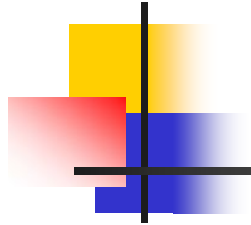




Extension of Organic Agriculture Techniques for Assistance to Small Scale Farmers' Groups

Training Support Flip Chart



Module 0: The Principles of Organic Agriculture



[1] Unit 0.1.1 The Principles of Organic Agriculture (1/5)

- Development of Japanese Organic Agriculture
- The Principles of Japanese Organic Agriculture
- Current State of Japanese Organic Agriculture
- Lessons from Japanese Organic Agriculture
- Conclusion



[1] Unit 0.1.1 The Principles of Organic
Agriculture (2/5)

- **The Principles of Japanese Organic Agriculture**
 - The Expansion of Conventional Agriculture
 - The Revision of Organic Agriculture



[1] Unit 0.1.1 The Principles of Organic Agriculture (3/5)

- **The Principles of Organic Agriculture**

- To produce safe, quality food
- To protect the environment
- To live in harmony with the nature
- Local self-sufficiency and recycling
- To build and maintain soil fertility
- To protect the diversity of living creatures
- To safeguard healthy feeding environments
- To safeguard human rights and fair labor
- To unite producers and consumers
- To promulgate the value of farming and build a society that respects all forms of life



[1] Unit 0.1.1 The Principles of Organic Agriculture (4/5)

■ **Current State of Japanese Organic**

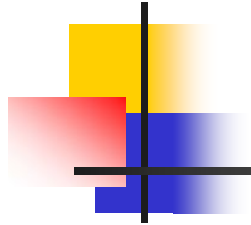
Agriculture

- Japan's Certification System for Organic Products
- Market Size
- Organic Agriculture Promotion Law
- Guidelines and Basic Policy in Organic Agriculture



[1] Unit 0.1.1 The Principles of Organic Agriculture (5/5)

- **Lessons from Japanese Organic Agriculture**
 - To re-appreciate Indigenous Agriculture
 - To promote the internal recycling of resources and the self-reliance of farmers
 - To promote local self-sufficiency and local self-reliance, as well as rebuild the relationship between producers and consumers
 - To create a path for “Self-directing Farmers”



Module 1: Overview of Organic Agriculture by Small-scale Farmers



[2] Unit 1.1.1 Overview of Organic Agriculture (1/5)

- [Exercise]... What is Organic Agriculture?
- Problems of Conventional Agriculture
- Features of Organic Agriculture
- Mechanisms of Organic Agriculture
- Conclusion



[2] Unit 1.1.1 Overview of Organic Agriculture (2/5)

- **[Exercise]... What is Organic Agriculture?**
 - What do you believe to be the merits and demerits of Organic Agriculture?
 - Break into groups and discuss merits and demerits of Organic Agriculture. Write these points out on Post-it notes and then present your ideas.



[2] Unit 1.1.1 Overview of Organic Agriculture (3/5)

- **Problems of Conventional Agriculture**
 - Organic Agriculture, Conventional Agriculture and Indigenous Agriculture
 - Impact on agricultural products
 - Impact on the environment
 - Impact on the human body
 - Impact on society
 - Impact on the economy



[2] Unit 1.1.1 Overview of Organic Agriculture (4/5)

- **Features of Organic Agriculture**

- Advantages

- Stability and conservation of the environment, safety and security, the pleasures of farming, new values, low cost, self-reliance

- Problems faced during transitioning

- Unstable production, work increase, markets



[2] Unit 1.1.1 Overview of Organic Agriculture (5/5)

- **Mechanisms of Organic Agriculture**
 - Mechanisms of Healthy Crops Production
 - Mechanisms of Organic Matter Recycling



[3] Unit 1.2.1 Definition and International Status of Organic Agriculture (1/4)

- Definition of Organic Agriculture
- Inspection and Certification System for Organic Agriculture
- [Exercise]... Global Status of Organic Agriculture
- Conclusion



[3] Unit 1.2.1 Definition and International Status of Organic Agriculture (2/4)

- **Definition of Organic Agriculture**

- International Federation of Organic Agriculture

Movements (IFOAM)

- The Codex Standard



[3] Unit 1.2.1 Definition and International Status of Organic Agriculture (3/4)

- **Inspection and Certification System for Organic Agriculture**
 - Constituent Elements of Japan's Organic Certification System
 - Organic standards, documentation and rules of procedure relating to the certification program, inspections, certification decisions, certification program operations, certification logo, public information on certification, certification costs
 - The Organic Certification Process
 - Participatory Guaranty System (PGS)



[3] Unit 1.2.1 Definition and International Status of Organic Agriculture (4/4)

- **Global Status of Organic Agriculture**
- **[Exercise]... Global Status of Organic Agriculture**
 - Discuss and share the information on Organic Agriculture in your country, including its history, definition, certification systems, markets, and other issues.



[4] Unit 1.3.1 Overview of Support for Small-scale Farmers through Organic Agriculture (1/7)

- The Foundation of Farm Management
- Marketing Overview
- Organization and Extension of Organic Agriculture
- Farm Management Systems Overview
- Three Categories of Organic Agriculture
- [Exercise]... Classifying Your Supporting Farmers into the Three Categories of Organic Agriculture
- Conclusion

[4] Unit 1.3.1 Overview of Support for Small-scale Farmers through Organic Agriculture

(2/7)

■ **The Foundation of Farm Management**

- The benefits of subsistence farming do not come with monetary form. Recording and analyzing labor, costs, investments, and production will be a help to direct them for their improvement.
- Farmers that sell their products must clarify with greater accuracy whether economic benefits borne from the land.
- If the goal of farming is profit gaining, then the differentiation of produce, along with the establishment of advertising and sales techniques, is necessary.
- It is important that the farm management of small farms is understood to be a vocation.
- Non-monetary benefits of Organic Agriculture:
 - Stability of the soil and ecosystem
 - Assuring health (By eliminating the impact of pesticides, among other things)
 - Accumulated knowledge and experience in farming (Making farmers independent thinkers)

[4] Unit 1.3.1 Overview of Support for Small-scale Farmers through Organic Agriculture

(3/7)

■ Marketing Overview

- Marketing refers to activities designed to promote the sales of products based on an understanding and analysis of conditions in the market, which is external to the farmer.
- In Japan, Organic Agriculture has developed relationship “farm fresh” and “Teikei” which are direct alignment of consumers and producers. Producers grow products that they believe right and consumers want them buy them. This is an antithesis to mass production and mass consumption - it is local production for local consumption.
- The greatest problem for subsistence farmers is the inability to provide a steady supply. Product differentiation or stabilization of supply are only the ways.
- The more saleable products, the more sales routes open. Greater opportunity for the establishment of regular sales at larger markets appears. If differentiation of one’s crops is possible, alignment with the consumer will be possible.
- When organic products become real cash crop, each and every marketing success is a business success.

[4] Unit 1.3.1 Overview of Support for Small-scale Farmers through Organic Agriculture

(4/7)

■ **Organization and Extension of Organic Agriculture**

- There is an exclusivity to groups and organizations, wherein all members share rules, norms and objectives.
- Trying to change a collective that is based on traditional norms may raise social confusions.
- Farmers may be organized so as to more effectively execute extension operations, but we must be prudent in ascertaining whether this is a suitable for them or not.
- The objectives of organizing are: 1) collectivization of management, 2) making productive work more efficient, and 3) bolstering marketing and sales.
- In the case of organizing amongst small farms, bolstering marketing power is usually the primary goal.
- In addition to issues of developing and maintaining decision-making structures and role demarcations, collectives often encounter challenges that did not exist on an independent level, such as with maintaining uniformity in crop quality (or organic nature).
- Whether or not the organization can be well managed and come into its own potential relies greatly on: 1) the number of members, 2) leadership, and 3) the difficulty of problems faced.
- Roughly 15 persons is the limit to maintain face-to-face relations.

[4] Unit 1.3.1 Overview of Support for Small-scale Farmers through Organic Agriculture

(5/7)



■ **Farm Management Systems Overview**

- “Small farms” refers to farms that have few resources for managing agriculture.
- Utilization of as-yet untapped resources and the maximized use of already available ones is the key.
- Outsiders must first grasp the whole of current farm management system, before introducing any technologies and investments.
- Organic Agriculture technologies contribute in a variety of ways to solving problems stemming from insufficient resources at small farms.
- Organic Agriculture provides farmers with steady and high quality crops through well spent efforts – not money. As such, this form of farming is ideal for small farmers with limited resources.
- Organic Agriculture technologies basically function for the whole of the farm management system. It is important that they are introduced rationally within the farm management system so as to not disturb its balance.

[4] Unit 1.3.1 Overview of Support and Extension for Small-scale Farmers through Organic Agriculture (6/7)

■ Three Categories of Organic Agriculture

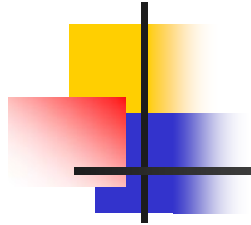
Aim		Target Farmer Image
A	To utilize natural resources to reduce costs and maintain soil fertility; to increase productivity through the power of the nature	Regularly cultivated 0.3ha to approximately 2ha field growing mostly grains and cereals. No wet-rice cultivation. In an extensive stage, having just moved from shifting cultivation to fixed cultivation and has in view a relatively high level of cultivation which includes use of synthetic agricultural chemicals. The main goal for this category is increased production and more stable production. This form of agriculture requires much land and thus is greatly dependent on machinery and irrigation equipment. Focus on those areas where organic techniques can offer improvements.
B	To increase profitability by reducing the costs of for-profit agriculture; to ensure sustainability by increasing soil fertility	Centered in the suburbs; small vegetable gardens cultivated for profit. 0.05ha to approximately 0.5ha size area. Use of synthetic agricultural chemicals is common when cultivating vegetables for cash, so expect this to be the case. The main aim for this category is to emphasize points such as more efficient production and management and long-term soil fertility improvement through the adoption of organic techniques. The main difference with Category A above is field size, i.e., land intensity. Thus, more than machinery, etc., the role of organic techniques in fertility management is of great significance.
C	To achieve product differentiation by being labeled “organic”; to find new distribution routes	Often more highly developed than A or B above. Production technology does not differ greatly; however, being labeled as “organic” is the basis for branding, and, therefore, production techniques tend to be more thorough. The focus for this category is more marketing-oriented than production-oriented, i.e., branding, certification, and creating direct relationships with consumers. Not many of this type in developing countries, but they are starting to appear.



[4]Unit 1.3.1 Overview of Support for Small-scale Farmers through Organic Agriculture (7/7)

■ **[Exercise]... Classifying Your Supporting Farmers into the Three Categories of Organic Agriculture**

- Summarize the farming currently practiced in your target area or by your target group with regard to the following six aspects: 'Natural Environment', 'Produce (Quality and Amount)', 'Farmers' Technology', 'Market', 'Organizing', and 'Extension System'.
- Now determine where it stands in comparison with the three categories for organic agriculture.
- Let's think about the relationship of your target area or target group's mid-to-long term objectives with the three categories of Organic Agriculture.
- Clarify elements that would be considered priorities for your target area/group in working for mid-to-long term objectives.
- Share your results with other participants.



Module 2: Overview of Management for Small-scale Farms



[5] Unit 2.1.1 Farm Management Planning: Economic Analysis (1/7)

- What is Small-scale Farm Management?
- Records and Activity Quantification
- Business Analysis and Response Measures
- [Exercise]... Economic Analysis
- Agricultural Marketing
- [Exercise]... Marketing
- Conclusion



[5] Unit 2.1.1 Farm Management Planning: Economic Analysis (2/7)

- **What is Farm Management?**
 - Necessity of Business Management
 - Characteristics of Small-scale Farm Management
 - Expenses in Small-scale Farm Management
 - Looking at Life Cycles
 - Investments in Small-scale Farm Management



[5] Unit 2.1.1 Farm Management Planning: Economic Analysis (3/7)

- **Records and Activity Quantification**
 - Record Keeping
 - Calculating Costs and the Break-even Point
 - Productivity



[5] Unit 2.1.1 Farm Management Planning: Economic Analysis (4/7)

- **Business Analysis and Response Measures**
 - Analysis
 - Evaluation
 - Response Measures



[5] Unit 2.1.1 Farm Management Planning: Economic Analysis (5/7)

■ **[Exercise]... Economic Analysis**

- Organize the necessary data from the “case” and look at the profit structure of a small-scale farm.
- Break up into small groups and read the case of “Farm Management by the Chaba Family”.
- For each cultivar, write down the sales, costs and all elements thereof in a chart.
- Then calculate the profit for each cultivar, and find the best earning cultivar and the best productive cultivar.
- If any data is lacking, make a list of necessary data and ask the instructor to provide them.
- Express management of farm activities in terms of expenses and organize the factors that comprise product prices.
- Present and discuss your results group by group.



[5] Unit 2.1.1 Farm Management Planning: Economic Analysis (6/7)

- **Agricultural Marketing**
 - Market Mechanisms
 - Sales Type and Marketing
 - Sales Strategies



[5] Unit 2.1.1 Farm Management Planning: Economic Analysis (7/7)

■ **[Exercise]... Marketing**

- Individual work. Select one region from your country and give a summary of its characteristics and leading agricultural products.
- Identify possible markets to explore.
- Using what you have learned so far about marketing, list the agricultural products you would market, how you would promote sale, and a step-by-step outline of activities for the materialization.
- Prepare a presentation material and exchange ideas with others.



[6] Unit 2.2.1 Farm Management Planning: Organizational Operations (1/5)

- What is Organization
- [Exercise]... Type of Organizations
- Organizational Theory
- [Exercise]... Support of Organizations
- Conclusion



[6] Unit 2.2.1 Farm Management Planning: Organizational Operations (2/5)

- **What is Organization**
 - Historic Overview of Group Formation
 - Types and Characteristics of Organizations/Groups



[6] Unit 2.2.1 Farm Management Planning: Organizational Operations (3/5)

- **[Exercise]... Type of Organizations**

- Let's classify farmer groups into different types.
- Break into small groups for this exercise. Pick up a farmer group from the region under your responsibility, and classify them into types such as migrants groups, kin/territorially-bound groups, cooperative, farm producers groups, and so on. Also, summarize the characteristics of the groups.
- Present your results to the others and discuss them group by group.



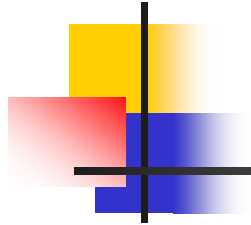
[6] Unit 2.2.1 Farm Management Planning: Organizational Operations (4/5)

- **Organizational Theory**
 - Necessary Conditions for Group Management
 - Support of Organizations



[6] Unit 2.2.1 Farm Management Planning: Organizational Operations (5/5)

- **[Exercise]... Support of Organizations**
 - Let's discuss about ways of supporting farmer organizations.
 - Individual work. Take the same farmer group of the last exercise, and elaborate on the conditions, problems, and issues that particular group faces.
 - Decide on the long term vision of the selected group, and identify the priority challenges.
 - Prepare a list of concrete actions for the priority challenges.
 - Now identify what kind of support would be possible from you to the group.
 - Prepare presentation, and discuss with others.



Module 3: Organic Agricultural Technology



[7] Unit 3.1.1 Farm Management System (1/8)

- What is Farm Management System
- [Exercise]... Farm Management System
- Crop Patterns
- [Exercise]... Crop Pattern (Sharing)
- [Exercise]... Crop Pattern (Planning)
- Farm Management Planning - Biological Aspects
- [Exercise]... Farm Management Planning
- Conclusion



[7] Unit 3.1.1 Farm Management System (2/8)

- **What is Farm Management System**
 - The Production Principles of Organic Agriculture
 - Elements of Farm Management System
 - Relationships Between the Elements



[7] Unit 3.1.1 Farm Management System (3/8)

- **[Exercise]... Farm Management System**
 - Let's try to draw a diagram of farm management system using a fictional example.
 - Individual work. Read the case story well.
 - Pick up necessary information in the case document, draft a diagram of a farm management system.



[7] Unit 3.1.1 Farm Management System (4/8)

- **Crop Pattern**

- Single Cropping and Damages Caused by
Continuous Cropping
- Crop Rotation and Mixed Cropping



[7] Unit 3.1.1 Farm Management System (5/8)

- **[Exercise]... Crop Pattern (Sharing)**
 - Let's share information on the crop patterns in your countries.
 - Your lecturer will present information on Japanese example; each participant should then present information on crop patterns practiced in her or his own country.
 - Discuss on uniqueness, similarities and differences among the introduced crop patterns. Prepare summary sheet or a table.



[7] Unit 3.1.1 Farm Management System (6/8)

- **[Exercise]... Crop Pattern (Planning)**
 - Let's think of the crop pattern best suited to each of your regions.
 - Confirm conditions that relate to your target area's climate, farmland area, and available cultivars.
 - Using what you have learned in this unit as a guide, prepare a crop pattern plan for the next 3-5 years.
 - Present your analysis and conclusion to the others for discussions.



[7] Unit 3.1.1 Farm Management System (7/8)

- **Farm Management Planning - Biological**

Aspects

- Calculation of Required Nutrient Content
- Designing a Rational Nutrient Supply System



[7] Unit 3.1.1 Farm Management System (8/8)

- **[Exercise]... Farm Management Planning**

- Let's design a farm management system for each of your target areas.
- Confirm your target area's most typical form of farm management currently in practice.
- Find a rational nutrient supply system for this farm management system.
- Next draw a diagram of the whole farm system which includes the identified nutrient supply system.
- Present your idea to the others for discussions.



[8] Unit 3.2.1 Soil Preparation (1/4)

- Conditions for Good Soil and its Advantages
- Features of Tropical Soil and Soil Preparation
- [Exercise A]... Soil Preparation (Sharing)
- Conclusion



[8] Unit 3.2.1 Soil Preparation (2/4)

- **Conditions for Good Soil and its Advantages**
 - The Importance of Soil Preparation in Organic Agriculture
 - Mechanisms of Soil fertilization in the Nature
 - Conditions for Good Soil
 - Effects of Organic Matter



[8] Unit 3.2.1 Soil Preparation (3/4)

- **Features of Tropical Soil and Soil Preparation**
 - Features of Tropical Soil
 - Important Points Regarding Soil Preparation in the Tropics



[8] Unit 3.2.1 Soil Preparation (4/4)

- **[Exercise A]... Soil Preparation (Sharing)**
 - Let's share what we know about actual, specific practices in soil preparation.
 - Your lecturer will present Japanese examples; each participant should present information on soil preparation in her or his own country.
 - Discuss on both innovative and questionable points with others and summarize on a flip chart paper.



[9] Unit 3.2.2 Organic Fertilizer (1) (1/8)

- [Exercise]... Differences between Chemical and Organic Fertilizers
- Differences between Chemical and Organic Fertilizers
- Compost
- Making and Using Compost
- Bokashi Fertilizer
- Poultry Manure
- [Exercise]... Making Compost and Bokashi Fertilizer
- Conclusion



[9] Unit 3.2.2 Organic Fertilizer (1) (2/8)

- **[Exercise]... Differences between Chemical and Organic Fertilizers**

- Let's compare the merits and demerits to each of chemical and organic fertilizers.
- Everyone should work in a group of around 3 persons. In your group, consider the merits and demerits of chemical and organic fertilizers. Prepare a chart or a table to show the results of your group discussion.
- Present your results and exchange ideas.



[9] Unit 3.2.2 Organic Fertilizer (1) (3/8)

- **Differences between Chemical and Organic Fertilizers**

- Features of Organic Fertilizer
- Features of Chemical Fertilizer



[9] Unit 3.2.2 Organic Fertilizer (1) (4/8)

- **Compost**

- Effects of Compost
- Reasons to Make Compost
- Requirements for Composting



[9] Unit 3.2.2 Organic Fertilizer (1) (5/8)

- **Making and Using Compost**
 - Site, Materials, Building, Temperature Control, Turning, and Checking Completion
 - Use of Compost



[9] Unit 3.2.2 Organic Fertilizer (1) (6/8)

- **Bokashi Fertilizer**

- What is Bokashi Fertilizer?
- Important Points of Using Bokashi Fertilizer



[9] Unit 3.2.2 Organic Fertilizer (1) (7/8)

- **Poultry Manure**

- Characteristics of Poultry Manure
- Poultry with Chicken Sheds



[9] Unit 3.2.2 Organic Fertilizer (1) (8/8)

- **[Exercise]... Making Compost and Bokashi Fertilizer**
 - Let's think about how compost and bokashi fertilizer can be made in your target areas.
 - Write a list of all the organic matters available for compost and bokashi fertilizer in your target area.
 - Think about where compost and bokashi fertilizer are made, and how long it may take.
 - Present your conclusions to the others for discussions.



[10] Unit 3.2.3 Organic Fertilizer (2) (1/4)

- Maximum Use of Available Organic Matter
- Combined Use with Chemical Fertilizer
- [Exercise]... Use of Organic Fertilizers
- Conclusion



[10] Unit 3.2.3 Organic Fertilizer (2) (2/4)

- **Maximum Use of Available Organic Matter**
 - Green Manure
 - Weeds and Crop Residue
 - High Nutrient Organic Matter (Liquid Fertilizer, etc.)



[10] Unit 3.2.3 Organic Fertilizer (2) (3/4)

- **Combined Use with Chemical Fertilizer**
 - Reasons for Combined Use
 - How to Use the Two Together



[10] Unit 3.2.3 Organic Fertilizer (2) (4/4)

- **[Exercise]... Use of Organic Fertilizers**
 - Let's think of a plan for the use of organic fertilizers in your target areas.
 - Confirm the conditions of your target area (such as cultivars, farmland area, and obtainable organic matters).
 - Calculate necessary amount of organic fertilizer, and identify means to obtaining organic matter.
 - Present your conclusion to the others for discussions.



[11] Unit 3.3.1 Acquisition of Seeds (1/6)

- [Exercise]... The Difference between Home-grown Seeds and Commercial Seeds
- Seeds for Organic Agriculture
- Home-grown Seeds
- Seed Supply System
- [Exercise]... Seed Supply System
- Conclusion



[11] Unit 3.3.1 Acquisition of Seeds (2/6)

- **[Exercise]... The Difference between Home-grown Seeds and Commercial Seeds**
 - Let's think of merits and demerits of the Home-grown Seeds and Commercial Seeds
 - Group work of around 3 persons. Each group list up the merits and demerits of home-grown seeds and commercial seeds.
Prepare presentation to the other groups.
 - Exchange ideas after each group has given a presentation.



[11] Unit 3.3.1 Acquisition of Seeds (3/6)

- **Seeds for Organic Agriculture**

- Importance of Seeds for Organic Agriculture
- The Difference between Primary Hybrid Seeds (i.e., F1) and Indigenous Seeds
- Genetically Modified Seeds



[11] Unit 3.3.1 Acquisition of Seeds (4/6)

- **Home-grown Seeds**
 - Selecting Parent Plants
 - Producing and Collecting
 - Drying
 - Storage



[11] Unit 3.3.1 Acquisition of Seeds (5/6)

- **Seed Supply System**
 - Two Different Seed Supply Systems
 - Registered Varieties and Certified Seeds
 - Example of Seed Supply System



[11] Unit 3.3.1 Acquisition of Seeds (6/6)

- **[Exercise]... Seed Supply System**

- Let's think about seed supply systems that could be established in your target areas.
- Individual work. First, list all the persons and organizations that currently supply seeds in your target area.
- Pick up current problems and difficulties associated with the existing seed supplies.
- Try to think of possible and realistic solutions to the problems of seed supply.
- Present your ideas to the others for discussions.



[12] Unit 3.4.1 Soil Preparation and Water Management (1/5)

- Soil Preparation
- Saving Water for Rain-Fed Cultivation
- Small-Scale Irrigation
- [Exercise]... Small-Scale Irrigation Planning
- Conclusion



[12] Unit 3.4.1 Soil Preparation and Water Management (2/5)

- **Soil Preparation**
 - Effects of Tillage
 - Types and Use of Ridges
 - Preventing Erosion



[12] Unit 3.4.1 Soil Preparation and Water Management (3/5)

- **Saving Water for Rain-Fed Cultivation**
 - Water-Holding Technologies (Soil Improvement and Mulching)
 - Effective Use of Rainwater (Cropping Patterns)



[12] Unit 3.4.1 Soil Preparation and Water Management (4/5)

- **Small-Scale Irrigation**

- Reservoirs
- Water-Saving Irrigation
- In Combination with Fish-farming



[12] Unit 3.4.1 Soil Preparation and Water Management (5/5)

- **[Exercise]... Small-Scale Irrigation Planning**
 - Let's think of effective application of small-scale irrigation in your target areas.
 - Individual work. Select one place from your target area to use as an example.
 - List information concerning the environmental conditions, water resources and crop pattern of the selected site.
 - Now think of ways that small-scale irrigation could possibly be applied in the area.
 - Present your recommendation to the others for discussions.



[13] Unit 3.5.1 Cultivation Techniques (1/5)

- [Exercise]... Selection of Cultivation Methods
- Cultivation Methods
- [Exercise]... Weed Management
- Weed Management
- Conclusion



[13] Unit 3.5.1 Cultivation Techniques (2/5)

- **[Exercise]... Selection of Cultivation Methods**

- Let's share the information on cultivation methods (including sowing, rearing, replanting, and preparing crops) commonly used in your areas.
- Choose one cultivar that is common to everyone.
- Have each person introduce the cultivation methods generally practiced in his/her areas.
- Find similarities and differences, as well as concerns and questions.



[13] Unit 3.5.1 Cultivation Techniques (3/5)

■ **Cultivation Methods**

- Sowing Methods
- Nursing and Transplanting Methods
- Shaping and Trimming Methods



[13] Unit 3.5.1 Cultivation Techniques (4/5)

- **[Exercise]... Weed Management**
 - Each person should introduce methods practiced for weed management in their target area.
 - Discuss about similarities and differences, as well as concerns and other points.



[13] Unit 3.5.1 Cultivation Techniques (5/5)

- **Weed Management**

- The Importance of Weed Management
- Weed Management Methods (Organic Mulching, Cover Crops, etc.)



[14] Unit 3.5.2 Pest Control (1/7)

- [Exercise]... The Problem of Pests and Disease
- Integrated Pest Management
- Natural Pesticides
- Use of Natural Predators
- Difficulties During the Conversion
- [Exercise]... Pest Control Planning
- Conclusion



[14] Unit 3.5.2 Pest Control (2/7)

- **[Exercise]... The Problem of Pests and Disease**
 - Let's share your knowledge and experience on problems and solutions for pests and disease.
 - List at most three problems regarding pests and/or disease experienced in your area.
 - Present measures taken for the problems along with the results. Exchange ideas.



[14] Unit 3.5.2 Pest Control (3/7)

■ **Integrated Pest Management**

- Problems of Synthetic Agricultural Chemicals
- Basic Approach of Pest Control in Organic
Agriculture
- Methods and Effects



[14] Unit 3.5.2 Pest Control (4/7)

- **Natural Pesticides**

- Effects and Limitations of Natural Pesticides
- Natural Pesticides Preparation (Hot Pepper, Garlic, Tobacco, etc.)



[14] Unit 3.5.2 Pest Control (5/7)

- **Use of Natural Predators**
 - Effects and Limitations of Natural Predators
 - Examples (Spiders, Worms, etc.)



[14] Unit 3.5.2 Pest Control (6/7)

- **Difficulties During the Conversion**

- Possible Measures Taken During the Conversion
- Combined Use with Chemical Fertilizers



[14] Unit 3.5.2 Pest Control (7/7)

- **[Exercise]... Pest Control Planning**
 - Let's think how you can practically apply the idea of integrated pest management in your area.
 - Prepare a presentation sheet to explain your idea on pest control application, expected effects, and difficulties foreseen.
 - Presentation and discussion.



[15] Unit 3.6.1 Technological Combination Design (1/4)

- Methods for Improving Farm Management System
- Examples of Technological Combination
- [Exercise]... Technological Combination
- Conclusion



[15] Unit 3.6.1 Technological Combination Design (2/4)

- **Methods for Improving Farm Management System**
 - Production Principles of Organic Agriculture
 - Support for Small-scale Farmers through the Farm Management System Diagram
 - Target Categories-specific Technological Combination



[15] Unit 3.6.1 Technological Combination Design (3/4)

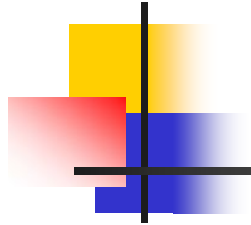
■ **Examples of Combined Technology**

- Shimosato Farm, Ogawa-machi, Saitama
- Sanbu Vegetable Network, Chiba
- Sakumoto Farm, Okinawa
- Mpepu Self-help Project, South Africa



[15] Unit 3.6.1 Technological Combination Design (4/4)

- **[Exercise]... Technological Combination**
 - Let's think of combinations of Organic Agriculture technologies that can be used in your target areas.
 - First, confirm the most common farm management system in your target area.
 - Set objectives of supporting the target farmers.
 - Identify a farm management system well-suited to the set objectives, and then clarify necessary changes and improvements from the current farm management system.
 - Decide on concrete techniques to introduce for realization of the new farm management system.
 - Present your results to the others and exchange ideas.



Module 4: Overview of Small-scale Farm Support and Extension



[16] Unit 4.1.1 Introduction to Rural Appraisals (1/4)

- What is Rural Appraisal?
- Survey Design
- [Exercise]... Rural Appraisal Designing
- Conclusion



[16] Unit 4.1.1 Introduction to Rural Appraisals (2/4)

- **What is Rural Appraisal?**
 - Categorization of Social Survey Methods
 - Participatory Rural Appraisal Methods



[16] Unit 4.1.1 Introduction to Rural Appraisals (3/4)

■ **Survey Design**

- Study Items
- Data/Information Collection Methods
- Designing of a Survey
- Analyzing Survey Results



[16] Unit 4.1.1 Introduction to Rural Appraisals (4/4)

■ **[Exercise]... Rural Appraisal Designing**

- Let's design a rural appraisal study for your target areas.
- Individual work. Prepare two lists of “what you know” and “what you do not know” about your target area.
- From the lists, decide on objectives for your rural appraisal study.
- Based on the set objectives, identify study items and study methods.
- Prepare an activity schedule for the appraisal study, and some reminders for each activities, if necessary.
- Present your results with others, and exchange ideas.



[17] Unit 4.2.1 Overview of Extension Methods (1/5)

- General Process of Agricultural Extension
- Agricultural Extension Methods
- Organic Agriculture and Extension in Japan
- [Exercise]... Extension Planning
- Conclusion



[17] Unit 4.2.1 Overview of Extension Methods (2/5)

- **General Process of Agricultural Extension**
 - Technological Development of Farmers and Agricultural Extension in Japan
 - The Function of Extension Workers and Extension Methods
 - Extension of Organic Agriculture for Small-scale Farmer Support



[17] Unit 4.2.1 Overview of Extension Methods (3/5)

- **Agricultural Extension Methods**
 - History of Extension Methods
 - Communication and Extension
 - Participatory Extension Methods



[17] Unit 4.2.1 Overview of Extension
Methods (4/5)

- **Organic Agriculture and Extension in Japan**
 - Government Support
 - Grass-roots Movement



[17] Unit 4.2.1 Overview of Extension Methods (5/5)

■ **[Exercise]... Extension Planning**

- Let's make a plan of extension services in your target area after your return to the country.
- Individual work. First, decide objectives of extension in your area.
- In accordance with the set objectives, identify good and bad of the past extension methods.
- Based on the identified issues, decide an immediate goal for improvement of your extension activities.
- List necessary activities and procedures to achieve the immediate goal, and prepare an activity schedule.
- Present your results to the others, and exchange ideas.



[18] Unit 4.3.1 Farm Management System Planning: Formation of a Vision (1/8)

- Problem Identification
- [Exercise]... Problems Analysis
- Identification of the Priority Issues
- [Exercise]... Objectives Analysis
- Farm Management Planning
- [Exercise]... Preparation of a Logical Framework
- Evaluation and Monitoring of Farm Management Plans
- Conclusion



[18] Unit 4.3.1 Farm Management System Planning: Formation of a Vision (2/8)

- **Problem Identification**

- The Overall Process of Vision Setting (PCM Method)
- Method and Procedures of Problems Analysis
 - Create a Problem Tree to show cause and effect relationships



[18] Unit 4.3.1 Farm Management System Planning: Formation of a Vision (3/8)

- **[Exercise]... Problems Analysis**
 - Let's think about problems that small-scale farmers face with regard to realize better farm management, and/or that you face when you promote Organic Agriculture in your area.
 - Group work of 4 or 5 people.
 - Work up to Problems Analysis of the PCM Method, and present the result (Problem Tree) to the other groups.



[18] Unit 4.3.1 Farm Management System Planning: Formation of a Vision (4/8)

- **Identification of the Priority Issues**
 - Objectives Analysis
 - Turn the Problem Tree to an Objective Tree
clarifying the means-ends relationship



[18] Unit 4.3.1 Farm Management System Planning: Formation of a Vision (5/8)

- **[Exercise]... Objectives Analysis**
 - Try to derive solutions and/or approaches for improvement of farmer support out of the whole picture of the problems (Problem Tree).
 - Continue the Group Work.
 - Conduct the objectives analysis of PCM method.
 - Present the results (Objective Tree) to the other groups.



[18] Unit 4.3.1 Farm Management System Planning: Formation of a Vision (6/8)

- **Farm Management Planning**
 - Preparation of a PDM, or Logical Framework
 - The Logical Structure of the Goal and Objectives
 - Indicators Setting
 - Identification of Important Assumptions



[18] Unit 4.3.1 Farm Management System Planning: Formation of a Vision (7/8)

- **[Exercise]... Preparation of a Logical Framework**
 - Set project objectives based on the Objective Tree.
 - Individual work. First, revise the Objective Tree from the last practice, so as to reflect real situations and conditions of your target area and target groups.
 - Prepare a PDM based on the revised Objective Tree.
 - Present your results to the others to exchange ideas.



[18] Unit 4.3.1 Farm Management System
Planning: Formation of a Vision (8/8)

- **Evaluation and Monitoring of Farm Management Plans**

- Ex-ante Evaluation of a Plan
- Preparation for Progress Monitoring
- Indicators and Important Assumptions



[19] Unit 4.4.1 Farm Management System Planning: Plan of Operations (1/4)

- Progress Monitoring of the Plan
- [Exercise]... Preparation of a “Plan of Operation” for
Extension Service
- [Exercise]... Preparation of a “Plan of Operation” for
Improvement of Farm Management Plan
- Conclusion



[19] Unit 4.4.1 Farm Management System Planning: Plan of Operations (2/4)

- **Progress Monitoring of a Plan**
 - Sorting and Grouping “Activities”
 - Plan of Operations for Project Management
 - Managing a Plan By Time
 - Managing a Plan By Input



[19] Unit 4.4.1 Farm Management System Planning: Plan of Operations (3/4)

- **[Exercise]... Preparation of a “Plan of Operation” for Extension Service**
 - Let’s make an action plan for your extension work.
 - Individual work. From your PDM, elaborate further for identification of detail activities that you will carry out after your return home. Put them in a Plan of Operation format.
 - Present your results to the others to exchange ideas.



[19] Unit 4.4.1 Farm Management System Planning: Plan of Operations (4/4)

- **[Exercise]... Preparation of a “Plan of Operation” for Improvement of Farm Management Plan**
 - Let’s make an action plan to improve the farm management plan for farmers of your target area.
 - Individual work. Choose one farm or farmers group in your area.
 - Clarify the farm or farmers group’s current situation and points for future improvement, then set an objective.
 - Applying PCM Method, depict a plan for improvement of their farm management plan in the form of a simplified logical framework.
 - Make an action plan by adding detailed activity steps and time schedule.
 - Present your results to the others and exchange ideas.



[20] Unit 4.5.1 Monitoring and Evaluation (1/5)

- Monitoring
- [Exercise]... Monitoring
- Evaluation
- [Exercise]... Evaluation
- Conclusion



[20] Unit 4.5.1 Monitoring and Evaluation (2/5)

■ **Monitoring**

- What is Monitoring?
- Monitoring Method of PCM
- Subjects and Items of Monitoring
- Execution of Monitoring



[20] Unit 4.5.1 Monitoring and Evaluation (3/5)

- **[Exercise]... Monitoring**
 - Let's set up a monitoring plan.
 - Independent work. First, pick up necessary items for monitoring from your action plan.
 - Determine how monitoring data will be collected, who will be responsible for the collection, and how reports will be structured.
 - Determine procedures and responsible persons for delay judgment, revision of original plan, implementation of counter measures.
 - Present your results to the others, and exchange ideas.



[20] Unit 4.5.1 Monitoring and Evaluation (4/5)

■ **Evaluation**

- Subjects of Evaluation
- Evaluation Method
- Participatory Evaluation



[20] Unit 4.5.1 Monitoring and Evaluation (5/5)

- **[Exercise]... Evaluation**
 - Let's set up an evaluation plan.
 - Individual work. First, look at the “verifiable indicators of your action plan, and see if they are satisfactory.
 - Confirm data for your indicators can be collected.
 - In light of the “five evaluation criteria,” clarify critical questions to be answered during the evaluation.
 - Present your results to the others, and exchange ideas.