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Agricultural Technology Transfer and Its Consequences
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Utilize Farmers' Organizations for Agricultural Technology Transfer and Training in Japan

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Introduction

1) Some approaches for agricultural technology transfer and education for farmers in Japan have been implemented by central and local governments and farmers' organizations, which are generally organized as agricultural cooperatives (Japan Agricultural Cooperatives or JAs). This paper focuses on agricultural cooperatives and their ways of transferring technology and education, i.e., farm guidance.

2) In recent years, we have faced such problems as a decreasing overall number of farmers, and increasing numbers of aging farmers and part-time farmers, who have agricultural and non-agricultural incomes. The roles of farm guidance carried out by agricultural cooperatives of Japan will attract more attention for improving economic activities and management of agricultural cooperatives from now on.

3) However, conventional methods of farm guidance, which employ production and management guidance targeted at individual farmers and commodity-wide groups and which are voluntarily organized by farmers by specific commodities, are not adequate for current and futures conditions. They also have difficulties meeting the expectations of farmers in situations of diversifying management scales and styles and changing production, marketing, and distribution systems for agricultural produce.

4) Farm management has been diversifying, which requires more individually oriented approaches to guidance rather than a group-oriented approach. Furthermore, more-enthusiastic and studious farmers, mostly full-time farmers and corporations established by farmers, are more aware of the self-responsibility of management and are willing to take more-active roles in acquiring new management techniques and high-level farming technologies.

5) Under these circumstances, farmers are increasingly demanding that farm advisors change their usual guidance approaches of "teaching farmers", "giving directions or instructions to farmers", or "letting them do it" in a unilateral manner to approaches utilizing "consultation", "advice", "support", and "discussion and study together".

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Agricultural Cooperatives in Japan

1) Agricultural cooperatives of Japan, called JAs, are organized in all municipalities and involve almost all farmers in Japan as regular members under the *Agricultural Cooperative Society Law* enacted in 1947.

2) Features of the agricultural cooperatives of Japan are distinct because of they are of a so-called "multi-purpose" type which conducts various kinds of businesses. The businesses that the agricultural cooperative can conduct are stipulated in the said law as follows:

JA-mandated activities under the *Agricultural Cooperative Society Law*

Education and public relations, and guidance on farming and lifestyle issues

They provide educational programs for improving agricultural technology and operations, enhancing living standards, and promoting cultural activities.

Activities related to agricultural production

They develop and improve farmland, organize joint use of irrigation facilities and joint farming work, and install facilities to improve labor efficiency.

Entrusted farm operations

They operate farmland entrusted by members.

Farmland trust

They oversee farmland trust holdings.

Marketing

They market, store, and transport agricultural products.

Purchasing

They supply production materials and essential goods.

Credit

They loan funds for agricultural production and living expenses, and accept deposits.

Insurance

They provide mutual life, fire, automobile, and building endowment insurance.

Utilization

They establish agricultural production and residential facilities for joint utilization.

Processing

They process agricultural products.

Public welfare

They establish hospitals and clinics.

Senior citizens' welfare

They establish facilities and programs to care for senior citizens.

Residential land administration

They transfer and purchase farmland entrusted for residential development.

Among these activities, education and public relations, guidance on farming and lifestyle issues, and activities related to agricultural production are closely related to technical guidance and education for effectively transferring technology to farmers; so we can equally call them members of the cooperatives.

3) Guidance and education in technology and farm management is considered to fall within the field called "farm guidance" and this plays important roles not only in technical and farm management aspects, but also in the all aspects of cooperative activities.

4) Integrated approaches of multi-purpose cooperatives

   (1) Through credit, marketing, supply, and utilization, services were undertaken by our society; but even in pre-war days, it was not called a multi-purpose cooperative society. In those days, the four services mentioned above operated independently, and there was little linkage among them. Each of these four services, however, is an integral part of a farmer's economic life. It was necessary, therefore, for agricultural cooperatives to contribute more effectively to increasing agricultural production and improving economic and social standards of farmers by integrating various functions through farm guidance services.

   (2) Each business activity of agricultural cooperatives only partially covers the socioeconomic needs of members, while the guidance services of agricultural cooperatives for farm management and improving life deal with improving members' agricultural production and family life in their totality. Guidance services consist of identification of members' needs, planning, formulation of implementation programs, study of improved techniques, and the organization of members for joint projects.

   (3) When we discuss marketing, purchasing, and credit business, we always focus on commodities handlers, operating funds, and business efficiency. This may lead cooperatives to treat members not as owners but as customers. Guidance services always emphasize how to secure a happy and quality life for farm family members. Integrating different services through the medium of guidance services is the focal point, therefore, for multi-purpose agricultural cooperatives, so that each business program is well oriented to needs at the grass-roots' level.

   (4) The basis of integration is the attainment of target incomes and home-life improvements of individual farm management plans, which are formulated with the help of farm advisors and advisors on improving the quality of life from the

cooperatives. Then, business programs of each cooperative are drawn up on the basis of the needs identified as assessed in the process of each individual planning unit.

There are several ways of integrating various activities in order to increase agricultural production and farm income.

By farm guidance

-Formulating farm management schemes;

-Improving infrastructure and land conditions;

-Studying and introducing production techniques; and

-Studying and introducing management techniques.

By commodity-wide groups

-Working jointly with other member farmers.

By credit business

-Procuring funds (as loans) required for implementing farm management plans.

By purchasing business

-Procuring farm inputs

By farm guidance

-Producing a product

By utilization of facilities

-Harvesting crops.

By utilization of business/marketing business

-Collecting, grading, processing, packaging, and marketing (by joint shipment and marketing).

By credit business

-Settling the marketing proceeds (as savings).

Significance of Farm Guidance by Agricultural Cooperatives

1) The 3-year campaign to strengthen agricultural cooperatives and farm guidance begun in 1956

(1) The 3-Year campaign to strengthen management of agricultural cooperatives and farm guidance.

a) The central union of agricultural cooperatives (JA Zenchu), as the apex organization of agricultural cooperatives in Japan, established "the Outline of

Farm Guidance Activities of Agricultural Cooperatives and the Implementation System" in October 1956. This stated that the farm guidance of agricultural cooperatives should be implemented to improve farm household economies and business activities of agricultural cooperatives.

b) The functions of agricultural cooperatives are basically to improve farmers' economies, and farm guidance should form the basis for business activities and lead to well-planned and integrated farm management practices.

(2) Objectives of the establishment of a farm guidance system

a) Farm guidance should be the basis of integrated business activities of agricultural cooperatives.

b) The system of farm guidance should collaborate with agricultural extension services of the government, and farm guidance at the municipal level should be conducted by primary cooperatives. Guidance is comprised of two factors: one internal to the cooperative, i.e., general business planning of the cooperative, and the other external to the cooperative, i.e., guidance for acquisition of technology.

2) New recognition of farm guidance for renewing activities of agricultural cooperatives: the current situation

(1) JA farm advisors provide farm households with guidance in agricultural techniques, farm management, and the selling of agricultural produce. Activities of farm advisors range widely from introducing new crops and high technologies to surveying trends of shipping markets and buyers, to providing guidance in farming. Farm advisors, called the "face of JA", play an important role as intermediaries between JAs and farm households.

(2) In the revised *Agricultural Cooperatives Law* which went into effect in June 2001, the primary purpose of JAs was changed from providing credit to farm guidance. Thus, the importance of farm guidance of JA is clearly stated in the law. The 22nd National Congress of Agricultural Cooperatives passed a resolution which contained the following purposes: a) to guide agricultural production by JA's sales strategies and reinforced sales forces; b) to identify and promote people who can shoulder the responsibility for regional agriculture in the future; and c) to provide farm guidance for executing JA's agricultural strategies in individual regions. In line with the resolution, JA groups engage in holding various activities like seminars, preparing manuals, etc., in order to provide production and marketing planners with

high levels of skills and knowledge in the fields of farm guidance, marketing, and planning for the future.

Development of the farm guidance business and changes in the main tasks

Year	Economic situation	Main tasks of farm guidance	No. of farm advisors
1947~1954	Lack of food production	Technical guidance for increasing production	4240
1955~1959	Attainment of food self-sufficiency	Strengthening guidance for farm management	10,369
1960~1979	Increase in the demand for livestock and agricultural products	Integrated guidance from production to marketing	14,828
1980~to the present	Appearance of gaps in the demand for agricultural products, expansion of import liberalization, and trends of increasing numbers of farming women and aging farmers	Reduction in mid-term agricultural promotion of production costs	17,704

Farm Guidance

1) The role of farm guidance

Farm guidance is directed at the overall management of agricultural activities on members' farms, with the intention of creating the required desire for and momentum to establish rational farming management systems, and of perpetuating such farming management practices throughout the areas involved, so as to make members of the cooperatives aware of their potential to work in partnership to achieve their aims. The role of farm guidance is seen as establishing organizations in which these activities can be implemented on a partnership basis.

As such, farm guidance is not something that is applied on an individual basis to member farmers, but is rather something that makes up policy within each region's local agricultural development plan, and which also plays a role in land reform, organizations considering land and machinery use, organization of facilities, and sales plans, as well as other aspects related to the organization of regional farm management.

Farm guidance should also be based not only on overall economic operations, but also with the aim of improving management for farmers, so as to play a more-effective role.

2) Main thrusts of farm guidance

To provide farmer-members of agricultural cooperatives with proper guidance and direction towards effective farm management by:

(1) Disseminating information on the introduction of new farming techniques and improvements in management of farm operations by such means as training, workshop, seminars, conferences, etc.;
(2) Formulating agricultural promotion plans in keeping with local and national government programs;
(3) Identifying potential production areas by selecting and cultivating crops by considering market trends and demands;
(4) Demonstrating effective utilization of available resources and providing advice on promoting diversified farming;
(5) Introducing sustainable growing techniques and practices of organic farming, etc.;
(6) Promoting joint purchases of farm inputs; and
(7) Developing a consciousness of environmental concerns, preservation, and protection.

3) To promote the independent behavior of farmer-members by:

(1) Forming commodity-wise groups;
(2) Promoting the training of staff;
(3) Training the leaders of commodity groups, youth, and women; and
(4) Identifying and coordinating potential market outlets.

Scope of Activities

1) The scope of agricultural cooperatives' farm guidance is extremely wide, covering everything from individual farming management practices to local agricultural cooperatives' overall operations. Much thought has been given to where to place the focus of training and organization within that scope.

2) The ultimate target of farm management is to improve incomes and profitability of farms. The first issue that has to be addressed in order to achieve this is to determine land conditions, since they are so closely related to production methods. Land surveys, irrigation, drainage, soil dressing, deep tilling, plot organization, exchange of land, etc.

need to be organized at a group level. Agricultural cooperatives themselves also must take up the challenge of organizing land for agricultural use, improving and managing the land, creating and managing irrigation facilities, etc.

3) The second target is to create a system that allows the efficient use of agricultural land. In order to achieve this, the cooperative is required to play a central role, and bring together owners and tenants of agricultural land in an area, in order to increase the availability of land for agricultural use.

4) If there is no person available within the member's family to work a plot, then the agricultural cooperative can be commissioned by the relevant member to work the plot either as arable land or as pasture, and the cooperative then leases the plot in question to another member. (Some agricultural cooperatives implement land commissioning).

5) The cooperatives are also required to install large-scale equipment, which can then be commissioned for use by their members. Cooperatives are also responsible for managing and working on any projects commissioned by the members.

6) Through undertaking commissions for farm management, the agricultural cooperatives assist the development of local group production organization. They also facilitate the employment of farming and other specialists, through undertaking commissions to farm members' land (wet rice, etc.).

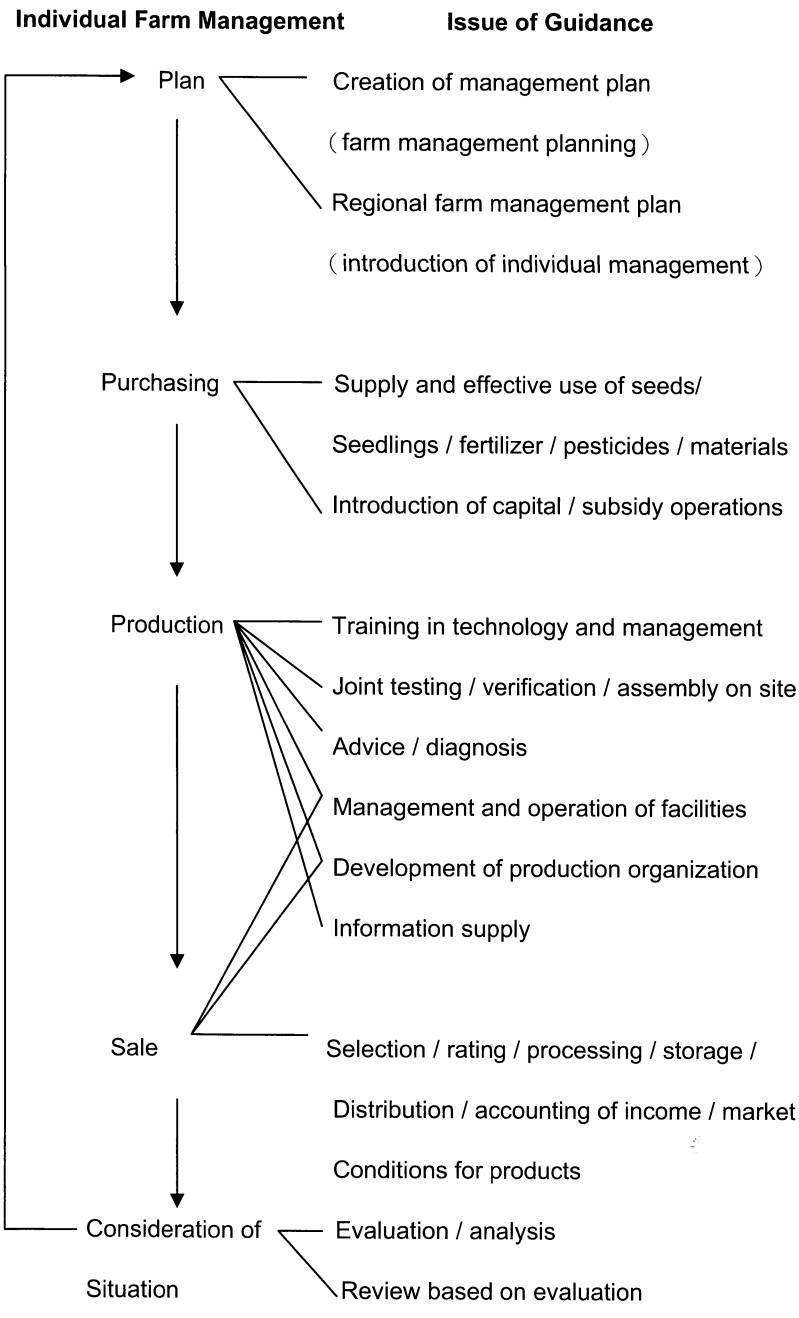
7) Agricultural cooperatives also need to play a more-proactive role as a holding and rationalization foundation for agricultural land, by renting land from members, and then leasing that land to other members who wish to expand the amount of land they are using. This will facilitate the rationalization of agricultural land use.

8) In addition, cooperatives can also offer recommendations for seeking or accepting work commissions, as well as manpower, by working together.

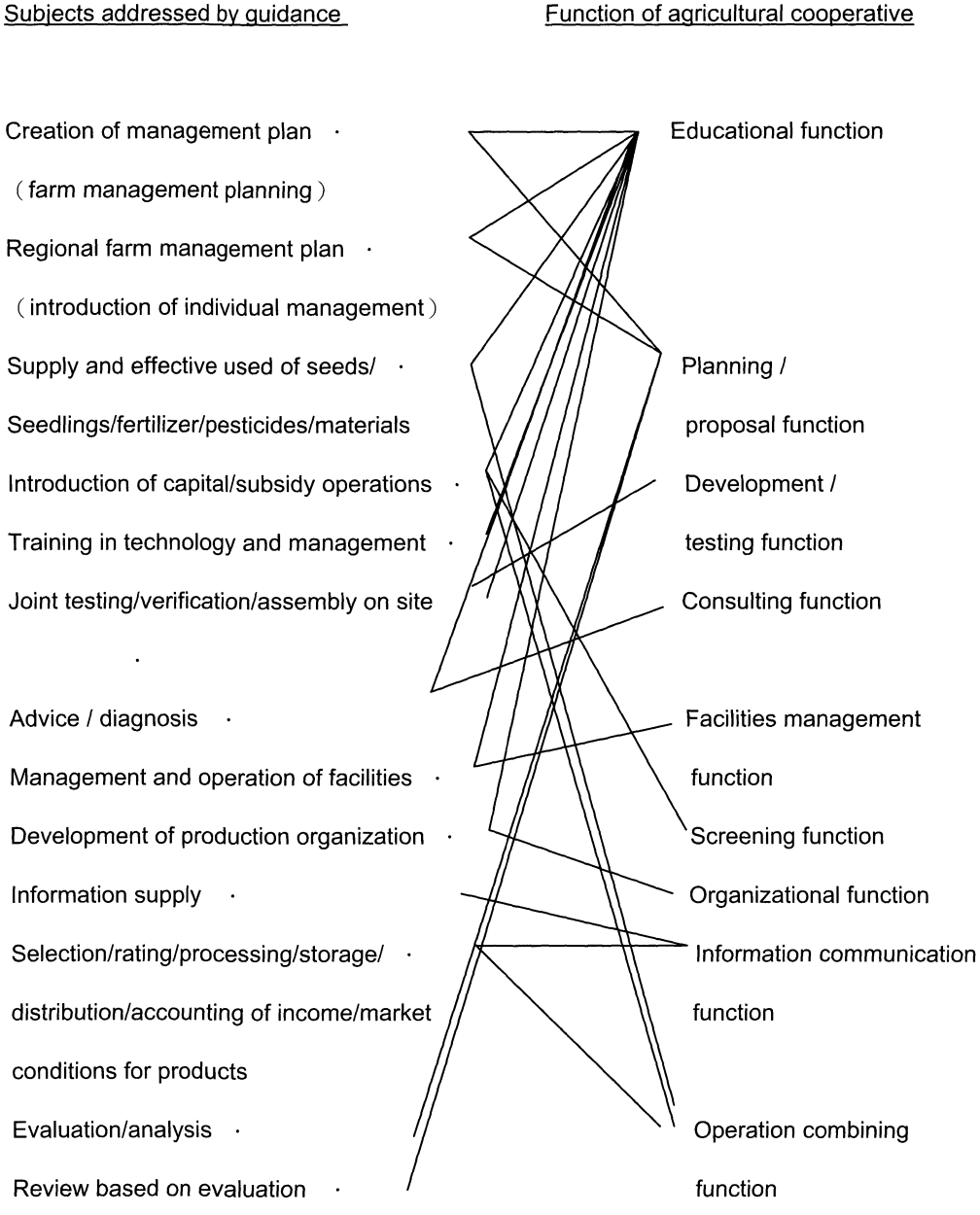
The scope of activities can also be summarized as follows:

-Planning of farm management in accordance with the regional Agricultural Promotion Plan;
-Improvement of farm infrastructure;
-Quality control and joint marketing of farm products and joint purchase of farm inputs;
-Promotion of group farming by commodities;
-Exchange of cultivation and breeding techniques; and
-Close collaboration with agricultural extension offices and other relevant institutions.

Individual Farm Management and Issue of Guidance



Subject of Guidance and Agricultural Cooperatives



Farm management activities in primary cooperatives and federations at a prefectural level

Stage of farm management	Function of the primary cooperative	Function of the federation
1. Farm planning	>Formulation of the agricultural promotion plan	>Projection of future agricultural situations >Promotion of guiding technology in relation to the agricultural promotion plan
2. Information dissemination about production technology (introduction and practice)	>Dissemination/circulation of technical Information >Consultation to promote new/special technologies >Systematization and technical training	>Development of technology >Systematization and technical training, education, and consultation about special technologies
3. Management Improvement	>Guidance in the selection of crops >Improvements in farming methods (individual and group)	>Revenue and expenditure analyses according to the kind of commodity >Production of farm planning materials >Assistance/training on bookkeeping and record keeping
4. Effective management of land, labor forces, and funds	>Protection and adjustment of the use of agricultural land >Ensuring success of promotion activities	>Technical guidance on the promotion of joint production groups according to the commodity
5. Joint production activities	>Installation of management systems for joint production and the promotion of commodity groups >Selection of group leaders	>Technical guidance on joint production groups according to the commodity
6. Gathering of information (market and agricultural information)	>Dissemination of information to members	>Collection and screening of information >Dissemination to primary cooperatives
7. Complimentary marketing system (warehousing/storage consignment, and stabilization)	>Warehousing/storage of farm products >Identification/creation of market price stability measures Promotion/advertisement of marketing business	>Promotion of price stability measures >Schedule of collection
8. Assessment/evaluation	>Identification of strengths and weaknesses of the farm guidance system including farming problems >Assessment of farm conditions >Evaluation of supply and demand >Promotion/advertising >Review/evaluation of individual farm plans	>Assessment of farming conditions >Evaluation of supply and demand >Promotion/advertising >Assessment of rural agricultural plans
9. Re-planning	>Improvement of individual farm plans >Improvement of management systems	>Improvement of agricultural plans >Improvement of marketing plans

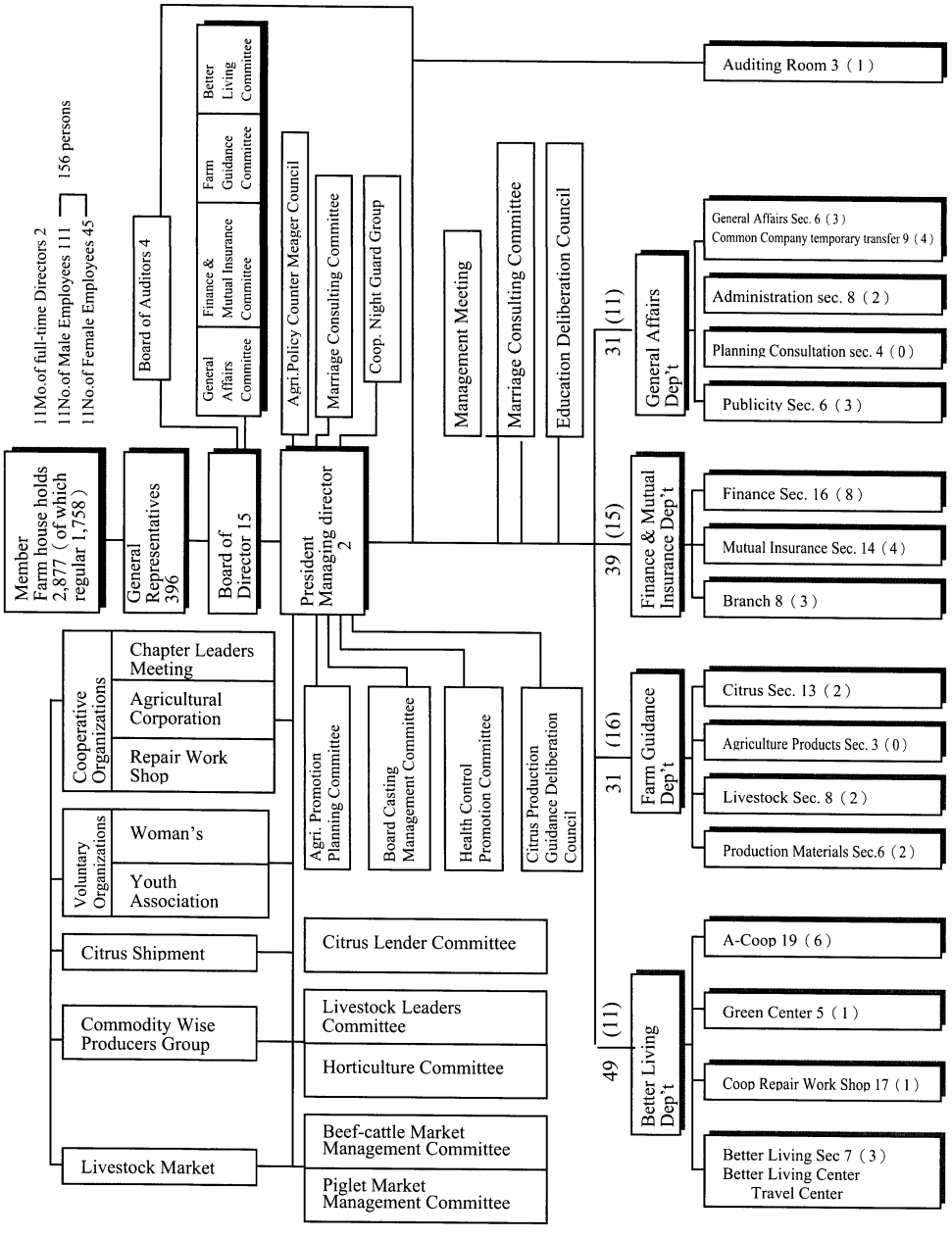
Common Features of Farm Guidance Methods

1) Meetings, discussions, lectures, contests, etc.
2) Printed materials, leaflets, newsletter, posters, and magazines.
3) Actual business operations and special events like exhibitions, contests, and examinations.
4) On-the-spot guidance, joint work, inspections, and bookkeeping.
5) Broadcasting media.
6) Interviews and home visits.
7) Research findings on production technologies, use of market information policies, and programs related to agricultural development.
8) Promotion of difference organizations, i.e., organizations of producers, women, youth, and the elderly, and other rural organizations.

Promoting Farm Advisors

1) Methods for establishing a farm guidance business structure
   Consolidation of the internal structure of Agricultural Cooperatives (JAs)
   (1) Strengthening awareness of the president and full-time officials of JAs.
   (2) Securing business expenses.
   (3) Securing farm guidance advisors.
      a. Recruitment of advisors from outside the JA.
      b. Assignment of JA staff in charge of the marketing and purchasing business to the farm guidance section.
   (4) Establishing cooperation systems among staff in charge of marketing, purchasing, and credit businesses.
2) Recruitment and compensation arrangements.
   (1) Nomination of a cooperative staff member who possesses qualifications of a farm adviser. He/She must be physically and mentally fit, possess high integrity, and an excellent work attitude.
   (2) Hiring of a retired employee from an agricultural university, extension office, or research institution.
   (3) Making use of outstanding farmers who possess special knowledge and skills.
   (4) When the cooperative is not financially capable, the federation to which it is affiliated can initially pay for the services of the farm adviser.

Case-Position of farm guidance department at JA Mikkabi (Mikkabi-cho Agricultural Cooperative)



Case study on farm management and technical guidance system supported by cooperative organizations at prefecture

< Case 1 > in Nagano Prefecture

1) The prefectural union of agricultural cooperatives established qualification system for farm advisor, which makes the position of farm advisor clear in the cooperative organization. In addition to the qualification for farm advisor, the other qualifications such as subject matter specialists, management consultant, consultant for livestock farming are prepared for specialization and improvement of skills.
2) Staffs in charge of farm guidance are appropriately assigned through primary cooperatives and the prefectural economic federation.
3) The roles of the prefectural union and the prefectural economic federation are clear. The union is in charge of planning and the federation in charge of implementation.
4) Uniform commodity-wise groups at a prefectural level (special committees = advisory committee for the economic federation are organized to realize farm guidance to be linked with marketing business.
5) Organization for farm advisors at a prefectural level is organized, called farm management group of JA officials and employees), for training purpose to support farm advisors.

< Case 2 > in Aichi Prefecture

1) Training program for farm advisors

   The prefectural union offering basic training program is collaborating with the prefectural economic federation offering specialized training program. Especially the economic federation has gained strong support from the prefectural experiment station. (e.g. 100-day training program by crop).

2) General farm management and technical guidance for horticultural products (flowers and vegetables)

   (1) The function was taken over by the prefectural economic federation from the prefectural horticultural federation in 1978 and strengthened to handle purchase of production materials, marketing of agricultural products and farm guidance.

   (2) In 1992, farm management support center as the horticultural federation's version of technical extension center was established under the control of general farm management office of the prefectural economic federation for experiments of newly developed technology and varieties (collaboration and share of function with the

prefectural agricultural experiment station). Furthermore, it has the function of education and training of producers by accepting farm successors as assistant research staff.

3) Measures for up-grading quality and capacity of farm guidance advisors

(1) Strengthening of training by unions and federations.
(2) Dispatch of personnel's to the national, prefectural research institutions or universities for study over the long period.
(3) Long-term training at advanced agricultural cooperative.
(4) Exchange meeting with farm guidance advisors in the neighboring JAs.

4) National federation of agricultural cooperatives (called JA Zen-noh)

(1) The national federation for marketing and purchasing businesses also offers the training programs to farm advisors of primary cooperatives.

(2) Agricultural R&D center is a comprehensive technical center, and its major activities include the following.

a. Maintenance of JA farm support center functions
b. Tests and research & development
c. Technical training courses
d. Inspections
e. Reception of visitors and trainees
f. Information collection and distribution

(3) Details on farm supporting and agricultural machinery & facilities sections

a. Farm supporting section

-Planning and research relevant to the promotion of JA R&D center functions.
-The section participates in model JA inspection projects and supports detailed policy-making for the promotion of functions based on local conditions so as to determine how JA can serve as a local agricultural center.
-Development of know-how and methods relevant to farming business consultations and to regional farm planning.
-Promotes the spread of new technologies for labor conservation, labor reduction, cost reduction, etc.
-Issues publications such as professional journals, provides means of business diagnosis for farmers, and corporate in regional farm planning.
-Conducts surveys and provides information for the promotion and spread of environmental conservation in agriculture.

-Working together with the fertilizer and pesticides sections, the materials section, and the machinery & facilities section, this Section takes part in efforts to reduce the costs of production materials.

b. Agricultural machinery & facilities section

In order to achieve low-cost agricultural production and reduce costs uniformly throughout form production to distribution, this Section engages in the following activities.

Confirmation and testing of new products and new technologies

-Before dealing in new agricultural machinery products, spot items are investigated primarily in terms of new functions and mechanism. Structure, quality, special features and other characteristics arc determined and the products are evaluated for purchase. Confirmation tests are also performed as necessary depending on the products characteristics.

-On-site performance tests are conducted on plants and technologies at newly developed agricultural facilities. Consultations are held with manufacturers concerning results and information is provided to the agricultural co-operatives where plants and technologies are scheduled to be introduced.

Investigation, research and development activities

-Through cooperation with other research sections and manufactures, this section engages in R&D on new operational technologies associated with production materials. It also conducts research to accumulate date as required for the basic design of plants at agricultural facilities. In addition to investigation and research of items pertaining to purchasing duties, the section engages in testing on consignment and in joint research with universities and testing centers covering more specialized topics.

Education and training

-This section provides education and training to various personnel; for example to those in charge of agricultural facilities or agricultural machinery at JA or prefectural economic federations various types of education and training are offered, including initial training in farm machinery basics to those newly assigned to be in charge of such machinery, as well as operator training, all for the purpose of acquiring knowledge and practical skills.

< Case 3>

Training program designed for farm guidance at a primary cooperative basic training plan for FY 2001

Training name	Purpose	Subject	Contents of training
Farm advisor training	Training for qualification of farm advisors and training of qualified farm advisors	Persons in charge of service windows of JA branches and persons newly employed by JA	Introduction to crops (paddy rice, wheat, soybeans); introduction to soil and fertilizer; introduction to disease and insect pest; introduction to horticulture (vegetables, flowers, fruits) 8 days (4 days x 2)
Basic training in farm management	Providing basic technical knowledge	Persons in charge of service windows	Identification of real things and practical field training 4 days (2 days x 2) Basic techniques to cultivate crops (paddy rice, wheat, soybeans); basic horticultural techniques (vegetables, flowers, fruits); measures to control various types of disease and insect pest 8 days (4 days x 2)
Training for strengthening farm guidance	Providing basic and technical training and on-the-job training to full-time farm advisors of JA's key branches	Qualified farm advisors of JA's key branches	Basic training in cultivation of crops (paddy rice, wheat, soybeans); basic training in horticulture (vegetables, flowers, fruits); on-the-job training in fertilization of soil and control of disease and insect pest 40 days (20 days x 2)
Specialized training	Providing advanced farming technology and problem-solving training to full-time farm advisors of JA's district business offices and head offices	Qualified farm advisors of JA's district centers and head offices	Basic technology for cultivation of crops (paddy rice, wheat, soybeans); basic horticulture technology (vegetables, flowers, fruits); fertilization of soil and control of disease and insect pest 10 days of on-the-job training
Field training of farm advisors at individual JA district centers for solving problems in specific regions			7 persons; 100 days a year

Support Organizations

1) In order to effectively and efficiently carry out said activities; it is incumbent on a coop to forge close and coordinated working relationship with various organizations.

>Agricultural Development Organizations

>Support organizations:

-Local government units (Pref. gov't, municipality offices)

-Research and experiment institutions

-Extension offices

-Agricultural Colleges and Universities

-NGOs

-Cooperative development council

-Irrigation and drainage utilization association

-Crop insurance office

-Others

2) Functions:

(1) Policy formulation and advocacy

(2) Receipt and analysis of reports

(3) Adjustment and improvement of policies and activities

(4) Monitor the implementation

(5) Assess/evaluate/plans and implementation

Agricultural Extension Service by Government

1) In Japan, the extension service started in 1948 as the most fundamental promotion measure of nation's agriculture policy. Since then, setting up extension centers in which extension advisors are allocated, it has been supporting farmers who try to increase their technical and managerial abilities through its educational approach.

2) Characteristics of the extension service in Japan

The extension service in Japan has been implemented based on the Agricultural Improvement Promotion Law (No. 165 of 1948.) with the following characteristic features:

(1) The cooperative work performed by the national and prefectural governments.

(2) The collaboration with a research institute in smoothly developing, and then extending technique which meets needs of farmers or communities.

a) The service which targets people by taking a direct approach to farmers for giving them technical and managerial instruction.

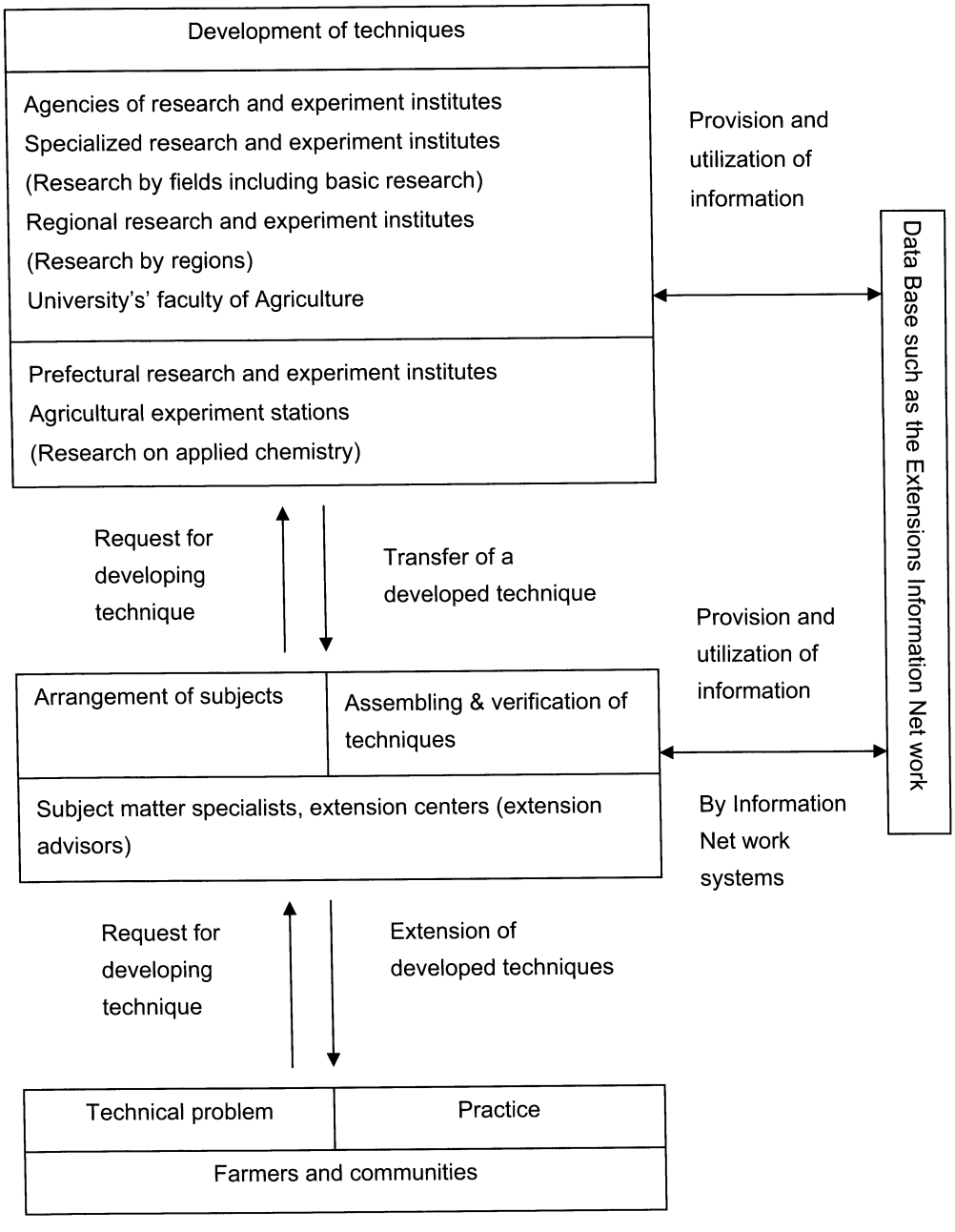
b) The integrated activity for the improvement of farming and daily life.

3) The cooperative work performed by national and prefectural governments

The extension service has been contributing to smoothly transferring farming techniques, which results in the rise of a farmer's level as a whole. That consequently gives the significance to the national government which is responsible for the stable supply of food, and also to prefectural governments which responsible for the promotion of agriculture and rural communities by making best use of local resources.

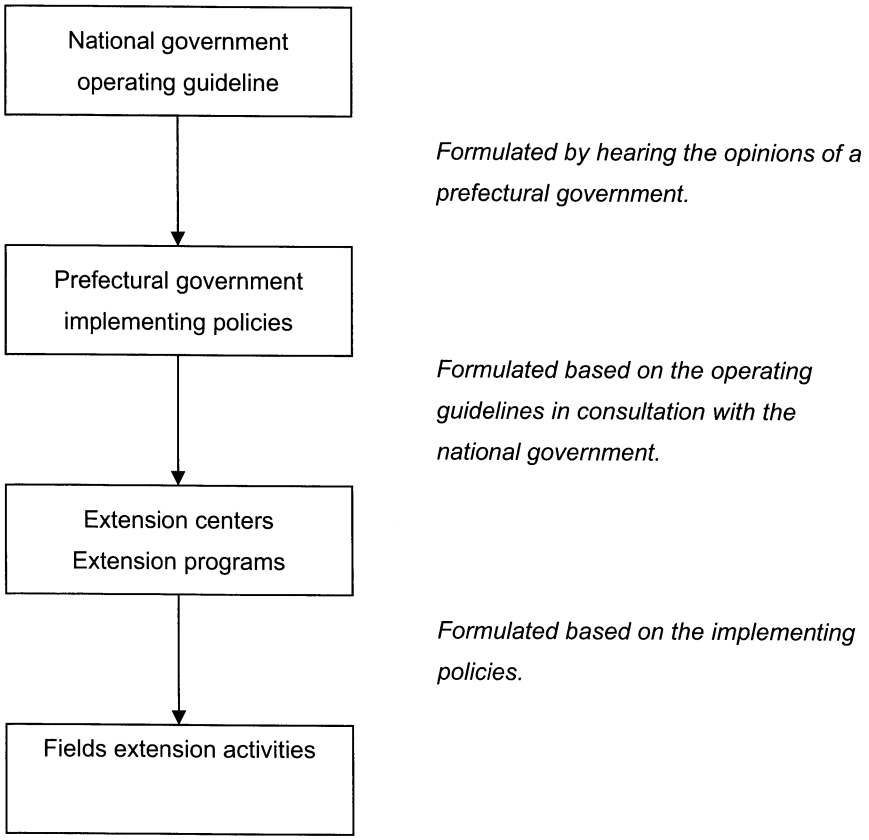
4) It is also important to exchange knowledge or techniques among prefectures so as to nationally increase the productivity and the ratio of self-sufficing food. In this respect, the cooperative work is the efficient system in which the national government first formulates such basic policies as the allocation of extension advisors, and then building the consensus of the national government, a prefectural government actually carries out the extension service.

5) In practice, the Agricultural Improvement Promotion Law defines the extension service as the cooperative work promoted by both national and prefectural governments.

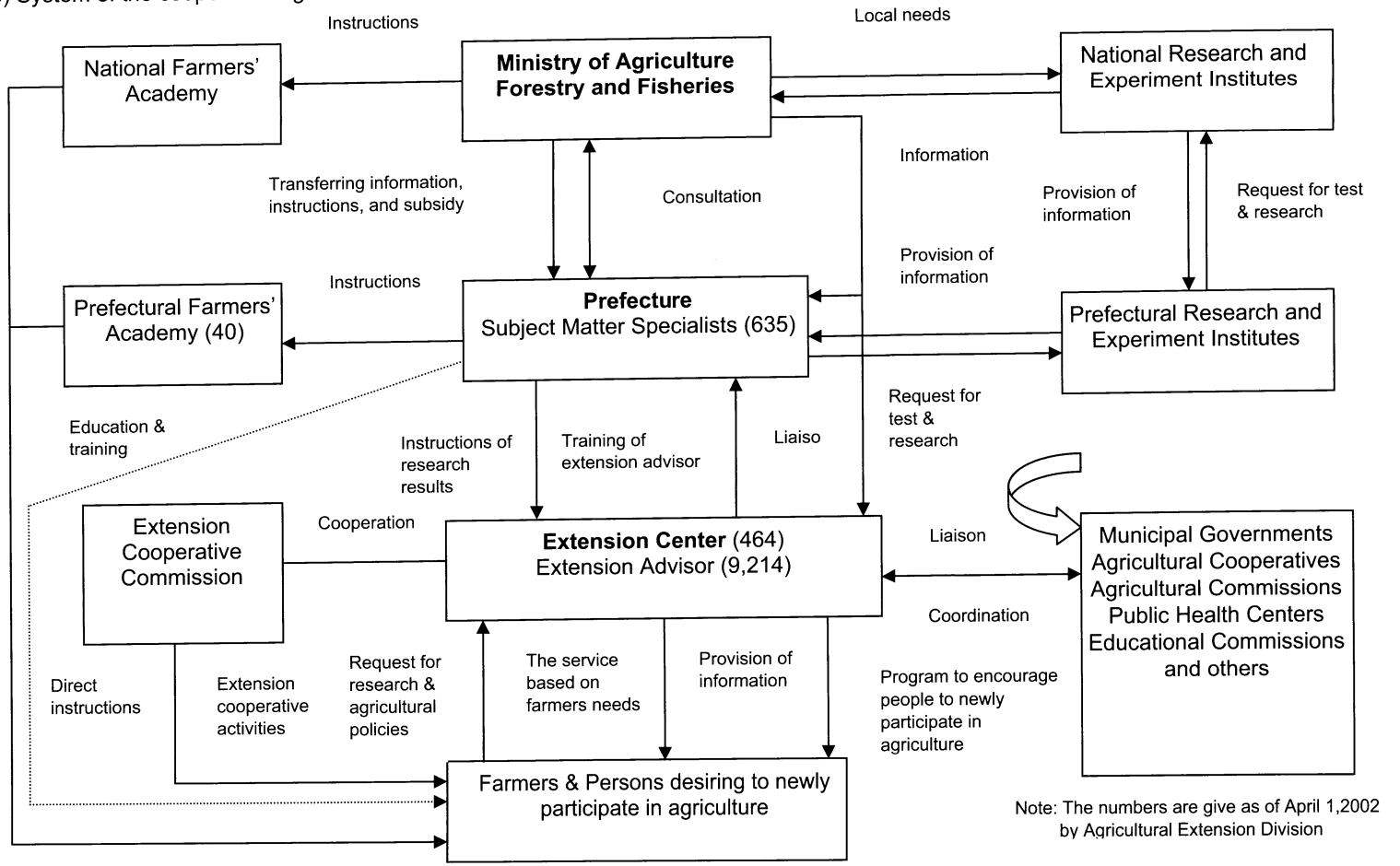


Flowchart of the development and extension of agriculture techniques in Japan

The execution of the extension service – accordance with the basic policies which are determined after the discussion between the national and a prefectural government:



6) System of the cooperative agricultural extension service and coordination with agricultural cooperatives



Note: The numbers are give as of April 1,2002 by Agricultural Extension Division

Farmer's Training and Educational Institute (Farmer's academy)

1) Being defined as a part of the extension service, farmer's academy is founded in respective prefectures. There, it has been educating and training those who are interested in newly participating in agriculture, in addition to the children of farm households. Particularly, its programs emphasize on advanced agricultural and managerial techniques by which they will improve their farming business.

2) The academy has three departments as follows:

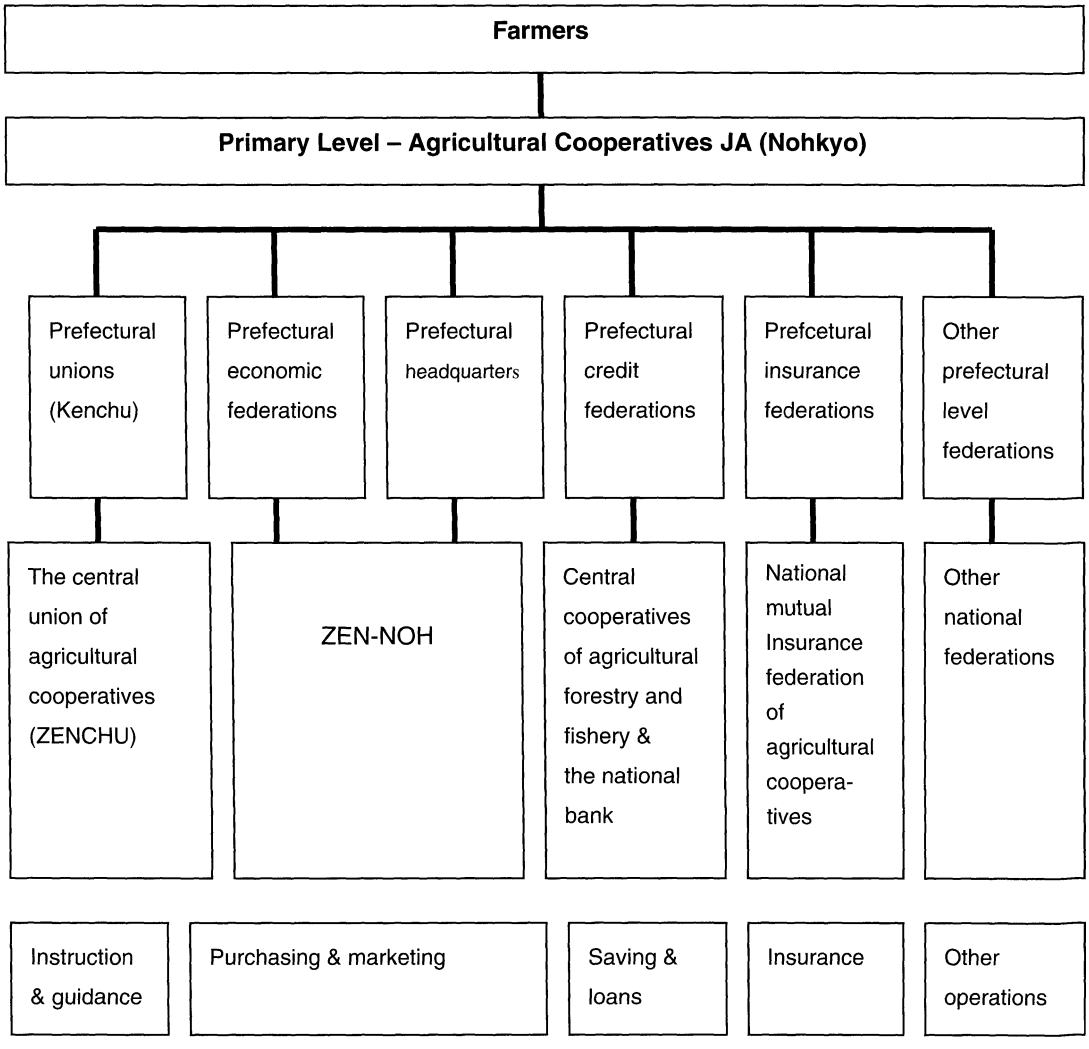
   (1) Fostering department in which high school graduates take two-year practical training with all of them living in dormitories;
   (2) Training department: in which short-term training is particularly given to those who will come back their home town to start farming; and
   (3) Research department: in which graduates of receive one-to-two year advanced training.

Guidelines of opening farmer's academy

Opening	In compliance with regulations		
Name	Proper name for the purpose, for example xxxx prefecture farmer's academy		
Principal	Proper person for the position, for example a person who has not only a profound insight into youth education, but also wide knowledge about agriculture and a rural community.		
Capacity	In compliance with regulations or rules by taking into account of the climate of agriculture.		
Departments	Fostering department (Long-term training)	Research department (Advanced training incl. farm management)	Training department (Short-term training according to student's farm management)
(Qualification)	High-school graduated or those who have similar scholarly ability to them	Graduates of junior college or the fostering department	A governor of respective prefectures will decide candidates and capacity.
(Terms)	Two years in principle	1 or 2 year(s) provided by regulations	Within one year
(Hours)	More than 2,400 hrs, or 80 units in 2 years	More than 1,200 hrs or 40 units per an annum	

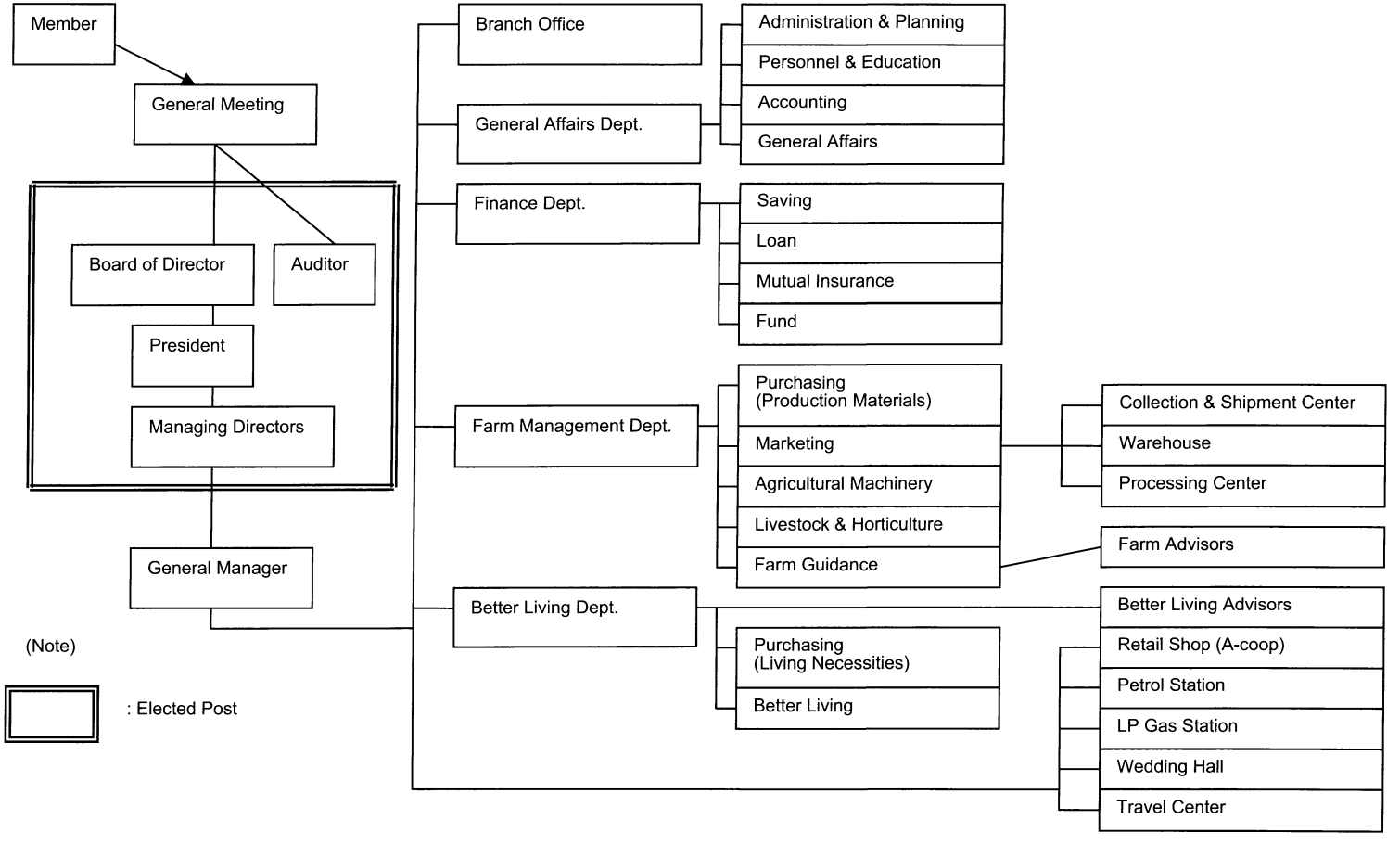
Attachment–1

Agricultural Cooperative Organizations (JA Group)



Attachment–2

General Pattern of Internal Structure of Multi-purpose Agricultural Cooperatives



Attachment–3

Members' organizations in agricultural cooperatives

1. Members' organizations relating to management of JA
   (1) Representative members
   (2) Chapter leaders
   (3) Officials and auditors
   (4) Hamlet level discussion meeting
2. Members' organizations relating to agricultural production and marketing activities
   (1) Commodities-wise group and joint marketing of JA
   (2) Various joint utilization group
      a. Grading center operation group
      b. Country elevator
      c. Joint nursery of seedlings – business of JA
      d. Joint use of farm machinery
         -JA lease out machinery to members
         -Farm machinery operators group
   (3) Hamlet farm management group
   (4) Joint shipment association
   (5) Morning market group (direct sale of farm products)
   (6) Green tourism group
   (7) Joint processing group
   (8) Kitchen garden group to curtail family expenses to be spent for vegetables
3. Members' organizations relating to purchasing business of JA
   (1) Joint purchasing group for daily necessities
   (2) Joint purchasing group for home delivery of food ingredient
   (3) A-Coop friendship group
   (4) Agricultural affairs association and advance order for farm input

Attachment–4

Cooperative farm guidance activities and governmental extension services and their relevance to the development of agriculture & agricultural coops in Japan

1. Introduction
2. Trends in agricultural & agricultural coops in Japan

1) Agriculture
   - – Progress of aging of farmer
   - – Lack of farm successor
   - – Low self-sufficiency of food
   - – Increased Import of agricultural products due to liberalization policy
   - – Shift in Agricultural policy from producer oriented one to consumer-oriented (Lessor government assistance and independence is being much called for.)

2) Agricultural cooperatives
   - – Amalgamation of agricultural crops has been promoted 10,000 coops in 1960 to 950 in 2003 Goal is 500.
   - – Reform of agricultural cooperative is in rapid progress
   - – Characteristics of Japans agricultural coops;
     Multi-purpose (economic, guidance, credit, insurance and etc.,
     Concept; from cradle to graveyard services
   - – Women empowerment (increase of female board of director)

3. Agricultural extension by the government & farm guidance by agricultural cooperative for technology transfer.

1) What are farm guidance activities?
2) What's difference between extension and farm guidance.
3) Introduction of farm guidance concept to other Asian countries such as Thailand, Philippines & etc.

   Our Institute/IDACA conduct a project and feasibility study to introduce multi-purpose agricultural coops in developing countries with dispatch of experts and acceptance of trainees.

4. Lessons which can be learned from Japans experiences

1) Technical innovation by extension office & agricultural experiment stations.
2) Existence of closer linkages among rural development institutions concerned such as extension office, experiment station, municipal and provincial office, agricultural cooperative, irrigation office and private companies engaged in manufacturing inputs.
3) Existence of strong and integrated agricultural coops.
4) Government assistance for agricultural development such as provision of credit, infrastructure and etc.
5) Establishment of effective market mechanism based upon the traditional peoples mentality which attaches importance to group harmony, consensus or team work rather than individual approach.