

## 1. Overview

### (1) Background and features of the practice

Rural areas around the world with agriculture, forestry, and fishery used to maintain livelihoods in self-sufficient economies or through small-scale agriculture, forestry, and fishery, and the manufacturing of daily essentials for sale in neighboring areas. They have maintained a healthy secondary nature through such practices. However, due to economic globalization, operation of small-scale agriculture, forestry, and fishery has become more difficult. As a result, populations have shifted to large cities, small-scale operations have turned into large-scale operations, and the secondary nature has deteriorated.

In addition, along with the deterioration of the secondary nature, provisional services (including food, fuel, and materials) that are essential for the survival of local residents and regulatory services (including disaster prevention features) that ensure safe and comfortable lives have also deteriorated. Thus, a vicious cycle that makes the lives of rural residents more difficult has been created.

In order to deal with such situations, there is a need for the production of new and sustainable industries or methods to vitalize rural areas based on both socioeconomic and natural aspects. As methods to satisfy such needs, people have been working on the development of local industries and rural vitalization utilizing traditional cultures and skills.

### (2) Details of the practices and their applicability

#### i. Details of the practice

- This practice incorporates traditional cultures and skills associated with the use of natural resources which create new industries that bring income to local residents and promote efforts in conservation activities of landscapes and biodiversity. Through such activities, this practice contributes to the vitalization of rural economies and raise the pride of local residents.
- This practice involves not only traditional cultures and skills but also those that combine modern scientific technologies and mechanisms.

#### ii. Range of application

- All areas potentially have materials that can be used in this practice.

#### iii. Implementing bodies

- Local residents who have inherited traditional cultures and skills play central roles in this practice.

#### [Cases]

In Japan No.6: Sale of "tsumamono" (garnish) that focuses on natural resources and traditional food culture in Kamikatsu Town, Tokushima Prefecture, Japan

In Japan No.7: Reintroduction of traditional agriculture toward the conservation of the natural environment and the historic and cultural environment in the Zushi-Onoji region, Machida City, Tokyo Metropolitan Prefecture, Japan

In Japan No.8: Sustainable cultivation of natural medicine continued in collaboration between farmers and a herbal medicine company in Ochi Town, Kochi Prefecture, Japan

Around the world No.1: Revitalization of Satoyama, Hampyeong-gun, Sangok-ri, Mopyeong-maur in Korea

Around the world No.3: The management and use of the natural resources in a mountain village of central Vietnam

Around the world No.21: The Ayllu system of the Potato Park (Peru)

## **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)**

- Local economic vitality can be improved by establishing new means of livelihood that utilize natural resources in rural areas with agriculture, forestry, and fishery.
- With the introduction of new means of livelihoods that use traditional cultures and skills, decreases in the improper use of natural resources (including excessive deforestation, cultivation, grazing, and fishing) which used to support livelihoods can be expected.
- By focusing again on traditional cultures and skills that have been inherited through the efforts of local societies and residents, the pride and identities of local residents can be recovered, and a variety of favorable effects can be expected in rural revitalization.

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

- Traditional cultures and skills are highly compatible with local natural conditions and are based on former small-scale uses of natural resources. Thus, the improved health of secondary nature and biodiversity can be expected in areas that use and manage natural resources while incorporating traditional cultures and skills.

### 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	<ul style="list-style-type: none"> <li>It is necessary to understand problems associated with the carrying capacity and resilience of the local environment (e.g. overexploitation and under-exploitation) as well as socioeconomic problems that arise from such problems and then apply traditional cultures and skills to contribute toward solving such problems.</li> </ul>	<ul style="list-style-type: none"> <li>Sort out current conditions and issues associated with the use and management of natural resources.</li> <li>Sort out aspects that may be improved through the utilization of traditional cultures and skills.</li> </ul>
(2) Cyclic use of natural resources	<ul style="list-style-type: none"> <li>It is necessary to make sure that implementing this practice does not impede an area’s natural resource circulations.</li> </ul>	<ul style="list-style-type: none"> <li>Check aspects of compatibility with an area’s natural resource circulations.</li> </ul>
(3) Recognition of the value and importance of local traditions and cultures	<ul style="list-style-type: none"> <li>It is effective to find useful traditional cultures and skills with the view of solving the natural and socioeconomic problems of the area and propose project plans that evolve around these cultures and skills.</li> <li>In order to ensure compatibility with modern socioeconomic conditions, it is necessary to explore the acceptability of the project in the market and local society and examine how modern scientific technologies can help with the project.</li> <li>It is necessary that the benefits of the effort to be fairly and evenly returned to the local residents who have inherited the traditional cultures and skills.</li> </ul>	<ul style="list-style-type: none"> <li>Explore traditional cultures and skills that may contribute toward solving natural and socioeconomic problems.</li> <li>Create project plans.</li> </ul>
(4) Natural resource management by various participating and cooperating entities	<ul style="list-style-type: none"> <li>It is necessary to create a system to properly identify stakeholders and facilitate smooth consensus building and role assignments.</li> </ul>	<ul style="list-style-type: none"> <li>Identify stakeholders and establish implementation systems.</li> </ul>
(5) Contributions to local socio-economies	<ul style="list-style-type: none"> <li>It is necessary to create project plans that return benefits to the local area by generating new employment for local residents (means of livelihoods, cash income).</li> <li>It is important to provide education and develop human resources and capacity toward the inheritance of traditional cultures and skills to promote autonomous project management by local residents.</li> </ul>	<ul style="list-style-type: none"> <li>Employment plans for local residents</li> <li>Plan for education, human resources development, and capacity building.</li> </ul>

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

<b>Points of planning</b>	<ul style="list-style-type: none"> <li>It is necessary to understand problems associated with the carrying capacity and resilience of the local environment (e.g. overexploitation and under-exploitation) as well as socioeconomic problems that arise from such problems and then apply traditional cultures and skills to contribute toward solving such problems.</li> </ul>
<b>Action items</b>	<ul style="list-style-type: none"> <li>Sort out current conditions and issues associated with the use and management of natural resources.</li> <li>Sort out aspects that may be improved through the utilization of traditional cultures and skills.</li> </ul>

Major features of traditional cultures and skills include a high compatibility with local natural conditions as well as small-scale and sustainable operations.

In order to take maximum advantage of these features, it is effective to introduce the natural resource utilization method based on traditional cultures and skills as an alternative method to those methods associated with problems such as overexploitation and under-exploitation. In addition to these already apparent problems, it is also effective to find connections to potential local resources such as underused or never-used natural resources and lands.

Thus, it is necessary to identify current conditions and issues associated with the use and management of natural resources in the area as preliminary research for planning. Then, based on these findings, aspects that are expected to improve through the use of traditional cultures and skills need to be sorted out (the sorted results will be used in “3) Evaluation of local tradition and culture.”).

Table: Examples of operations that ensure use within carrying capacity and resilience of the environment

Action items		Examples of actions
<b>Organize current conditions and issues of the use and management of natural resources</b>	<b>Current condition</b>	<ul style="list-style-type: none"> <li>Overview of local natural environment and ecosystem</li> <li>Types, distributions, and quantity of available natural resources in the area</li> <li>Details of the past use of natural resources (stock and flow)</li> </ul>
	<b>Issues</b>	<ul style="list-style-type: none"> <li>Issues in natural aspects associated with the above contents (including overexploitation and under-exploitation)</li> <li>Issues in socioeconomic aspects associated with the above contents (including reduced income and population outflow)</li> </ul>
<b>Aspects in which improvements can be expected through the use of traditional cultures and skills</b>	<b>Aspects associated with overexploitation or under-exploitation</b>	<ul style="list-style-type: none"> <li>Locations and types of natural resources facing overexploitation or under-exploitation</li> <li>Purposes and details of the use of natural resources identified above</li> <li>Implementing bodies that use the natural resources described above</li> </ul>
	<b>Potential local resources</b>	<ul style="list-style-type: none"> <li>Underused or never-used natural resources where utilization can be expected (including unused wastes)</li> <li>Underused or never-used lands where utilization can be expected (including fallow agricultural land)</li> </ul>

## (2) Cyclic use of natural resources

<b>Points of planning</b>	<ul style="list-style-type: none"><li>• It is necessary to make sure that implementing this practice does not impede an area's natural resource circulations.</li></ul>
<b>Action items</b>	<ul style="list-style-type: none"><li>• Check aspects of compatibility with an area's natural resource circulations.</li></ul>

To maximize the effects of this practice, the new material flow created through the use of traditional cultures and skills must be in harmony with natural material circulations of the area.

Thus, it is necessary to check whether the project plans created in 3) can be smoothly incorporated in the existing natural resource circulations.

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

<b>Points of planning</b>	<ul style="list-style-type: none"><li>• It is effective to find useful traditional cultures and skills with the view of solving the natural and socioeconomic problems of the area and propose project plans that evolve around these cultures and skills.</li><li>• In order to ensure compatibility with modern socioeconomic conditions, it is necessary to explore the acceptability of the project in the market and local society and examine how modern scientific technologies can help with the project.</li><li>• It is necessary that the benefits of the effort to be fairly and evenly returned to the local residents who have inherited the traditional cultures and skills.</li></ul>
<b>Action items</b>	<ul style="list-style-type: none"><li>• Explore traditional cultures and skills that may contribute toward solving natural and socioeconomic problems.</li><li>• Create project plans.</li></ul>

Traditional cultures and skills are often already deteriorated because they are unable to keep up with social and economic changes. Thus, they may not function well if they are simply reproduced.

In such cases, it is effective to start the identification process of traditional cultures and skills to be used with the "Aspects in which improvements can be expected through the use of traditional cultures and skills" as organized in 1). Then, effective traditional cultures and skills should be identified with the view of solving natural and socioeconomic problems in the area (specific examples are described in the table on the next page).

When creating project plans that are based on the above information, it is necessary to check whether the potential products and services to be produced through the projects can be accepted in the modern market and local society and to examine the support that modern scientific technology can provide to increase acceptability, because local socioeconomic conditions are changing considerably.

In the meantime, the efforts of local societies and people who have succeeded such traditional cultures and skills must be appreciated that enables the utilization. Thus, in the project plans, it is necessary to incorporate measures to ensure fair and even distribution of benefits produced through the project.

Table: Relationship between local problems and efforts seen in Cases

Cases	Problems in the area	Efforts that utilize traditional cultures and skills
<b>In Japan No.6</b> Sale of "tsumamono" (garnish) that focuses on natural resources and traditional food culture in Kamikatsu Town, Tokushima Prefecture, Japan	<ul style="list-style-type: none"> <li>• Reduced income among farmers</li> <li>• Outflow of population to cities</li> <li>• Insufficient management of agricultural land and forests</li> </ul>	<ul style="list-style-type: none"> <li>• Launched businesses to supply local plants as <i>tsumamono</i> (twigs and leaves that decorate traditional Japanese dishes).</li> </ul>
<b>In Japan No.7</b> Reintroduction of traditional agriculture toward the conservation of the natural environment and the historic and cultural environment in the Zushi-Onoji region, Machida City, Tokyo Metropolitan Prefecture, Japan	<ul style="list-style-type: none"> <li>• Abandoned management of agricultural land</li> <li>• Lowered biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>• Local farmers restored abandoned agricultural land using traditional agricultural management methods.</li> </ul>
<b>In Japan No.8</b> Sustainable cultivation of natural medicine continued in collaboration between farmers and a herbal medicine company in Ochi Town, Kochi Prefecture, Japan	<ul style="list-style-type: none"> <li>• Reduced income among farmers</li> <li>• Outflow of population to cities</li> <li>• Insufficient management of agricultural land and forests</li> </ul>	<ul style="list-style-type: none"> <li>• Local farmers and pharmaceutical companies cooperated with each other and started the cultivation of traditional Japanese herbal medicines.</li> </ul>
<b>Around the world No.21</b> Conservation of the genetic resources of potatoes by local residents in Peru	<ul style="list-style-type: none"> <li>• Threats of losing biological genetic resources</li> <li>• Poverty among local residents</li> </ul>	<ul style="list-style-type: none"> <li>• In order to conserve the genetic resources of potatoes that originate in the area, conducted organic farming with the support of international organizations involved in the conservation of biological genetic resources.</li> </ul>

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

<b>Points of planning</b>	<ul style="list-style-type: none"> <li>• It is necessary to create a system to properly identify stakeholders and facilitate smooth consensus building and role assignments.</li> </ul>
<b>Action items</b>	<ul style="list-style-type: none"> <li>• Identify stakeholders and establish implementation systems.</li> </ul>

Since traditional cultures and skills are shared properties of local residents, the understanding and support of not only the people who are directly involved in the projects but also a variety of local residents are required for the utilization of these cultures and skills. The participation and support of government organizations, international organizations, NGO/NPOs, and private companies might become necessary to obtain the funding and skills required for planning and project operations.

Thus, the planning of a project that uses traditional cultures and skills requires the participants to sort out the details of the extent and relationships of stakeholders inside and outside of the area and then construct systems for smooth consensus building and role assignments through the involvement of stakeholders.

As a part of such implementation systems, it is effective to employ local decision making systems that have supported traditional cultures and skills. However, in this case, it is necessary to reevaluate traditional practices so that they will be in harmony with modern society (e.g. securing the rights of women and elderly people).

## (5) Contributions to local socio-economies

<b>Points of planning</b>	<ul style="list-style-type: none"><li>• It is necessary to create project plans that return benefits to the local area by generating new employment for local residents (means of livelihoods, cash income).</li><li>• It is important to provide education and develop human resources and capacity toward the inheritance of traditional cultures and skills to promote autonomous project management by local residents.</li></ul>
<b>Action items</b>	<ul style="list-style-type: none"><li>• Employment plans for local residents</li><li>• Plan for education, human resources development, and capacity building.</li></ul>

In order to realize sustainable use and management of natural resources, it is essential not only to ensure the sustainability in natural aspects but also the sustainability of socioeconomies which supports the sustainability of nature. This practice has the particular aim of creating local industries and revitalizing rural areas. It also utilizes traditional cultures and skills that are deeply involved in the pride and identities of local residents. Thus, it is necessary to actively examine this practice's contribution to local society and economy as a part of project planning.

It is effective to generate new employment (means of livelihood, cash income) as a direct measure to contribute to local economies. In addition to direct employment in manufacturing, distribution, or sales of the products created through these projects, it is important to give reward to the managers of natural resources that are used as materials.

In order to solidify the inheritance of traditional cultures and skills as well as the autonomous operations of local residents, it is important that individual participants fully understand the concepts of sustainable use and management of natural resources and gain sufficient knowledge and skills to put them into practice. Thus, systematic education, human resource development, and capacity building programs must be provided to participants.

When a private company whose headquarters is located outside the target area is involved as the main entity of the project, the company is expected to put special efforts in these activities to maintain the harmony between its corporate activities and local socioeconomies.