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Structural Changes in Livestock Service Delivery System: A Case Study of India

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ABSTRACT

Structural changes (namely Liberalization, privatization and globalization) initiated by the central and state governments from 1990s onwards started to restructure the government services in all sectors. In the pre globalization era the major service providers are government owned state level animal husbandry departments and the quasi government organization namely dairy cooperatives. In the last 20 years various donor agencies, ministries, state and central government bureaucracies have been working on bringing out policy changes at state and central. These policies changes are focusing on minimizing the role of public sector. The major recent policies that are driving the livestock sector services privatization are National livestock policy draft, state level policies, Milk and milk products order 1992 (MMPO 1992) and Multi state cooperative act are discussed in this topic. These policy and acts are having direct and immediate impacts on public livestock service delivery system. On the other hand the public owned livestock service institutions run on shortage of human resources. In addition to the above, state an animal husbandry department suffers from budgetary difficulties. These policies, acts and withdrawal of public sector are having direct and immediate impacts on public livestock service delivery system and are replacing the older institutions with newer ones. This study attempts understand the emerging institutional changes in livestock sector.

Key words: Livestock services, reforms, regulations, private participation, new institutions

INTRODUCTION

In India almost sixty percent of the population involved in agriculture which accounts for only 18-20% of our country's Gross Domestic Product (GDP). Indian agriculture model is mixed farming. The livestock husbandry co-exists with agriculture and plays a vital role in uplifting the rural people (especially landless, small and marginal farmers) through additional income and employment. It has been supporting as a livelihood options during crop market failures and droughts. Livestock farming is the mostly associated with landless, small and marginal farmers. This section constitutes the most vulnerable sections of the rural society. The major component in

livestock namely the dairy sector engages 70 million households (Government of India, 2007, Report of the working on Animal Husbandry and Dairying, Eleventh five year plan, 2007-2012). In addition about 5 million families are engaged in various activities relating to rearing of sheep and goat (small ruminants). Depending on the number of sheep/goat in flock, an employment of 184 to 437 man-days per annum is generated (Government of India, 2004). In general household women play a key role in livestock rearing. Thus entire livestock sector has been providing employment opportunities to considerable section of population who are poor, vulnerable and live in rural areas. As per FAO (2004) these livestock rearing activities generates more than six per cent of Gross Domestic Product (GDP). In turn government supports livestock rearing community and their livestock by promoting Animal health, production, marketing and extension services. Comparing made to the contribution to the national economy, the support to this sector was meager. The support in terms of investment, subsidies from the governments and rough estimate of public spending on this sector comprises about five percent of the value of its output (Parthasarathy and Birthal, 2002; CALPI, 2005).

In the last two decades, the structural changes (namely liberalization, privatization and globalization) initiated by the central and state governments started to restructure the government services in all sectors. The livestock sector has been no exception. From 1990s onwards various donor agencies, ministries of state-central government bureaucracies and others have been working on bringing out policy changes at state and central (Joseph, 2007). There efforts in turn brought out changes in policy of the governments to a greater extent (Turner, 2004). This background necessitates us to look into the emergence of new policies and the changes in the livestock service sector. Thus this study attempts to link the emerging changes of livestock service sector on the background of various policies. In precise it throws light on privatization of veterinary health, production and extension services of state governments.

Sources of gathered information: This study is based on published information available from state - central governments and other agencies. The former of these includes budgetary documents of Ministry of Agriculture and studies carried out for government agencies. The later comprises various publications of independent agencies (including NGOs, donor agencies) working in the area of livestock sector. The paper is divided into three sections. The first section elaborates on “proposed reasons” for the policy changes which have direct bearing on livestock service sector. The next two sections dwell on new policy measures initiated in the post globalization era and emerging structural changes on the livestock service delivery institutes. The impact of these new policy measures on the livelihood of farmers are not discussed here.

Genesis of new policies for livestock sector: The vulnerable section namely livestock farming community meets its majority of livestock service needs through the state level animal husbandry departments which has a mandate for providing services. State animal husbandry departments throughout the country have 8720 veterinary hospitals/polyclinics, 17820 veterinary dispensaries, and 25, 433 veterinary aid centers including mobile dispensaries (Anonymous, 2005) and 43,782 Artificial Insemination (AI) centers (Sasidhar and Chandel, 2003) spread out widely to carry out various activities of the departments. They cater all range of livestock needs such as health and production services. From this department on an average one veterinarian serves 10000 cattle unit (Sudeepkumar, 1999; Damodhiran, 2004) against the recommendation of 5000 cattle unit per head (NCA, 1976). Thus shortage of human resources exists in state animal husbandry departments. In

addition to shortage of human resources the state animal husbandry departments suffers from budgetary difficulties (Vinod *et al.*, 2003). The funding for various activities in crop agriculture and animal husbandry, were already collapsed with budget cuts of the centre and states during the last decade and this has been further aggravated in recent budgets.

Next to state animal husbandry departments, dairy co-operatives are the major source of livestock services. Dairy cooperatives take care of dairy cooperatives member's dairy cattle. There are around 130 thousand Milk Producer Co-operative Societies, which caters dairy animal health, breeding and other services for 12 million members. But overall the dairy co-operatives along with private companies reached from meager to around 20% of the total milk marketed in the country (Candler and Nalini, 1998; Kurup, 2002; Kumar, 2004; Indian Study Team, 2007). It means the majority of the milk producers are not under the reach of co-operative services. With the above limitation on one hand the co-operatives are under staffed department, suffers with shortage of funds coupled with poor response to public demand.

The existing lacunae of the animal husbandry departments and dairy co-operatives are being pointed for withdrawal of government role and complete or partial privatization of service as solutions by various researchers and organizations. These arguments are placed by new livestock policy perspective (Government of India, 1996; Sasidhar and Chandel, 2003; Vinod, 2004; Anonymous, 2004) and donor institutes/organizations. In addition to these Kathiravan *et al.* (2007) and Ravikumar *et al.* (2007) reports that the farmers willing to pay for selected certain livestock services. In this back ground the authors emphasis on privatization of services partially or completely.

The major recent policies that are driving the livestock sector services privatization are National livestock policy draft, state level policies, Milk and Milk Products Order 1992 (MMPO 1992- It can be downloaded from <http://dahd.nic.in/milkorder.htm>) and Multi state co-operative act are discussed in the following section. These policies and acts are having direct and immediate impacts on public livestock service delivery system. Other than these Veterinary council Act, the NDDDB (National Dairy development) act, Prevention of slaughter act, regulations related to export and import of livestock products too have an impact on livestock sector but not discussed here.

Major policies influencing livestock service sector

National livestock policy perspective 1996 and state government policies: The central ministry, Government of India worked out new livestock policy perspective with the consultation of Swiss Development Co-operation (SDC), Inter-cooperation (IC an international non-governmental organization) under the guidelines of World Bank, World trade organization and others. Government of India, 1996, states the animal husbandry departments should go for progressive reduction in their treatment and cure, reduction of size of the department and cost recovery over a period of 25 years. In specific it recommends the state governments.

- To charge all services offered by government an economic price which, in the immediate term, will relieve the system of the resource burden imposed by free service while creating the environment for private practice professionals
- Encourage professionals-fresh as well those employed in government-to set up private practice in these services, to begin with, in economically viable areas. Ideally, the best impetus the government can offer to private service is withdrawing the free services from such areas and moving to core disadvantaged areas

- The government should, beginning with the 9th plan, stop all fresh recruitments to fill up even the existing vacancies in the animal husbandry departmental institutions, except in the areas of specialization in government regulatory, disease control and planning roles
- State departments of animal husbandry should avoid filling up vacancies arising out of retirement of existing professionals until they shrink to a size adequate to perform new role (Government of India, 1996)

Based on the above state governments are directed to carry out various structural changes in livestock sector to the lines of National livestock policy perspective. The Swiss Development Corporation (SDC) and Intercooperation (IC) played a major role in formulating the Orissa, Andhra Pradesh, Sikim and Kerala states livestock policies. These policies recommends decentralization/ restructuring of operations, withdrawal of state government institutes from selected services and delivering of remaining services on costs sharing/recovery basis and facilitation of private participation. For example

- The Government will progressively make veterinary and artificial insemination services, mobile practices operating within their existing jurisdictions and delivering the services at the farmer's door-step, as paid inputs. Under the new policy the Government will permit the Government employed veterinarians, Livestock Inspectors and Inseminators to practice their profession/trade and to charge for the services delivered at the farmers' door-step at market rates. These reforms will be implemented in a phased manner; (Government of Orissa, 2002)
- Department will progressively move away from delivery of veterinary care and AI services, first converting them into mobile practices; gradually retreating towards the privatization of the services..... (Page Number 8, Orissa state livestock sector policy, Department of Fisheries and Animal Resources development)

As similar to above the Andhra Pradesh state government in its strategy document "Vision 2020" states that selective privatization of animal health and breeding services (Turner, 2004). Throughout the country various state governments started to work out models for privatization of various services and implementing the same. These models pave way to promote private participation and investment, cost recovery mechanisms for services.

Milk and milk product order, 1992: The Milk and Milk products order, 1992 controls production, distribution and supply of milk products. Department of Animal Husbandry, Dairying and Fisheries in the Ministry of Agriculture are implementing agency for MMPO 1992. Over the span of ten years, six amendments have been made. The last amendment (sixth) was carried out in March 2002 (The amendments can be downloaded from <http://dahd.nic.in/milkorder.htm>). During the course of the amendments various restrictions existed for private participation has been dismantled in a phased manner. Currently deregulation and decontrol on the dairy sector has been almost completed. Deregulation of ice cream sub-sector, which was reserved for small-scale industries now opened for foreign direct investment participation up to 51%. In twelve leading milk producing states more than 400 private units with total milk processing capacity of 33 thousand liters per day have been registered (Indian Study Team, 2007). Through above investments over the decade private players established themselves in parallel to co-operative system.

Multi state co-operative society acts: The special privileges from government to milk producer's co-operatives are considered by private as not "level playing field". They want co-operatives to face stiff market rules in parallel to private dairies. In order to create "level playing field" Multi state co-operative society act are passed and the dairy co-operatives are converted to more autonomous institutions which pushes them to function like private business house with a limited support from government. Multi state cooperative society act 2002 of central government gives guidelines for similar kind of acts at state level. On other hand state governments are much faster than central government in bringing out policy reforms. Andhra Pradesh state government brought out Andhra Pradesh Mutually Aided Cooperative Societies Act-1995 which was similar to recent Multi state cooperative society act 2002 of central government. The act of Andhra Pradesh has pushed the dairy cooperatives to become autonomous and get limited support from central and state. Bihar, Jammu and Kashmir and Madhya Pradesh are some of the states following Andhra Pradesh model and while Maharashtra and Orissa are working out the same (Parthasarathy, 2002). These acts have made structural and functional changes in dairy co-operatives.

Emerging structural changes on the livestock service delivery institutes: The State level Animal husbandry departments and dairy cooperatives are reorienting themselves to the policy changes. The public institutes started to restructure their organizational set up and nature of service deliveries. The animal husbandry departments started to convert free services to paid services and started to transfer some of its activities to new players. While the cooperatives are working on complete recovery of the cost for the services provided to the members. This results in new set service delivery institutions ranging from government supported autonomous institutes, Non governmental organizations and private players. The nature of emerging institutes, their role and nature of services are discussed in following subsection.

Formation of state level agencies/autonomous institutions for privatization: The government has identified marketable services in livestock service sector and started to facilitate the private participation in it. The central government initiated a national level programme called "Project for Cattle and Buffalo Breeding which was approved in October 2000. This comprises two phases spanning out for 10 years. It has been given a budget of Indian Rupees 2500 million for its first phase in the 9th plan which commenced on 2000-01. This project promotes and funds state governments to form autonomous institutions at state level to deliver breeding (Artificial insemination-AI) and related services on cost recovery mechanisms. It also has one of the mandates to convert the existing AI centers of the state animal husbandry departments into mobile and hand over to private trained AI practitioners. It has pledged to promote about 14,000 private AI practitioners (Economic Editors Conference, 2001). Under this project, currently 26 states have been enrolled. In this background Andhra Pradesh state government created an autonomous institute called Andhra Pradesh Livestock Development Agency (APLDA). While in Tamil Nadu under this project Rupees 200.28 million has been sanctioned by central government for formation of Tamil Nadu Livestock Development Agency (TNLDA) and privatizing the breeding services. In Madhya Pradesh the institute is Madhya Pradesh Livestock and Poultry Development Corporation and in Orissa it is OLRDS (Orissa Livestock Resource Development Society). These institutes have been carved out from existing state animal husbandry departments. These institutes get 100% aid from central government of India through the Project for Cattle and Buffalo Breeding.

These institutes adopt different type of approaches in privatization of cattle breeding services. The state government or an agency whoever receives fund from the above project needs to come in line with promoting private participation. Every state is adopting its own ways and means to privatize, the breeding services. The APLDA works out privatization through paravets called “*Gopalmithras*”. But TNLDA tries to use the graduated from the veterinary colleges and unemployed youths. The other services namely curative ones which were free earlier are now provided on cost basis in selected states. All the state governments are working on transfer of marketable services such as curative and breeding to private. While non-marketable services such as preventive measures and extension education are retained under the state government.

Non-governmental organizations in livestock services: In recent years the participation of NGOs in livestock sector has increased. On their own many NGOs have started to participate in this sector. These organizations engage in developing community based animal health workers; organize livestock farmers co-operatives and so on. The NGOs activity on livestock sector does not seem just to stop here. According to Vinod (2004), the NGOs activity in this field organizes and mobilizes the latent market demand for animal health services. This means in future, the NGOs activities will facilitate consolidation and organization of livestock service market for private participation or NGOs on its own will mature as a private party.

Other than the above some NGOs are acting as a subcontract for various animal husbandry activities. The breeding service in some states has been diverted to non-governmental organizations such as BAIF (Bharatiya Agro Industries Foundation) and Raymonds group (an Indian corporate company) based J.K. Trust Gram Vikas Yogana. These NGOs has started to play as a vehicle to privatization of breeding services through a series of trained para veterinary staff networking with the local headquarters office. Currently BAIF operates in eight states and also work to get foothold in other states. Initially BAIF started to offer cattle breeding services in places where the government was unable to reach out with the support of government and external aid. Later on during the course of privatization and restructuring the animal husbandry department started to face shortage of staffs. This again curtailed the services from the state animal husbandry departments. During this course of event the external aid agencies promoted privatization by providing external aid. This in together paved the way for the entry of BAIF in wider areas. Various state governments started to contract out the breeding services. Initially BAIF recovered operating cost of breeding services from sources such as Farmers' Co-operatives, service charges and donors. But now slowly the support is cut down and most of the cost is recovered from farming community as service charges. In some cases complete cost is recovered from farming community. This complete recovery model is called as a “self-sustainable model” (practically business models). Now in BAIF operational areas the farmers started to pay out around 100 to 150 Indian rupees per artificial insemination.

The Raymond Group has started to invest in cattle breeding. This group operates as J.K. Trust Gram Vikas Yogana in this sector. Their mode of operation is different from BAIF because they collect money from both the farmers and the Government too. At present, around 180 centres are in operation in 11 districts of Chattisgarh State, 69 centres in eight districts of Madhya Pradesh and 150 centres in two districts of Andhra Pradesh. It has entered in Uttarakhand, Gujarat and also working to enter in states like Maharashtra, Haryana and Himachal Pradesh. They collect around 30 Indian rupees per AI from farmers and the state governments pay out JK Trust for every successful conception of insemination or successful calf. In case of Andhra Pradesh the

government pays out around 800 Indian rupees per positive pregnancy diagnosis. In other states the state government pay 3000 Indian rupees per calf. In addition they also collect 30 Indian rupees per insemination as service charge from farmers. These developments may even pave for the entry of more corporate houses in coming days. Among the various sub-sectors of livestock services the cattle breeding is first and one of the major area where rapid changes are undergoing. In this service new stakeholders were coming in the scene in the last few years. In addition to the above service, the livestock extension services were slowly diverted to NGOs.

Emergence of contract farming and resulting privatisation: Encouraging private investment and provision of foreign direct investment up to 51% has resulted in entry of private players in poultry and dairy sectors. The private/corporate industries play a predominant role in poultry. They work with poultry farming community under various levels of production. In broiler farming a high degree of contract farming starting from supply of day old chick to procurement of marketable broiler and selling to final consumer exists (i.e., from hatchery to dining table). Thirunavukkarasu and Sudeepkumar (2008) reported high degree of contract farming from supply of day old chick to procurement and marketing of final product of chicken meat exists. While in dairy after implementation of Milk and Milk products order 1992 (MMPO 1992) and later amendments in MMPO resulted in opening of dairy sector for organized private participation. This resulted in entry of organized private dairies with large scale investments under contract system (Thirunavukkarasu *et al.*, 2008). These private dairies has been establishing over dairy cooperatives (Thirunavukkarasu and Sudeepkumar, 2005a). Well-known examples are Nestle, Smithline, Cavin care, ABT, Hindustan Lever, Heritage and Hatsun Agro Limited. These corporate houses operate with farming community through a contract agreement. They provide variety of input services (breeding services, feed, treatment and disease prevention) to farmers, including dairy extension for dairy farmers (Thirunavukkarasu and Sudeepkumar, 2005b). In case of poultry sector particularly in broiler farming, a similar picture exists. Over a period of time from 1980's onwards a new institutions have emerged in the post liberalization era in livestock sector which are mostly corporate houses (Thirunavukkarasu and Sudeepkumar, 2007). These new institutions provided various livestock services and recovered these cost during procurement of produce either directly or indirectly. Private participation favored the comparatively well off farmers in dairy (Thirunavukkarasu and Sudeepkumar, 2006) and cost poultry farming.

NABARD and ATMA driven privatisation of livestock services: The ministry of agriculture and National Bank for Agriculture and Rural Development (NABARD) and Agriculture Technology Management Agency (ATMA) are promoting the concept of agri clinics. Under this programme NABARD/ATMA will facilitate loan for unemployed/retired veterinary graduates to start their own animal health care services. The main objective of the programme was to provide input services including extension services to the farming community through private individuals/groups. Under this initiative veterinary clinics are being established throughout the country. This is owned by the individuals (private) and they are charging for whatever service they provide to the livestock farming community. The emerging changes are facilitating slower privatisation of livestock services.

Dairy cooperatives becoming autonomous institutes: Currently producer cooperatives in dairy sector alone exist. Even though for sheep and poultry co-operatives were established in order to free the farming community from the clutches of middleman they did not sustain for various

Table 1: Nature of Livestock Service providers and their service mode

Description	Pre globalization era	Post globalization era	Service mode
Dairy sector	State level animal husbandry sector	State level animal husbandry sector along with Private breeding service providers (BAIF, JK Trust)	Government and co-operatives are moving away from free services to minimum cost recovery mode
	Dairy co-operatives	Dairy cooperatives and private dairy companies	Private service providers and dairy companies operates through cost recovery and profit making mode
Small ruminant sector	State level animal husbandry sector	State level animal husbandry sector	Government is moving away from free services to minimum cost recovery mode
Poultry sector	State level animal husbandry sector	Contract farming firms and Private consultants	Government has moved from major to meager service provider. Contract firms and corporate farming dominate the sector

reasons. The prime reason stated for this failure is poor involvement of members. But in poultry sector in addition to the above rapid industrialization (both broiler and egg production) and the entry of contract farming are the opt reasons for inactiveness of poultry co-operatives. Dairy cooperatives carry out cattle health services, production and dairy extension services as part of their mandate. In order to support the dairy farming community who are small, marginal farmers and land less agricultural labors, the dairy cooperatives were supported through the National Dairy Development Board (NDDB), central and state governments. In course of these support sometimes there were undue government and bureaucratic interferences. Quoting this as a serious issue in the development of co-operatives various state governments and central brought out the policy changes. Based on this Andhra Pradesh government brought a new legislation called Andhra Pradesh Mutually Aided Cooperative Societies Act, 1995. Currently six milk unions in the above state operate on their own without much support from state federation. Later on central government brought a similar legislation as a model act called Multi state cooperative society act 2002 that to be followed by almost all the state governments. This autonomy discourage government funding and by this way complete opening of the dairy sector with amendments in MMPO throws the cooperatives at the hands of market forces.

The above factors coupled together forces the dairy unions to work as private business house. Now with the limitations of the fund the cost of services has been shifted to the farmer's head. They started to charge partially the dairy farming community for the animal health and production services namely veterinary first aid, emergency care, vaccination, deworming, breeding services etc (Chapman and Tripp, 2003). In the coming days all the dairy cooperative sectors are expected to fall in above similar lines and the cost of services would eventually fall on the shoulders of dairy farmers. The Table 1 brings out brief outline of the ongoing changes in livestock service sector.

CONCLUSION

In the pre-globalization era the major service providers in the livestock sector are government owned state level animal husbandry departments and the quasi government organization namely dairy-cooperatives. Structural changes initiated by the central and state governments from 1990s onwards started to restructure the livestock sector. Various donor agencies, government have been working on bringing out policy changes. These policies changes are focusing on minimizing the role of public sector and encouraging private participation. The major recent policies that are driving

the livestock sector services privatization are National livestock policy draft, state level policies, Milk and Milk Products order 1992 (MMPO 1992) and Multi state co-operative act. On the other hand the public owned livestock service institutions run on shortage of human resources and budgetary difficulties. This all together promotes in structural and functional changes in public sector and promotes new institutions in the line of private participation. Participation of private sector has favored larger herd owners and progressive farmers in dairy farmers. In poultry sector too similar scenario has emerged a bit earlier. On the other hand there is wide spread agrarian crisis throughout the country. The landless, small and marginal farmers are moving out of agriculture and allied sectors. In this context the role and impact of these new policies needs to be deeply examined.

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