

LIMITATIONS OF VIETNAM'S AGRICULTURAL EXTENSION SYSTEM AND POLICY RECOMMENDATIONS

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- This policy recommendation is based on the research results of the “RATES” project (Rural Agricultural Technology Extension System), implemented by VAAS and AFACI (2023 – 2025).
- This policy recommendation uses data provided by the Ministry of Agriculture and Rural Development of Vietnam, the National Agricultural Extension Center, and from a survey of farming households and extension workers within the framework of the project (2023, 2025).
- The objective of this policy recommendation is not only to summarize some of the main issues identified but also to provide important policy proposals for the future development of Vietnam’s agricultural extension system

1. Vietnam's current agricultural extension system – Key findings

1.1. Breakdown of the agricultural extension system and policy

Since 2018, with Decision No. 83/2018/ND-CP, Vietnam's agricultural extension system has undergone a major transformation towards consolidation and efficiency. However, this has led to the abolition of the grassroots agricultural extension system in many localities, as well as creating a breakdown in the system, preventing agricultural extension activities from being deployed and maintained according to a unified plan. The number and quality of agricultural extension staff have tended to decrease while they still have to maintain functions serving state management, such as investigating production situations, pest and disease situations, and the application of technical advances in their area.

The results of the RATES project survey show that many agricultural extension activities of the Central Agricultural Extension Agency do not involve the participation of lower-level units, which creates difficulties in maintaining and spreading technology, as well as enhancing the capacity of local agricultural extension. After a project ends, local agricultural extension units often lack information to continue deploying and sustainably maintaining the models.

1.2. Limitations in the policy of socializing agricultural extension

The socialization of agricultural extension has been expanded with the participation of agricultural enterprises, international organizations, and community-based agricultural extension models. However, these models lack systematic links. While agricultural extension from enterprises focuses on introducing products such as plant protection products, seeds, and agricultural services, some international projects are experimental in nature and are only known within a certain scope, lacking widespread adoption and long-term maintenance of the transfer and monitoring of new techniques.

1.3. Issues with human resource management for agricultural extension

The survey results of RATES show that after implementing the new agricultural extension regime according to Decree No. 83/2018/ND-CP issued on May 24, 2018, which replaced Decree 02/2010/ND-CP, dedicated agricultural extension staff at the district and commune levels have almost disappeared in many localities. Meanwhile, annual agricultural extension tasks, surveys, and reports on the agricultural extension situation still have to be carried out. The lack of dedicated staff is not only limited to the number





but also in the quality and working spirit, as the current officers in charge have to do other jobs, some of which are even more difficult, leading to very limited time they can dedicate to agricultural extension. In addition, mobilizing human resources for grassroots agricultural extension also faces major problems as district-level agricultural extension service centers no longer directly manage human resources. The assignment and coordination of activities must all be approved by the District People's Committee.

1.4. Policy in training and capacity building for agricultural extension officers in localities

The survey results of agricultural extension officers at the RATES project research sites show that only 53.33% of participants rated the content of capacity-building training for extension staff as continuously updated, while 46.67% said the content was repetitive and lacked innovation. The fact that only some leaders of local agricultural extension centers have access to new technology has limited the relevance and practicality of the training programs. Furthermore, many extension workers at the research sites who participated in the training courses said that the instructors lacked practical experience, leading to training content that was heavily theoretical and lacked applicability. Only 48.33% of officers were supported with accommodation and travel expenses when attending long-term courses; the budget and facilities were limited. 51.67% of officers said they lacked the conditions to practice what they had learned. The training program was also generic and not suitable for specific regional characteristics. Finally, unappealing remuneration policies and a lack of promotion opportunities make many good instructors unenthusiastic, leading to the risk of "brain drain" in the agricultural extension system.

1.5. Capital source policy for operations of AES

Currently, the capital for agricultural extension activities at district-level agricultural extension service centers mainly comes from 3 sources: (1) Funding from the rural vocational training program; (2) The district's scientific and technical capital source; (3) Funds from district economic development. Some localities also have funds for highland ethnic groups but they are quite limited. In reality, however, these capital sources are currently not sufficient to meet the centers' operational needs. The rural vocational training fund is paid through contracts hiring agricultural extension instructors for teaching and vocational training; the district-level scientific and technical capital source is limited, accounting for only about 20% of the total operating budget; the economic development program fund takes a lot of time, and the approval process and disbursement procedures are complicated, causing this capital source not to be supplemented in time for the activities of local agricultural extension centers. Resolution No. 19/TW allows local agricultural extension centers to seek their own income through external service contracts. However, this is currently very difficult to implement in underdeveloped economic regions with high poverty rates. District agricultural offices also enter into contracts to carry out activities serving state management of agricultural extension, but the funding norms are low due to compliance with the state budget law. In addition, even when the above-mentioned capital sources



for the year are temporarily sufficient for operation, financial regulations and disbursement procedures also cause difficulties for the agricultural extension activities of the centers.

1.6. Issues about agricultural extension transfer method

Regarding agricultural extension methods, the RATES survey results also show that farmers believe the methods currently implemented in the agricultural extension system need to be improved, from model building and field conferences to training courses. The methods and content of many training courses are outdated and do not encourage people to listen or apply them. The procedures introduced are often focused on only a few types of crops, and there are not many new procedures to solve new problems arising in the fields recently. Although national agricultural extension projects in the period from 2018 to the present have been renewed towards national priorities in agricultural transformation, rural development, digital transformation, and green growth.

1.7. Issues of policy on developing community-based agricultural extension models

The RATES survey results show that the current community-based agricultural extension model has contributed significantly to changing agricultural extension activities. However, it still faces the following fundamental shortcomings: (1) **Limited skills of key farmers:** They still have many limitations and do not know how to solve complex problems. They also have limited in-depth knowledge, especially theoretical and scientific knowledge, so they cannot answer or solve the root cause of problems for other farmers. They also lack motivation and incentive mechanisms, especially long-term commitments, without external support. (2) **Ineffective coordination and weak linkages:** The survey at RATES research sites shows that local agricultural extension levels do not have much information and do not coordinate with many community-based agricultural extension models. At the same time, community-based agricultural extension only stops at the production technique stage and lacks market orientation and other issues, as well as multi-sectoral linkages. (3) **A particularly important issue of community-based agricultural extension is the lack of connection with scientific research:** Community-based agricultural extension models completely lack the presence of scientists from institutes and universities. Therefore, new advances are slow to be disseminated and transferred, and pressing problems are not responded to and resolved. This is because the adjustment of technical procedures needs to be carried out by scientists. (4) **The process of monitoring and evaluating the effectiveness of agricultural extension from community-based agricultural extension models is incomplete:** The application of new technical advances has not been monitored and implemented, and failures have not been summarized for scaling up. At the same time, the community models themselves are very difficult to scale up without a grassroots agricultural extension system to facilitate and promote the formation of new extension groups based on learned experience (the issue of knowledge dissemination).

1.8. Issues of agricultural research and development for the agricultural extension system

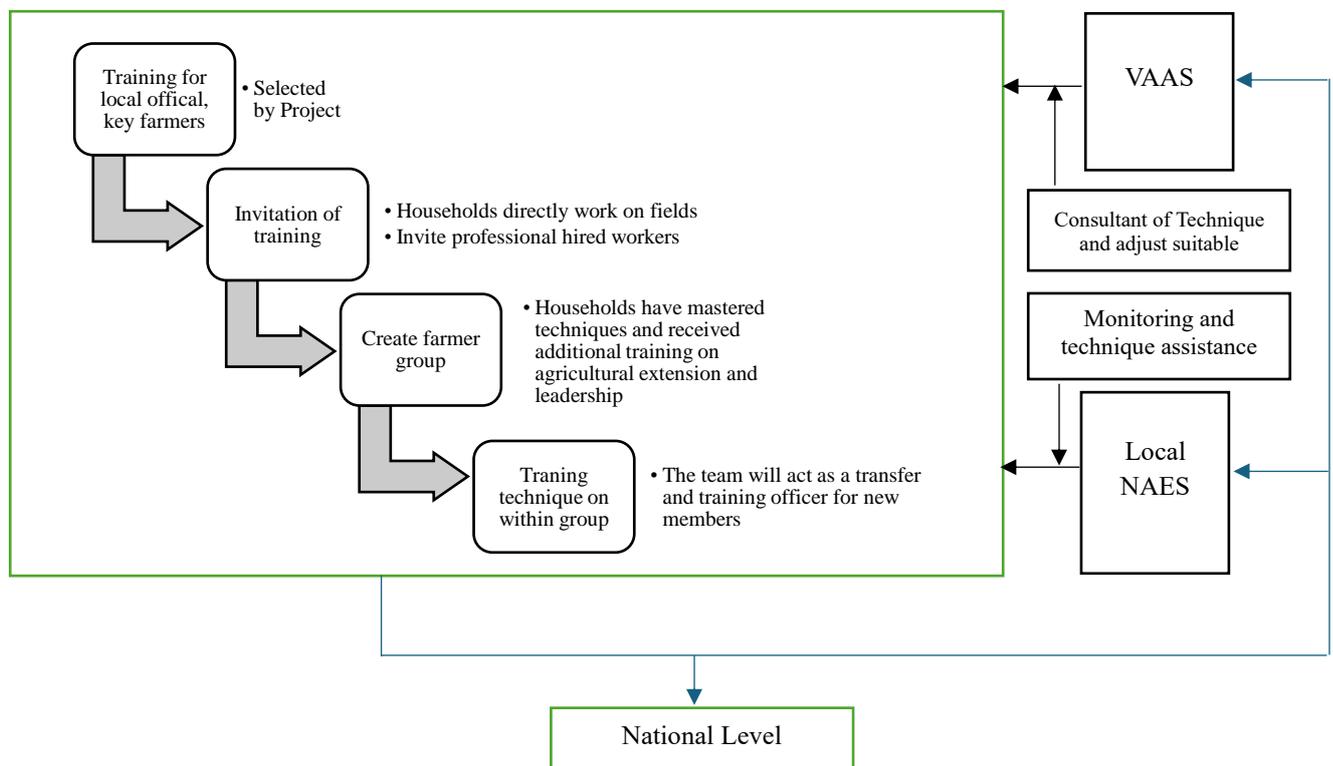


The RATES survey results also indicate that there is currently a significant gap between scientific research and the agricultural extension system. In reality, these two systems operate quite independently and lack interweaving and coordination. Each system has its own transfer and introduction activities. The lack of connection and uniformity makes it very difficult for research institutes and universities to introduce the latest research results. At the same time, agricultural extension does not grasp information, update it in time, or adjust techniques to suit reality.

2. The RATES project's pilot agricultural extension model and policy recommendations

2.1. The RATES Model

Based on the survey and evaluation results, the RATES implementation team proposed a new agricultural extension model. The research team focused on improving the participation of stakeholders, highlighting the role and participation of farmers, scientists, and local agricultural extension workers. It also proposed technical procedures based on the needs of farmers instead of agricultural extension activities following general orientations or plans approved by the state agricultural extension system. The model was tested at three research sites: Hoa Binh, Can Tho, and Binh Thuan. VAAS scientists collaborated with local agricultural extension workers to develop four technical procedures on dragon fruit, oranges, and rice, and proceeded to transfer them to farmer groups with the important role of key farmers.



2.2. Strengths and limitations

a. Strengths

The results of the model implemented in 2024–2025 show the following strengths:



- All 3 transferred models at the research sites brought clear economic benefits to the key farmers. Depending on the crop type, the yield of grade 1 products and profits increased by over 30% (dragon fruit); 22% for oranges, and production costs decreased by 40% (rice).

- Farmers participating in the model compared it with traditional methods and gave positive evaluations of the new transfer model. They were particularly excited and confident with the participation of scientists. Farmers' questions were broadened and resolved, including issues outside of the transferred procedures, thanks to direct and online consultation from scientists, as well as monitoring, inspection, and support from local extension workers.

- Farmers were proactive in choosing the techniques as well as the transferred techniques that were suitable for the practical problems they faced. At the same time, the techniques were also adjusted for local conditions due to the participation of local extension workers.

b. Remaining issues

The percentage of farmers who could accurately remember the steps of the procedure and fully apply the transferred procedure was limited for groups with major crops (rice), because farmers have been exposed to a variety of techniques and different transfer partners (both international projects and private enterprises), while the effectiveness was higher for new potential crops.

It is difficult to maintain the consultation activities of scientists for a long time and in cases where the model is expanded, due to the limited number of scientists.

Within the framework of the RATES project, due to limited resources and a predefined scope focusing on developing new procedures and transferring them to farmers, and testing coordination mechanisms with the participation of both local extension workers and scientists, the stage of promoting consumption and product consumption along the value chain has not been emphasized. In reality, transfer that includes both technical transfer and support for product consumption along the value chain requires agricultural extension programs with large capital and a long implementation period to stabilize production and consumption channels.

Competition with private companies: The participation of private enterprises, mainly in introducing plant protection products, fertilizers, and equipment, affects farmers' focus on applying the techniques of the transferred model.

Issues with regional mergers and the agricultural extension system: In 2025, Vietnam has undergone a major reform of its political and state management system. Accordingly, many government agencies and functional units of the government and local authorities have been merged. From a three-tier government (provincial, district, commune), after the reorganization, there will only be a two-tier government (provincial, commune). The number of provinces merged from 64 to 34. The agricultural extension units at all levels, therefore, also have to undergo restructuring and rearrangement. This will lead to a series of changes in the regulations on the operation and organization of all public service units, including the agricultural extension system.



This can be an opportunity but also a huge challenge as extension workers now have to operate in a very large area with a large population and many agricultural extension fields serving state management must be implemented. This will certainly pose a significant burden to maintain connections with local farmer groups and continue to conduct agricultural extension activities.

Issues with farmer awareness and activities: The process of transferring and guiding the techniques of the RATES project to farmers shows that farmers themselves are still quite passive in approaching new technical advances. They need to change their mindset, be open, share, and cooperate with other members to jointly promote the current agricultural extension system. Because farmers are the central figures, the ones who ultimately decide the success or failure of agricultural extension activities. If farmers are not proactive, propose, and learn new technologies, it will be very difficult for extension workers and scientists to transfer appropriate techniques.

2.3. Policy recommendations

Given that Vietnam's agricultural extension is facing many challenges (organizational breakdown, staff shortages, outdated methods, limited capital...), it is necessary to promptly finalize and supplement policies to strengthen the system. In particular, policies need to be designed based on the agricultural extension development strategy until 2030, with the Party and State's policy emphasizing streamlined apparatuses and strong decentralization, building a professional, innovative agricultural extension system that applies information technology and links production chains. On this basis, the following groups of solutions can be proposed:

2.3.1. Reorganize and strengthen the grassroots agricultural extension system

Adjust institutions, reorganize agricultural extension: Amend or supplement Decree 83/2018 to retain agricultural extension positions at the district and commune levels (which have been abolished) to ensure there are dedicated staff at the grassroots level. There needs to be specific guidance on the staffing structure of agricultural extension service centers, creating conditions for provinces/cities to maintain their teams and a formal transition roadmap.

Assign clear roles to different components: Establish a coordination mechanism between state agricultural extension, enterprises, cooperatives, socio-political organizations, and community-based agricultural extension to ensure a unified direction. Currently, many components are involved in agricultural extension, but there is no coordination mechanism between state and non-state agricultural extension to guide activities.

Enhance management and supervision: Clearly decentralize the responsibility of staff management to local authorities; minimize administrative procedures in personnel deployment. Regulate the evaluation of the effectiveness of service centers and agricultural extension social organizations to promptly detect difficulties and failures, thereby having adjusted policies.

2.3.2. Mobilize and enhance the effectiveness of capital for agricultural extension

Increase the proportion of the state budget: Although Resolution 19-NQ/TW allows for service revenue, in reality, there is still a lack of capital in disadvantaged areas. It is necessary to supplement regular capital from the central and local budgets for the centers, ensuring it accounts



for at least 50-70% of the operating budget. Financial agencies need to simplify disbursement procedures (reducing time and paperwork) for scientific-technical capital and economic program funds, avoiding delayed and unsynchronized capital.

Mobilize controlled socialization: Develop policies to encourage private investment in agricultural extension (e.g., incentives for sponsoring businesses, technology transfer contracts), and at the same time regulate standards and monitor effectiveness to prevent abuse. In reality, agricultural extension socialization activities still have the problem of lacking policies to encourage organizations and individuals to participate in agricultural extension activities; therefore, there needs to be an incentive regime such as supporting a portion of human resource costs and receiving research results.

Support capital for new agricultural extension models: Allocate a small emergency fund for new agricultural extension groups to conduct pilot activities (similar to the RATES model or the new Agricultural Extension Club model – RATES upgraded), providing free sample experimental equipment, seedlings, fertilizers, etc. to reduce initial difficulties. Localities need to proactively budget for supporting community-based agricultural extension as a public policy, linked to the New Rural Development Program and poverty reduction.

3. Human resource development and professional training

In-depth and practical training for agricultural extension instructors: Update training content to suit specific regional characteristics. Instead of repeating theory, the program should increase practical parts, for example, "Field Demonstration" methods and direct consultation in the field. Research shows that agricultural extension officers need to be equipped with knowledge of farmer psychology and flexible teaching skills (such as FFS, FCV). Therefore, policies should mandate the inclusion of practical training content and new methods in refresher courses.

Training of key instructors (ToT): Enhance the capacity of provincial/national agricultural extension instructors so they can become core trainers for lower levels. For example, provinces should be supported with at least 2-3 core instructors who are regularly trained to update technical advances and agricultural extension methods. Policies can stipulate standards for agricultural extension instructors (curricula, certificates), while also encouraging institutes/universities to cooperate in training (e.g., sending agricultural lecturers to participate in agricultural extension courses).

Remuneration and work incentives: Build a remuneration framework for agricultural extension officers (salaries, allowances for remote areas, bonus points for exams, promotion opportunities) to attract talent. For example, policies can allow outstanding agricultural extension officers to participate in advanced courses and be considered for salary grade promotion, or receive research scholarship incentives. In addition, supporting travel and accommodation costs for officers attending long-term training (currently less than 50%) will create motivation for learning.



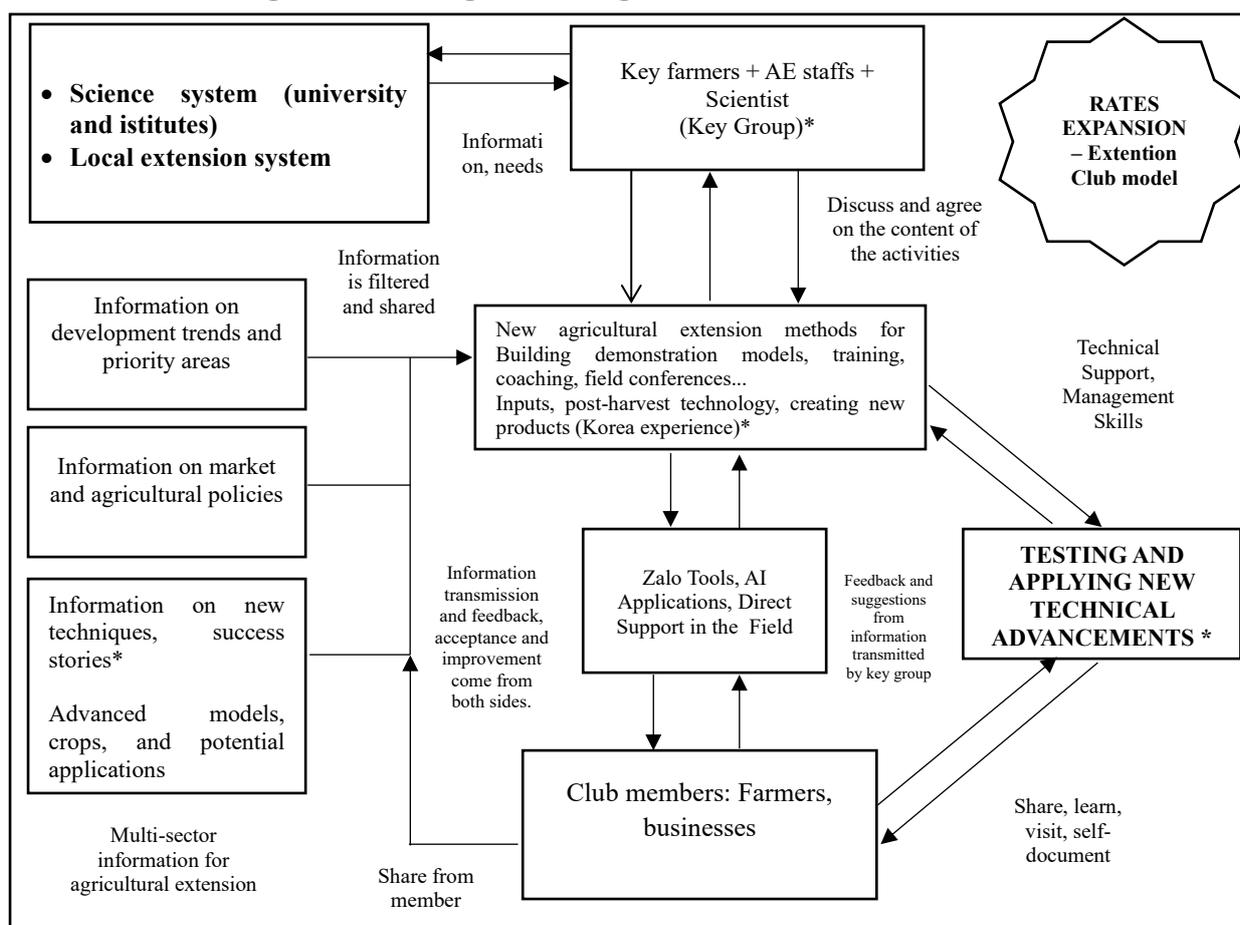
4. Innovating methods and applying information technology

On-site training and technical transfer (actual demonstration models) help farmers absorb knowledge faster, increasing their ability to apply new technologies.

Applying digital transformation: Promote e-agricultural extension in line with strategic orientation (targeting 50% of technical documents to be digitized and updated on the national database by 2030). Grassroots agricultural extension centers need to develop digital platforms (mobile apps, websites), create instructional videos, and hold online conferences to disseminate techniques. At the same time, increase the use of the Internet of Things (IoT), GIS, and machine learning to warn about pests and diseases and provide timely advice on crop nutrition.

Diversifying communication methods: In addition to traditional conferences, various forms should be applied: field demos, farmer field schools, study tours, and social media interaction. According to the strategy and RATES experience, these methods (such as demonstration models) allow people to have direct experience, enhancing the effectiveness of disseminating advances. For example, extension officers should organize field workshops and agricultural fairs where farmers can directly handle new products and equipment and exchange with experts.

5. Promoting and finalizing the new agricultural extension model



** Note: Basic components of RATES*



Developing product value chains: Change the mindset of only introducing techniques; agricultural extension needs to link production with the market. For example, officers can expand their support for farmers to organize production into raw material areas, linking cooperatives and businesses. Policies should encourage the construction of agricultural extension models along the value chain, incorporating price consultation and consumption orientation into the training content.

Based on the results of the RATES model, the research team proposes building a new agricultural extension model – the RATES-based Agricultural Extension Club – with expanded access and information exchange to increase interaction time among farmers, and encourage scientists to participate in sharing information about the market, agricultural science and technology, opportunities, and challenges so that farmers can be proactive in their production and business. Details are described in the diagram below. The core expansion idea is based on the existing RATES and the lessons learned from South Korea, which is the integration and formation of research units and agricultural extension centers to form Provincial Agricultural Research and Extension Services. At the same time, conduct agricultural extension activities along the value chain, supporting farmers not only with production techniques but also with inputs, processing technology, and harvesting (Buan-County, Agricultural Technology Center, Korean).

Legalization and Support Mechanisms: Issue guidance and a policy framework for the operation of new agricultural extension models (similar to the RATES or upgraded RATES - Agricultural Extension Club model). The Ministry of Agriculture and Rural Development should coordinate with the Ministry of Home Affairs to issue regulations on the model's organizational structure, legal status, and membership criteria for the groups to operate officially. Local authorities need to have their own remuneration mechanisms (funding support, equipment, insurance, etc.) for the new agricultural extension model. For example, the Government could allocate a regular budget for the "Project to improve the effectiveness of agricultural extension," requiring local budgets to contribute funding, creating a capital source to maintain operations.

Promote Multi-sectoral Linkages: Increase training for "key farmers" by group; connect scientists, businesses, local authorities, and local extension workers to participate in the new agricultural extension model. At the same time, it is necessary to promote multi-sectoral activities such as agro-forestry, finance, and marketing so that farmers can gradually understand the market and technical standards. For example, research institutes and universities should be integrated into community-based agricultural extension activities (through specialized training, practical workshops), as proposed in the strategy.

Promote the application of AI in agricultural extension: The results of RATES show that the participation of scientists brings very positive results. However, due to the limited number of scientists, they cannot frequently conduct online support activities in cases where the model is deployed on a large scale. However, the development of current technology can solve this problem by applying artificial intelligence (AI), where the information, experience, and support capabilities of scientists can be integrated into AI. Local agricultural extension centers can coordinate with



scientists, using their digital infrastructure and platforms to build AI applications for their management area. This is even more appropriate in the context of Vietnam's major administrative reform. Agricultural extension centers will not be local in nature but will operate on a regional scale, which desperately needs the support of AI.

6. Strengthen the link between scientific research and agricultural extension

Policies to encourage institutes and universities to participate: The agricultural extension development strategy has also proposed supplementing "mechanisms and policies to mobilize agricultural research institutes and universities to participate in research, technology transfer, and human resource training for agricultural extension." Accordingly, research topics in the agricultural sector need to be linked with the responsibility of technology transfer; the state budget should prioritize R&D programs with content on training extension workers and expanding practical applications.

Organize connection and scientific sharing: Establish regular exchange channels between research institutes and localities (e.g., national forums, agricultural technology fairs, pilot projects). District/city agricultural extension service centers can coordinate with agricultural faculties at universities to open short-term courses to supplement new knowledge, and at the same time invite experts for on-site guidance. For example, it is necessary to promptly implement the.

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