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Dr. Govinda Prasad Sharma, Secretary, Ministry of Agriculture and Livestock Development (MoALD), Government of Nepal.

STRENGTHENING EXTENSION AND ADVISORY SERVICES IN NEPAL

Mahesh Jaishi and Arjun Prakash Subedi recently interviewed Dr. Sharma to seek his views on the performance of agricultural extension services in Nepal in the post-devolution federal context and how its contributions to agricultural development could be enhanced.

How long have you been associated with the Ministry of Agriculture and Livestock Development (MoALD)?

I began my career as an agricultural extension officer in 1995 under MoALD. In 2009, I advanced to roles as a Senior Agricultural Extension Officer and Joint Secretary. I had the opportunity to serve as project director of the World Bank-funded Agriculture Commercialization and Trade Project implemented during 2016–2018. I also served as Director General of the Department of Agriculture and later as Province Secretary in both Madhesh and Karnali Provinces. Since August 2021, I've been working as the Secretary of the Government of Nepal at MoALD and the Ministry of Forest and Environment.

How are agricultural extension services currently organized under federalism?

Agricultural extension in Nepal has seen a lot of changes over the years. If we go back a couple of decades, things were more centralized. But in 2002, with the Local Self-Governance Act of 1999 coming into play, responsibilities started shifting to the local level. District Development Committees (DDCs) took charge of planning and setting priorities in agriculture, while the actual implementation of services still happened through the District Agriculture Development Offices (DADOs). It was the first major step toward decentralization.

Now, under the federal system, things have been reshuffled quite a bit. The Constitution lays out a clear division of responsibilities between the federal, provincial, and local governments. Each level has its own role to play.

How are the roles differentiated currently across the different levels of the Government?

The federal government mainly takes care of the bigger picture. It ensures that the macroeconomic and trade policies are stable, handles international donor-funded projects, and leads research and development in agriculture. It's also responsible for things like supplying improved seeds, maintaining

quality standards, and managing pests and diseases—especially those that have national or international implications, like quarantine regulations.

On the other hand, the provincial governments are more hands-on when it comes to providing agricultural extension services. They're in charge of training staff and farmers, managing pests and diseases at the provincial level, promoting agribusiness, and overseeing labs and government farms.

Then we have the local governments, which are closest to the farmers. They're responsible for actually delivering agricultural programs on the ground. This includes running small-scale irrigation projects, encouraging cooperatives and community institutions, and collecting primary data at the village level.

So, while the structure is more layered now, each level of government has a specific role, and ideally, they should all be working in coordination to serve the farmers better.



In Nepal, agriculture serves as a cornerstone of employment, engaging over 60 % of the workforce. The sector is dominated by marginal and subsistence farmers who hold less than 1 hectare of land.

Is agriculture a priority at the local level?

The results are mixed. Generally, agriculture receives low priority in resource allocation, human resource development, and planning at the local level. Most municipalities allocate less than 1% of their budget to agriculture while expecting higher contributions from the federal government. Often, conditional grants are diverted to non-agricultural sectors like infrastructure.

However, some local governments are prioritizing agriculture by recruiting technical staff, mobilizing resources effectively, and implementing farmer welfare schemes. These cases show that success often hinges on coordination among elected officials, technical service providers, and farmers. Their best practices should be replicated elsewhere.

How are extension services performing at the local level?

Local extension services face significant challenges. Agricultural staff previously operating under a single command currently operate under four categories: federal, provincial, local, and project-based. Most local governments lack sufficient technical staff, and the existing workforce often lacks the

required expertise and training opportunities. Staff from the federal level oversee only certain national programs like the Prime Minister Agriculture Mechanization Program (PMAMP), which is limited in scope. Service delivery at the local level relies on a small number of local staff and contract workers, such as those hired under the "One Village, One Technician" program.

How is coordination among the three levels of government?

Coordination is weak and largely informal, with no direct chain of command. While the federal minister of agriculture holds policy meetings with provincial ministers 2–3 times a year, overall alignment of national and local agricultural priorities remains limited.

Has extension become more demand-driven post-devolution?

Not entirely. Although services have been decentralized, they are not fully responsive to farmers' specialized needs. There's a gap between available basic services and the increasingly specialized demands of commercial agriculture. Participatory planning is rare, job descriptions are unclear, and staff are often assigned non-agricultural duties. Furthermore, most staff have low digital literacy and limited technical capacity. Therefore, the Sixteenth Plan (2024/25–2028/29) proposes equipping local governments with a minimum institutional setup, including physical infrastructure, expert and field staff, and administrative support tailored to local needs and workload.

Are there systems to build new capacities among extension professionals?

Yes, though they are limited. Federal ministries provide in-service training and facilitate study leaves. However, local technicians often lack access to subject matter specialists and are not directly supervised by the federal government. Training programs are mostly linked to specific projects and exclude many local staff. At the provincial level, training centres exist but are under-resourced. Policies on HR development, including foreign exposure and academic courses, are still unclear.

What are other key challenges facing field extension staff?

Challenges include poor infrastructure, unclear job roles, limited prioritization of agriculture, lack of technical training, and weak career development opportunities. Coordination platforms are missing, and many staff are diverted to non-professional roles. Career progression is hampered by conflicting rules across different levels of government. All these challenges emphasize the importance of having a harmonized national policy.

Are there accountability and coordination issues?

Yes. Until the enactment of the *Inter-Governmental Relations Act, 2077* (Nepali calendar), there was no legal clarity on coordination. While MoALD has initiated meetings with provincial and local representatives, vertical and horizontal coordination mechanisms still need strengthening. Effective integration of research, extension, and education is critical for a robust agricultural innovation system.

Any new policies or programs?

A new comprehensive agriculture policy and an updated agriculture bill are in the final stages. These aim to provide role clarity, improve accountability, and reflect the post-federalism reality. The policy emphasizes adherence by all levels of government to nationally agreed laws and frameworks while considering local needs and diversity.

What's being done to improve human resources in agriculture?

There is a high vacancy rate: about 75% at the local level and 35–40% at the federal and provincial levels. Recruitment via the Public Service Commission is expected to address this. The federal government has also provided funding to retain "One Village, One Technician" staff. Additionally, expert-level staff are being deployed to municipalities for agriculture, veterinary, and planning services.



Protected cultivation of vegetables is expanding in the urban and peri-urban areas of Nepal in recent years. However, many farmers lack of knowledge and skills necessary to manage protected structures effectively, including proper irrigation, pest control, and crop selection

Is the government working with NGOs and the private sector?

Yes, the NGOs registered with the Social Welfare Council and INGOs are active partners. The government collaborates with CGIAR organizations (e.g., CIMMYT, IRRI, ILRI) under various MoUs. The private sector plays a growing role, especially in livestock and high-value crops. Organizations like the Federation of Nepalese Chambers of Commerce and Industry (FNCCI) and cooperatives contribute to commercialization efforts. Projects like those funded by the World Bank, ADB, IFAD, and others also emphasize public-private partnerships and capacity-building for input supply, credit access, and marketing.

How is digital technology being used in extension services?

Digital transformation in Nepal's agriculture sector is gradually picking up pace. One of the notable efforts is the farmer registration system, where more than 1.9 million farmers have already been registered. This initiative is expected to pave the way for issuing farmer IDs and establishing better regulatory mechanisms.

There's also the Digital Village initiative, implemented in collaboration with FAO, which aims to bring a comprehensive digital shift across agriculture planning and strategy development. Alongside this, the Nepal Agricultural Research Council (NARC) has developed a Knowledge Management System (KMS) to disseminate information and technologies to farmers. They're also working with the Department of Agriculture and the Department of Meteorology on weather forecasting systems to help farmers plan more effectively.

To streamline services, the government has introduced the Nepal National Single Window (NNSW) system for quarantine and phytosanitary services, allowing for faster and more efficient service

delivery. Similarly, digital soil mapping is being rolled out. Through this system, soil types and nutrient profiles are identified, helping farmers know exactly what kind of fertilizer is suitable for their land and the crops they want to grow.

Efforts have also been made in seed management. The Digital Seed Information System helps manage the supply and distribution of quality seeds, while a digital subsidy system ensures that subsidies on source seeds are efficiently directed to the right producers—whether they're private companies, cooperatives, or farmer groups.

On the insurance front, the government is experimenting with digital platforms for agricultural insurance, where farmers can manage premium payments and claims online via apps or websites.

And of course, mobile apps like <u>Geo Krishi</u>, <u>Krishi</u>, <u>Krishi</u>, <u>Krishi Guru</u>, and <u>Digital Ag</u> are becoming increasingly popular. These apps offer practical advice and real-time agricultural information while also helping farmers connect directly with consumers and wholesalers, thus cutting out middlemen. As smartphone use rises and internet access improves, these digital tools are essential for modernizing farming and enhancing rural livelihoods.

Are international agencies supporting extension services?

Absolutely. Development partners like the Food and Agriculture Organization (FAO), World Bank (WB), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Asian Development Bank (ADB), International Fund for Agriculture Development (IFAD), Japan International Cooperation Agency (JICA), Korean International Cooperation Agency (KOICA), and Swiss Agency for Development and Cooperation (SDC) are supporting various projects in agriculture extension, climate-smart practices, irrigation, mechanization, training, market development, and private sector engagement.

Notable projects include the Food and Nutrition Security Enhancement Project (FANSEP)-II and the Financial Sector Technical Assistance Project (FASSEP), and the Rural Enterprise and Economic Development (REED) project, all supported by the World Bank; the Nuts and Fruits in Hilly Areas (NAFHA) project, supported by the ADB; and the Resilient High Value Agricultural Programmes (RHVAP), funded by IFAD. These projects aim to boost productivity, commercialization, and farmer resilience.



Mr. Mahesh Jaishi is Assistant Professor (Agricultural Extension) at Institute of Agriculture and Animal Science (Lamjung Campus), Nepal. He can be reached at: mahesh.jaishi@qmail.com



Mr. Arjun Prakash Subedi is Crop Development Officer, Ministry of Agriculture and Livestock Development (MoALD), Government of Nepal. He can be reached at: subediarjun678@qmail.com

AESA Secretariat: Centre for Research on Innovation and Science Policy (CRISP)
Road No 10, Banjara Hills, Hyderabad 500034, India

www.aesanetwork.org Email: aesanetwork@gmail.com