

Village livestock promoters (VLPs): A new approach for integrated delivery of livestock inputs and services in Nepal



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Summary

There is considerable potential to enhance buffalo milk productivity through the community's adoption of an integrated package of technologies and practices. This package includes but is not limited to fertility improvement techniques, nutritional management strategies, strengthening buffalo extension, and improved access to inputs and services using Village Livestock Promoters (VLPs). The CGIAR-funded Sustainable Animal Productivity for Livelihoods, Income, Nutrition and Gender Inclusion (SAPLING) initiative, in collaboration with rural municipalities (RM) and milk producer cooperatives (MPC), implemented an integrated approach to initiate the intended transformation.

This approach involves introducing selected village livestock promoters to provide farmers with an integrated package of advice, inputs, and services. This includes providing extension services on nutrition, animal reproduction, and genetic selection, building farmer capacity, and improving the delivery of inputs, services, and information.

This brief showcases how the village livestock promoter concept was used and the substantial transformation it has yielded in the six districts in which it has been implemented in the eastern Terai region. The potential of this approach to bring about a significant transformation in the livestock sector is truly exciting. Further strengthening of the VLP approach is recommended to retain the gains made during the SAPLING project and ensure its scaling to other regions of the country.

Introduction

Buffalo farming is vital for many farmers, mainly small-scale farmers, across Nepal, and it contributes significantly to milk production. They account for 57% of total milk production in the country. Despite their crucial role, Indigenous breeds of buffaloes exhibit low milk productivity, averaging merely 2.9 liters per animal per day, amounting to an estimated 869 liters per animal in a 305-day lactation period. Infertility in buffaloes is another major problem in Nepal. Delayed puberty, silent estrus, anestrus, and seasonal breeding patterns were observed in focus group discussions (FGDs) with farmers. Poor feeding practices, identified as critical causes for this situation, were attributed to inadequate knowledge, attitudes, and skills regarding improved nutritional management and limited access to appropriate inputs and services. Additionally, poor health issues resulting from inadequate preventive management are reflected, for instance, in the prevalence of endoparasites.

The government of Nepal has implemented various productivity promotion activities aimed at buffalo genetic improvement, community buffalo schemes, buffalo semen distribution, forage missions, conservation nutrition programs for new calves, and cross-breeding programs. However, the gains from these efforts are limited, partly due to the lack of adequate systems for integrated delivery of inputs and services. Although the public livestock extension structures have changed dramatically, with greater emphasis now on the local administrative level, the services remain stagnant, which reflects the public investment levels into livestock extension. Skilled livestock technical workforce and extension workers are generalists and thinly spread in the community. Insufficient staff coverage, poorly equipped facilities, and a lack of basic livestock promotion facilities at the municipal level are commonly found. This is unlikely to change soon. Some cooperative institutions have attempted to fill this gap, but their financial potential and reach remain limited.

Another significant issue is the limited availability of essential buffalo health services. In Nepal, such services are provided mainly by self-employed para-vets who deliver preventive health services (e.g., vaccination), curative treatment, artificial insemination, lab tests, and advisory services. Their services, however, have little connection

and reference to nutrition management, balanced rations, feed options, mineral nutrition, or the opportunities and requirements of genetic improvement, which are significant issues affecting productivity and cost of production. These aspects are not included in their training and are regularly beyond the scope of their practices. Also, they see their main business as providing health services according to farmers' demands rather than providing advice and promoting improved practices and inputs.

'Village livestock promoter' as an effective solution

In the CGIAR-funded SAPLING Initiative, technically qualified Junior Technical Assistants (JTA) youth are identified and linked to local dairy cooperatives to work as Village Livestock Promoters (VLPs) after having been given intense training on various aspects of animal production, business approaches, and value chain development. These VLPs, through their multiple services, effectively connect farmers, local institutions, cooperatives, local governments, and local suppliers. Their role as change agents, empowering farmers to improve their livelihoods in the community, is truly inspiring. Through specialized technical training, VLPs provide more effective extension and advisory services, especially regarding holistic fertility management, integrated nutrition packages, and appropriate genetic improvement for buffalo farmers to boost the productivity of their livestock. VLPs also contribute to the national system of improving livestock genetics by recording performance data for selecting superior animals. The intensive capacity development in business skills and a strong link to local organizations help the VLPs establish a feed technology business hub (housed in the dairy cooperative) to provide livestock inputs and services in a sustainable business mode.

The approach

The SAPLING initiative implemented a series of activities to tackle the challenges encountered by dairy farmers in Nepal. These challenges include low milk productivity of Indigenous buffalo breeds, infertility issues, poor feeding practices, and inadequate access to essential buffalo health services. Firstly, suitable dairy cooperatives were identified based on their successful track record, organizational structure, and commitment to promoting sustainable dairy farming practices. VLP candidates were recommended by the dairy cooperatives, considering criteria such as qualifications, previous livestock experience, established business ventures, and local residency. It was ensured that candidates possessed the necessary skills and knowledge to fulfill the role of a VLP effectively. Subsequently, these VLP candidates underwent comprehensive training sessions covering technical aspects of livestock and business development strategies, emphasizing the importance of bundling services and the synergy between feed, health, genetics, and economic sustainability.

A formal tripartite agreement was established between the municipality, dairy cooperative, and the SAPLING initiative, outlining roles, responsibilities, and expectations, ensuring clear communication channels and accountability throughout the intervention. VLPs received ongoing mentoring and monitoring support in their field activities to facilitate business development and ensure adherence to best practices. Mentoring activities included guidance on customer engagement, marketing strategies, and financial management tailored to the specific needs of VLPs and their communities. Through these approaches, the intervention aimed to empower VLPs as effective agents of change, leveraging the support of dairy cooperatives and local institutions to promote sustainable dairy farming practices and address the challenges dairy farmers face in Nepal.

The results

To learn about the performance of the VLPs, four groups of experts conducted focus group discussions (FGDs) with multiple stakeholders at Itahari Milk Producer Cooperative (Sunsari), Pashupati Dairy Cooperative and Kantibazar Cooperative (Mahottari) and Ishworpur Cooperative (Sarlahi). The experts included representatives from the Ministry of Agriculture and Livestock Development, Department of Livestock Services, Nepal Agriculture Research Council, Tribhuvan University, and the Agriculture Forestry University, as well as from the concerned municipalities, including livestock technicians, cooperative executive members, and buffalo farmers. Following the FGDs, a cross-learning workshop was conducted in the field to clarify observations and triangulate data across the groups.

The FGDs unveiled several significant insights. First, the VLPs were pivotal in enhancing dairy farmers' access to essential resources such as information, inputs, and livestock health services, acting as intermediaries to connect farmers with vital services and improve decision-making and management practices. Second, a robust business foundation was established for VLPs to ensure their sustainability, with strategies implemented to generate revenue and cover operational costs, ensuring their continued effectiveness within the community. Third, efforts were made to strengthen linkages between VLPs and local institutions, fostering acceptance, support, and broader access to livestock farmers through partnerships with governmental and non-governmental organizations, thereby leveraging additional resources and expertise to serve farmers better. Moreover, the methodology emphasized swift and visible results by implementing recommendations and interventions, leading to tangible improvements in livestock productivity, health, and overall well-being.

The sustainable integration of VLPs into the dairy value chain relies on expanding their customer base with the support of cooperatives and growing the types of input products and services offered to farmers. The discussions during the FGDs highlighted local institutions' ownership of the VLP approach. With their low-cost approach, VLPs offer extension services well-suited to low-cost semi-commercial buffalo farmers, leveraging a high social network and utilizing locally available feed resources to address buffaloes' nutritional imbalances and health issues. The VLP approach aligns with various existing extension modalities, including those of cooperatives and municipalities, contributing to the program's sustainability. Municipal authorities commit to providing basic amenities and services as mandated by the Local Government Operation Act of 2020, aiming to strengthen agriculture and livestock service delivery.

Buffalo farmers valued the VLP approach for its affordability, input availability, and extensive extension reach. In particular, they highlighted how much conception rates in their buffaloes had improved after adopting targeted fertility and nutrition advice. They appreciated cooperative support and a robust feedback mechanism among VLPs, farmers, and cooperatives. Municipalities' accountability in promoting local innovation was also valued. Farmers liked the effective communication in their language and cultural setup, which eased the adoption of buffalo package practices. Furthermore, they felt empowered to engage with various stakeholders in the dairy value chain. Small-scale milk production offers a new business opportunity as cooperatives can buy directly from them. Emerging rural retailer models for supplying inputs and services integrate the 'Bottom of the Pyramid' approach, benefiting both input and output sides along the supplier-to-farmer-to-consumer value chain. Cooperatives can profit significantly by enhancing their reach and communication with their farmers, who form the base of the economy's pyramid.

Feedback from interactions reveals farmers' satisfaction with observed outcomes, such as improved body condition scores, increased milk yield, and higher conception rates. The engagement and empowerment of women farmers, combined with nutritional packages and genetic improvement activities, further enhance these outcomes. The success is attributed to VLP commitment and effective coordination with cooperatives backed by municipalities, which are crucial links between farmers and municipal dairy stakeholders, facilitating feedback

loops within the dairy sector. VLPs also contribute to the national livestock performance recording system through data collection on a dedicated mobile app. This performance recording system forms the basis for the genetic evaluation of national livestock resources, allowing for a long-term, locally adapted, and sustainable genetic improvement program. These achievements collectively demonstrate the effectiveness of the intervention in enhancing the capacity and efficiency of dairy farming in Nepal, ultimately improving farmers' livelihoods and fostering sustainable agricultural development.

Further strengthening of the VLP system

Establishing a support platform for VLPs through peer-to-peer networks and regular mentoring sessions is proposed. Further opportunities for expanding the business base for VLPs can be explored. These could include commissions from cooperatives, receiving artificial insemination (AI) training to provide AI services, and establishing better links to private suppliers. At the horizontal level, there is a need to identify female VLP candidates, engage non-dairy cooperatives as hosting institutions, and encourage municipalities to host VLPs directly.

Currently, the VLP system is implemented as part of the SAPLING initiative through a public-private partnership based on contributions from provincial and local governments and dairy cooperatives. Other provinces can easily replicate this model if they allocate sufficient resources in their annual budgets. Sudurpaschim, Gandaki, Koshi, and Lumbini Provinces have already achieved this. However, in this model, the VLPs depend somewhat on all sponsoring agencies, limiting their flexibility. Therefore, how to promote VLPs as independent service providers supported through technical training, links to local industries, and business mentoring to establish Livestock Input and Veterinary Service (LIVES) Business Centers are being explored. In this case, they can use their capital (or bank loans) to establish these Business Centers and work independently as private entrepreneurs. The Ministry of Labour, Employment, and Social Security can support them as part of the present youth employment generation policy. It might be easier to achieve self-sustainability faster with this approach.

Policy recommendations

Based on the learnings, the following recommendations are given by the key policymakers in the sector to bridge the extension divide, effectively deliver inputs and services, and scale the innovation throughout Nepal:

1. It is necessary to integrate VLP activities into livestock development budgets and expand the VLP model to more provinces, particularly in hill areas. At the vertical level, emphasis should be on increasing coordination between institutions at various levels, including national, provincial, and local governments, cooperatives, and other development organizations.
2. Research-based dairy business models with flexible alternatives, tailored to the local context and delivered by local trainers or experts in hands-on field training, are advised for building the capacity of VLPs.
3. Establishing multi-stakeholder dairy support platforms at the ward level can facilitate the integration of livestock administration, business, research, extension, and education institutions, fostering collaboration among many stakeholders.

4. Supporting a broader business base for VLPs will increase profitability and promote sustainable engagement with cooperatives.
5. Expanding commission-based retail systems for VLPs and providing hands-on AI training to strengthen linkages with private service providers is fundamental for sustainability. This includes streamlining the licensing of VLPs to offer AI services, feeds, and veterinary inputs.
6. Municipalities can also consider hosting VLPs for performance-based or permanent services. Municipal engagement for VLP services can be further encouraged by providing inputs, training, facilities, and contracting services through allocated annual budgets and programs to specific wards or communities. Budget allocations for fertility camps, farm-to-farm visits, clinics, and vaccinations can also sustain VLP engagement. Involving women as VLPs will help bridge the gender gap among extension workers and enhance communication fidelity and effectiveness, supporting livestock innovation adoption.
7. Enhancing coordination, cooperation, collaboration, and networking among administrative, cooperative, and business organizations at provincial and local levels is essential for facilitating and supporting beneficiaries according to their expertise and mandates.
8. Ensuring and monitoring the quality of inputs and services from suppliers through extensive training and appropriate licensing regulation is necessary. Phased refresher training to enhance supplier knowledge is recommended.
9. Promoting VLPs as private business entrepreneurs to ensure sustainability and growth.

Conclusion

Strengthening extension and advisory services and improving access to knowledge, inputs, and services using village livestock promoters will significantly enhance the adoption of the integrated package of technologies for improving livestock productivity.

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