INDEPTH STUDY ON PLURALSTIC EXTENSION SYSTEM IN INDIAN AGRICULTURE

Abstract

In a country like India, where approximately eighty percent of farmers are small and marginal, addressing diverse agricultural issues requires a mixed economic approach. The pluralistic extension system aims to foster the development of mixed economies, incorporating elements of both capitalism and socialism, fostering closer collaboration between the public and private sectors. Over time, the pluralistic extension system has demonstrated that the widespread adoption of improved agricultural technologies is most successful when government organizations, NGOs, and private entities work together to provide advisory services to farmers. This approach necessitates joint planning, implementation, and evaluation of programs involving all service providers, in active partnership with farmers. In this pluralistic extension model, the government plays a crucial role in setting national policy direction, coordinating efforts, and ensuring quality control to safeguard the interests of farming communities. Consequently, the new extension paradigm recognizes the importance of multi-agency collaboration, harnessing the strengths of both public and non-public actors (such as the private sector, NGOs, FIG/CIG/POs, PPP Models) in agricultural extension work to enhance the delivery system for all types of farmers.

Keywords: Indian agriculture, Extension Service, Decentralization.

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I. INTRODUCTION

Indian agriculture system is very large and diversified, consisting of different agro-ecological zones, along with existence of different categories of farmers like small and marginal farmers. This diverse form seeks various solution and very difficult task to provide service through a single agricultural extension system. And, there is co-existence of multiple service providers both from the public and private sector. So, there is a need of perfect blend of advisory service providers to solve multi-facet problem of Indian farmers' *i.e*., pluralistic extension service.

1. **Concept of Pluralistic Extension Service:** In the context of Indian agriculture, pluralism in agricultural extension is a tangible phenomenon, characterized by the presence of a diverse range of agencies, service providers, models, and institutional arrangements. These entities encompass both public and private sectors, community-based organizations, NGOs, and more, all dedicated to addressing the information, advisory, and support service requirements of farmers (Sajesh, et al., 2018)

2. .**Characteristics of Pluralistic Extension**

- The simultaneous presence of multiple extension systems and approaches, encompassing both public and private sectors.
- It encourages the formation of various partnerships and leverages resources from both public and private institutions.
- The existence of diverse funding channels and multiple repositories of information. IV. The utilization of various extension methodologies and approaches

3. **Principles of Pluralistic Extension**

- **DeConcentration:** The public sector assumes a significant yet distinct role at various levels, including local, meso (provincial or regional), and national tiers, primarily focusing on coordination, technical support, and knowledge management. It is tasked with facilitating learning, scaling up efforts, ensuring quality, and maintaining oversight. Additionally, the public sector supports advisory service systems that are funded, planned, executed, and coordinated at the district level.

  At the meso level, crosscutting services such as seed services, environmental management, food security, and other services that transcend district boundaries are coordinated and implemented, often through contractual arrangements. On the national level, the public sector serves a supportive and backstopping role for all service providers, establishing an enabling environment through the development of conducive policies, strategies, and regulations.

- **Decentralization:** With the increasing autonomy of local governments, district governments and administrations are now frequently responsible for managing budgets allocated from the treasury. These funds are typically distributed based on comprehensive district development plans that encompass various aspects. As a result, there is a noticeable shift in agricultural planning priorities from broader sector-wide

agricultural planning to more focused and higher-quality district agricultural development plans.

- **A system for providing Multiple Services:** Extension managers and collaborators acknowledge that service quality can be enhanced through performance-based contracts. They also acknowledge that the selection of service providers should be determined by the comparative strengths of the public sector, private sector, and civil society. The optimal combination of services can be determined for each specific circumstance, taking into consideration the demand for services and their accessibility.

- **Farmer Empowerment:** Farmer organizations not only advocate for the interests of their constituents but also collaborate in extension activities involving planning, resource allocation, monitoring and evaluation, and service delivery. Empowerment encompasses economic empowerment and participation in decision-making. As farmers become more economically empowered within value chains and local economic development initiatives, they assume a more influential role in setting agendas, devising plans, and delivering services. In pluralistic systems, maintaining quality control primarily relies on downward accountability and user engagement at the local level. The accountability of service providers to farmers becomes increasingly crucial for ensuring quality, outweighing their accountability to Financiers.

- **Outsourcing Services:** Local governments, including districts and communes, are directly procuring services that align with the specific demands of farmers as outlined in district agricultural development plans. The selection of service providers is guided by an assessment of their comparative and competitive advantages. This evolving approach is anticipated to enhance synergy and complementarily in the delivery of services.

- **Partnerships:** Illustrative instances of collaborations and connections between agricultural advisory services and various participants within the innovation system and service domain encompass partnerships between advisory service providers and entities such as agricultural research agencies, agricultural chambers of commerce, microfinance organizations, and agro-processing services.

- **Extension Approaches:** A significant hurdle lies in the ongoing transformation of extension services, moving away from a hierarchical, uniform, production-focused advisory model to a more interactive and adaptive approach. This interactive approach allows for tailored guidance, messages, and methods based on the diverse needs of clients. Extension professionals assume a more facilitative role, leveraging their technical expertise to encourage learning among farmers, as exemplified in Farmer Field Schools (FFSs), and fostering collaboration with various stakeholders, especially those in the market. To support this evolving extension paradigm, district-level extension systems should receive backing from provincial and national service entities and knowledge hubs, particularly when the demand for knowledge services

transcends the district boundaries, aligning with the evolving landscape of extension services.

(**Source:** https://siteresources.worldbank.org/INTARD/Resources)

4. Strengths of Pluralistic Agricultural Extension System

- Cater to the diverse requirements of stakeholders across various tiers of the hierarchy, including small, marginal, and large-scale farmers.
- Optimize resource utilization for maximum efficiency.
- Enhance the collective impact of Training of Trainers (TOT) initiatives.
- Enable the widespread dissemination of extension services tailored to the specific demands of clients.
- Foster collaboration and partnerships to accelerate the adoption of technology and establish robust input linkages.
- Leverage Information and Communication Technologies (ICTs) and their innovations for enhanced service delivery.
- Cultivate a competitive landscape for delivering services to the farming community.

5. Coordination of Pluralistic Extension Systems- Pluralism and institutional linkages: The concept of pluralism plays a pivotal role in the reform proposals examined in this course. Its primary objective is to foster cooperation and collaboration between the public and private sectors. Within this private sector-oriented and pluralistic framework, civil society organizations become significant contributors to the definition of what constitutes the "public interest" at the community and farm levels. Additionally, there exist various systems within the public sector and frequently multiple providers of extension services outside the public sector, all managed by private enterprises. In essence, a diverse range of private enterprises is responsible for executing extension functions:

- Profit-oriented entities, such as local businesses, large agricultural estates, domestic corporations, multinational corporations, and their subsidiaries;
- Membership-based associations, including farmer associations and farmer producer companies; and
- Non-profit organizations.

Domestic and multinational corporations, while having some distinctions, both have a shared focus on the market: their primary goal is to generate profits by selling products and services. Membership associations share an interest in achieving profit, although profit is not their primary aim. NGOs, on the other hand, are typically non-profit organizations.

Various providers have a tendency to prioritize different functions. Some may focus on information and technology transfer, others on education through farm-management training, and still others on addressing issues through consultations, whether on-farm or in an office setting. This diversity in providers and their objectives contributes significantly to the complexity of discussions surrounding agricultural extension. As a

result, these discussions can be challenging, at times confusing, and may appear to contain contradictions.

- A comprehensive understanding of extension systems necessitates recognizing the diversity of extension providers, their objectives, and more.
- The public sector's significance extends beyond establishing its own extension services; it also involves coordination and collaboration within the broader agricultural extension landscape.
- New roles and responsibilities exist that go beyond the conventional expectations of the public sector.

These roles could be broadened, especially in specific instances, to encompass: a direct role in addressing specific client needs, a coordinating function, serving as the primary source of information (a final reference or arbitrator), an accountability and regulatory role, and potentially other roles as well.

Cater to the diverse requirements of stakeholders across various tiers of the hierarchy, including small, marginal, and large-scale farmers. II. Optimize resource utilization for maximum efficiency. III. Enhance the collective impact of Training of Trainers (TOT) initiatives. IV. Enable the widespread dissemination of extension services tailored to the specific demands of clients. V. Foster collaboration and partnerships to accelerate the adoption of technology and establish robust input linkages. VI. Leverage Information and Communication Technologies (ICTs) and their innovations for enhanced service delivery. VII. Cultivate a competitive landscape for delivering services to the farming community.

II. STATUS OF PLURALISTIC EXTENSION SYSTEM

1. Worldwide Status: Here, some examples of pluralistic extension service system in world-wide is given below:

- **KENYA-Mobile Telephony for Delivery of Animal Health Services:** FARM-Africa, an NGO collaborating with the Kenyan Government and other stakeholders in Kenya, has established a decentralized animal healthcare system as part of the Kenya Dairy Goat and Capacity Building Project (KDGCBP) to connect key participants in the system. To facilitate this initiative, the project partnered with Safaricom Corporation, the corporate social responsibility arm of the mobile phone company Safaricom. Under the KDGCBP system, community animal health workers can acquire a veterinary drug kit and a mobile phone at a subsidized rate. Additionally, animal health assistants and project-affiliated veterinarians receive mobile phones. In areas without electricity, vet shops equipped with solar panels and batteries host community phones. The phone's owner is responsible for maintenance and can generate income by offering its use to others, providing private veterinarians with an opportunity to diversify their earnings. The phone system enables animal healthcare workers to exchange updates, share information, and make referrals, ultimately reducing transaction costs and enhancing the efficiency of animal healthcare in the region.

- **Experience of Malawi Pluralistic Extension System:** Malawi, primarily an agriculture-based and one of the world's least-developed countries, faces the challenge of a rapidly growing rural population and high unemployment rates. The Malawian government heavily relies on external aid to address its development needs. The country's pluralistic extension system presents a nuanced and multifaceted landscape and cannot be characterized as entirely demand-driven or responsive. Despite reported efforts to implement a demand-driven extension system, many stakeholders tend to adopt a dictatorial role in determining what services are provided, rather than aligning with farmers' actual needs. As a result, marginalized groups of farmers often do not benefit from the demand-driven extension system due to poor coordination among independently operating actors. The lack of empowerment of farmers to take ownership of activities from the beginning also hampers the continuity of interventions. Studies by Chowa, et al. (2013) recommend that these independent actors should adapt their approach to engage farmers in discussions about their needs and collaborate more effectively, thus strengthening the extension value chain. At the public system level, institutions can play a pivotal role as coordinators, facilitating dynamic interactions between service providers and farmers to ensure comprehensive coverage and responsiveness.

- **Diverse Information System in Bangladesh Need Pluralistic Extension System:** At present farmers in Bangladesh mostly get information from public, private and NGO sectors. Farmers' access to information from formal sources like public and NGO service was still very limited, especially for women and small farmers. Government extension service had countrywide coverage and a sized skilled workforce to provide extension service to all categories of farmers, unfortunately public extension service seemed to be more concentrated on large farmers rather than small farmers. NGOs could be credited for creating space for small and women farmer, but their institutional capacity for handling sophisticated extension service was very limited imply confined in few locations and lesser client coverage. Private extension service was suffering severely from skilled manpower shortage and often criticized for high concentration in maximizing profit. Although, their service suffers from low efficiency, but this service was effective and sustainable in terms of financial capacity. The above criticism of present extension system exit in Bangladesh from Rashid and Qijie (2016) study also indicated that this country was in a favourable position to endow a pluralistic extension system to solve many shortcomings of present agricultural extension service to increase client access, geographical coverage and efficiency.

2. Models of Pluralistic Extension in Indian Context

- **Agricultural Technology Management Agency (ATMA) System:** The ATMA extension model introduced several key extension reforms aligned with recommendations from the World Bank. These reforms included decentralization at the district, block, and village levels, fostering bottom-up participation of both male and female farmers, promoting diversification beyond a sole focus on high-value crops, and encompassing livestock and other products. Additionally, the model

embraced pluralism by involving both public and non-public institutions in the extension process (Singh, et al., 2009).

ATMA, established as an autonomous institution at the district level in 1998 (initially as a pilot project in 28 districts across 7 states), aimed to ensure the effective delivery of extension services to farmers. By 2007, the government had expanded this initiative to cover nearly all districts across the country. ATMA operates through a Governing Board, serving as the apex body that provides overall policy direction, and a Management Committee, responsible for executing the scheme. ATMA continues to function as the district-level nodal agency overseeing the comprehensive management of the agricultural extension system within the district, which includes the development of a Strategic Research and Extension Plan (SREP) (ATMA GUIDELINES, 2018 under Krishonnati Yojana).

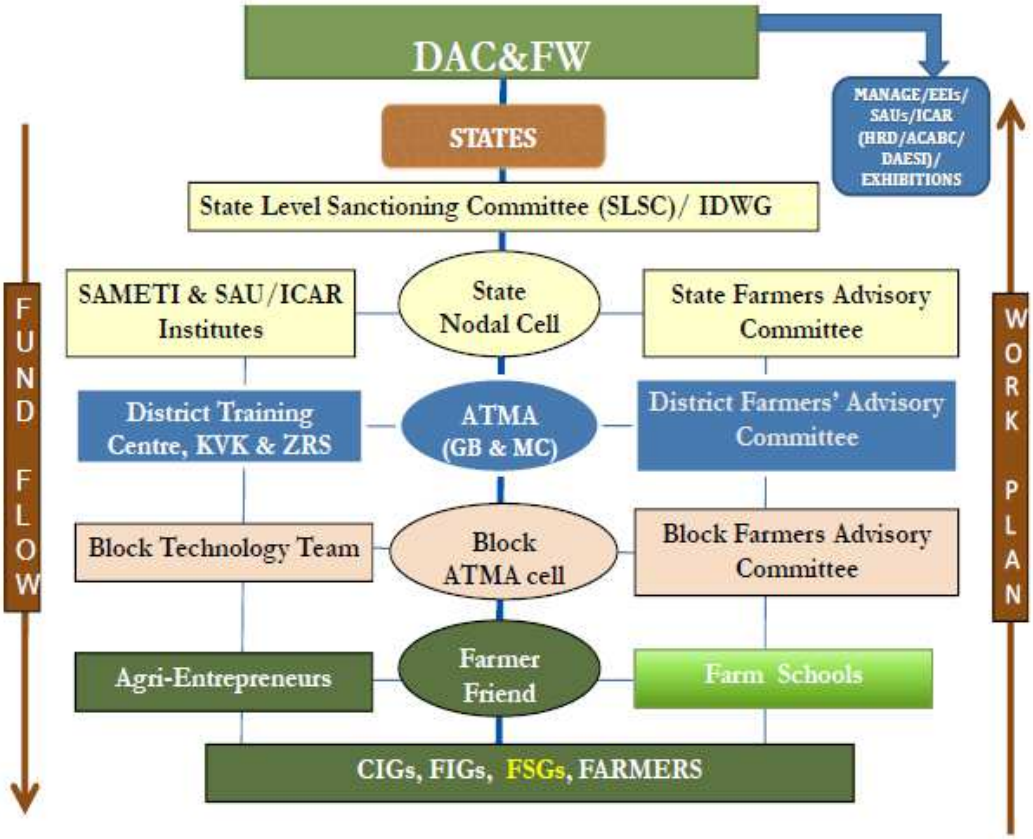

Figure: Organizational Structure of ATMA

- **Krishi Vigyan Kendra (KVK) System:** In 1974, the first Krishi Vigyan Kendra (KVK) was established in Puducherry. As of the latest update, there are a total of 668 KVKs across India, distributed as follows: 458 KVKs are affiliated with Central Agricultural University (CAU) and State Agricultural Universities (SAU), 55 are associated with ICAR Institutes, 35 operate under State Governments, 100 are run by NGOs, and the remaining 17 are under other educational institutions.

KVKs are required to adhere to the guidelines set forth by ICAR (Indian Councils of Agricultural Research). This scheme is fully financed by the Government of India and is considered an integral part of the National Agricultural Research System (NARS). Its primary objective is to assess location-specific technology modules in agriculture and allied enterprises through technology assessment, refinement, and demonstrations.

KVKs serve as Knowledge and Resource Centers for agricultural technology, supporting initiatives from the public, private, and voluntary sectors aimed at enhancing the agricultural economy of the district. They play a crucial role in bridging the gap between NARS, the extension system, and farmers by facilitating knowledge dissemination and resource sharing (Indian Councils of Agricultural Research (ICAR) Guidelines).

The KVK system is mandated to follow specific guidelines for Technology Assessment and Demonstration, as well as Application and Capacity Development. These mandates are as follows:

- On-farm testing: This involves evaluating the suitability of agricultural technologies within different farming systems based on their location specificity.
- Frontline demonstrations: The aim here is to demonstrate the production potential of various technologies directly on farmers' fields.
- Capacity development of farmers and extension personnel: This is carried out to enhance the knowledge and skills of both farmers and extension personnel in modern agricultural technologies.

Another two mandates recently added with the above core three mandates and these are;

- The KVK system operates as Knowledge and Resource Centre for agricultural technologies, assisting public, private, and voluntary sector initiatives aimed at enhancing the agricultural economy of the district.
- Additionally, it offers farm advisories through various media channels, including ICT, on a wide range of topics relevant to farmers.

Furthermore, the KVK system is responsible for producing high-quality technological products such as seeds, planting materials, bio-agents, and livestock, ensuring their availability to farmers. It organizes frontline extension activities, identifies and documents noteworthy farm innovations, and collaborates with existing schemes and programs within its mandate.

3. **Extension Work Done by NGOs-** Different activities done by the NGOs in India are mainly as follows:

- In agricultural sector the activities like distributing planting materials, cattle, poultry, providing agricultural machinery, introducing new agricultural practices like zero tillage, vermin composting and free medical care of animals

- NGOs place a strong emphasis on cooperative and associational development, offering organizational support and education to farmer associations.
- NGOs contribute to poverty reduction in rural areas and enhance the quality of life for disadvantaged individuals.
- NGOs are actively involved in initiatives related to water resource management, environmental conservation, and livelihood development.
- **Examples of dedicated NGOs works as agricultural service providers:** BharatiyaAgro-Industries Federation (BAIF), Professional Assistance for Development Action (PRADAN), Action for Food Production (AFPRO) etc.

4. **Extension Work Done by Private Companies:** Private companies play vital role in providing agricultural service to the farmers and these can be grouped as follows;

   - Private companies distribute the input materials like seeds, fertilizer, insecticide, pesticides to the farmers.
   - Helps in demonstrate their product in farmers field.
   - Also facilitate the farmers in providing crop loan through banks.
   - Examples of Private Companies providing rural advisory services: ITC’s e-choupal, Mahindra Shubhlabha company ltd., Coromandol fertilizer limited

5. **Extension work done by Farmer Producer Organisations:** A Farmer Producer Organization (FPO) is a specific type of producer organization consisting of farmer members. The Small Farmers' Agribusiness Consortium (SFAC) plays a supportive role in the promotion of FPOs. The term "Producer Organization" (PO) encompasses a wide range of organizations formed by producers of various products, including agricultural, non-farm, artisanal, and more, as defined by the National Bank for Agriculture and Rural Development (NABARD). FPOs engage in various activities, which include:

   - Procuring agricultural inputs.
   - Disseminating vital market information, as well as technological advancements and innovations to farmers.
   - Facilitating access to financial resources for procuring inputs.
   - Ensuring quality control of the produced goods.

   Jagannath Crop Producers Company Ltd. in Odisha.
   Chetna Organic Agriculture Produce Company (COAPCL) and Chetna Organic Farmers Association (COFA) in Telangana.
   Pashusamvardhan Producers Company Ltd. in Maharashtra.
   DhariKrushak Vikash Producer Company Ltd. in Gujarat.
   Rangsutra in Kerala.

III. REVIEW ON PLURALISTIC EXTENSION SYSTEM

Pluralistic and demand-driven extension approaches have led to significant enhancements in the performance of communal farmers in Gokwe South Ward 23, Zimbabwe. These improvements are evident in the increased cropped area and higher yields, resulting in a substantial boost in farmers' income within that specific region. To further

enhance these positive outcomes, it is recommended to augment the number of extension service providers operating in the area to align with the farmer population. This augmentation can be facilitated by providing essential resources such as motorbikes, bicycles, and stationary supplies for efficient service delivery. Such efforts not only foster better communication between farmers and service providers but also enable timely resolution of challenges faced by farmers. Additionally, capacity-building initiatives for extension agents to address knowledge gaps play a crucial role in further elevating farm productivity (Muzenda, et al., 2018).

Decentralization and pluralism in agricultural extension services foster increased interaction and open communication among stakeholders. This, in turn, contributes to the development of mutual respect and trust within the agricultural community. Furthermore, such an approach provides field staff with the flexibility to tailor their extension activities to the specific needs of their respective locations, promoting effective coordination among various organizations involved. Nevertheless, further research and studies are required to fully comprehend the intricacies of this system (Jadallah, et al., 2011).

The research conducted aimed to establish a framework for the analysis of pluralistic agricultural advisory services. This framework defines agricultural extension or advisory services as a comprehensive network of organizations dedicated to assisting individuals engaged in agricultural production. The primary objectives of these services include problem-solving, establishing connections with markets and other stakeholders in the agricultural value chain, and providing access to information, skills, and technologies that enhance livelihoods (Birner, et al., 2009).

IV. AN ANALYSIS ON PLURALISTIC EXTENSION SYSTEM IN INDIA

1. Challenges in Agricultural Extension

- Axinn (1997) outlined five significant challenges facing agricultural extension in the twenty-first century:

- **Control and Accountability:** If there is insufficient accountability to farmers, neither the government extension system (public extension) nor NGOs (private extension) are likely to be farmer-controlled.

- **Sustainability:** Another concern is ecological sustainability, crucial for the survival of future generations. The implications of sustainability encompass technical, economic, political, cultural, social, and other dimensions that must be taken into account in agricultural extension.

- **Role of Women in Farming and Extension:** Gender issues permeate every facet of extension activities, with implications for women-led extension efforts concerning the timing, location, and language of these activities.

- **Participation:** Strategies for increasing participation through farmer-led approaches to extension are crucial and should serve as a guiding force for the future.

- **Greed and Corruption:** Greed and corruption, if left unaddressed, can undermine even the most effective extension strategies.

An analysis of Extension service provided by Public and Private Entity in India, by Birner and Anderson (2007);

Table 1: Options for Providing and Financing Agricultural Advisory Services

Provision of service	Public Sector (Various Levels of Decentralization Possible)	Private Sector: Farmers (Individual)	Private sector: Companies	Third Sector: NGOs	Third Sector: Farm-based Organizations (FBOs)
Public Sector (Various Levels of Decentralization Possible)	1. Public sector extension (Different levels of Decentralization)	5.Fee for service extension offered by the public sector	9.Private enterprises engaging public sector extension agents through contracts	11.Non-governmental organizations (NGOs) entering into agreements with public sector extension agents	15.Farmer-based organizations (FBOs) entering into agreements with public sector extension agents
Private sector: Companies	2. Publicly financed contracts or subsidies to private sector extension providers	6. Private extension agents, farmers pay fees	10. Information provided with sale of inputs or purchase of outputs	12. Extension agents from private company hired by NGOs	16. FBOs contracting extension agents from company
Third Sector: NGOs	3.Publicly financed contracts or financial support to NGOs providing extension	7.Extension agents hired by NGOs, farmers pay fees		13.Extension agents hired by NGO, service provided of charge	

Third Sector: FBOs	4.Public financial support to supplied to extension provision by FBOs	8.Extension agents hired by FBO, farmers pay fees		14.NGO financing extension agents who are employed by FBOs	17.Extension agents hired by FBO, service free to members

Source: Briner and Anderson (2007), adapted from Anderson and Feder (2004),Briner *et al.* (2006) and Rivera(1996)

Sajesh and Suresh (2016) identified some critical gaps and emerging challenges for agricultural extension in India, as follows:

- **Yield Gap and Access to Information:** The primary focus of extension service providers is the dissemination of agricultural information. However, it has been consistently observed that significant yield gaps exist between research station results and actual crop yields in farmers' fields for certain key crops (Agarwal, et al., 2008).

- **Inclusiveness and Extension:** Landholding and access to information are directly correlated, with an increase in landholding leading to a greater tendency to access information. In India, smallholders cultivate 44 percent of the operated land, and small holdings make up 85 percent of all operational holdings, playing a vital role in ensuring India's food security (Singh et al., 2002). Research findings indicate that smallholder farmers primarily seek information from local sources, such as progressive farmers (16%) and input dealers (12.6%), with radio (12.4%) also being a significant source. Only 4.8 percent of smallholders consider the extension worker as their primary source of information, compared to 9.8 percent of medium farmers and 12.4 percent of large farmers (Adhiguru et al., 2009). These findings have significant implications for the organization of the extension system in India, especially concerning support for disadvantaged regions, crops, and sections of society. This includes areas like non-timber forest produce in tribal regions, dryland crops, and small ruminants (sheep and goat). In remote and disadvantaged areas, farmers are seldom reached by extension agents, and there is a severe shortage of specialized and client-oriented extension providers to enhance the livelihoods of these regions (Sulaiman, 2003).

- **The Challenge of Achieving Convergence:** The extension's scope is expanding as farmers require not only information on optimal production practices but also on postharvest management, marketing, storage, and handling (Van den Ban, 1998; Sulaiman and Holt, 2002). An overarching organization like ATMA plays a crucial role in addressing this issue through local organization convergence. To ensure the sustainability of such a system, it is essential to establish strong and suitable institutions at the grassroots level, particularly after the implementing agency's withdrawal.

- **Natural Resource Orientation in Agricultural Extension:** Effective management of natural resources is a significant concern in Indian agriculture, as improper input and fertilizer usage, as well as mismanagement of water bodies, lead to critical problems such as soil degradation, reduced productivity, groundwater contamination, concealed drought, and unexpected floods. There is an urgent requirement to raise awareness about nutrient application strategies based on soil fertility analysis and to promote sustainable agricultural practices such as organic farming, natural farming, soil and water conservation, rainwater harvesting, improved water utilization efficiency, and the integrated use of both ground and surface water resources.

- **Human and Financial Resources in India's Extension:** To this day, there remains a severe scarcity of well-trained extension personnel in India. Given India's diverse agricultural landscape and the myriad challenges it presents, there is a pressing need for an ample workforce of committed extension workers, both from the public and private sectors. Private sector involvement is crucial because farmers require information spanning the entire food and agriculture value chain, encompassing aspects like weather forecasts and market prices for their produce. However, the public extension system has historically focused primarily on on-farm activities, as noted by Glendenning et al. in 2010.

2. **Evolution of the Pluralistic Agricultural Extension Services in India:** Drawing from the historical context prior to independence, the evolution of India's extension system has followed a systematic and nationwide trajectory, responding to the evolving requirements of the farming community. This developmental journey can be divided into three distinct phases, each characterized by its own set of innovations: community development, technological advancement, and development with a focus on social justice. These concerted efforts collectively led to the realization of the Green Revolution in India, effectively meeting the increasing food demands of a burgeoning population.

The evolving economic landscape in India, coupled with the imperative for suitable agricultural technologies and effective agro-management practices to address issues such as food security, poverty reduction, expanding market requirements, export prospects, and environmental considerations, presents a fresh set of challenges for technology dissemination systems. Solely relying on public extension services is no longer adequate to meet the diverse needs of farming systems. In response to this complex situation, the concept of pluralistic agricultural extension has emerged as a novel dimension in the field of extension services.

Role of Government in Pluralistic Extension Systems

Table 2: Interdependencies of Government and Pluralistic Extension Systems

	Function	Rationale
Government needs extension for:	**Public policy implementation**	To promote the common welfare, it is often necessary to educate and rally rural communities to alter their behaviours. Extension services may be the most effective or sole tool accessible to national

		governments to achieve this objective..
	Information collection	Data regarding agricultural conditions and rural populations can frequently be gathered most conveniently and precisely through extension agents who are already working in the field and well-acquainted with rural regions.
	Dealing with emerging concerns	In addressing emergency situations such as natural disasters and pandemics, public extension services consistently operate on the frontlines.
	Responding to emergencies	In many cases, particularly during emergencies such as natural and man-made disasters, it is essential for higher levels of government, in cooperation with local authorities, to respond effectively. Extension or knowledge advisory services often represent the most extensive external presence, whether governmental or non-governmental, in rural areas.
Extension services need government for:	**Risk bearing and sharing**	As governments are typically better equipped to manage risks compared to individual agents, their support can be crucial in introducing new Knowledge Advisory System services. These services aim to enhance the institutional capacity of private providers, enabling them to take on some or all of these services.
	Information provision	Extension services rely heavily on information regarding producers, social conditions, production systems, markets, and technologies to design and execute their programs. Government endorsement adds credibility and reliability to this information.
	Oversight and regulation	Even when the private sector handles the funding and delivery of extension services, it's crucial to have public sector oversight and regulation to safeguard the public interest. The regulatory role establishes a baseline of rules and regulations that outline the conditions for conducting extension activities and establish service delivery standards.
	Quality control and enhancement	Extension services depend on essential support services, particularly the education and training of extension agents and technical assistance from research and other

		innovation sources. The government can provide significant economies of scope and scale to support extension activities, which may not be as accessible to other extension service providers.
	System coordination	The government's role as a facilitator allows it to bring various service providers together to share information, build new partnerships, establish collaborative mechanisms, and determine equitable divisions of responsibilities. This governmental coordination has the potential to enhance the overall efficiency and effectiveness of pluralistic extension services.
	Promoting reform	Reforming extension services necessitates having a policy vision and a nationwide strategy for execution, whether it encompasses decentralization, privatization, the establishment of new contractual agreements, or user financing. The government must assume a leading role in defining innovative approaches and fostering alterations in institutional capabilities and interactions, all aimed at establishing problem-solving, demand-oriented systems for generating knowledge.

Source: Rivera and Alex, 2004.

V. KEY INGREDIENTS OF THE SUCCESS OF PLURALISTIC EXTENSION SYSTEM

Studies have made it clear that relying solely on a single service provider, whether public or private, is insufficient to address the multifaceted challenges in farming. Therefore, it is essential to establish an inclusive service provider system that concentrates on specific demands, needs, or categories of producers.

Inclusive service systems can be envisioned at various levels, such as the farm, local, and national levels, or along a value chain. This helps define the presence and accessibility of complementary service providers within a pluralistic framework. Effective collaboration, engagement, and accountability towards end-users are essential in both public and private extension systems. The following aspects, as outlined in the FAO report from 2016, should be incorporated into such an inclusive service system:

- Recognition of the diversity among farmers, including men, women, and youth, as well as their respective organizations, with due consideration of their unique service requirements and requests.

- Effective coordination of existing services, coupled with a comprehensive grasp of best practices and the existing gaps in the overall service delivery landscape.
- A clear understanding of mechanisms to hold local government entities, service providers, and other stakeholders accountable for the services they provide.
- Ensuring accessibility and relevance for both those who can afford services and those who cannot, with a particular focus on serving marginalized and vulnerable farmers.
- Evaluating the incentives and disincentives that impact the involvement of farmer and producer organizations in the governance structures overseeing service provision.

VI. LESSONS LEARNT

- Well coordination between public and private actors can formulate effective extension service & advisory framework.
- Grassroots organization should working as convergence mode which not only create better linkage and chance to develop disadvantageous section of rural society.
- Pluralism ensures advisory services for the needful farmers which include quality of public extension and efficiency of the private actors.
- It promotes proper allocation and utilisation of funds through the well defined actor of the pluralistic extension for the targeted client.

VII. CONCLUSIONS AND THE WAY FORWARD

It has been well established from the above discussion that pluralistic extension service could be a way to overcome challenges of single agricultural extension advisory end. As this pluralistic extension system accelerate a good coordination between public and private extension organisations and also lessen the communication gap between the extension worker and farmer, open up a better knowledge management opportunity as extension agents works in a composite environment for the betterment of farming community.

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