

Country Name	<b>The Project for Freshwater Resources and Nature Conservation</b>
Mongolia	

**I. Project Outline**

Background	<p>The protected freshwater resource areas in Mongolia was 25 million ha in total which accounted for one seventh of the total national land. Since environmental destruction, including pollutions caused by mining exploration, rapidly expanded in lakes and rivers, which accounted for approximately 40% of the protected area, establishment of environment protection measures based on freshwater resource ecosystem management in those areas was an urgent issue. In addition, there was no base to manage nature conservation activities for fauna and flora endangered by the unregulated developments.</p> <p>In 2010, although about 700 rangers and 1,200 volunteer rangers formed small-scale organizations across the country and implemented activities for ecosystems management and natural environment conservation, trainings for them as well as awareness building and dissemination activities for natural environment conservation to the public were not effectively conducted due to lack of facilities and human resources. Therefore, it was needed to establish a base to train human resource to be engaged in natural environment conservation activities, to provide services of public relations and awareness building for the public and foreign tourists, to conduct researches on natural environment conservation and to support organizations related to the issues.</p>				
Objectives of the Project	<p>Through new construction of the Center for Freshwater Resources and Nature Conservation (referred to the Center) and provision of equipment to the Center as well as technical assistance for trainings, exhibition and public relations(PR), the project aimed at enabling the activities, such as trainings, exhibition, PR and researches on conservation of natural environment and ecosystems, in the Center and thereby contributing to establishment of a base for conservation of natural environment and ecosystems in Mongolia.</p>				
Contents of the Project	<ol style="list-style-type: none"> <li>1. Project Site: Khan Uul district in Ulaanbaatar city (within the Special Protected Zone of the Bogdo Khan National Park)</li> <li>2. Japanese side <ol style="list-style-type: none"> <li>(1) Construction of the Center for Freshwater Resources and Nature Conservation <ul style="list-style-type: none"> <li>➢ Reinforced concrete structure (three-storied for above ground and one-storied basement)</li> <li>➢ Total floor area: 2,440 m<sup>2</sup></li> <li>➢ Exhibition room, seminar room, storage room, laboratory for practical training, office, meeting room and so on.</li> </ul> </li> <li>(2) Equipment <ul style="list-style-type: none"> <li>➢ Equipment for trainings, exhibition, public relations, information management and laboratory for practical training.</li> </ul> </li> <li>(3) Technical Assistance (Soft Component) <ul style="list-style-type: none"> <li>➢ Assistance for preparation of inventory of audio-visual material, preparation of cinematograph show plan, development of visual materials for trainings and so on.</li> </ul> </li> </ol> </li> <li>3. Mongolian side: <ol style="list-style-type: none"> <li>(1) Preparation of basic infrastructure, including land preparation in the planned site</li> <li>(2) Securing necessary personnel and budget for activities of the Center</li> <li>(3) Planning of training program and implementation of trainings</li> <li>(4) Design of a necessary program for exhibition and implementation of exhibition and displays</li> </ol> </li> </ol>				
Ex-Ante Evaluation	2010	E/N Date	May 4, 2010	Completion Date	July 24, 2012
		G/A Date	May 4, 2010		
Project Cost	E/N Grant Limit/ G/N Grant Limit: 756 million yen, Actual Grant Amount: 719 million yen				
Executing Agency	Ministry of Nature, Environment and Tourism				
Contracted Agencies	Yamashita Sekkei Inc., Echo Corporation.				

**II. Result of the Evaluation**

<b>I Relevance</b>
<p>&lt;Consistency with the Development Policy of Mongolia at the time of ex-ante and ex-post evaluation&gt;</p> <p>The project has been consistent with the Mongolia's development policy of "Economic Growth Support and Poverty Reduction (EGSPR) (2003)" and "Mongolia's 2030 Sustainable Development Vision" approved by the parliament in 2016, which aim at preservation of natural landscape, biodiversity and ensuring sustainability of and the ecosystem services.</p> <p>&lt;Consistency with the Development Needs of Mongolia at the time of ex-ante and ex-post evaluation&gt;</p> <p>The project has been consistent with Mongolia's development needs of trainings for rangers and awareness building for the public towards formulation of environment conservation measures through management of freshwater resources ecosystems in the protected areas where environmental destruction, such as pollutions by mining development and others, has been expanding. Those needs were confirmed both at the time of ex-ante evaluation and at the time of ex-post evaluation.</p> <p>&lt;Consistency with Japan's ODA Policy at the time of ex-ante evaluation&gt;</p> <p>The project was consistent with the Japan's County Assistance Plan towards Mongolia (2004) which was to support environment conservation in the 4 priority areas.</p> <p>&lt;Evaluation Result&gt;</p> <p>In light of the above, the relevance of the project is high.</p>

## 2 Effectiveness/Impact

### <Effectiveness>

The project partially achieved its objectives in the target year (2013) but mostly achieved them at the time of the ex-post evaluation. Trainings for staffs at the Ministry of Nature, Environment and Tourism, rangers for the protected areas, NGO and others (Indicator 1) has been continuously conducted in the center. Although the number of trainings on natural environment and ecosystems reached only 30 in the target year 2013 against the target value of 100, it considerably exceeded the target value in 2014 (180 trainings) and in 2015 (250 trainings). The reason why the number of the trainings was below the target value in 2013 was insufficient capacity of the center staffs to implement trainings since the center had just opened. Also, it was considered that the target value was too high for their training capacity, taking into account new training courses were planned to be started. On the other hand, the number of new trainings started after the opening of the center reached the target value of 30 in 2013, and has significantly increased. In 2016, administrative officials to be engaged in tasks to conserve natural environment and ecosystems in 21 districts and 760 rangers participated in trainings on sustainable development, green development and sustainable education. Besides them, trainings for environment conservation rangers have been regularly conducted every year. The number of trainings on environmental information reached 60 times in 2013, which was much more than the target value of 24, and increased to 120 in 2014 to 153 in 2015. Awareness building and dissemination on nature conservation to the public and foreign tourists (Indicator 2) had been continuously conducted. Trainings on appropriate use of resources, reforestation, soil contamination, waste management, environment conservation, rare species in Mongolia and others were conducted 30 times in 2013 which exceeded the target value of 18, and the number of trainings had considerably increased to 180 in 2014 and 250 in 2015. The number of seminars and events was limited to only 2 in 2014 and 3 in 2015 against the target value of 7. The annual number of visitors for the Environment Information Center was 11,700 in 2013, which was below the target value of 25,000, but came to overweigh the target value after 2014. The annual number of visitors for the Natural Environment Information Center, an internal facility of the center, reached 11,700, which far exceeded the target value of 500. The considerable number of visitors utilized the Natural Environment Information Center: 26,000 visitors in 2014 and 30,000 in 2015. In terms of survey and research for the trainings to be conducted by the center (Indicator 3), the number of practical laboratory trainings was 20 in 2013 exceeding the target value of 9 and 110 trainings were delivered in 2015. The annual number of users of the laboratory excluding the users participating in the practical laboratory trainings was 60 in 2013 which was below the target value of 100, but the laboratory was used by 1,512 persons in 2015 and 967 persons in 2016. It was because the activities of the center have become well-known among high schools and universities for the recent years.

In the center, trainings on ecosystem conservation, environmental pollutions and their countermeasures and awareness building have been regularly delivered through implementation of lectures, seminars, experiments covering a wide range of topics about environment systems and ecosystems under cooperation with mass media, administrative organizations and NGOs. Also, the seminars, events, exhibitions held in the Center have contributed to awareness building activities on freshwater resources and environment preservation in Mongolia. Comments from general visitors written in feedback notes in the Center were mainly positive opinions about the exhibitions and trainings. Since environment education facilities for the general public have not been sufficiently developed in Mongolia, there were comments mentioning necessity to increase facilities like the center. On the other hand, the visitors commented that the number and types of fish in aquarium was too limited to know about lives of freshwater species in the country, the Center took actions to increase types of species for breeding. The center has regularly conducted ecological education activities for primary and secondary school students. Those students visiting the center have opportunities to make their deeper understanding on freshwater resource conservation through activities of research and reforestation.

### <Impact>

While the center has delivered ecosystems education trainings to appeal importance of individual participation in activities for preservation of natural environment and ecosystems, the general public and students have increased their knowledge on environmental conservation through participation in those trainings by group. The center has played a role as a hub for natural environment and ecosystem conservation through seminars aiming at deepening expertise of staffs of the Ministry of Nature, Environment and Tourism under the cooperation with administrative organizations and NGOs engaged in nature conservation. The center also has played an important role to contribute to capacity development of administrative officers and ranges to be engaged in tasks for natural environment and ecosystem conservation. As a result of the efforts on awareness building and dissemination on nature conservation under the collaborations with administrative organizations, mass media, NGOs and so on, children and students collectively visit to the center and participate in study sessions about environment and ecosystems. Based on learnings in the study sessions, there are cases that "Eco Club" was established and operated in secondary education schools<sup>1</sup> and universities, thereby increasing students' knowledge on environmental conservation. Those facts indicated that awareness of nature conservation among the general public and tourists and their dissemination have been promoted. No negative impact of this project was observed at the time of the ex-post evaluation.

### <Evaluation Result>

In light of the above, the positive effect of the project has been observed mostly as planned. Therefore, the effectiveness/impact of the project is high.

### Quantitative Effects

Indicator	Base-line (2007)	Target Value (2013) 1 year after project completion	Actual Value (2013) 1 year after project completion	Actual Value (2014) 2 years after project completion	Actual Value (2015) Ex-post evaluation year
1. Trainings for staffs of the Ministry of Nature, Environment and Tourism, the rangers for the protected areas, and NGO staffs					
a) Number of trainings to be continuously implemented in the newly constructed center which were implemented in 2007 (per year)	80	100 (20)	30	180	250

<sup>1</sup> In Mongolia, there are some cases that primary, secondary and high schools are integrated within the same site, and those schools are called "Secondary Education Schools"

b) Number of new trainings (per year)	20	30 (5)	30	180	250
c) Number of trainings on environmental information (per year)	15	24 (4)	60	120	153
2. Awareness building and Dissemination on nature conservation to the general public and foreign tourists					
a) Number of trainings to be continuously implemented in the newly constructed center for the general public and foreign tourists which were implemented in 2007 (per year)	13	18 (3)	30	180	250
b) Number of new seminars/events for the general public and foreign tourists (per year)	2	7		2	3
c) Number of visitors for exhibition room (per year)	-	25,000	11,700	25,000	29,000
d) Number of users for the natural environment information center (per year)	-	500	11,700	26,000	30,000
3. Survey and Research to achieve the above 1 and 2					
a) Number of practical laboratory trainings. (per year)	3	9 (3)	20	-	110*
b) Number of users in of practical laboratory. (except for trainings) (per year)	-	100	60	1,512	967

Source : The Center for Freshwater Resources and Nature Conservation Operation Reports

\*Basic survey was implemented

\*\*The figure in brackets" shows the number of trainings to be implemented at other training facilities

### 3 Efficiency

Although the project cost was within the plan (ratio against the plan: 95%), the project period exceeded the plan (ratio against the plan: 117%) because of delay in transportation of the procured construction materials by the supplier contracted with the contractor for the project which resulted delay in completion of the construction works. Therefore, efficiency of the project is fair.

### 4 Sustainability

#### <Institutional Aspect>

The Center is consisted of three divisions of Management and External Relations, Training and Research, and Information Technology. The Management and External Relations Division takes a responsibility for organizational structure and external relations. The Training and Research Division is in charge of trainings on environment conservation and researches. The Information Technology Division is engaged in management and use of equipment. The personnel are deployed as follows: 10 staffs for the Management and External Relations Division, 9 staffs for the Training and Research Division and 6 staffs for the Information Technology Division. The task of each division can be implemented by the current number of staffs deployed. According to the project completion report on the technical assistance implemented by the project, it was expected to allocate appropriate human resource for the position of the Marketing Officer (the Deputy Director of the center) who is a key person for the training and public relations activities. At the time of ex-post evaluation, the General Manager was assigned to the position of the Marketing Officer.

#### <Technical Aspect>

##### (Exhibition activities)

Since there was no other facility to breed freshwater species in fish tanks in Mongolia before the completion of the project, it cannot be denied that the staffs of the center to be engaged in breeding freshwater fish have had lack of experience. However, they made efforts to improve environment in the fish tanks after the project completion and have conducted monitoring over oxygen supply, temperature and nutrition status of the species in the tank. Also, they have improved their capacity for breeding and exhibition through increasing the number of fresh fish (5 species), flogs and turtles based on observation of species bread in the tank and explaining about the freshwater species exhibited for the visitors.

##### (Trainings and Public Relations)

Staffs in charge of trainings in the Center hold bachelor or master degree on ecosystem. They have developed contents suitable to characteristics of each target, such as general citizens and students, and have delivered trainings. They have delivered trainings for 760 staffs of the Offices of Nature, Environment and Tourism in all 21 districts of Mongolia on sustainable development and made efforts to improve their capacity for training planning. In addition, skills of staffs in charge of breeding fish in fish tanks have significantly improved. They improved their knowledge on freshwater fish through researches under cooperation by fish researchers in Mongolia and observation and monitoring for fish bread in the tank. In accordance with the operation and management plan of the center, the training staffs of the center have delivered the environment education trainings on the topics such as ecosystem conservation for the students and the general public. Also, seminars and trainings have been jointly held with government agencies and NGOs. The operation and management plan of the center was approved by the National Asset Committee.

##### (Operation and Management of facilities and equipment)

The equipment management staffs and the facility management staffs have been deployed for the center and they have necessary knowledge and skills to maintenance of relevant facilities, including water tanks, water supply and sewage pipes, and hot water pipes.

#### <Financial Aspect>

The annual budget for the center increased from 125,000 MNT in 2012 to 364,900 MNT in 2013 and reached to 328,500 MNT in 2015. Because the allocated amount has been larger than the planned budget since 2012, it can be considered that there will not be any problems in operation of the center if the budget is sustained at the current level. On the other hand, all the revenues of the center such as rental fee of meeting rooms have been transferred to the administration fund and those revenues cannot be directly allocated for the operation cost of the center under the situation with shrinking the national budget of the country by the tight fiscal policy in the fiscal year of 2016 and 2017. In addition, the center has faced shortage of feeds for fish due to the insufficient budget to purchase the feeds in despite of no available products in the market of Mongolia. Since the budget shortage for purchasing the fish feeds may affect daily operation of the center, appropriate solutions have been under consideration.

<Current Status of Operation and Management>

The equipment installed by the project have been mostly in good conditions and even some equipment which are partly damaged or partly malfunctioning have been sustained in good conditions as well. While the equipment have been already registered, the budget for procurement of spare parts has not been secured. For the fish tanks with circulation, water supply pump was repaired but the fan has remained broken yet. As spare parts for the fan are not available in Mongolia, it is needed to order them from Japan. However, the budget for the procurement has not been secured. For the other equipment, the budget for procurement for spare parts has not been secured even though they can be repaired when troubles and failures happened during utilization of them.

<Evaluation Result>

In light of the above, some problems have been observed in terms of the financial aspect of the executing agency and the current status of operation and maintenance. Therefore, the sustainability of the project effect is fair.

5 Summary of the Evaluation

The project partially achieved its objective in the target year but mostly achieved by the time of the ex-post evaluation. Since the center has implemented trainings on natural environment and ecosystems for the staffs of the Ministry of Nature, Environment and Tourism, the rangers of the protected area, NGOs and the general public, the public relation activities on freshwater resources as well as the survey and research activities, it plays a role as a base for preservation of natural environment and ecosystems in Mongolia. As for sustainability, although there is no problem with staffs' skills and equipment installed by the project has been sustained in good conditions, some problems were observed in the financial aspects and the current status of operation and maintenance of the equipment due to the issues of repair of equipment and procurement for spare parts. As for efficiency, the project period exceeded the plan.

In the light of above, this project is evaluated to be satisfactory.

### III. Recommendations & Lessons Learned

Recommendations for Executing Agency.

(Secure of budget for repair of equipment and smooth procurement for spare parts)

In 2015 when the ex-post evaluation started, the national budget of Mongolia was reduced because of the economic recession and the tight fiscal policy. Under the such situation, the center has faced a difficulty to secure a budget to purchase fish feed, to repair equipment and to procure for spare parts. On the other hand, since the budget to cover those costs can negatively affect the activities of the Center, it is expected to solve the budget problems as soon as possible. For example, by stipulating the use of revenues generated by the Center, such as rental fees of meeting rooms for the operation and maintenance costs of the Center, including purchase of fish feed, repair of equipment and procurement of spare parts, the Center may be able to secure a certain amount of the budget even in the situation with limited budget allocation from the national budget.



The Center for Freshwater Resource and Nature Conservation



Exhibitions in the center