ILRI POLICY BRIEF 20
January 2016

Smallholder dairy transformation and innovation in Bihar, India

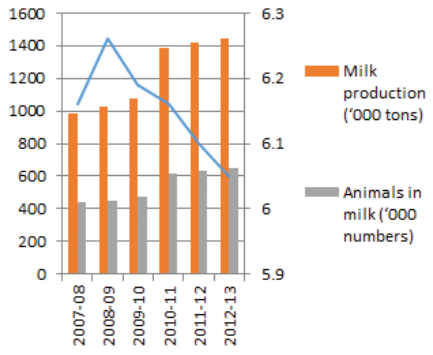
T.S. Vamsidhar Reddy and Rasheed Sulaiman

Introduction

Dairy development plays a crucial role in strengthening the economy and job creation in rural Bihar (GoB 2012). Though there are several agencies in Bihar promoting dairy development, milk productivity has hardly increased in decades. The substantial rises in milk production are due to increases the number of animals in milk, rather than increased milk productivity from cow and buffaloes (Figure 1). Although the state has taken several breed-improvement initiatives, improving animal health, and enhancing fodder and feed availability, smallholder dairy farmers continue to face several challenges (Planning Commission 2008; Singh et al. 2010; GoB 2012; Singh et al. 2013; Pandey 2015).

This study was undertaken from October to December 2014 to understand the challenges and suggest a way forward.

Figure 1. Milk productivity for both cows and buffaloes.



Source: Basic Animal Husbandry Statistics, DAHDF, GOI, (2010 and 2014)

Study approach and framework

The study approach included desk review of literature and field visits to conduct interviews with key informants from different agencies. A generic checklist of questions was prepared for interviews. Initial meetings with few key informants suggested new key informants, who were in turn included for data collection.

To understand why the new or relevant knowledge was not put to use to result in higher milk productivity, an agricultural innovation systems framework was employed. In order to diagnose the innovation capacity of the system, the four-element tool (World Bank 2006) was employed.

The four guiding questions of the framework included: (1) which actors are relevant for smallholder diary innovation system; (2) what patterns of interaction exist among these different actors; (3) how can we explain the current patterns of interactions; and (4) what are the key technical/policy/market/environmental challenges and opportunities faced.

Findings

Actors and their roles. There are two types of actors in the smallholder dairy innovation system: (1) actors (agencies and individuals) that directly handle milk and its products; and (2) enabling environment actors (agencies and individuals) that provide support and services to value chain actors. The enabling environment actors include research and development actors. An examination of the roles played by these agencies revealed that they often act

independently of each other, without any collaboration. This is true even though some of them play similar roles. It was also found that the ability to play designated roles is severely affected by lack of personnel, especially in case of Bihar Livestock Development Agency (BLDA) and the Department of Animal Husbandry (DoAH). BLDA does not have enough dedicated staff. Within DoAH, out of about 1850 veterinarian positions, only approximately 630 are regular staff. More importantly, the smallholder dairy innovation system lacks an actor and/or a mechanism mandated to bring agencies together—share knowledge and resources—in order to engage in concerted action.

Patterns of interaction. Analysis of the patterns of interaction further accentuated the need for synchronization of efforts by different agencies. Actors from the informal sector and the private dairy sector have least interactions with rest of the actors. Some agencies, such as the Bihar Veterinary Association, displayed the potential to play a sector coordination role.

Livestock and Fish workshop on smallholder dairy value chain transformation in Bihar, India on 1–2 August 2015.

Institutions. An analysis of the habits and practices of different agencies revealed several factors giving rise to the current situation. The first reason is the limited capacity for program implementation, insufficient infrastructure and too many existing staff whose knowledge and skills need to be updated.

The second reason is the low morale of the veterinarians due to dominance by non-technically trained bureaucrats who oversee technical departments but are often from non-technical backgrounds. The veterinarians feel their experience and expertise is often unvalued by senior bureaucrats who only remain in their positions for short periods, six-month to two-year periods, before being transferred to another government department. Moreover, in recent years, several technocrats have been suspended on corruption charges, and this has also demoralized many technical staff in dairy/livestock agencies. The third reason is the top-down taken approach to planning, with little consultation with staff or local communities.

The fourth reason is the mixed perception of the role of private sector in milk processing. Some argue that the dairy cooperative faced a lot of hardship promoting the sector throughout the region and thus deserves government support. They see the private dairy sector as exploitative, only interested in operating in the profitable milkshed areas. The private dairy actors complain about the lack of a level playing field, about the dairy cooperative being able to exercise monopoly power over the sector. Lastly, the fifth reason is the underestimation of the role of knowledge in enhancing productivity and income. With most dairy/livestock interventions focusing on providing hard inputs and services—such as artificial insemination, vaccinations, fodder seeds, cattle feed, milk collection centres—there is least emphasis on knowledge provision through extension and advisory services.

Enabling environment. While there is a positive environment for the expansion and strengthening of milk cooperatives through COMFED, there is little on offer for the informal or private dairy sector. Apart from the Breeding Policy of Bihar (2009) and a chapter on animal husbandry in the Bihar Agricultural Road Map (2012), there are no specific dairy/livestock policies in the state. Policy development is characterized by inertia.

There has been a lack of action on the most important issues, particularly relating to the severe shortages of fodder, the lack of expansion of the veterinary support infrastructure, and quality control of milk/milk products, feed, vaccines and drugs. This situation has not changed in spite of clear guidance by several agencies—including the Planning Commission (government of India)—which pointed out the need for additional 101 veterinary hospitals, 1630 veterinary dispensaries and one veterinary polyclinic per district.

The lack of policy implementation capacity is another major challenge. This is clearly evident in the failure of BLDA to implement the breeding policy, allowing a large number of public and private sector agencies to undertake artificial insemination without professional leadership or oversight. There are no effective mechanisms for drawing lessons from past and ongoing interventions, or to share lessons to help improve future policy design and implementation.

The way forward

The diagnosis of the dairy innovation system in Bihar clearly reveals the diversity of organizations that need to be roped in to promote smallholder dairying in Bihar. The sector clearly needs coordination and collaboration to ensure that knowledge and resources are shared freely among diverse stakeholders for concerted action.

This is not easy considering the low levels of trust between various actors and of veterinarians' morale, the tradition in the sector of working independently, and the lack of capacity to engage in coordination. There is policy incoherence or, in other words, a lack of synergy between agricultural/livestock policy objectives (as articulated in 'Krishi Road Map', the Bihar government plan to improve

the agricultural sector) and the objectives of organizations outside the sector, in industry, health, education, research, skill development, etc. Unless these bottlenecks—which affect the performance of each actor individually and the system as a whole are addressed—the sector is not going to make any real progress.

One way to address this is by creating a multi-stakeholder consultation forum/platform to share and discuss the nature of interventions each organization is undertaking in the dairy livestock sector. This group, a 'dairy innovation platform' or 'dairy innovation policy working group' (DIPWG), should comprise representatives of the public, private, cooperative and NGO (non-governmental organization) sectors that meet at regular intervals to examine, comment on and evaluate policies and interventions in the dairy livestock sector.

Nothing of the like currently exists in the sector, and there is an increasing recognition among the stakeholders of the need for such a platform. Such a platform should be hosted by an organization identified by the stakeholders, take on an advisory and learning function, and its activities (meetings and other identified interventions) be adequately funded.

In addition, there is a need to establish a research group which will support the DIPWG in analysing evidence and experiences in Bihar state and elsewhere and help evaluating possible steps forward. This research group should respond to knowledge-based requests of DIPWG, supporting it to develop policy responses, for example, to problems related to fodder, human resources, or ways of enhancing the private sector contribution to the livestock/dairy sector.

References

Department of Animal Husbandry and Fisheries. 2010. Basic animal husbandry statistics. Department of Animal Husbandry and Fisheries, Ministry of Agriculture, Government of India. AHS series-12. New Delhi, India. 145 pp.

Department of Animal Husbandry and Fisheries. 2014. Basic animal husbandry statistics. Department of Animal Husbandry and Fisheries, Ministry of Agriculture, Government of India. Animal husbandry statistics series. AHS series-15. New Delhi, India. 165 pp.

GoB (Government of Bihar). 2012. Agricultural road map (2012-2017). Department of Agriculture: Bihar, India. 186 pp.

Pandey A. 2015. Livestock policies and its impact on India and Bihar state. Journal of Agricultural Economics and Rural Development: 1 (1): 2-11.

Planning Commission. 2008. Bihar's agricultural development: Opportunities and Challenges. A report of the special task force on Bihar. Government of India: New Delhi, India. 154 pp.

Singh K.M., Singh R.K.P., Jha A.K. and Meena M.S. 2010. Dynamics of livestock sector in Bihar: A temporal analysis. Agricultural Situation in India 66(13): 687-702.

Singh R.K.P. 2013. Livestock research and development priorities for Bihar and Odisha. IFPRI (International Food Policy Research Institute) report. New Delhi, India. 65 pp.

Panel members of the livestock and fish workshop on smallholder dairy value chain transformation in Bihar, India on 1–2 August 2015.

Presentation of proposed solutions during the group brainstorming session.

Photo credits:
Page 1: ILRI
Page 1: ILRI
Page 2: ILRI
Page 3: ILRI
Page 3: ILRI
Page 4: ILRI

Contact

Alok Jha
Regional representative for South Asia
International Livestock Research Institute
a.jha@cgiar.org

Rasheed Sulaiman
Director
Centre for Research on Innovation and Science Policy (CRISP),
Hyderabad, India
rasheed.sulaiman@crispindia.org

CGIAR RESEARCH PROGRAM ON Livestock and Fish

ILRI INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE

ilri.org
better lives through livestock
ILRI is a member of the CGIAR Consortium

Box 30709, Nairobi 00100 Kenya
Phone +254 20 422 3000
Fax +254 20 4223001
Email ilri-kenya@cgiar.org

ILRI has offices in:
Central America • East Africa
• South Asia • Southeast and East Asia
• Southern Africa • West Africa

January 2016