Country Name		The Project for the Construction of Kharakhorum Museum						
Mongolia		······						
I. Project Outline								
Background	The remains of Kharakhorum, which used to be the capital of the Mongolian Empire, are located 350km southwest of Ulaanbaatar. Most of the ruins perished over time. On the remaining ruins buried underground, the Government of Mongolia conducted surveys such as those with Japan (using the UNESCO Japanese Funds-in-Trust) and Germany (UOB: University of Bonn), respectively. As the Orkhon Valley Cultural Landscape including the Kharakhorum ruins were registered as a UNESCO World Cultural Heritage site in 2004, establishment of a base for the protection, research, and exhibition of the ruins became an urgent task. However, there was no facility to preserve and store the relics from the ruins. Most of the relics were inevitably kept under very poor conditions, such as being kept in a garage of a nearby hotel under the management of UOB. It was anticipated that such conditions might lead the relics to further deteriorate and be damaged especially by the coldness of mid-winter.							
Objectives of the Project	To properly provide visitors with information on the Kharakhorum ruins and relics from the ruins and to promote proper management, restoration and storage of the relics by developing the facilities and equipment of the Kharakhorum Museum.							
Outputs of the Project	 Project Site: Kharkhorin Town, Uvurkhangai Province Japanese side: Construction of a building and related facilities (exhibition rooms, a preservation and restoration room, storages, office rooms, a multipurpose hall, etc., with total floor area of 1,472.13m²)(Planned floor area was 1,473m². Location of some facilities and design of the multipurpose hall were partly modified.) Procurement of equipment for (i) exhibition and training (computers, projectors, etc.), (ii) training and preservation (restoration equipment) and (iii) environmental measurement (an illuminometer, hygrometers, etc.) Mongolia side: Preparation of the land for construction of the planned facilities; securement of personnel and budget for operation of the museum; development of the software necessary for exhibition and securement and installation of exhibits; and extension of utilities such as power, water supply, sewerage and telephone lines up to the boundary of the project site. 							
Ex-Ante Evaluation	2005		E/N Date	July 18, 2006 January 22, 2009	Completion Date	September 15, 2010		
Project Cost	E/N Grant Limit: 297 million yen (Japanese Fiscal Year (JFY) 2006); 495 million yen (JFY2008) Actual Grant Amount: 521 million yen							
Implementing Agency	Bureau of Culture and Art under the Ministry of Education, Culture and Science							
Contracted Agencies	Yamashita Sekkei Inc.; Konoike Construction Co., Ltd.							

II. Result of the Evaluation

1 Relevance

This project has been highly consistent with Mongolia's development policy and development needs at the times of both ex-ante and ex-post evaluation. Regarding development policy, it has been consistent with (i) "conservation of the indigenous and unique culture and civilization" as set in the Mongolian Action Programme for the 21st Century (1999), a long-term development plan, (ii) "increasing investment in education and culture" as set in the Government Action Programme (2000-2015 and 2012-2016), and (iii) "active conservation of cultural heritage and integration of it to economic activities" as set in the Government Policy on Culture approved in the Parliament Order No.52 (May 22, 2012). As for development needs, it has been consistent with a need to disseminate knowledge on cultural heritage including the Kharakhorum ruins and conservation of it. Also, the project was consistent with the Country Assistance Program (2004), Japan's ODA policy at the time of ex-ante evaluation, in such ways that (i) it mentions in its basic policy the significance of protecting the natural environment and preserving traditional culture, and that (ii) one of its four priority areas "support for environmental protection" promotes assistance that would contribute to preservation of the traditional culture. Therefore, relevance of this project is high.

2 Effectiveness/Impact

This project mostly achieved its objectives, "to properly provide visitors with information on the Kharakhorum ruins and relics from the ruins and to promote proper management, restoration and storage of the relics". The facilities and equipment developed by the project have mostly been utilized². The number of visitors to the museum has not reached the target but has

¹ This project was originally planned to be implemented in JFY2006, and ex-ante evaluation and signing of Exchange of Notes (E/N) were carried out accordingly. However, as the bidding was unsuccessful, only detailed design and bidding-related works were implemented (without construction and procurement) in JFY2006. In JFY2008, the project plan and cost estimates were reviewed through the implementation review study, and the E/N was signed again.

² At the time of site visit for this ex-post evaluation in July 2014, it was found that the sand blaster (equipment to remove mud, etc. from very

been increasing since the museum opened on June 4, 2011 (Indicator 1). With the support including the one from Japan Overseas Cooperation Volunteers (JOCVs), the exhibition methods as well as notation and contents of exhibit explanations have been improved compared to the time of opening of the museum, and visitors can obtain accurate information on the ruins. Visit to this museum is included in most of sightseeing tours in Kharkhorin, one of the biggest tourist destinations in Mongolia. At the time of field survey at the museum for this ex-post evaluation, it was observed that visitors were spending time to carefully look at each exhibit. Visitors' high satisfaction with the museum is seen in the visitors notebooks and their comments posted on the internet. The number of permanent exhibits is smaller than originally planned as the museum gives higher priority on accessibleness to every exhibit rather than merely increasing the quantity. However, the museum has made an effort to show visitors its collection more in ways such as special exhibition that is open to the public during certain time period. Also, the number of the stored items that are ready for display has achieved the target (Indicator 2). The stored condition of excavated articles was found to have significantly improved than before the project: they are systematically classified and properly stored at the storages with temperature and humidity control. While full-fledged restoration of the Kharakhorum ruins is supposed to be done at the Cultural Heritage Centre in Ulaanbaatar, the museum carries out restoration work necessary for it based on annual planning. There are also cases of joint restoration work with foreign research institutions. At the same time, research and training such as academic conferences and seminars on restoration and preservation of archaeological remains and related topics are conducted at the museum (the above-mentioned number of visitors, which is based on the number of those who paid the admission fee, does not include those who visited the museum for research and training purposes).

As for impact, the museum has raised awareness of Mongolia's traditional culture among local students through activities such as museum tours, art contests and opening of a special ger (in addition to the above-mentioned number of visitors, a cumulative total of 2,698 students of the three schools in Kharkhorin Town has observed the museum since 2011 up to the time of ex-post evaluation). Also, the museum has become a center of Mongolia-Japan friendship through joint research. In these ways, the impact that was expected in the planning stage has been realized. In addition, it was confirmed that the academic significance of the museum as an research institution is increasing: beyond preservation and exhibition of the remains excavated around Kharkhorin, the museum has come to be involved in restoration, preservation and exhibition of other archaeological remains such as the ancient tomb in Bulgan Province that was newly excavated and have more scarcity value. The design of the museum that can facilitate activities other than the exhibition rooms, e.g., the orientation hall, is useful for such research activities. It was further found that the museum has widely disseminated knowledge on the Kharakhorum ruins to non-visitors by means such as presentations of its research outputs in Japan or other places and provision of information both within and outside Mongolia thorough media³. Besides, there was no land acquisition and resettlement for this project, and the project had checked before the construction work that there had been no remains to be preserved in the construction site⁴.

Therefore, effectiveness/impact of this project is high.

Quantitative Effects

Indicators	Year 2008 (before the project) Actual value	Year 2011 (after the project) Target value	Year 2011 (target year) Actual value	Year 2013 (ex-post evaluation year) Actual value
Indicator 1: Number of people who acquired accurate information on the Kharakhorum ruins (number of visitors to the Kharakhorum Museum) ^(Note 1)	0 person/year	20,000 persons/year (Note 2)	9,651 persons/year	13,070 persons/year
Indicator 2: Number of items that are stored and exhibited at the Kharakhorum Museum	0	Exhibited: 1,000 items	Stored: not known Of which, exhibited: not known	Stored: 1,501 items Of which, ready to exhibit: 1,166 items Actually exhibited: 652 items

Source: Kharakhorum Museum.

Note: The target number of visitors to the museum was set at 20,000 persons per year, which was the number of visitors to the Erdene Zuu Monastery (adjacent to the museum) in 2005, at the time of the basic design of this project. It was assumed that all of the visitors to the Monastery would visit the museum. The actual values in 2011 and 2013 were calculated based on the admission fee revenue to the museum and they did not reach the target. However, the real number of visitors could have been larger as government officers, researchers, under age or over 60 citizens who did not pay the admission fees (especially a number of invited researchers and local residents who visited the museum soon after its opening) were excluded from the count.

small parts of buried cultural properties by means of ultrasonic vibration; originally planned to be used outdoors) had never been used because it lacked a cover to prevent shedding of dust when used indoors. The cover had not been produced by that time despite a recommendation in the defect inspection study that it could be easily made by the museum staff themselves. By November 2014, the museum and researchers from Germany jointly made the cover, and the sand blaster became actually utilized.

³ For example, the museum cooperated in production of TV programs such as the NHK World Heritage and NHK Special "Chingis Han wo Oe (*follow the track of Genghis Khan*)". It also cooperate with UOB/Institute for Archaeology in excavating the Erdene Zuu Monastery, and a the research outcomes have been put into a number of research papers. Also, the museum is engaged in joint research with many members of the Japanese Association for Mongolian Studies such as Otani University, Osaka International University, etc., and the research outputs are presented in publications such as the university journal. Furthermore, the museum plays a central role in the Japan-Mongolian Joint Expedition Project "BICHEES II", a research on remains and epigraph found around the Orkhon Valley.

Source: pp.9, 13 and 14 of the implementation review study (2008).

3 Efficiency⁵

The project period significantly exceeded the plan due to the conduct of the implementation review study after the unsuccessful bidding (ratio against the plan: 250%). The project cost also significantly exceeded the plan due to price hike and other factors (ratio against the plan: 175%). It was confirmed that the outputs of the project were produced mostly as planned. Therefore, efficiency of this project is low.

4 Sustainability

The operation and maintenance (O&M) of the facilities and equipment developed by the project have been carried out by the Kharakhorum Museum under the supervision of the Bureau of Culture and Art under the Ministry of Education, Culture and Science, the implementing agency. The O&M structure has been fully established in accordance with the plan of ex-ante evaluation, and a larger number of staff than originally planned has been allocated. Also, there is cooperation with other institutions (such as the Cultural Heritage Centre) in restoration and exhibition of archaeological remains. In the technical aspect, thanks to supports such as the one from the JOCVs, the museum staffs have acquired a certain level of guiding skills and archaeological preservation and restoration skills as expected in the planning stage. The staffs are also encouraged to attend training and seminars for guides and restorers in the countries and overseas. As mentioned above, the staff will be required to deal with relics of higher academic value in the future: at the time of ex-post evaluation, they are gradually acquiring knowledge for it with advice from the JOCVs and through joint works with foreign researchers. In the financial aspect, the museum has income from stable allocation of national budget as well as an increasing amount of operational revenue (admission fee, etc.). The total expenditure is increasing, and a certain amount of maintenance budget for the facilities and equipment is expensed. As for the current status of O&M, while the facilities and equipment of the museum have mostly been managed well, some issues are observed such as insufficient control of air intake and exhaust in winter⁶, partial inundation in heavy rainfall', and stains on part of the ceiling due to deterioration of rooftop water proofing blocks. Nevertheless, no influence of inundation on the exhibits and stored items has been observed.

In this way, no serious problems have been found in the structural, technical and financial aspects of the implementing agency as well as the O&M status, and the sustainability of effects of this project is high.

5 Summary of the Evaluation

The project objective was to properly provide visitors with information on the Kharakhorum ruins and relics from the ruins and promote proper management, restoration and storage of the relics at the Kharakhorum Museum. Although the counted number of visitors to the museum was smaller than expected, the number of stored items that are ready to exhibit reached the target, and the stored conditions of those items significantly improved. Also, the significance of the museum as an research institution is increasing as it is engaged in newly excavated articles. As for sustainability, there has been no problem observed in the structural and financial aspects as a sufficient organizational structure and stable income have been secured. In the technical aspect, the museum has come to be expected to restore relics of higher academic value than originally planned. Although the status of O&M has some issues related to intake and exhaust control and heavy rainfall, countermeasures have been planned, and these issues are minor in sustaining the originally-planned project effects. For efficiency, both the project period and project cost significantly exceeded the plan.

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

III. Recommendations & Lessons Learned

Recommendations to implementing agency:

For the museum:

(1) To respond to the remaining issues pointed out/recommended in the defect inspection (intake and exhaust control in particular) as soon as possible.

(2) To continue to be actively involved in joint research, etc. with research institutions in the country and overseas, and to prepare opportunities of capacity development for the staff (within next 2-3 years).

(3) To develop a long-term plan focused on further development of the museum. The operation of the museum has well reached the level that was expected in the planning stage. However, under the circumstances where important remains are being discovered one after another, the museum is increasingly expected to become a self-sustained research institution. It is therefore desirable that the museum put effort into development of staff with specialized knowledge in cooperation with the Ministry and related organizations (within next five years).

Lessons learned for JICA:

(1) While the Kharakhorum Museum was planned to be a museum only to exhibit the archaeological remains that are registered as a world heritage and have high cultural value, the importance of the museum has increased, beyond the original expectation, for both tourists and research institutions. Therefore, in such situation, it was effective that the museum was designed from the planning stage with space such as the orientation hall in prospect of long-term development and expansion.

(2) In operation of the museum after its opening, provision of human resources such as dispatched JOCVs (especially in charge

⁵ The evaluation judgment on Efficiency is based on the following comparison:

Project period: comparison between the planned period of 20 months (mentioned in the basic design report) and the actual period of 50 months (from signing of JFY2006 E/N to project completion).

Project cost: comparison between the planned amount of 297 million yen (JFY2006 E/N grant limit) and the actual grant amount of 521 million yen.

⁶ At midwinter, smoke exhaustion from the boiler chimney flows backward and causes a smell of coal in the building. The backflow is considered to be due to (i) non-functioning of the exhaust fans during power outage and (ii) underutilization of the ventilation system procured by this project. As the museum purchased a private electric generator in 2014, the exhaust fans are expected to work during power outage. Also, more utilization of the ventilation system could address the problem of smell in the future.

⁷ The museum constructed a drain ditch to avoid inundation, but it was not enough in case of heavy rainfall. The museum have a plan to construct a more effective ditch (to be implemented in 2015).

of museum guide/curation)who can readily advice the museum staff on details of notation, tips of guiding, preservation techniques, etc. played an important role.



Main entrance to the exhibition hall



Exhibition