

Vietnam Agricultural Extension: Its Roles, Problems and Opportunities

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Abstract

Vietnam agriculture and rural development has gained significant achievements during the last two decades. Beside the more favorable national policy framework, the development of agriculture in Vietnam is accounted for the improvement of irrigation systems, the introduction of new crop varieties and the dissemination of advanced technologies. In which, agricultural extension activities are very important.

This paper aims at reviewing the history of agricultural extension development; analyzing the current problems; and discussing on the opportunities for future improvement of agricultural extension systems in Vietnam with focus on the Mekong Delta of Vietnam.

Recent studies showed that agricultural extension is facing many difficulties and problems institutionally, methodologically and financially. Insufficient qualified staff and poor coordination and management are the major problems to limit the efficiency of agricultural extension. Top-down approach is still prevailing even though participatory approach has been introduced sometime in the country.

Better institutional arrangements for comprehensive collaboration between the professional extension system and mass supporting organizations and research institutions and human resources development will be the key issues to improve the efficiency of extension activities in Vietnam at the time being.

Key Words: Agricultural Extension, top-down approach, bottom-up approach, agriculture and rural development

1. Introduction

Agriculture is the main sector in the economy of Vietnam as it employs 60 percent of the labor force, contributes of 27 percent of GDP and 60 percent of exports³⁾. However, for more than a decade after the country unification (1975) with the detrimental management system, Vietnam's agricultural development could not move as fast as its potential strength promises¹³⁾. The Renovation Policy since 1986 marked an economic milestone in the present Vietnamese history. It has made changes from centrally planned economy to market-oriented economy. The main focus of production in the rural sector has been shifted from the

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cooperatives and state farms to the individual farming households. As results, the agriculture and rural development has gained significant achievements during the last two decades.

Beside the more favorable national policy framework, the development of agriculture in Vietnam is accounted for the improvement of irrigation systems, the introduction of new crop varieties⁴⁾ and the dissemination of advanced technologies, in which, agricultural extension activities are very important.

Before the formal set up of National Agricultural Extension Network in 1993, under the Socialist governmental structure, the local administrators can be strong advocator of any technology.

By the Prime Minister, Decree No. 13/CP dated in 1993, the nation-wide unique extension system (for agriculture, forestry and fisheries) was established in Vietnam. Under this new institutional arrangement, both the professional extension system and voluntary organizations are undertaking extension activities.

Recent studies, especially on integrated farming systems, show that extension needs for agricultural and rural development in Vietnam are many. The extension system of the country is, however, newly developed and is a long way from being able to meet such requirements³⁾.

This paper aims at studying the history of agricultural extension development; analyzing the current problems; and discussing on the opportunities for future improvement of agricultural extension systems in Vietnam with focus on the Mekong Delta of Vietnam.

2. History of Agricultural Extension in Vietnam

The development of agricultural extension (AE) in Vietnam can be divided into 3 stages: (1) before 1975, when reunification occurred, (2) between 1975-92, when AE was pre-established and (3) after 1993, when AE was formally established.

Stage 1. Before reunification in 1975 Before 1975, the Agricultural Extension Directorate under Ministry of Agriculture implemented extension works with major activities¹³⁾:

- Taking charge of targeted technology training for provincial and district level extension agents, who in turns will train the farmers under their jurisdiction;
- Publishing "HUONG QUE" Magazine (rural attraction) and booklets/leaflets of simple technology to supply free of charge to the farmers through their district outlets;
- Establishing "Demonstration farms" throughout the country in accordance to the various agro-ecosystems,
- Coordinating the Radio program to instruct farmers through the most farmer-popular drama "Uncle Tam's family". This 30-minute variety drama was broadcast every morning at 5 a.m.
- Encouraging agrochemical companies to finance part of extension activities.

Other institutions and organizations also participated in agricultural extension effort of the government. Techniques in agricultural technology transfer were included in Agricultural Communications course at the College of Agriculture of Can Tho University since 1972. Unfortunately, the course was discontinued after the end of the war in 1975. The movements of "4T" Youth Group (4T in Vietnamese, meaning 4H: Head, Heart, Hand and Health) and "Rural Construction Units" were also very active in transferring the new technologies and rural reconstruction to farmers. However, their activities and coverage were limited due to the war.

Stage 2. Pre-establishment of AE 1975-92 This stage can be divided into two periods: from the nation unification (1975) to the Renovation policy came to effect in 1988 and from 1988 to the formal establishment of National Agricultural Extension network.

Before effective renovation policy (1975-88)

During the collectivization period after the war end, there was no extension work because there was a strong expectation that agricultural technology can be transferred easily through the leader of the agricultural cooperatives, no need of approaching the individual farmers¹³⁾. However, under the Vietnamese socialist governmental structure, the local administrators can be strong advocator of any technology. Their extension role cannot be denied. However, what appears to be agricultural extension is little more than simple transfer of agricultural technology to farmer in a top-down manner, little is paid to the real needs of the farmers, nor the concern for agro-ecosystem sustainability.

Research institutions/universities played very important role in this time period as a scientific and technical body to assist the local leaders in “directing production”⁵⁾.

Since the effective implementation of renovation policy to the formal establishment of National Agricultural Extension Network 1988-92

Renovation policy was launched in 1986. However, it really came to effect since the release of the Resolution no. 10, in March 1988. There were shifts from centrally planned economy to market economy gradually; from cooperatives and state farms to individual farming households; and from “Technology transfer” term with strong top-down manner to “Agricultural Extension” term with more participatory approach.

The new policy encourages private as well as public sectors to boost up their production by exploiting their available resources by all means taking the comparative advantages of their region. Every individual farmer tries to maximize his human and natural resources. Three major economic programs namely production of food, consumers' good and exportable commodities were launched. To push forward these economic programs the government encouraged research and development in determining and applying appropriate technology to suitable environment with appropriate management approach; determining appropriate economic policy to ensure people's participation in making best use of resources to achieve the economic targets set forth by the government and determining social factors that cause under-utilization of technical manpower, infrastructures and back-up services¹²⁾.

At the central level, under the Ministry of Agriculture and Food Industries (MAFI), specialized departments such as agronomy, plant protection, animal husbandry, and veterinary and agricultural machinery carried out technology transfer in agriculture. Technology in aquaculture is supposed to be extended by the Ministry of Fisheries (MFI), in forestry by the Ministry of Forestry (MFO), in water management by the Ministry of Water Resources (MWR), etc. The new agricultural development banks independently operated agricultural credit. Coordination and linkage among these concerned sectors were poor.

At the provincial level, the line ministries had their equivalent departments, though they could not fully direct them. Because the Ministries were not responsible for their appointments and their payroll, but the provincial government was instead. This was also true at district level. The Party officials instructed theirs

lower level counterparts to promulgate top-down food production schemes to farmers. The village agricultural officers were supposed to have daily contact with farmers, but due to their inferior technical ability, very poor salary and working conditions, most of them could not function effectively. Agro-chemical companies also involved in extension activities mainly to sell their products (Figure 1).

Recognizing this phenomenon, there were many efforts to improve the situation. At national level, several workshops were organized expressing a need for official Agricultural Extension (AE) System establishment. At provincial level, there were many movements and efforts related to extension works.

In Southern Vietnam, there was a training program for agricultural technicians (village leaders, farmer leaders) operated by Can Tho University (1986-1992); a television series on "High yielding rice cultivation technology" coordinated by Can Tho University. Can Tho University also introduced an integrated method of instruction, research and extension by sending the students to the districts to assist provincial and district governments in executing applied research and demonstration of appropriate technology. Each of these projects was used as a partial fulfilment for graduation of university graduates in agriculture. In 1987, Agricultural Extension Program was established in An Giang province with its network to district level; Vinh Long with Agricultural Extension Center and Seeds and Plant Protection Company; and Dong Thap with Agricultural Sciences and Technology Transfer Center.

In Northern Vietnam, Participatory Rural Appraisal (PRA) approach was introduced by CIDSE (International Cooperation for Development and Solidarity, Belgium) in Bac Thai province and by SIDA (Swedish International Development Agency) in five mountainous provinces¹²⁾.

The biggest drawback of this state of unorganized and uncoordinated activities clearly resulted in unnecessary duplication of efforts, wasteful expenditures, and ineffective technology promotion because the

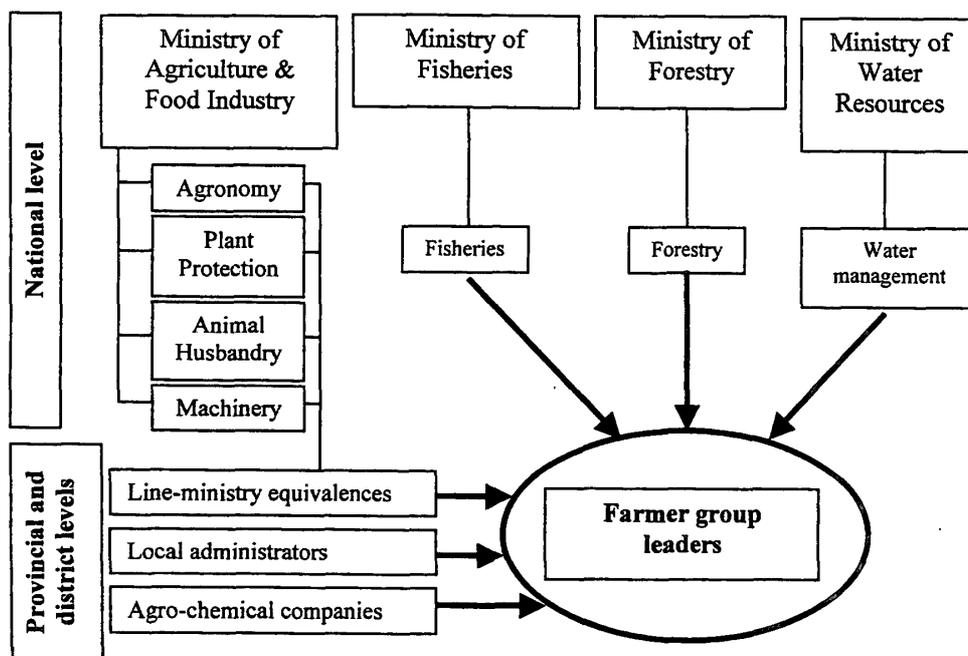


Fig. 1 Agricultural Extension Network before 1993

top-down approach in technology transfer is still prevailing, little is left to the farming households to learn about the resource system they possess, and hence they would select the farming system that is more appropriate to them.

Stage 3. Since formal establishment of National AE in 1993 This period is marked by the Decree no. 13/CP by the Prime Minister issued on March 2nd, 1993 and elaborated by Circular no. 02/LB-TT by Ministry of Agriculture and Food Industries (MAFI) and Ministry of Finance on August 2nd, 1993.

The major contents are to officially establish the National AE System from Central to district levels with government staff and village level network with contract extension workers; and to encourage the voluntary extension organizations by research institutions, people organizations, socio-economic groups and individuals. Funds for the operation of the network derive from (1) annual government budget, (2) sponsors by international and national organizations and individuals and (3) collection apart from farmers on the value added due to extension works (voluntary extension organizations have to bear their own cost). Extension staff will be trained on extension method and skill; be provided daily allowance; and be allowed to sign technical contracts with farmers and to receive commission according to the contract⁸⁾. The third condition, however, has not been achieved so far.

3. Present status of Vietnam Agricultural Extension

3.1 Organizational Structure of Agricultural Extension Network

The professional extension system, supervised by the Ministry of Agriculture and Rural Development (MARD) which was unified (in 1996) from the three Ministries of Agriculture, Forestry, and Water Management, has currently developed from the central level (Department of Agricultural & Forestry Extension) to all provinces (Agricultural Extension Centers) and 70 percent of districts (Agricultural Extension Stations). All agricultural extension officials from central to district level are permanent wage staff. At village level, extension workers are contracted personnels by task (Figure 2).

In addition, in a number of coastal provinces there are separate Fisheries Extension Centers that are under Provincial Department of Fisheries and Ministry of Fisheries. At national and regional levels, out of over one hundred research institutions and universities throughout the country, around some dozens with interests in agricultural fields are carrying out teaching, research and extension. Extension activities of such research and education bodies are considered as voluntary organizations⁹⁾.

Additionally, other organizations undertake voluntary extension work in their own right. They include state and private enterprises (agribusiness), international research and development organizations and NGOs, banks, and so on. In particular, the mass organizations in Vietnam, including Farmers' Association, Women's Union, Youth Union, whose networks are established further down in villages, hamlets, groups, are expected to do their work effectively at the grass roots levels.

At national level, the National Department of Agricultural and Forestry Extension (DAFE) under the Ministry of Agriculture and Rural Development coordinates and manages all extension works in the country. Beside its main office in Hanoi with 65 staff, there are the Representative offices for the central coastal region in Nha Trang and for the Southern region in Ho Chi Minh city¹⁰⁾.

In 2003, this Department was replaced by two separate bodies: (1) Department of Agriculture responsible

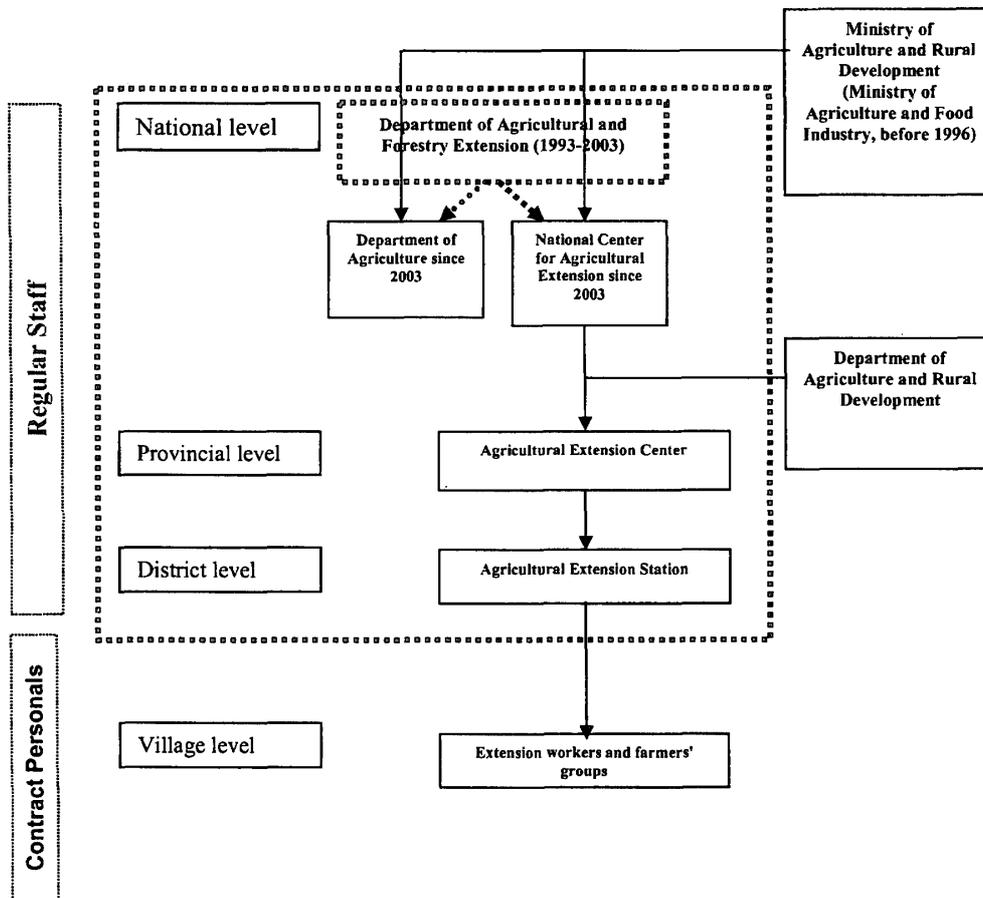


Fig. 2 Present Agricultural Extension Network
 "Source: Ohara, K., 2001 and modified by N. N, De"

for agriculture management and (2) National Agricultural Extension Center responsible for Extension work (Figure 2). At provincial level, in 1998, every province and city had Agricultural Extension Center with total of 800 staff (In average, 12-15 staff/province with 70% university graduates in crop science, animal science and forest biology, fishery and agricultural economics). At district level, there were 70% of districts in the whole country having Agricultural Extension Station with about 2000 staff. In average, there are 3-5 staff/district. This number increased to 80% of districts by the end of 2002⁹⁾. At village level, there were extension workers and farmers clubs, groups, etc. In 2002, there were 5179 extension workers at village level (55% of villages in the whole country) and 8,000 extension co-operators at hamlet level (10% hamlets). Number of Extension Clubs in the whole country was 3676.

In the Mekong Delta, about 85.3% of Agricultural districts or 84.5% of total 110 districts and towns, have Agricultural Extension Stations, but only about 30% of villages have extension workers (Table 1).

Among 12 provinces, only 5 provinces (Long An, Tra Vinh, An Giang, Can Tho and Soc Trang) could allocate extension agents at village level up to the year 2003⁹⁾.

There is clearly a need for human resources development, especially for grass root level personnels, in order to improve extension efficiency in the Mekong Delta.

Table 1 Status of Agricultural Extension Staff Network in the Mekong Delta, 2002

Designation	Provincial level		District level	
	No.	%	No.	%
Total number of staff	341	46.3	396	53.7
By status:	341	100	396	100
Regular staff	275	80.6	279	70.5
Contract staff	66	19.4	117	29.5
By qualification:	341	100	396	100
Post university graduate	20	5.9	6	1.5
Bachelor degree	193	56.6	198	50
Vocational training and lower	128	37.5	192	48.5
Average number of staff per province	28.4	46.3	33	53.7

Source: DAFE, HCM city office, 2003

3.2 Functions and activities

As stated in the Decree no. 13/CP (1993), Agricultural Extension System has three main functions:

- Technology transfer;
- Development of economic management knowledge, market information, and
- Services on seed and agricultural materials.

These functions are practiced by many activities listed as (1) training on technical and economic management for staff and farmers; (2) Establishment of demonstration plots for advanced technology; (3) Organizing field days, workshops, study tours for farmers; (4) Extension programs through mass media; and (5) Publishing and distributing extension materials: magazines, leaflets, posters, etc.

The National Department of Agricultural and Forestry Extension (DAFE) coordinate the whole system by National agricultural extension programs with focus on national major products and regional planning. During the period of 1994-1999, there were 20 supporting projects including crop (8 focused crops as rice, corn, tea, coffee, rubber, sugarcane, cashew nut and cocoa), animal, forestry and aquaculture. In 2000-2005, there are 22 national programs⁹⁾.

The advantage of this management manner is to concentrate effort and finance to national target products. However, with remaining top-down and bureaucratic manner in management, these programs experienced with many displaced cases. In order to receive funds from national project the Provincial Agricultural Extension Centers (AEC) have to adopt themselves to meet the criteria without consideration of local needs and ecosystem suitability.

Fortunately, during this time period, Participatory Rural Appraisal (PRA) practiced by foreign donors projects have gained good results and impact on agricultural extension approach recently. Farmer Field School method of IPM (Integrated Pest Management) program supported by FAO (Food and Agriculture Organization) conducted in the whole country since 1992 is also found as good way for training farmers⁸⁾.

3.3 Finance for Agricultural Extension

Agricultural extension activities are financed by National and local government budgets. National budget was not sufficient for agricultural extension system to work well, however, it has been increased year-by-year

showing the strong effort from the government (Table 2).

Each province also tried to generate more funds for agricultural extension by providing additional budget taken apart from provincial annual revenue, e.g. 200-300 million VND (Ha Giang, Cao Bang, Phu Yen), 1000 million VND (Dong Nai, An Giang, Can Tho) (equivalent to 12,862 – 64,308 US \$ /province/year)⁹⁾.

3.4 Case studies of Agricultural Extension in the Mekong Delta

Tien Giang

Tien Giang, located on the East side of Tien Giang river (one of the two main branches of Mekong river) has 1 city, 1 town, 7 districts and 157 villages.

Total number of extension staff is 57; most of them are university graduates in agronomy (Table 3).

Of which, more than 75% (43 staff) are assigned at the district level. To assist the extension workers to implement agricultural extension programs, the province has organized 120 farmer groups (1997), and increased to 143 Agricultural Extension clubs/157 villages and more than 500 interest groups (1998)¹⁰⁾.

Tra Vinh

Tra Vinh has 1 town, 7 districts and 72 villages. Total number of extension staff is 36; more than half of them work at district level (Table 4).

Staffs from provincial level have to travel around very often to assist the district extension staff to carry out extension activities. Their activities, therefore, limited mainly in training and establishment of demonstration plots for new crop varieties, advanced cultivation techniques and farming systems¹¹⁾.

Number of farmers groups was few compared to the neighboring provinces (6 swine production, 7 rice seed production, 6 maize production, 5 hybrid corn seed production groups, 2 agricultural extension clubs).

Soc Trang

Soc Trang, located in the coastal area, has 1 town, 6 districts and 102 villages. Total number of extension staff is 53. About 57% of them work at district stations. Qualification among staff varies largely and generally low. There are 2 staff with Master degree in agronomy working at provincial center. However, more than 64% of them are vocational training and lower⁷⁾ (Table 5).

Grass root network organization is very weak and not well organized, unstable operation and unsustainable funding (seasonal contract, only when needed, short-term plan, top-down approach, poor coordination). Additionally, there are other two parallel organizations exist (Veterinary Medicine Division and Plant Protection Division, also under the Department of Agriculture and Rural Development) working

Table 2 National budget for Agricultural extension

Year	Budget (in Billion VND)	In US \$ (Equivalent) (x1000)
1993	3.7	238
1994	14.3	920
1995	17	1,093
1996	23.5	1,511
1997	28.5	1,833

Source: DAFE, 1998; (1 US \$ = 15550 VND)

Table 3 Staff by speciality, Tien Giang AE

Major	Province (%)		District (%)		Total (%)	
1 University graduates	9	64.3	37	86.0	46	80.7
Agronomy	6	42.9	26	60.4	32	56.1
Animal husbandry	0	0.0	5	11.6	5	8.8
Fishery	3	21.4	6	14.0	9	15.8
2 Vocational school graduates	0	0.0	6	14.0	6	10.5
Agronomy	0	0.0	3	7.0	3	5.3
Animal husbandry	0	0.0	3	7.0	3	5.3
3 Administration staff	5	35.7			5	8.8
Accountant	2	14.3			2	3.5
Other	2	14.3			2	3.5
Driver	1	7.1			1	1.8
Total	14	100	43	100	57	100

Source: Tran Thi Bach Van, extension staff of Tien Giang, Dec. 1997

Table 4 Staff by speciality, Tra Vinh AE

Major	Province (%)		District (%)		Total (%)	
1 University graduates	8	47.0	8	42.1	16	44.4
Agronomy	3	17.6	3	15.8	6	16.7
Animal husbandry	3	17.6	4	21.0	7	19.4
Fishery	0	0.0	1	5.3	1	2.8
Economics	1	5.9	0	0.0	1	2.8
Food processing	1	5.9	0	0.0	1	2.8
2 Vocational school graduates	7	41.2	11	57.9	18	50.0
Agronomy	3	17.6	5	26.3	8	22.2
Animal husbandry	4	23.6	6	31.6	10	27.8
3 Administration staff	2	11.8			2	5.6
Accountant	1	5.9			1	2.8
Driver	1	5.9			1	2.8
Total	17	100	19	100	36	100

Source: Lam Ngoc Triet, Director of Tra Vinh EC, Dec. 1997

on related extension activities in their specialization as their names. However, the linkages among these organizations and with others sectors are poor. This phenomenon is common in every province. There are many farmers' organizations (109 Agricultural Extension Clubs and 72 IPM Clubs) but linkage between them and Agricultural Extension Center and Stations is loose, irregular and poorly coordinated, except for pest outbreak or demonstration management. It is necessary to reorganize a stronger grass root network⁷⁾.

An Giang

An Giang, a province in the upstream of Mekong river, has 1 city, 1 town, 9 districts and 120 villages. The

Table 5 Staff by speciality, Soc Trang AE

Major	Province	(%)	District	(%)	Total	(%)
1 University graduates	10	43.5	9	30.0	19	35.8
Agronomy	7 (2 MSc.)	30.4	6	20.0	13 (2 MSc.)	24.5
Animal husbandry	2	8.7	3	10.0	5	9.4
Fishery	1	4.4			1	1.9
Economics						
Food processing						
2 Vocational school graduates	6	26.1	14	46.7	20	37.7
Agronomy	1	4.4	7	23.3	8	15.1
Animal husbandry	2	8.7	7	23.3	9	16.9
Fishery	1	4.4			1	1.9
Economic	1	4.4			1	1.9
Other	1	4.4			1	1.9
3 Administration staff	7	30.4	7	23.3	14	26.4
Accountant	3	13.0	7	23.3	10	18.9
Office works	3	13.0			3	5.6
Driver	1	4.4			1	1.9
Total	23	100	30	100	53	100

Source: Nguyen Duc Thang, Director of Soc Trang EC, 2003

province has built up a rather good grass root level network. There are 12 extension staff (100% university graduates) at provincial level, 150 (80% college graduates) at district level and 233 (38 university graduates) most part-time at village level (in 1995). In 2003, there were 287 village extension officers with educational levels of high school to university graduate at every village. Their contract-based wages depend on educational level: 1,78 (University graduate), 1,46 (Vocational training) and 1,22 (high school) multiplied by basic wage unit (290,000 VND/month, at current time). Agricultural extension, plant protection and veterinary medicine technicians are working together at village level under the coordination of District Agricultural Extension Stations⁷⁾.

Can Tho

Can Tho is one of the most comparatively advanced province in term of agricultural extension activities in the Mekong Delta. Its grass root extension network covers all agricultural villages (116/131 villages/wards) except the non-agricultural wards of Can Tho city (88% total villages/wards or 100% of agricultural village) with 138 extension officers having educational levels of secondary school to university graduate. Their contract-based wages depend on educational level as An Giang plus 40.000VND/month for local transportation cost. The network works closely with largest number of cooperating farmers' groups compared to other provinces in the Mekong Delta: 5.077 groups (138.796 members), 348 clubs (6.341 members) and 120 agricultural cooperatives (6259 members)⁶⁾.

Kien Giang

There are 94 village extension officers with educational levels of vocational training and university graduate. Their wage is based on educational level and areas they serve with fixed amounts (Table 6).

Table 6 Staff wage of Agricultural Extension network in Kien Giang province

Educational level	Monthly wage (VND)		
	Town	Village	Island/remote areas
University	600.000	800.000	1.000.000
Vocational training	400.000	600.000	800.000

Source: Kien Giang AEC, 2003; (1 US \$ = 15550 VND)

There is a farmer network with 145 agricultural extension clubs working under the supervision of village extension officers.

Ho Chi Minh city

There are 3 training stations in addition to number of Agricultural extension stations in every district. There is 01 extension officer in each village (total of 121 extension officers) working with 110 agricultural extension clubs. Village extension officers are paid by local government budget at the rate of 290.000 VND /month. Besides the common extension activities, the Agricultural Extension Center has published the quarterly extension magazine and facilitated market promotion activities for agricultural products (organized the seed fairs, forums for farmers, government, businessmen and scientist (so-called "4 NHA" in Vietnamese, meaning 4 sectors) every 6 months.

Vinh Long

There is a special program for local staff development. Village selects local high school students to send for university study at the provincial in-services university. Local government budget will cover all tuition fee and part of living allowance of 150.000 VND/student/month. After graduation, such students have to serve their original villages for a certain period of time according to the village need. Their wages are paid from local government budget on contract basis. All other benefits are as same as government officers.

4. Problems

In developed countries, the extension services are aimed at rural societies in which the agricultural population is very low. Less than 2 per cent in Britain and about 10 per cent in Japan of the working population are directly employed in agriculture. Most of them can read and write, and have security of tenure, and access to credit, market and farm supplies. Extension workers are also supported by representatives of commercial firms. Farmers can easily access information from various means because roads, communication systems are well developed. Farming interests are well represented in parliament¹⁾.

In developing countries, 50-80% of households are dependent on agricultural employment. Majority of them are poor and illiterate. Private commercial suppliers of seeds, agricultural chemicals, tools and spare parts are often absent. Costs of transportation are high and markets for tropical agricultural produce are highly competitive and unstable. Profits are often siphoned off by moneylenders, merchants and landlords, or markets may be dominated by large foreign-owned plantation companies. Farmer organizations are frequently suppressed. In such conditions, little can be achieved only by the extension workers¹⁾.

In the case of Vietnam, some major specific problems that can be realized are as follows:

Institutional problems. The major institutional problem observed in Vietnam agricultural extension system is the lack of extension personals quantitatively and qualitatively, especially at grass root level. The

ratio of extension workers to farming households in the Mekong Delta is only 1 per 1,500-2,000 (approximately, 6,000 extension workers/10 millions farming households) and their technical capacity and extension skill qualification is low. In the developed countries, the ratio of extension workers to farmers lies between 1:350 and 1:1000, whereas most developing countries are lucky if they have one to every 5000 farm families¹⁾. In the case of Japan, this ratio is about 1:322 (data from MAFF, Japan, 2003) and in Bangladesh is 1:1,000 to 1:1,200¹⁰⁾.

Poor coordination and management from central to provincial and village level cause low efficient extension work. Strong intervention of upper level administrations through national programs with remaining top-down approach and division of national fund has caused many difficulties to the local extension activities. There do exist advanced farmers, farmers' groups in the villages, but poor coordination and management limit opportunity to exploit local human resources for more effective extension programs. **Methodological problems.** Participatory approach has been introduced for sometime in the country but still remains strange not only to most government administrators but also to many researchers at various institutions and extension personals. Top-down approach in agricultural extension is still prevailing. National programs and provincial plans in agricultural extension are mainly based on the national strategies; little attention is paid to local resource endorsement and the real need of the farmers.

Linkage and collaboration between the professional extension systems with other related organizations within agriculture sector (plant protection, veterinary, fishery, forestry, etc) and supporting institutions (banks, market, farmer association, women, youth unions...) are loose. At present, there is no unique body available in the country to bring together and coordinate the extension and integrated rural development programs properly.

Integrated rural development (IRD) must receive high priority in the government agenda. This will call for the establishment of an accelerate and comprehensive adaptive research program linked with an agricultural extension system¹²⁾.

Most of extension works just stopped at the stage of introducing and educating new and appropriate technologies to farmers through demonstration plots. No proper program or service action to facilitate the adoption and to support farmers for expanding such adapted technologies. Farmers have been left to make their own decision after observing good results from demonstration plots. As a result, the rate of adoption was slow and sometime biased. There is little feedback from local people to research and extension organisations, and so the efficiency of extension is uneven³⁾.

Objectives of extension are not only to bring about an improvement in farming through the application of science and technology, but also to promote the social, cultural, recreational, intellectual and spiritual life of the rural people²⁾. In practice, however, most of extension works tend to be mainly in technical aspects, household economic management and market information issues have been omitted so far leaving farmers alone in making decision. Therefore, even though the national agricultural production increased dramatically in the last two decades, majority of farmers are still in economic difficulty and low living conditions. It is essential to put more efforts to improve farmer's capacity in economic management to deal with the existing market economy transition movement.

Financial problems. Low budget from both national and provincial funding limited extension activities and its efficiency. Lack of fund is the major reason for slow set up of village extension network and poor working condition. Some provinces that have tried to procure the village-based extension workers are able

to pay for extension agents at very limited basic salary. Most of them are low qualified extension personals and work as seasonal contract workers to carry out extension programs from provincial and district plans. Role of helping and supervising farmers in their production is very limited.

5. Opportunities for improvement

At the 5 years review and planning meeting of the National Agricultural Extension in 1998, there was a proposal for major revision of the Decree no. 13/CP, as follows:

- (1) Concepts: Extension content will include agriculture, forestry and fishery. Extension activities include production, processing, rural enterprises, cooperative and rural development.
- (2) Organizational systems: There are 2 systems: state system includes formal agricultural extension body, research and training institutions; and volunteer system of farmers, individuals and local or foreign socio-economic organizations. State system has 4 levels: Central (Agricultural/Fishery Extension Departments), provincial (Agricultural/Fishery Extension Centers), district (Agricultural Extension Stations including Fishery) and village (extension workers and grass root extension body). Volunteer system will be allowed to involve in the national extension programs, to receive extension budget from state extension system and projects by contract approved by local authorities at the same level.
- (3) Sources of budget: Budget comes from central, provincial, district and village revenues by taking 1% of local land use tax and other sources.
- (4) Monitoring and evaluation: Department of Agriculture and Rural Development
- (5) Methods and contents:

Methods: Current activities of Agricultural extension are mainly demonstration of new technologies, training, communication, and study tour, etc. Marketing, indigenous knowledge evaluation, local staff training, socialization of extension activities, linkage will be added in its agenda.

Contents: Besides production sector, extension works will cover processing, reservation, exploitation, trading, services, farmer's organization, rural development, assisting farmers to access to credit, career training, recognition of outstanding farmers, seed production, consultation, agriculture forecasting and warning.

6. Conclusions and Recommendations

- The National extension system should be strengthened in term of quantity and quality with focus on grass root level network using local human resource.

- The structure of a Research-cum-Extension system in each province would be: researchers-specialists at the provincial center for agricultural adaptive research (provincial resource management team, RMT) to carry out adaptive research and at the communes by advanced farmers with direct guidance of commune extension agents (CEAs). CEAs will be backed up regularly by the RMT. This Research-cum-Extension system has a pyramid shape with broad base to meet all farmers' needs and a sharp cone to streamline the best expertise group to stay in the forefront of appropriate technologies.

- Cooperation between Extension system with research institutions, foreign-funded projects and others organizations should be practiced in proper and effective ways to better use human resources and funds. Agricultural education and training in VN should change its approach to cope with new economic policies

and meet the real needs of the farmers in various agro-ecosystems. A proposed structure for improving Agricultural Extension System coordination and management is showed in figure 3.

- Extension workers are required to have teaching ability of the schoolmaster; skills of the farmer; persuasive capacity of the politician; understanding of the social worker and almost infinite patience (FAO, UNESCO, ILO, 1971, in⁽¹⁾). Capacity building for extension staff should be conducted to cope with these requirements.

- Extension works can not be successful without supporting systems in provision of essential conditions: incentives such as pricing, credit, land reform, necessary facilities for production and marketing, social forms and structural changes; and formulation of appropriate strategy for promoting technological change²⁾. Therefore, market information systems, credit system and small-scale enterprise development should be improved to facilitate the technical and socio-economical changes in agricultural production.

- Extension methods need to change from top-down to bottom-up approach using participatory methods. Extension activities also need to improve and diversify in simple and practical manners to be more attractive and easy to local farmers. Extension works are not only introducing, demonstrating, training the technologies but also supervising farmers to make farm business plans and market their products; resource mobilizing and coordinating farmer groups, clubs and cooperatives.

- Last but not least, sufficient funding is the critical condition for effective extension works. These funds should be used to improve working conditions, facilities, incentives and salary for extension staff; to diversify

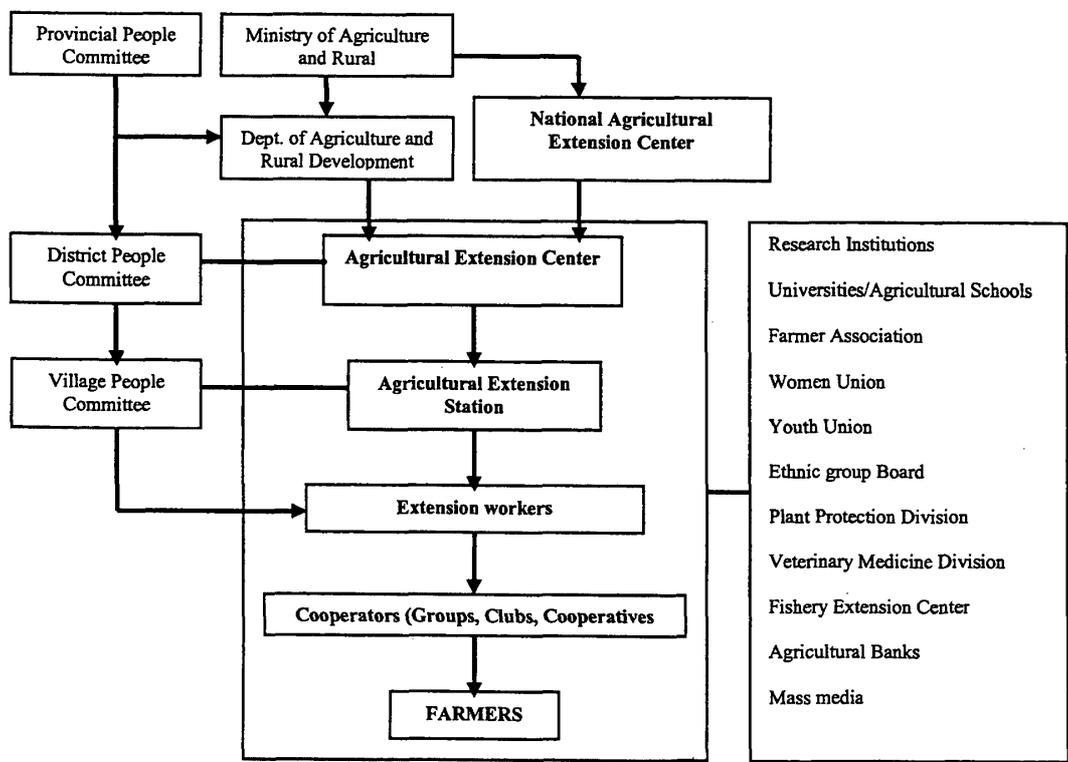


Fig. 3 Improved Agricultural Extension System
Control: ———→ Collaboration: - - - - -

extension activities; and also to support advanced farmers and farmer groups to be active as grass root extension co-operators. Beside government budgets at various levels, extension system can also seek for funds from other international and national projects and commercial companies. Possible alternative is privatization of extension such as charged services.

Better institutional arrangements for comprehensive collaboration between the professional extension system and mass supporting organizations and research institutions and human resources development will be the key issues to improve the efficiency of extension activities in Vietnam now. The message here is to emphasize that extension is not the simple job of one-way technology transfer done by only professional extension workers, rather it is integrated development process and needs real collaboration between many organizations and individuals.

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ベトナムにおける農業普及：その役割・問題・機会

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ベトナムの農業・農村の発展は、過去20年の間に特筆すべき発展を遂げてきた。ベトナム農業の発展は、国の政策のフレームワークの改善に加え、灌漑システムの改良、新品種の開発、新技術の普及などによって説明することができるが、これらに農業普及活動が果たした役割は非常に大きい。

本論は、主にベトナムのメコンデルタ地域に着目し、その農業普及の発展の歴史の精査と普及組織が現在抱える問題の分析を通じ、ベトナムにおける農業普及システムの改善方向を議論することを目的とする。

近年の研究は、農業普及が制度上、手法上、また財務上多くの困難や問題を抱えていることを示している。資質が十分でないスタッフ、コーディネーションやマネジメントの不足などが大きな問題となっており、農業普及の効率性を制限している。参加型アプローチが既に導入されているものの、トップダウン型アプローチが依然として広く行われているのが現状である。

専門的な普及システムと多くの支援組織、研究機関との間で包括的な協力のための組織再編を行うこと、および人材育成を行うことが、ベトナムにおける普及活動の効率性を改善するための重要な課題である。