, ownership and implementability of the reforms processes and outcome of the initiative (LSRI AP, LSRPD- Chhathisgarh, ISPK). The training activities are arranged in many forms ranging from in-house to those facilitated by premier management and HRD institutions (IIMA for staff of AP Govt.; ASCI for Veterinary Education) to consortia of management institutions (XIMB – IIMA- IRMA for Chhathisgarh policy process).

13.2. Process open, flexible and evolving : Almost all the projects initiated through Swiss collaborations are in niche areas devoid of any crowding of donors, partners or support institutions.(NLPP, LSRI, and ISPK). The partnership in these projects, began with generally a simple, open and flexible agenda which further got evolved over time based on specific needs identified by partners and stakeholders as the project progressed.

13.3. Multi-stakeholder, multi-tier participation : Most of the projects have demonstrated that even while following an open, flexible and evolving process, it is possible to follow multi-stakeholder and multi-tier participation and result orientation. Because of policy implications, the Govts, were at the centre of almost all the processes. They also played a pivotal role in the evolution of the outcomes. (NLPP, LSRI). The consultations most often involved the farmer upwards to all tiers and categories of stakeholders. Some of the reasons for better ownership, acceptability and implementability of the reform and success of the partnership as a whole were vested in the participatory process.

13.4. Neutral facilitation : A unique feature of almost all the Indo Swiss collaborations was that the Swiss partnerships were always well accepted as neutral facilitators. But for their pro poor focus, they did not go with any pre-determined agenda and both the SDC and IC seldom played the role of an exclusive donor.

13.5. Consortia and resource pooling : While being less of a donor, the Indo Swiss collaborations always preferred a consortia approach of partners (such as World Bank, FAO, and ILRI etc. to support participatory initiatives). Most often, they also followed resource pooling to support the projects and work together. The contributions of partners generally took the form of resources in cash, kind, staff time, staff costs etc.

13.6. Testing / piloting : Almost all the Indo Swiss collaboration projects went through a process of testing and piloting before up-scaling of the initiatives. This minimized the risks and failures attributable to all virgin initiatives. Testing and piloting also enabled the projects to remain open, flexible and amenable to introspection and midcourse correction. The Indo Swiss projects also demonstrated a high risk bearing capacity and risk tolerance.

13.7. Sustainability /institutionalization : Almost all the Indo Swiss partnership projects placed high emphasis on sustainability and institutionalization of the processes and outcomes. In addition to capacity building and training, these projects also paid high attention to documentation and knowledge and experience sharing. Most of the projects went through a Capex exercise capturing and documenting all the key processes and experiences under each project.

The partnerships were based on clear technical and process competencies that the Swiss brought in which was much appreciated. These were long term partnerships that enabled development of a relationship of trust.

14.0. Policy Impact

Many of the Indo Swiss projects focused on livestock based livelihoods, have their effect either on the frame conditions or the policies of the central and the state governments impacting the resource poor farmers. While some of the recommendations and learnings have already been translated in to components in the programmes of Govts and others, some others are yet to be adopted. The details of the components already adopted in varying degrees are indicated below:

- 14.1. Institutions out side Govt. for service delivery:** Opening up of animal breeding and first aid services for multi agency participation, promotion of autonomous organizations like APLDA, Area Livestock Development Associations (ALDAs) and UP Livestock Development Board under the NPCBB have their links with the models like KLDB, VLDA etc. The services from these institutions outside the Govt. took many forms ranging from establishment of farmer controlled service delivery institutions, creation of private channels for service delivery, training and re-training of private Para-vets, delivering liquid nitrogen and frozen semen on a regular basis, hand holding and regular support, monitoring their performance etc. These have also helped, private service networks (as in Bihar and West Bengal) also to operate and function.
- 14.2. Farmer participation in service delivery management:** The reforms as adopted by VLDA in respect of stakeholder participation and control have been a major departure from the conventional practice of direct action by Govt. The system had a multiplier effect through various programmes supported by Govt., NGOs, Pvt. etc.
- 14.3. User fee and economic sustainability in service delivery:** The introduction of a price by KLDB for inputs like frozen semen and liquid nitrogen commensurate with their cost of production and the Govt. centres charging a price for AI, were a big leap forward in overcoming the Govt's fiscal constraints in expanding the service network. The system was further adopted by various state governments and autonomous institutions. This, set a new trend paving the way for expansion of the AI programme to newer uncovered areas and self sustainability in service delivery.
- 14.4. Recommendations of NL Policy and the study 'Agricultural Services and the Poor'** Both the NLP (though yet to be adopted) and the above study sponsored by the SDC and the World Bank, had their impact on some of the national and the state programmes. There are however, a number of recommendations emerging from these as shown in Boxes – 2 and – 4, which are very progressive, but are yet to be operationalised.
- 14.5. Government's responsibility towards public good services:** In consonance with the recommendation to assign Govt's high priority to services which generate public good, some Govts like AP and Kerala have started assigning high priority to disease control, disease reporting etc. The GoAP has accepted the recommendations of the CALPI – GoAP -PPLPI partnership project on control of Animal Diseases of economic importance to the poor. As a first step in this direction, vaccination against selected diseases has been initiated. Actions to develop and put in place an effective disease reporting system is also in process in partnership among the AH Dept., SMILDA, Vet. College and others.
- 14.6. Definition of minor veterinary services by Govt. of AP:** The Govt. of AP has in principle accepted the recommendations of the CALPI – Govt. of AP – PPLPI partnership project on livestock service reforms. The draft Govt. order on definition of Minor Vet. Services as required under the Vet. Council Act and the required training modules and syllabi are in the final stages of issue by the Govt. The participatory process adopted by the AP Govt. in the process is a model for other states to follow.
- 15.0. Way forward**
There are a number of recommendations emerging from various projects, the National Livestock Policy and studies like the 'Agricultural Services and the Poor' which are yet to be adopted or up-scaled (ref. boxes 2 and 4). Some of these recommendations have far reaching implications. In addition, there are also many as listed below which need to be addressed carefully in the near future so that Indian small farmers are able to link up with the fast changing global economy.

15.1. Income from livestock production : Livestock holding patterns are showing slow changes in which the dependence of the poorest (landless constituting about 32% of the population) and those above the marginal farmers show a declining tendency in terms the percentage of families holding livestock as also the number of livestock held by them. The stock seem to get more concentrated in the semi-marginal and marginal categories. This trend, coupled with the growth in the population dependant on non farm income, possibly signals to declining importance of livestock production as income source, in comparison to other income opportunities. In this context, the productivity of the livestock, application of appropriate production technology, service delivery systems, growth in livestock product prices etc. need to be carefully reviewed so that small livestock holders are not left high and dry.

15.2. Poverty alleviation through livestock production: Under the poverty alleviation programmes of the Govt. and microfinance schemes, milch animals are being financed along with some subsidy. For the farmer to be able to feed and manage, the animals of average productivity are generally selected. In many such cases, it is doubtful whether the beneficiaries are able to generate surpluses from the scheme at all. Such schemes should be avoided at places where effective market linkages and service delivery systems are not available.

15.3. Livestock services in poor and marginal areas: In the marketisation of livestock service delivery, the poor and marginal areas are left out of service delivery systems. In most cases, livestock centres are not located in these areas, and even if located, the centres are seldom manned by Govt. staff. To overcome the fiscal constraints and to balance the costs, the cost of managing the existing centres in the potential areas may be diverted to manage service delivery in the low potential areas. Those in the potential areas may be left to be managed by the private service providers.

16.0. Conclusion

In the past 3-4 decades, India has registered high growth in livestock production. The contribution of the livestock sector has increased considerably during this period. The Indo Swiss partnership projects in the livestock sector have contributed immensely to this growth as also to livestock service reforms and livestock based livelihoods. Many of the policy frames emerging from these partnerships have already been adopted in different forms and many are waiting to be adopted and up-scaled. In addition, reforms being highly dynamic, particularly in the liberalized, globalised environment, the ongoing collaborations, projects and partnerships need to be proactive to the emerging challenges. They need to be addressed on a continuing basis. In addition, capitalisation of emerging opportunities also should receive high priority so as to enable small holders to integrate with the global levels of efficiency. In this respect, the partnerships need to be strengthened and nurtured so that together we are able to address bigger challenges to the benefit of the small livestock producers of India.

Reference

1. National Livestock Policy, Report of the Steering Group.
2. Agricultural services and the Poor, Ahuja, Vinod ...et. al.
3. Basic AH Statistics, AH Series – 10, Dept. of AH, Dairying & Fisheries, Gol
4. Livestock Ownership Across Operational Land Holding Class in India, 2002 – 03, NSS 59th Round 2003.
5. Development of Small Ruminant Sector in India, Birthal PS ...et. al.
6. Role model of ALDA in North Costal Andhra, Rao Kanakasunder
7. Cattle Development Programmes – Kerala, Unnithan N.R.
8. Livestock Production and the poor in India, Birthal PS...et. al.
9. Chhathisgarh Livestock Policy (Draft), Dept. of AH & VS, Govt. of Chhathisgarh
10. Community Based Livestock Health Workers in Orissa, Das Kornel..et. .al.