

Submission of information concerning Innovative Financial Mechanisms from JAPAN

Introduction

With reference to the Notification SCBD/ITS/YX/75558, pursuant to the paragraph 8(c) of Decision X/3, the Government of Japan would like to submit the following information on innovative financial mechanisms especially on the outcomes of the research and examination on Payment for Environmental Services (PES) and its certification scheme.

I. Payment for Ecosystem Service (PES)

1. Analysis on PES

Focusing on the fact that the loss of biodiversity is known as a negative externality, we conducted an analysis on PES as a political means to address this negative externality and figured out what challenges would exist for the establishment of an effective scheme. The following is the summary of these challenges:

- Where beneficiaries and cost-bearers are identified, it is desirable to decide an amount and means of payment through direct negotiation between them. However, only limited cases of this kind exist around the world.
- While services derived from one ecosystem are diverse, current PES is often intended only for a certain aspect of the ecosystem service. Because of this, it is necessary to consider a means which allows evaluation and payment in multiple ecosystem services in a comprehensive manner.
- In case of PES which uses subsidies from public institutions, it is necessary to consider a means which properly estimates an amount of subsidies provided to cost-bearers who conserve ecosystems, including values of ecosystem conserved as well as values of conservation efforts.

2. Introducing efforts similar to PES in Japan

The following are the examples of some efforts similar to PES in Japan.

(1) Subsidies

Flooding rice paddies during winter in the Kabukuri-numa wetland

Located along the Kitakamigawa River system in Miyagi Prefecture, Kabukuri-numa is a wetland of 150 hectares, which is surrounded by rice paddies that were once part of the wetland.

Kabukuri-numa together with the surrounding rice paddies is the home of rich biodiversity including more than 220 bird species and many precious endangered species. Kabukuri-numa and surrounding rice paddies were collectively registered as a wetland under the Ramsar Convention.

Though it is common for Japanese farmers to drain water from their rice fields in wintertime, the rice paddies surrounding the Kabukuri-numa are filled with water in wintertime and are used as a winter roosting and feeding site for birds. Therefore, as a result of rice paddies fertilized by bird droppings and weeds consumed by birds, a benefit of cultivating rice in a safe and secure way without using artificial fertilizers chemicals is yielded. Furthermore, aquatic organisms, including fish, amphibians, insects and tubifex worms, and summer birds and reptiles which come and prey on them have been found in rice paddies, leading to rich biodiversity.

In the meantime, using the agricultural method of flooding rice paddies during winter has led to reductions of the yield (from 550 to 440 kg per 1,000 square meters) and of revenue (from 198,541 to 130,691 JPY per 1,000 square meters) for farmers. So, the local rice paddies agriculture promotion committee offers farmers, who adopt this farming method, a grant of 8,000 yen per 1,000 square meters of rice fields in order to compensate.

The rice that are grown in winter-flooded rice paddies without agricultural pesticides or chemical fertilizers are sold as premium brand rice, the “*fuyu-mizu-tambo*” rice, being differentiated from rice grown with conventional methods. Distribution routes have also become established with widespread dissemination of the effort, consequently providing favorable sales. Branding of rice has increased 40 percent in sales, compared to rice grown with conventional methods, providing farmers a stable source of revenue. Furthermore, Osaki City, where this method is implemented, offers a grant of 5,000 yen per 1,000 square meters to accommodate costs for the acquisition of third-party certification for the brand of *fuyu-mizu-tambo* rice.

Similar policies of directly paying for environmental-friendly farming practices, together with efforts to sell rice produced as branded rice, have also been implemented in the projects re-introduction of oriental white storks in Toyooka City, Hyogo Prefecture, and crested ibises in Sado City, Niigata Prefecture.

Gap in price and yield between winter-flooded rice and conventionally-grown rice

	Winter-flooded rice	Conventionally-grown rice
Price (Japanese Yen)	24,500	14,000
Yield (kg per 1,000 sq.m)	420	640

(2) Environment taxes

Environment taxes have a potential to contribute to the preservation of biological diversity. Several local governments have introduced the forest environmental tax. Forest has multiple functions for social, economical, ecological and other purposes. One of these functions of forest is biodiversity in providing habitats for species. From this perspective, Japan would like to share its experiences.

The example of forest environmental tax in Kochi Prefecture

The experience of Kochi prefecture is the first example of introducing the forest environment tax in

Japan. Being 84 percent of its land area covered with forests, Kochi Prefecture has the highest forest coverage rate in Japan (Forest Resources Study 2007), but due to conventionally large plantings held repeatedly, and also due to declining woods prices, forest owners lost their incentive for timber production activities and resulting in increasing abandoned and unmanaged forests. Consequently, depleted water source recharge functions, soil runoff, and adverse impacts on river and ocean ecosystems have become serious issues for the living environment of the area. Due to factors including aging of forest owners and stagnant wood prices, it becomes substantially difficult for forest owners to manage forest by themselves. Given these circumstances, in 2003, Kochi Prefecture introduced a "forest environment tax", which aims at protecting forests and is supported by all citizens. This tax not only has conserved forest environment but it also has raised public interests toward forests. Forest Environment Tax of Kochi Prefecture collects 500 yen per capita annually, in addition to the prefectural resident tax, therefore it equalizes burden among individuals and corporate entities. The tax revenue is reserved in the Forest Environment Conservation Fund and then utilized in such manner as reflecting the evaluation by the independent third-party, and as beneficial for forest conservation activities. It also utilized for publicly urgent and important forest improvement operations.

(3) Voluntary efforts of Companies

Conserving water by recharging groundwater in Kumamoto Prefecture

Kumamoto City and surrounding municipalities in Kumamoto Prefecture depend on groundwater to supply 100 percent of its drinking water and one-third of rice paddies. In recent years, however, the groundwater level has been lowered as a result of urbanization. Thus, groundwater recharge measures have been implemented by local firms as well as the Kumamoto City office under the slogan "fully regain the groundwater you used".

One example of such measures is a company, which provides a reward to farmers who cooperate in promoting underground seepage with their rice paddies or flooding their fallow rice fields with water drawn from a river nearby (Shirakawa). The amount of reward varies according to the length (days) of flooding.

Furthermore, consumption of rice, which is produced in the middle reaches of Shirakawa River, has indirectly contributed to groundwater recharge of rice paddy fields where the rice is produced.

Consumption of 1 kilogram of rice in the area is estimated to have an effect of groundwater recharge of approximately 20 to 30 cubic meters.

Local enterprises using large quantities of underground water as industrial water have implemented measures purchasing rice produced in the area at 430 JPY per kilogram (conventionally grown rice at 300 JPY per kilogram). These purchasing activities are being expanded locally, thanks to efforts of local production groups selling the rice produced locally as branded rice.

Recently, a survey has showed that the results of such efforts can contribute to increasing the quantity of spring water from the lake in the city.

II. Certification system

Certification fee, which is collected from certified commodities or products, can be utilized to preserve biodiversity.

While the certification system has a potential to contribute to the objectives of the Convention on Biological Diversity, it still has challenges to be addressed. These challenges could be seen as a discussion point when Parties utilize certification system to preserve biodiversity. Based on this standpoint, Japan has dealt with these challenges of disseminating certification systems, and has specified necessary countermeasures reflecting a wide range of views from national experts and management bodies of certified products.

The Government of Japan would like to submit following experiences and information for reference of Parties.

Challenges and countermeasures for certification systems in Japan

Challenges	Necessary Countermeasures
Obscure differences among certification systems	It is necessary to create a system in which third parties including NGOs can compare differences among systems by using common criteria and convey the results to consumers, after understanding them.
Low level of consumers' awareness on certification systems	Before improving awareness on certification system, it is necessary to improve the understanding values of biodiversity and the importance of conservation.
Low incentive for producers to acquire a certification	It is important that national and local governments provide such assistance required for acquisition of a certification in preparation of a number of documents, in screening process and acquisition costs.
Low incentive for distributors to handle certified products	It is important that a group of distribution companies understand the presence and necessity of certified products contributing to biodiversity.
Consumers do not recognize the effect of certification systems in a quantitative way	It is important that an operational body of each certification system develops a tool to quantitatively recognize its effect for biodiversity conservation and introduces its results to consumers.