

Agricultural Extension: Inspiring the Next Generation of Agripreneurs

ARTICLE ID: 0400

Harjeet Singh¹, Mansi², Soyal Kumar³

¹Ph.D. Scholar, Department of Agricultural Extension Education, Sardar Vallabhbhai Patel University of Agriculture and Technology

²M.Sc., , Department of Genetics and Plant Breeding, Sardar Vallabhbhai Patel University of Agriculture and Technology

³Ph.D. Scholar, Department of Genetics and Plant Breeding, Sardar Vallabhbhai Patel University of Agriculture and Technology

Across the villages and farmlands of the Global South, agriculture is quietly being reimagined. Agricultural extension the organized system of advisory, educational, and technology-transfer services that connects research institutions to farming communities has long been the bridge between the laboratory and the field. Today, that bridge is carrying a new kind of traveler: the young agripreneur. As climate change, market volatility, and rural unemployment reshape the countryside, agripreneurship offers a compelling answer, transforming farming from a subsistence activity into a viable, profitable enterprise. Young people, who bring energy, digital fluency, and fresh ideas, are essential to this transformation, yet many still view farming as unattractive or unprofitable. This is precisely where extension services play their most powerful role: by equipping youth with knowledge, skills, and market linkages, extension does not merely disseminate information it converts job seekers into job creators, and farmers into entrepreneurs.

1. Understanding Agricultural Extension

Agricultural extension can be defined as a system of non-formal education that helps farmers and rural communities acquire the knowledge, skills, and attitudes needed to improve their agricultural practices, incomes, and overall quality of life. Its objectives extend beyond simple technology transfer to include capacity building, problem-solving, and the facilitation of linkages among farmers, researchers, markets, and policymakers.



The importance of extension lies in its role as a translator converting scientific innovation into practical, field-level application. In rural development, extension functions as a catalyst, strengthening human capital, encouraging collective action through farmer groups, and enabling communities to adapt to changing agro-climatic and economic conditions. Where extension outreach is strong, farmers tend to adopt improved practices faster and more confidently than where such support is absent.

2. Rise of Agripreneurship

Agripreneurship refers to entrepreneurial activity across the agricultural value chain from production and processing to packaging, branding, and marketing. Unlike conventional farming, which is often oriented toward subsistence, agripreneurship treats agriculture as a business, seeking to create value at every stage. Its importance is growing rapidly. Agrifood systems remain one of the largest sources of livelihoods worldwide, employing roughly one-third of the global workforce, yet the quality of youth employment within them remains a concern, with a large share of young workers in vulnerable, informal arrangements (FAO, 2025). Agripreneurship directly addresses this gap by generating new forms of local employment, particularly through value addition turning raw produce into processed, packaged, and branded goods that command higher prices and reduce post-harvest losses. Collectively, these enterprises strengthen rural economies, retain wealth within farming communities, and slow the migration of youth toward overcrowded cities.

3. How Agricultural Extension Inspires Young Agripreneurs

Modern extension systems inspire young agripreneurs through a combination of skill development, capacity building, and structured entrepreneurship training that goes beyond traditional crop advisory. Programs increasingly emphasize a broad set of agripreneurial competencies spanning business acumen, communication, technical agricultural skill, and access to external support networks recognizing that successful enterprises depend on more than agronomic knowledge alone (Zickafoose, Niewoehner-Green, Landaverde, & Rodriguez, 2026).

Technology transfer remains central, but it is increasingly paired with business incubation support, helping young entrepreneurs move from an idea to a functioning enterprise. Institutional mechanisms such as Farmer Producer Organizations (FPOs) have proven especially effective in this regard: by aggregating small and marginal farmers, FPOs improve members' bargaining power, reduce transaction costs, and provide collective access to credit, inputs, and markets, thereby measurably improving farm incomes (Singh & Vatta, 2019). Government-backed capacity-building frameworks have further strengthened this ecosystem by offering handholding support, financial facilitation, and market linkage assistance to newly formed producer organizations (Jaya, Ramya Lakshmi, Gummagolmath, & Bhawar, 2020).

Extension also nurtures a broader start-up ecosystem, encouraging financial literacy budgeting, credit access, insurance, and savings alongside stronger market linkages that connect young producers directly to

buyers, processors, and retailers, cutting out exploitative intermediaries and improving realized prices.

4. Digital Revolution in Agricultural Extension

Digital technologies are transforming how extension is delivered. Mobile advisory services, interactive voice response systems, and SMS-based alerts now reach farmers who were previously beyond the practical range of face-to-face extension visits. Rigorous field evidence from Uganda demonstrates this shift concretely: farmers who received video-mediated agricultural information, delivered through a combination of audiovisual messaging, interactive voice response, and SMS, showed measurably higher knowledge and adoption of recommended practices than those relying on conventional extension alone (Van Campenhout, Spielman, & Lecoutere, 2021).

Beyond mobile advisory, the sector is experimenting with artificial intelligence for pest and disease diagnosis, the Internet of Things for real-time soil and weather monitoring, drones for input application and crop surveillance, and precision agriculture tools that tailor recommendations to individual fields. Social media groups and digital learning platforms now allow young farmers to exchange knowledge horizontally, learning as much from peers as from official extension agents. Meanwhile, a growing wave of agri-tech start-ups is building digital marketplaces, farm-management applications, and supply-chain platforms that plug smallholders directly into modern value chains.

5. Success Stories

Digital Green offers one of the most widely studied examples of participatory, technology-enabled

extension. By training local farmers to produce and screen short videos featuring their own peers demonstrating improved practices, the model builds trust and relevance that conventional top-down messaging often lacks, amplifying the reach of existing extension systems rather than replacing them (Gandhi, Veeraraghavan, Toyama, & Ramprasad, 2007).

Farmer Producer Organizations have similarly delivered tangible results on the ground. A study of FPOs in Gujarat found that member farmers achieved better price realization and reduced input costs compared with non-members, illustrating how collective agripreneurship can translate directly into higher household incomes (Singh & Vatta, 2019). In Odisha, project-based interventions aimed at rural youth have shown that structured support combining skills training with entrepreneurship promotion can curb distress migration by making agriculture a locally viable career path (Acharya, Sahoo, Nayak, & Mishra, 2024).

Together, these examples show a consistent pattern: when extension moves beyond one-way information delivery to active facilitation of enterprise, farmers and especially younger ones respond with genuine entrepreneurial engagement.

6. Challenges

Despite this promise, significant obstacles remain. Awareness of extension services and available schemes is often low, particularly among the youngest and most remote rural populations. Financial constraints continue to limit the initial investment required to start an agri-enterprise, and schemes such as Agri-Clinics and Agri-Business Centres, while well-

intentioned, still face implementation gaps in credit access and follow-up support (Afroz, 2022). Uneven access to technology and connectivity produces a persistent digital divide, so that the same tools inspiring agripreneurship in one region may remain inaccessible in another. Market risks, including price volatility and limited post-harvest infrastructure, discourage first-time entrepreneurs from taking the leap, while climate change intensifies production uncertainty. Extension outreach itself is frequently constrained by staff shortages and limited resources, particularly in the most marginal farming regions, leaving many potential young agripreneurs without the sustained mentorship they need.

7. Author's Perspective

In my view, the future of agricultural extension lies in its evolution from a purely advisory service into a genuine enterprise-facilitation system. Youth participation cannot be treated as an afterthought; it must be designed into extension programming from the outset, with mentorship structures that pair experienced agripreneurs with newcomers. Innovation whether digital, institutional, or organizational will matter less than the human relationships extension builds along the way, since trust remains the currency that ultimately drives technology adoption. Above all,

I believe entrepreneurship in agriculture must be pursued hand in hand with sustainability; an agripreneurship that exhausts soil, water, or biodiversity is not a long-term solution but a delayed crisis. Extension systems that align profitability with ecological stewardship will be the ones that truly secure agriculture's next generation.

Conclusion

Agricultural extension remains one of the most powerful instruments available for rural transformation. By blending technical knowledge with entrepreneurship training, digital innovation, and institutional support such as Farmer Producer Organizations, extension is steadily reshaping how young people relate to agriculture not as a fallback occupation, but as a genuine career choice. Real barriers persist, from financial constraints to the digital divide, and closing them will require sustained investment and thoughtful policy design. Yet the direction of travel is clear. As today's youth bring fresh energy, digital fluency, and entrepreneurial ambition to the fields their families have long tended, agricultural extension stands ready to be their guide — turning inherited land into innovative enterprise, and turning the next generation of farmers into the next generation of agripreneurs.

Table 1. Traditional Farming vs. Agripreneurship-Oriented Farming

Aspect	Traditional Farming	Agripreneurship-Oriented Farming
Primary Objective	Subsistence and food security	Profit generation and value creation
Orientation	Production-focused	Market- and consumer-focused
Technology Use	Limited, largely conventional	Active adoption of digital and precision tools

Value Addition	Minimal or none	Processing, branding, and packaging emphasized
Market Linkage	Dependent on local intermediaries	Direct linkages via FPOs, digital platforms
Financial Approach	Informal savings and credit	Structured financial planning and formal credit
Risk Management	Reactive, often informal	Proactive, includes insurance and diversification
Youth Involvement	Often perceived as unattractive	Actively promoted as a career pathway

References

1. Acharya, S., Sahoo, M., Nayak, A. P., & Mishra, S. N. (2024). Fostering rural entrepreneurship and curbing migration: The ARYA project's impact on youth and agriculture in Puri, Odisha. *Indian Research Journal of Extension Education*, 24(1), 91–100.
2. Afroz, S. (2022). Challenges and opportunities in the ACABC scheme. *Journal of Rural Development*, 41(2), 123–138.
3. FAO. (2025). The status of youth in agrifood systems. Food and Agriculture Organization of the United Nations.
4. Gandhi, R., Veeraraghavan, R., Toyama, K., & Ramprasad, V. (2007). Digital Green: Participatory video for agricultural extension. *Proceedings of the International Conference on Information and Communication Technologies and Development (ICTD 2007)*.
5. HLPE. (2021). Promoting youth engagement and employment in agriculture and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. Food and Agriculture Organization of the United Nations.
6. Jaya, G., Ramya Lakshmi, S. B., Gummagolmath, K. C., & Bhawar, R. S. (2020). Strategies for promoting Farmer Producer Organisations (FPOs) in India. *Journal of Agricultural Extension Management*, 21(1).
7. Singh, G., & Vatta, K. (2019). Assessing the economic impacts of farmer producer organizations: A case study in Gujarat, India. *Agricultural Economics Research Review*, 32, 139–148.
8. Van Campenhout, B., Spielman, D. J., & Lecoutere, E. (2021). Information and communication technologies to provide agricultural advice to smallholder farmers: Experimental evidence from Uganda. *American Journal of Agricultural Economics*, 103(1), 317–337. <https://doi.org/10.1002/ajae.12089>