Category No. 8	Practices associated with agricultural revitalization and farmland conservation by developing relationship between farmers and consumers

1. Overview

(1) Background and features of the practice

Today, agricultural crops and materials required in agriculture (such as feeds and fertilizers) are being distributed across regions and borders as economic globalization advances. At the same time, there are increased concerns over environmental burdens (e.g. the increased amount of carbon dioxide emissions) from increased food mileage and a worsening of food security in individual regions.

Also, the global distribution of low-price agricultural crops produced in large-scale and efficient agricultural practices has had great impact on the operation of local, small-scale farmers. In addition to the production of food, fuel, and materials, small-scale farmers conserve various ecosystem services and biodiversity by maintaining the health of the farmland, forest, and sea areas that form the base of their production activities. Therefore, a decline in these practices may affect local socioeconomic activities and their natural environments.

Based on these circumstances, efforts to stabilize agricultural operation and conserve farmland through direct deals between farmers and nearby consumers have been spreading mostly in areas in developed countries with small-scale agriculture.

(2) Details of the practices and their applicability

Various names have been given to this practice in different countries and regions. Major names include “CSA (Community Supported Agriculture)” in the U.S., “box scheme” in the United Kingdom, and “local production for local consumption” and “cooperation between producers and consumers” in Japan.

i. Details of the practice

- In this practice, farmers and nearby consumers establish direct relationship without distributors and retail dealers , and they trade fresh, safe, and secure agricultural crops among them.
- In some cases, in order to share the risk of rich and bad harvest among the farmers and consumers, consumers pay before planting and no reclamation of the payment is to be made even if the harvest is poor (e.g. CSA in the U.S.).
- Agriculture, forestry, and fishery that are friendly to the conservation of organisms and ecosystem functions (Category No. 2) are often employed in this practice to respond to consumer needs for safe and secure agricultural crops. This also helps in differentiating these crops from agricultural crops produced and transported from large-scale agricultural areas in remote locations.

ii. Range of application

- A wide range of application is available to this practice in areas where urban areas and agricultural areas are located close to one another.

iii. Implementing bodies

- Farmers and nearby consumers implement this practice by concluding contracts.

[Cases]

In Japan No.12: System of Rice Growing that Enhances the Value of Local Living and Locally-Oriented Consumption in Kanagawa Prefecture, Japan

2. Effects obtained from these Cases regarding the sustainable use and management of natural resources

Implementation of the practices in this category is associated with the following effects in the sustainable use and management of natural resources and the maintenance of a healthy secondary nature.

(1) Effects on the sustainable use and management of natural resources (socioeconomic effects)

- As farmers can secure the market in nearby region, it is expected that the farming business to stablize due to the reduced distribution cost. In cases where the payment is made in advance (e.g. CSA in the U.S.), farming business is expected to stablize even more as the farmers can obtain stable income regardless of the rich or bad harvest of their agricultural crops.
- This practice is expected to promote the spread of agricultural practices such as organic farming and low-input farming that are friendly to the conservation of organisms and ecosystem functions because consumers directly communicate with farmers about their needs for safe and secure agricultural crops.

(2) Effects on the health of the secondary nature (effects on ecosystem and biodiversity)

- The sustainability of both agricultural operations and the natural environment increase with the above affects, and contributes to the inheritance and health of agricultural land that makes up the secondary nature.

3. Toward the implementation of this practice : Points of planning and examples of action items based on the "Five Perspectives" of the SATOYAMA Initiative

Points of planning and action items for planning the employment of practices in this category are as follows.

Table: Points of planning and action items based on the "Five Perspectives" of the *Satoyama* Initiatives

"Five Perspectives" of the Satoyama Initiative	Points of planning	Action items
(1) Resource use within the carrying capacity and resilience of the environment	• It is effective to actively employ agricultural practices (e.g. organic farming, low-input farming) that are in harmony with the carrying capacity and resilience of the environmnet in order to differentiate from low-price agricultural crops produced in other areas and increase the added value of agricultural crops.	• Plan production method and items.
(2) Cyclic use of natural resources	• It is effective to cooperate with livestock industries and food processing industries in the same area as much as possible in order to obtain natural resources that are necessary to conduct sustainable farming.	• Plan circulation within an area.
(3) Recognition of the value and importance of local traditions and cultures	• It is necessary to explore the applicability of traditional knowledge of the region.	• Verify applicability of traditional knowledge.
(4) Natural resource management by various participating and cooperating entities	• It is effective for public entities such as government organizations, agricultural associations, or NPOs to provide support to establish a good relationship between farmers and consumers and establish a joint operation system among multiple farmers.	• Establish support and cooperating systems.
(5) Contributions to local socio-economies	• Socioeconomic support toward the establishment of a market for sustainable agriculture, forestry, and fishery is necessary. • It is effective to provide programs to train successors in farming so that the practice will take root and continue in the area.	• Plan socioeconomic support. • Train successors in farming.

(1) Resource use within the carrying capacity and resilience of the environment

Points of planning	• It is effective to actively employ agricultural practices (e.g. organic farming, low-input farming) that are in harmony with the carrying capacity and resilience of the environmnet in order to differentiate from low-price agricultural crops produced in other areas and increase the added value of agricultural crops.
Action items	• Plan production method and items.

This practice cannot be realized without the support of consumers who live nearby. In order to compete against low-price agricultural crops produced in other areas and to gain the support of local consumers, it is necessary to increase the added value of agricultural crops. In order to sustain a trusting relationship with consumers who live within visible distances, it is important for farmers to stabilize the quality and the amount of supply while maintaining a willingness to contribute to the conservation of the local living environment and natural environment.

It is effective for farmers who wish to incorporate this practice to actively employ agricultural methods such as organic farming, low-input farming, and ecosystem-friendly farming that are in harmony with the carrying capacity and resilience of the environmnet. In order to do so, it is necessary to reevaluate conventional production methods and the quality of agricultural crops based on the needs of nearby consumers, and prepare optimal production plans based on the outcomes of these reevaluations.

See “Category 2: Practices associated with introduction of agriculture, forestry and fishery with consideration for the conservation of organisms and ecological functions” for details on the proposals of organic farming or low-input farming introduction plans.

Table: Examples of agricultural methods that are in harmony with the carrying capacity and resilience of the environmnet

Case	Agricultural methods that are in harmony with the carrying capacity and resilience of the environment
In Japan No.12 **Local distribution of Kuwahara Medaka Rice in Odawara city, Kanagawa, Japan**	• Participants are conducting organic farming, retaining water in rice fields during winter, and installing biotopes so that *medaka* (Japanese killifish), a rare species, can keep living in rice fields. • The package of rice indicates that *medaka*-friendly farming is conducted in order to emphasize to consumers the consideration given for the conservation of rare species.

(2) Cyclic use of natural resources

Points of planning	• It is effective to cooperate with livestock industries and food processing industries in the same area as much as possible in order to obtain natural resources that are necessary to conduct sustainable farming.
Action items	• Plan circulation within an area.

In order to maximize the effects of incorporating this practice, it is important not only to simply reduce the distribution distance of agricultural crops but also to contain material flows of overall agricultural production including the inputs (e.g. fertilizers and composts) and waste (e.g. agricultural/fishery wastes) associated with agricultural production in a target area as much as possible.

Thus, it is necessary to re-check material flows that surround conventional agricultural production (e.g. the origin of inputs in agricultural production process and the destination of waste). If they happen to occur outside a target area, it is necessary to consider changes such as obtaining materials and utilizing waste within the area.

An example of cyclic use which can be introduced as a part of this practice is as follows. Produce organic fertilizer or compost from organic waste generated from livestock industries, food processing industries, or sewage treatment facilities in the same area. Use them as materials for organic farming. In the end, return the inedible portions of agricultural crops to produce organic fertilizer or compost.

(3) Recognition of the value and importance of local traditions and cultures

Points of planning	• It is necessary to explore the applicability of traditional knowledge of the region.
Action items	• Verify applicability of traditional knowledge.

The wisdom of functional material circulations and selection of crops and livestock that suit the area's natural conditions, as well as the knowledge of useful organisms that have been accumulated over centuries of agricultural, forestry, and fishery practices in many areas often provide valuable clues to confirm that a new practice is in harmony with the area's natural environment. Incorporating traditions and cultures to agriculture is associated with the possibility of increasing the added value of products.

Thus, when planning to introduce this practice, it is necessary to re-check the possibility of using local traditions and cultures that are related to farming.

(4) Natural resource management by various participating and cooperating entities

Points of planning	• It is effective for public entities such as government organizations, agricultural associations, or NPOs to provide support to establish a good relationship between farmers and consumers and establish a joint operation system among multiple farmers.
Action items	• Establish support and cooperating systems.

In order to realize this practice, it is necessary to establish a new direct relationship between farmers and consumers. However, many farmers are not used to dealing with consumers. Therefore, it is effective for public organizations such as local government organizations and NPO/NGOs to provide assistance as a mediator as needed, especially when building relationships in the initial phases of this practice.

A stable supply of agricultural crops that responds to consumer needs is an effective way of gaining the support of consumers. However, there are many farmers who do not have sufficient ability to continue maintaining a stable supply. Therefore, it is effective to balance supply and demand by establishing joint operation systems in which multiple farmers participate and conclude contracts between a group of farmers and a group of consumers.

(5) Contributions to local socio-economies

Points of planning	• Socioeconomic support toward the establishment of a market for sustainable agriculture, forestry, and fishery is necessary. • It is effective to provide programs to train successors in farming so that the practice will take root and continue in the area.
Action items	• Plan socioeconomic support. • Train successors in farming.

Agricultural crops produced by small-scale farmers are often more expensive than ones produced by large-scale farmers in other areas. In addition, agricultural, forestry, or fishery products produced through sustainable methods require more labor and cost than conventional methods and thus become even more expensive.

In order to mitigate such economic barriers, it is effective to regard added cost as increased social convenience in the form of reduced food mileage, improved ecosystem services, and biodiversity, and to solicit social understanding or burden for the increased convenience. As possible measures in doing so, government organizations or third-party organizations may facilitate selective purchasing by consumers through the certification of sustainable farming.

Areas with many small-scale farmers often face problems of decreased number of farmers and aging farming community. Thus, the implementation of systematic programs to train successors in agriculture is effective for the practice to take root and continue under the initiative of public entities such as government organizations, agricultural associations, or NPOs.