

# Project Administration Manual

Project Number: 51422-002  
Loan Number: LXXXX  
Grant Number: GXXXX  
October 2021

## Mongolia: Sustainable Tourism Development Project (Phase 2)

## ABBREVIATIONS

ADB	– Asian Development Bank
ASDIP	– <i>Aimag</i> and <i>Soum</i> Centers Regional Development Investment Program
ATBNP	– Altai Tavan Bogd National Park
CAREC	– Central Asia Regional Economic Cooperation
CBO	– community-based organization
COVID-19	– coronavirus disease
CPP	– community participation in procurement
CRF	– community revolving fund
CSO	– civil society organization
DMEEIA	– Department of Monitoring, Examination, Evaluation, and Internal Auditing
DMF	– design and monitoring framework
EDGE	– Excellence in Design for Greater Efficiencies
EMP	– environmental management plan
FMA	– financial management assessment
GDP	– gross domestic product
ha	– hectare
GSTC	– Global Sustainable Tourism Council
HLT	– high-level technology
IFC	– International Finance Corporation
JFPR	– Japan Fund for Poverty Reduction
KKNP	– Khan Khukhii National Park
KUNNP	– Khar Us Nuur National Park
LIBOR	– London interbank offered rate
MET	– Ministry of Environment and Tourism
MSMEs	– micro, small, and medium-sized enterprises
O&M	– operation and maintenance
PAM	– project administration manual
PCMA	– Petroglyphic Complexes of the Mongolian Altai UNESCO World Heritage Area
PIU	– project implementation unit
PPDC	– public-private dialogue council
RANCC	– rock art and nomadic culture center
SCS	– stakeholder communication strategy
TSC	– Tsenkher Cave
UVSPA	– Uvs Nuur Strictly Protected Area
UVTC	– Uvs tourism complex
WWTP	– wastewater treatment plant

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### **Project Administration Manual Purpose and Process**

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Environment and Tourism (MET), as the executing agency; MET's Department of Tourism Policy Coordination (for the loan) and Department of Protected Areas Management (for the grant) as the implementing agencies are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by MET, Department of Tourism Policy Coordination, and Department of Protected Areas Management of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the loan and grant agreements for the project. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM and the loan and grant agreements, the provisions of the loan and grant agreements shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.



## I. PROJECT DESCRIPTION

1. The project will support the development of tourism in three *aimags* (provinces) of western Mongolia—a region of national priority for economic development—focused on inclusive benefits for communities, nature-based solutions to protect wilderness and heritage values, and post coronavirus disease (COVID-19) recovery and resilience.<sup>1</sup> The project will build the capacity of residents and a small but growing private sector for community-based tourism, create jobs through the establishment of tourist streets and visitor complexes, and strengthen the management of five globally important protected areas and heritage sites through improved visitor and sanitation facilities. The designs are based on post-COVID-19 tourism recovery projections, sanitation measures aligned with health and border procedures, and building standards for green and climate-resilient infrastructure. About 16,296 residents are expected to benefit from the project through tourism related skills and income.

### A. Rationale

2. Prior to the outbreak of COVID-19, tourism was the largest and fastest-growing sector of the global economy. Ecotourism, a major subsector, has comprised up to 20% of global tourism and is a key contributor to rural incomes and the financing of protected areas in many countries.<sup>2</sup> Mongolia has a small but emerging tourism sector. In 2019, tourism accounted for 7.2% of Mongolia's gross domestic product (GDP) generating \$989.2 million, 7.6% of total employment, and 88,700 jobs. International visitor arrivals in 2019 (577,300) increased by 6.4% compared with 2018, and the tourism sector's annual GDP growth (11.9%) significantly exceeded national GDP growth (5.6%).<sup>3</sup> By 2030, tourism was forecast to comprise 11% (\$1.5 billion) of GDP, provide 95,000 jobs, and attract 1 million international arrivals annually. The global spread of COVID-19 in 2020 resulted in national border closures in Mongolia, the decline—to almost zero—of international arrivals, and estimated losses in tourism revenue of more than \$421 million.<sup>4</sup> Long-term projections of the impact of COVID-19 on Mongolia's tourism sector are not yet available, but recovery scenarios for Asia and the Pacific suggest that a return to pre-COVID-19 international visitor numbers will only occur by about 2023 (footnote 4).

3. Developing Mongolia's tourism sector is a high national priority to diversify the economy and create jobs. As short-term emergency efforts to address the immediate impacts of COVID-19 are completed, there is a need for longer-term projects which contribute to economic revitalization combined with strengthening resilience to the risk of future disease outbreaks. Mongolia ranks moderately in the Travel and Tourism Competitiveness Index (in 2019, Mongolia was ranked 93rd out of 140 countries evaluated).<sup>5</sup> Existing challenges include low service standards, inadequate infrastructure, and a short tourism season due to harsh winters. Government plans to develop tourism focus on nature- and heritage-based tourism in protected areas, yet most of these sites are underfunded and located in remote regions of high poverty. Tourism, if inadequately managed, may result in negative ecological and cultural impacts, and provide few local benefits. Domestic tourism, although largely undocumented, is increasing rapidly in Mongolia and will also be an important component of post-COVID-19 economic recovery.<sup>6</sup> To address these issues, the

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<sup>1</sup> The Asian Development Bank (ADB) provided technical assistance to design the project. ADB. 2021. *Technical Assistance to Mongolia for the Sustainable Tourism Development Project (Phase 2)*. Manila.

<sup>2</sup> Ecotourism is defined as "responsible travel to natural areas that conserves the environment, sustains the well-being of local people, and involves interpretation and education." The International Ecotourism Society. 2015.

<sup>3</sup> World Travel and Tourism Council. 2020. [Travel and Tourism Economic Impact 2020 Mongolia](#). London.

<sup>4</sup> United Nations World Tourism Organization. 2021. [UNWTO Tourism Data Dashboard](#).

<sup>5</sup> World Economic Forum. 2019. [The Travel & Tourism Competitiveness Report 2019](#). Geneva.

<sup>6</sup> M. Helble and A. Fink. 2020. Reviving Tourism amid the COVID-19 Pandemic. *ADB Briefs* No. 150: 1–13. Manila.

government is implementing the National Program on Tourism Development, 2016–2025, which aims to establish Mongolia as a global destination for nomadic culture.<sup>7</sup> The program outlines a phased approach that prioritizes investments in visitor facilities, transport and sanitation infrastructure, and community-based products and services. Following projects initiated in northern and central Mongolia, including support from the Asian Development Bank (ADB) (para. 9), western Mongolia is prioritized by the government for tourism development

4. Western Mongolia comprises the three *aimags* of Bayan-Ulgii, Khovd, and Uvs, and borders the People's Republic of China and the Russian Federation. Much of the area is characterized by extreme remoteness and limited economic development. It also supports a unique cultural heritage—the richest and most well-preserved rock art (ancient images on rock) in northern Asia, the highest number of ethnic groups in Mongolia, and a network of protected areas which includes two World Heritage sites and four Wetlands of International Importance. Each *aimag* supports small but operational domestic airports, new roads linking with the national capital (Ulaanbaatar), and international border crossings. Poverty rates are high and rural populations depend largely on subsistence agriculture. Visitor numbers are small, but prior to COVID-19 were increasing rapidly.<sup>8</sup> Growing attractions include five locations with road access from the *aimag* centers and border crossings: Altai Tavan Bogd National Park (Bayan-Ulgii), Khar Us Nuur National Park (KUNNP) and Tsenkher Cave (TSC) (Khovd), and Khan Khukhii National Park (KKNP) and Uvs Nuur Basin Strictly Protected Area (UVSPA) (Uvs). These sites encompass over 2.1 million hectares (ha) of wilderness, biodiversity, and rock art.<sup>9</sup> The early stage of tourism development in western Mongolia provides a timely opportunity to support sector planning, livelihoods, and conservation. To achieve this will require a focus on four key areas, as follows.

5. **Limited inclusive planning and community benefits.** Few residents in western Mongolia are currently able to derive income from tourism.<sup>10</sup> This is due to several linked factors. At the institutional level, a regional planning approach is required to promote priority destinations; develop travel routes that maximize benefits to communities; and define minimum standards for accommodation, goods, and services. *Aimag* tourism plans, prepared during 2015–2019, prioritize community-based tourism; support for micro, small, and medium-sized enterprises (MSMEs); and capacity building but lack specific actions to support these. Tour camps present a potential source of local jobs, yet the issuance of tour camp concessions is not based on

<sup>7</sup> Government of Mongolia. 2015. *National Program on Tourism Development, 2016–2030*. Ulaanbaatar.

<sup>8</sup> In 2020, the population of western Mongolia was 279,121. Youth (15–34 years old) comprised 32.9% (91,831) of the population versus a national mean of 30.0%, and households headed by women comprised 10.4% (29,029) versus a national mean of 7.7%. The poverty rate was 24.3% (Bayan-Ulgii), 40.1% (Khovd), and 29.6% (Uvs) versus a national mean of 28.4%. GDP per capita was \$1,305 (Bayan-Ulgii), \$1,579 (Khovd), and \$1,688 (Uvs) versus a national mean of \$3,696. During 2015–2019, annual tourist numbers to western Mongolia increased from about 21,595 to 101,825: 3,800 to 12,000 (Bayan-Ulgii), 11,000 to 52,522 (Khovd) and 6,795 to 37,303 (Uvs). Visitors comprised domestic (81%) and international (19%) tourists, the latter largely from Kazakhstan, the People's Republic of China, and Russian Federation, via overland travel. National Statistical Office. 2021. [www.1212.mn](http://www.1212.mn). Ulaanbaatar.

<sup>9</sup> Altai Tavan Bogd National Park (630,000 ha, designated in 1996) includes one World Heritage site, the Petroglyphic Complexes of the Mongolian Altai (11,300 ha, 2011). The KUNNP (850,272 ha, 1997) and UVSPA (424,298 ha, 1993) are Wetlands of International Importance; the UVSPA is part of the Uvs Nuur Basin World Heritage Site (898,064 ha, 2003). The KKNP (221,598 ha, 2000) includes Khyargas Lake, a popular tourism destination. The TSC is an unprotected cave system with the oldest rock paintings in Mongolia. These sites are located in 13 *soums*, which in 2020 supported 113,106 residents (40.5% of the population of western Mongolia) and in 2019 received about 36,339 visitors (about 35.7% of total visitor numbers to western Mongolia).

<sup>10</sup> Tourism-related income includes guiding services, handicraft sales, food supply chains, and tour camp employment.



systematic procedures or social and environmental standards.<sup>11</sup> Elsewhere in Mongolia, these issues have favored external operators (who have greater access to finance and external markets), provided few benefits to local communities, and caused environmental damage. Communities also have inadequate access to credit and training to produce quality goods (e.g., handicrafts) or services (e.g., food supplies, guiding). These limitations are greater for women, who have fewer job and leadership opportunities despite higher educational standards, and have worsened because of COVID-19, which has disproportionately impacted rural communities.<sup>12</sup>

6. **Insufficient enabling infrastructure.** There are few public facilities in western Mongolia to catalyze tourism. The *aimag* centers of Khovd and Uvs are the gateways by land and air for most visitors to the region, yet there are no visitor centers or other facilities to provide information, promote local goods and services, and highlight the region's tourism values. Protected areas close to urban and rural centers (para. 4) support rising visitor numbers, yet public access is uncontrolled and there are few barrier gates, signs or car parks. This is contributing to seasonal congestion and damage to sensitive habitats and is impacting the visitor experience.

7. **Inadequate sanitation and waste management.** There are no organized systems for solid waste collection and sewage treatment for protected areas, and tour camp sanitation standards are low. Public toilets are mostly unlined pits, and sewage seeps into the soil and waterbodies. The KKNP, KUNNP, and UVSPA support unique lake systems within closed river basins, rendering them especially vulnerable to disturbance, and some lakes already exhibit seasonal eutrophication (algal blooms) due to nutrient inputs from unmanaged sewage and other land use. Poor sanitation poses health risks and is also a key factor in low visitor satisfaction. Tourists can be high-risk vectors for disease spread, especially to remote communities, and there is a need to establish health and sanitation standards for key tourism sites. Improved sanitation is a critical component for post-COVID-19 tourism recovery and strengthening the resilience of rural areas to the risk of future disease outbreaks.<sup>13</sup> Solutions to address these issues need to include small, decentralized sanitation systems at tourism sites, tailored to local conditions and visitor numbers, and health and safety measures established at tour camps and public campsites.

8. **Inadequate management of cultural heritage sites and protected areas.** The rock art of western Mongolia is a unique resource that, if managed sustainably, can provide jobs through guiding and the preservation of cultural heritage. Yet most sites are unmanaged and subject to increasing damage. The TSC is a key stop on visitor itineraries yet is unprotected, and some cave paintings have been damaged by vandalism or theft.<sup>14</sup> There is also no centralized facility in Mongolia to document and promote rock art. For protected areas, visitors are an important source of potential revenue, yet most sites lack ticket collection stations, campsites are poorly managed, and staff do not have the training to plan for and manage tourism growth. Government management plans exist for most sites, yet they focus on biodiversity conservation and lack guidelines or targets for livelihoods, tourism, and sanitation. Site management also requires the assessment of natural hazards and climate change since western Mongolia is experiencing rising

<sup>11</sup> Western Mongolia has a small and undeveloped private sector, focused mainly on agriculture. In 2020, (i) 4,803 registered MSMEs were located in western Mongolia (5.5% of the national total), yet only 184 (7.8%) were involved in accommodation and/or food services; (ii) only 1.1%–2.4% of employed residents (1,486 women and 101 men) worked in accommodation and food services; and (iii) 45 tour camps (Bayan-Ulgii–15, Khovd–11, Uvs–19) with a total of 117 employees) were operating, compared with some locations elsewhere in Mongolia which support more than 80 tour camps in a single park. National Statistical Office. 2021. [www.1212.mn](http://www.1212.mn). Ulaanbaatar.

<sup>12</sup> In 2020 over 58% of rural households in Mongolia were unable to generate income due to lockdowns followed by rising food prices. World Bank. 2021. [Monitoring COVID-19 Impacts on Households in Mongolia](https://www.worldbank.org/en/publication/monitoring-covid-19-impacts-on-households-in-mongolia). Washington, DC.

<sup>13</sup> Goretti et al. 2021. *Tourism in the Post-Pandemic World*. Washington, DC: International Monetary Fund.

<sup>14</sup> E. Jacobson-Tepfer. 2006. The Rock Art of Mongolia. *The Silk Road*. 4 (1). pp. 5–13.

temperatures and increasing frequency and severity of storms and drought, which may threaten visitor safety and the integrity of tourism infrastructure.

9. Government and donor efforts are addressing some of these issues. Cross-border tourism agreements have been established with neighboring countries to facilitate regional travel, and in 2019 under a national skills program, about 970 residents in western Mongolia received free tourism training. Support for protected area management is being provided, especially by two civil society organizations (CSOs), The Nature Conservancy and World Wide Fund for Nature, and two development agencies, GIZ and KfW. For rock art, a digital inventory of archaeological values in Bayan-Ulgii *aimag* has been developed,<sup>15</sup> and a management plan for the TSC has been prepared. Support by ADB for western Mongolia that has benefited tourism includes the upgrade of roads, border crossings, health facilities, urban infrastructure, agriculture value chains, and private sector development.<sup>16</sup> At the national level, tourism feasibility studies, training in service standards, and small grant support have been provided by the United Nations, CSOs, and development agencies. During 2015–2019, ADB led the development of the first grant and lending projects for tourism in two national parks in northern Mongolia. These projects, termed phase 1, resulted in new models for community-based tourism and established a basis to scale up ADB support for tourism in Mongolia.<sup>17</sup>

10. **Strategic fit.** The project is aligned with Mongolia's National Program on Tourism Development, 2016–2025 (footnote 7) which prioritizes the development of western Mongolia. It supports ADB's draft country partnership strategy for Mongolia, 2021–2024 for green development; is listed in the country operations business plan, 2021; and supports ADB's Strategy 2030 seven operational priorities for addressing poverty, gender equality, climate resilience and environmental sustainability, livable cities, rural development, governance, and regional cooperation and integration.<sup>18</sup> The project has been designed in parallel with preparation of the ADB-supported Central Asia Regional Economic Cooperation (CAREC) Tourism Strategy 2030, and its associated regional tourism investment framework, 2020–2025. Western Mongolia is part of the Altai priority cluster group, one of seven regions identified in the strategy for tourism support. The project is among the first tourism projects to be developed since approval of the strategy and responds to the need for improved visitor sanitation facilities in the Altai priority cluster group.<sup>19</sup>

11. **Lessons.** The project incorporates lessons from ADB support under phase 1 (footnote 17) and projects by other agencies. These experiences highlight the need for a multisector approach that addresses the linked issues of tourism, livelihoods, waste, and conservation tailored to local conditions; green and climate-resilient infrastructure designs that incorporate growth projections and cost efficiency; decentralized sanitation solutions for remote sites; capacity building, focused especially on the role of women and youth; and measures that address the crosscutting issues of climate change and resilience to COVID-19.

<sup>15</sup> University of Oregon. 2009. [Archaeology and Landscape in the Altai Mountains of Mongolia](#).

<sup>16</sup> ADB. 2021. *Technical Assistance to Mongolia for Preparing the Aimags and Soums Green Regional Development Investment Program*. Manila; ADB. 2019. *Additional Financing: Regional Improvement of Border Services Project in Mongolia*. Manila; ADB. 2019. *Completion Report: Fostering Value-Added Activities in Western Mongolia*. Manila; and ADB. 2020. *Western Regional Road Corridor Investment Program-Tranche 2*. Manila.

<sup>17</sup> ADB. 2015. *Integrated Livelihoods Improvement and Sustainable Tourism in Khuvsgul Lake National Park Project*. Manila; and ADB. 2019. [Mongolia: Sustainable Tourism Development Project](#). Manila. Outputs included the design of community revolving funds (CRFs), decentralized toilet systems, and improved park zoning.

<sup>18</sup> ADB. Forthcoming. *Country Partnership Strategy: Mongolia, 2021–2024*. Manila; ADB. 2019. *Country Operations Business Plan: Mongolia, 2021*. Manila; and ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

<sup>19</sup> ADB. 2020. [CAREC Tourism Strategy 2030](#). Manila. CAREC is a partnership of 11 countries working to promote regional development. The strategy aims to promote sustainable, safe, and inclusive tourism development.

## B. Impact and Outcome

12. The project is aligned with the following impact: sustainable tourism development in Mongolia improved and diversified (footnote 7). The project will have the following outcome: sustainability and inclusiveness of tourism in western Mongolia increased.<sup>20</sup>

## C. Outputs

### 13. **Output 1: Inclusive planning and capacity for community-based tourism enhanced.**

This output will strengthen the institutional framework for tourism and increase the number of local beneficiaries from tourism. The project will (i) prepare the first tourism master plan for western Mongolia, which will define limits for tourism development based on stakeholder consensus and growth projections, travel routes which maximize benefits for communities, and actions to support post-COVID-19 sector recovery; (ii) strengthen the three *aimag* tourism plans to establish targets for livelihoods, conservation, and sanitation aligned with parallel ADB projects on health and border procedures; (iii) establish the first tour camp concession manual and certification program for western Mongolia to embed social and gender targets and environmental standards in commercial operations, strengthen links with local goods and services, and provide a stable business framework for about 45 tour camps with 117 employees; (iv) construct two tourist streets in the Khovd and Uvs *Aimag* centers and nine women-led markets, to showcase and sell local products; and (v) implement a pilot tourism development program for communities and MSMEs, comprising vocational training, a community revolving fund (CRF), youth incubator, and the establishment of about 13 community-based organizations (CBOs).<sup>21</sup> About 8,162 residents (50% women and 30% youth) will benefit from tourism related businesses and value chains.

14. **Output 2: Enabling infrastructure constructed.** This output will (i) construct the first tourism center in western Mongolia—the Uvs tourism complex (UVTC) in Uvs *Aimag*; (ii) establish supporting infrastructure for the UVTC, including car parking and extension of the *aimag* power line to the site; (iii) establish traffic management plans, safety signs, and barrier gates, and upgrade 12 small car parks for a total capacity of 240 vehicles at five protected areas and cultural heritage sites to control public access and halt off-road vehicle damage; and (iv) develop institutional arrangements for operation and maintenance (O&M) of the project facilities. The UVTC will help catalyze tourism development for western Mongolia and will have an operational mandate focused on education, heritage, and nature. It will prioritize local employment and community goods and services and work closely with the community beneficiaries and MSMEs under output 1 for tourism planning. The designs apply a best practice green standard for water and energy efficiency, low-carbon emissions, and the use of cost-effective local materials.<sup>22</sup>

15. **Output 3: Sanitation and waste management improved.** This output will (i) facilitate the installation of about 60 low-cost and gender-sensitive toilet systems at tour camps, campsites, and project-funded car parks at five protected areas and cultural heritage sites. The project will replicate successful JFPR-funded toilet designs and O&M procedures from phase 1, including

<sup>20</sup> The design and monitoring framework is in Appendix 1.

<sup>21</sup> The pilot tourism development program will focus initially on rural communities in five protected areas and cultural heritage sites (para. 4) and be developed in partnership with *aimag* youth employment centers, regional universities, and tour camp operators. The revolving fund will apply a successful design piloted with previous JFPR support and will be the first such fund for community-based tourism in western Mongolia. The youth incubator will comprise (i) training venues for youth in two tourism complexes (outputs 2 and 4) as safe learning spaces to foster innovation and entrepreneurship, and (ii) tourism-related training and links with local enterprises to develop tourism goods and services. The CBOs will help implement the program and coordinate community participation.

<sup>22</sup> The infrastructure designs apply the [Excellence in Design for Greater Efficiencies](#) standard.

CBO-led management of the campsites and toilets, and sustainable financing from campsite fees; (ii) establish waste disposal procedures for the project facilities, including safe transport and treatment at rural and urban wastewater treatment plants and landfills to be upgraded under ADB's *Aimags* and *Soums* Green Regional Investment Development Program (ASDIP) (footnote 16); and (iii) implement a water, sanitation, and hygiene (WASH) program. This will establish sanitation, health, and safety standards and procedures for the project communities and facilities as well as for tour camps. The WASH program will be planned with *aimag* health and border agencies and will be integrated in the *aimag* tourism plans (output 1) and aligned with guidelines of the World Health Organization for infection prevention and control.<sup>23</sup> These measures will strengthen post-COVID-19 resilience for over 16,296 residents and 36,000 visitors per year to these protected areas.

**16. Output 4: Management of cultural heritage sites and protected areas strengthened.**

This output will (i) construct the first rock art and nomadic culture center in Mongolia, including a digital museum, and will be in Khovd *aimag*. It will include high-quality two- and three-dimensional virtual displays of the rock art of the TSC and other sites, establish a digital inventory for rock art, and develop an online platform to promote digital tourism for cultural heritage.<sup>24</sup> The center, museum, and access to the TSC will be managed under an integrated approach including O&M, entry fees, and guided visits to and protection of the TSC; (ii) establish at least 35 small management facilities at five protected areas and cultural heritage sites, comprising public campsites, information centers, public cooking cabins, bird watching towers, ranger stations, and fee collection stations to protect habitats and improve facilities in locations subject to high visitor use; (iii) strengthen site management plans to integrate O&M procedures for the project facilities; and (iv) train about 120 residents and 12 local agencies to implement the revised site plans. The project facilities will be operated and maintained by about 13 CBOs in coordination with the park administrations, generating about 176 jobs (40% of these for women). Overall, these measures will help strengthen the management of five globally important protected areas.

**17. Key features and innovation.** ADB has become a lead development partner for Mongolia's emerging tourism sector. The project is the first tourism project to be developed since the COVID-19 pandemic and only the second loan-funded tourism project for Mongolia, with both funded by ADB. The multisector approach developed under phase 1 has been applied and scaled up to include three *aimags*, rock art heritage, and a focus on post-COVID-19 recovery and resilience. Project features include (i) replication of selected components from phase 1, benefiting from tested methods and lessons learned;<sup>25</sup> (ii) initiatives led by women and youth; (iii) private sector participation; (iv) application of a green building standard for energy and water efficiency; (v) use of high-level technology to establish a digital museum; and (vi) synergy with other projects by ADB, CSOs, and development partners.<sup>26</sup> The designs support the strategic pillars of the CAREC Tourism Strategy 2030 (footnote 19) for improving tourism infrastructure; sanitation;

<sup>23</sup> World Health Organization. 2020. [Infection prevention and control guidance \(COVID-19\)](#).

<sup>24</sup> To supplement the loan financing and scale up the design and benefits of the digital museum, additional funding of \$0.65 million is being sought from the High-Level Technology Fund (financing partner: the Government of Japan).

<sup>25</sup> The components on revolving funds, CBOs, and toilet designs (outputs 1 and 3) are applied from phase 1. Lessons from phase 1 are described in M. R. Bezuijen. 2019. [Blue skies and green steppe – developing sustainable tourism in Mongolia](#). ADB Blog; and ADB. 2020. [Building the Climate Change Resilience of Mongolia's Blue Pearl](#). Manila.

<sup>26</sup> Design synergy with the ASDIP (footnote 16) comprises: integration of the CRF, youth incubator, and training (output 1) with an ASDIP agribusiness fund and training centers; and waste collection for the project facilities linked with - ASDIP-supported landfills. Development coordination was established during project preparation with GIZ, KfW, The Nature Conservancy, United Nations Development Programme, and WWF, who are implementing projects in western Mongolia, and project components were refined to maximize synergy. Dialogue will continue for implementation.

environmental protection; skills development; and crosscutting support for health, safety, and digital technology, and are consistent with best practice principles for sustainable tourism.<sup>27</sup>

18. **Knowledge sharing.** The project will contribute lessons on the integration of livelihoods, tourism, and conservation in the cold conditions of central Asia, and will build on ADB lessons from phase 1 (footnote 17). Measures to disseminate project lessons are described in the stakeholder communication strategy in the project administration manual (PAM) and will include project presentations at the annual meetings of the CAREC tourism working group.<sup>28</sup>

19. The project components by output and *aimag* are summarized in Table 1. The project location map is presented in Figure 1. The details of each output and components are summarized in Appendix 1.

**Table 1: Project Components by Outputs and Aimag**

No.	Output / Component	Regional	Bayan-Ulgii	Khovd	Uvs	Loan / Grant
<b>Output 1: Inclusive planning and capacity for community-based tourism enhanced</b>						
1.1	<b>Institutional framework</b>					
1.1.1	Regional tourism master plan – western Mongolia (Bayan-Ulgii, Khovd, Uvs <i>Aimag</i> s)	√	√	√	√	Loan
1.1.2	<i>Aimag</i> tourism plans (Bayan-Ulgii, Khovd, Uvs)		√	√	√	Loan
1.1.3	Tourism concession manual		√	√	√	Loan
1.1.4	Eco-certification program for tour camps		√	√	√	Loan
1.2	<b>Destination management and promotion</b>					
1.2.1	Community-based organizations		√	√	√	Loan
1.2.2	Tourist streets in two <i>Aimag</i> centers			√	√	Loan
1.3	<b>Pilot tourism development program</b>					
1.3.1	Community revolving fund		√	√	√	Grant
1.3.2	Women-led tourist markets		√	√	√	Loan
1.3.3	Youth-led initiatives		√	√	√	Grant
1.3.4	Vocational training		√	√	√	Grant
<b>Output 2: Enabling infrastructure constructed</b>						
2.1	<b>Tourism complex and supporting infrastructure</b>					
2.1.1	Uvs tourism complex				√	Loan
2.2	<b>Traffic management and safety at key tourism sites</b>					
2.2.1	Establish access roads and car parks for 2 tourism complexes; and improve traffic management at 5 protected areas		√	√	√	Loan – UVTC, RANCC; Grant – protected areas
<b>Output 3: Sanitation and waste management improved</b>						
3.1	<b>Sanitation and wastewater management</b>					
3.1	Water, sanitation, and hygiene program		√	√	√	Grant
3.2	Sanitation systems for tourist camps		√	√	√	Grant
3.3	Sanitation systems for public places		√	√	√	Grant
3.4	Wastewater collection and treatment		√	√	√	Loan
<b>Output 4: Management of cultural heritage sites and protected areas strengthened</b>						
4.1	Rock art and nomadic culture center			√		Loan
4.2	Rock art Digital Museum – to be housed at RANCC			√		Loan
4.3	Site protection and public access		√	√	√	Grant

<sup>27</sup> World Tourism Organization. 2004. *Indicators of Sustainable Development for Tourism Destinations*. Madrid; Leung et al. 2018. *Tourism and visitor management in protected areas*. Gland, Switzerland: IUCN; and International Council on Monuments and Sites. 1999. *International Cultural Tourism Charter*. Mexico.

<sup>28</sup> Project Administration Manual (accessible from the list of linked documents in [Appendix 2](#)).



No.	Output / Component	Regional	Bayan-Ulgii	Khovd	Uvs	Loan / Grant
4.4	Site management plans		√	√	√	Grant
4.5	Capacity building		√	√	√	Loan and Grant

RANCC = rock art and nomadic culture center, UVTC = Uvs tourism complex.

Source: Asian Development Bank.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

Indicative Activities	2021												Responsibility
	Q1			Q2		Q3			Q4				
	1	2	3	4	5	6	7	8	9	10	11	12	
Advance contracting actions													ADB, MOF, MET
Loan and grant negotiations													ADB, MOF, MET
ADB Board approval													ADB
Loan and grant signing													ADB, MOF
Government legal opinion provided													MOJ, MOF
Establishment of project implementation arrangements													MET, DPAM, DTPC
Loan and grant effectiveness													ADB, MOF, MOJ


ADB = Asian Development Bank, DPAM = Department of Protected Areas Management, DTPC = Department of Tourism Policy Coordination, MET = Ministry of Environment and Tourism, MOF = Ministry of Finance, MOJ = Ministry of Justice, Q = quarter.


Source: Asian Development Bank.


## B. Overall Project Implementation Plan

[illegible]

Activity		2022				2023				2024				2025				2026				2027				2028	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>Output 3: Sanitation and waste management improved</b>																											
3.1	Design and implement water, sanitation, and hygiene (WASH) program by Q4 2027																										
3.2	Recruit detailed engineering and construction supervision firm for small facilities in Bayan-Ulgii, Khovd and Uvs aimags by Q2 2023																										
3.3	Complete detailed engineering designs and award the contracts for small facilities in each project site by Q1 2024																										
3.4	Complete sanitation systems for public places by Q3 2026																										
3.5	Complete waste collection and treatment systems and O&M procedures by Q3 2026																										
<b>Output 4: Management of cultural heritage sites and protected areas strengthened</b>																											
4.1	Recruit detailed IT system design and establishment supervision for Digital Museum in RANCC by Q2 2024																										
4.2	Complete detailed EIA and detailed designs and award the contracts by Q1 2025																										
4.3	Rock art digital museum established by Q4 2025																										
4.4	Rock art and nomadic culture center (RANCC) constructed by Q3 2026																										
4.5	Establish business management plan and institutional arrangements for O&M of RANCC by Q4 2025																										
4.6	Conduct assessment of protected area management capacity for 5 sites (ATBNP, KKNP, KUNNP, TSC, UVSPA) using METT by Q1 2023.																										
4.7	Complete revision of 2 site management plans (ATBNP, TSC) by Q4 2025																										
4.8	Conduct training training for O&M of the project facilities by Q4 2027																										
<b>Management activities - reporting and monitoring</b>																											
1	Recruit PIU staff and establish PIU office																										
2	Prepare annual work plans																										
3	Quarterly project progress reports																										
4	Semi-annual environmental monitoring reports																										
5	Semi-annual social monitoring reports																										
6	Inception / Annual / Midterm / Final Review Missions																										
7	Project annual financial audit reports																										
8	Project completion report																										

 Winter season

 Mid-term review

 Project completion

Loan effectiveness

Loan closing

EIA = environmental impact assessment, O&M = operation and maintenance, PIU = project implementation unit, Q = quarter, RANCC = rock art and nomadic culture center, UVTC = Uvs Tourism Complex.

Source: Asian Development Bank.



### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations: Roles and Responsibilities

20. The Ministry of Environment and Tourism (MET) is the executing agency responsible for overall project implementation. MET's Department of Tourism Policy Coordination (DTPC) will be the implementing agency for the loan project. MET's Department of Protected Areas Management (DPAM) will be the implementing agency for the grant project. Guidance and sector coordination will be through a national project steering committee (PSC). The PSC will be chaired by the State Secretary of MET and will meet at least twice a year during project implementation. The PSC will be represented at the daily level by a technical working group (TWG) of technical officers from each PSC agency. The TWG will assist the implementing agencies for regular coordination between line agencies.

21. A project implementation unit (PIU) will be established, with one central office at MET in Ulaanbaatar and three field offices (one per *aimag*). The field offices will be within the *aimag* government offices of Bayan-Ulgii, Khovd, and Uvs *aimags*, for effective project implementation. The PIU will be responsible for daily project management, including accounting, procurement, training, monitoring, and reporting. The PIU will be co-chaired by the Director General of DTPC and the Director General of DPAM. The executing and implementing agencies lack the personnel and resources needed to fully implement the project, and the PIU staff will comprise consultants recruited for the administrative and technical tasks. The PIU positions and terms of reference are in Appendix 2.

22. Once the PIU structure is approved by Ministry of Finance (MOF), MET will finalize and acquire no-objection from ADB on the terms of reference (TOR) of the PIU staff, and publicly announce the vacancies through local newspapers as well MET website. Project implementation arrangements, including the establishment of the PSC, selection, and hiring of the PIU staff, reporting by the PIU, and other relevant arrangements, will comply with Mongolia's *Regulation on Utilization of Proceeds of Foreign Loans of the Government; Implementation, Administration, Financing, Monitoring and Evaluation of Projects and Programs Funded by Such Proceeds*, approved under Resolution No. 4 (dated 11 January 2021) of the Minister of Finance and other relevant regulations approved and amended from time to time, provided they do not conflict with the provisions of the loan and grant agreements, this project administration manual or ADB policies. The executing agency will establish and supervise the PIU in consultation with MOF. The PIU will be under the MET, supervised by the project director. Project implementation arrangement, reporting, and recruitment processes will be in line with the MOF Regulation No. 4.

23. The MET will assume overall responsibility for the project implementation, including authorization of the PIU staff contracts; with contracting of the PIU procurement and financial specialists to be undertaken by MOF upon request by MET. The Director Generals of DPAM and DTPC will together be responsible for the annual review of PIU staff performance, overall project reporting, and/or other management issues, and will coordinate closely throughout project implementation. Roles and responsibilities of the project agencies are summarized in Table 2.

**Table 2: Project Implementation Organizations**

Organization	Management Roles and Responsibilities
<b>Executing agency</b> Ministry of Environment and Tourism (MET)	<ul style="list-style-type: none"> <li>➤ Provide the main contact point for ADB</li> <li>➤ Provide overall guidance, coordination, supervision, and management for project preparation, and implementation</li> <li>➤ Responsible for coordinating project implementation activities</li> <li>➤ Guidance on strategic issues and interagency coordination</li> <li>➤ Assist MOF to open and co-manage the project advance accounts, and liquidation, and replenishment of advances made</li> <li>➤ Review, approve, co-sign (with MOF) and submit loan and grant withdrawal applications to ADB</li> <li>➤ Release loan proceeds</li> <li>➤ Prepare and monitor repayment plan of ADB loan and repayment works</li> <li>➤ Responsible for recruitment and coordination of PIU</li> <li>➤ Ensure all PIU tasks are completed in a timely and efficient manner</li> <li>➤ Review PIU progress reports</li> <li>➤ Submit progress reports to ADB and MOF</li> <li>➤ Ensure PIU uploads project financial statements and progress reports to MOF's ODA MIS</li> <li>➤ Ensure procurement, including advance procurement actions related to PIU recruitment is undertaken in accordance with government laws and regulations and ADB policies</li> <li>➤ Develop and submit annual project budget to MOF in line with the Budget Law of Mongolia, including relevant cofinancing needed during implementation</li> <li>➤ Facilitate auditing of project accounts</li> <li>➤ Chair the PSC (chair: MET State Secretary)</li> <li>➤ Conduct all tasks in compliance with MOF Resolution No. 4 and other domestic laws and regulations that are approved and amended from time to time, provided they do not conflict with the provisions of the loan and grant agreements, this project administration manual or ADB policies</li> <li>➤ Closely coordinate with other government agencies and ADB to timely resolve any issues, expedite the procurement process, ensure adequate budgetary and staff resources are allocated as needed, and complete the project in the target date</li> <li>➤ Designate staff to work closely with the PIU, the PSC, and bid evaluation committees and consultant selection committees to be established</li> </ul>
<b>Project Steering Committee (PSC):</b> Chaired by State Secretary of MET. Members include MOF, MET DTPC, and MET DPAM, Aimag Governments of Khovd, Uvs and Bayan-Ulgii, MCUD, MRT, and National Center of Cultural Heritage, nongovernment CSOs e.g., TNC, WWF	<ul style="list-style-type: none"> <li>➤ Provide policy guidance and advice on project implementation</li> <li>➤ Provide oversight and monitoring of project activities to ensure compliance with ADB requirements and national laws and regulations, especially for anticorruption, including the risk mitigation measures listed in the financial management action plan in this PAM, and the measures listed in the project Risk Assessment and Risk Management Plan</li> <li>➤ Facilitate interagency coordination and coordinate with other involved parties</li> <li>➤ Appoint technical working group</li> <li>➤ Resolve institutional problems affecting project preparation and implementation at the concerned level</li> <li>➤ Review project progress</li> <li>➤ Endorse procurement and implementation plans</li> <li>➤ Ensure timely inter-ministerial coordination and support for the project, including information exchange, and facilitation of meetings and approvals, as needed; and</li> <li>➤ Meet at least semiannually</li> </ul>
<b>Implementing agency</b> for the loan project: MET Department of	<ul style="list-style-type: none"> <li>➤ On behalf of MET, responsible for: (i) co-signing (with MOF) of withdrawal applications to ADB; (ii) co-signing (with PIU coordinator) of withdrawals from the advance accounts to the local currency accounts, and, for expenditures from the local currency accounts; and (iii) overall project planning and</li> </ul>

Tourism Policy Coordination (DTPC)	<p>implementation; (iv) consolidation of the technical and financial project progress reports from both implementing agencies and timely submission to the MET Minister's Office, MOF, and ADB; and (v) facilitation of project auditing</p> <ul style="list-style-type: none"> <li>➤ Joint responsibility with DPAM for coordination of PIU</li> <li>➤ Closely work together with DPAM in the joint project tasks, including: review of technical and financial progress reports prepared by PIU; implementation of project EMP, SDAP, and GAP, CPP, and SCS; coordination of PIU</li> <li>➤ Provide tourism policy guidance for <i>Aimag</i> governments (Khovd, Uvs, and Bayan-Ulgii) and project related protected areas, including ATBNP, KUNNP, TSC, UVSPA, KKNP</li> <li>➤ Ensure the implementation of relevant regulation of Resolution No. 4 of the MOF, and relevant regulations that are approved and amended from time to time</li> <li>➤ Designate staff to work closely with the PIU, the PSC, and bid evaluation committees and consultant selection committees to be established</li> </ul>
<b>Implementing agency</b> for the grant project: MET Department of Protected Areas Management (DPAM)	<ul style="list-style-type: none"> <li>➤ Joint responsibility with DTPC for coordination of PIU</li> <li>➤ Closely work together with DTPC in the joint project tasks, including: review of technical and financial progress reports prepared by PIU</li> <li>➤ Responsible for the implementation of JFPR grant project</li> <li>➤ Provide guidance to PAAOs, to work with the PIU, facilitate project stakeholder activities e.g., meetings, and trainings with <i>soum</i> governments, communities, and tour operators</li> <li>➤ Conduct all tasks in close consultation, and joint agreement, with DTPC</li> <li>➤ Ensure the implementation of relevant regulation of Resolution No. 4 of the MOF, and relevant regulations that are approved and amended from time to time</li> <li>➤ Designate staff to work closely with the PIU, the PSC, and bid evaluation committees and consultant selection committees to be established</li> </ul>
<b>Technical Working Group</b>	<ul style="list-style-type: none"> <li>➤ Comprises MET, DPAM, and DTPC Director Generals, technical representatives from each ministry within the PSC and CSOs</li> <li>➤ Represents the PSC to assist the executing and implementing agencies with regular technical support, as needed (e.g. for information exchange and/or to facilitate meetings)</li> <li>➤ Meets regularly</li> </ul>
<b>Project Implementation Unit (PIU)</b>	<ul style="list-style-type: none"> <li>➤ All positions will be based at the PIU office in Ulaanbaatar and most will be subject to regular field travel; except for the 3 PIU supervision officers, which will be based in each <i>aimag</i>. On behalf of implementing agencies, the PIU will be responsible for overall coordination and supervision of project implementation, including the following tasks: <ul style="list-style-type: none"> <li>(i) Perform direct project management and implementation activities;</li> <li>(ii) Utilize MOF's ODA MIS for financial and project management and requests/approvals of value added taxes and duties exemptions;</li> <li>(iii) Ensure the implementation of MOF Resolution No. 4, and relevant regulations that are approved and amended from time to time, provided they do not conflict with the provisions of the loan and grant agreements, this project administration manual or ADB policies;</li> <li>(iv) Prepare annual work programs and budgets;</li> <li>(v) Guide procurement activities, including the preparation, and submission of bidding documents, bid evaluation reports, and other necessary documents to ADB for necessary approval;</li> <li>(vi) Consolidate and submit withdrawal applications to ADB through the executing agency;</li> <li>(vii) Prepare annual contract award and disbursement projections;</li> <li>(viii) Consolidate and submit the updated procurement plan to ADB for approval during project implementation;</li> <li>(ix) Organize training and monitoring and evaluation, including project performance management system;</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>(x) Implement the project EMP, in compliance with domestic laws and regulations and ADB's Safeguard Policy Statement (2009);</li> <li>(xi) Implement the social development action plan and gender action plan;</li> <li>(xii) Monitor project progress and impact; and</li> <li>(xiii) Prepare and submit (a) semiannual progress reports, midterm report, and project completion report; (b) semiannual environmental and social monitoring reports; (c) annual statement of utilization of project funds; and (d) audited project financial statements to ADB and the government.</li> </ul>
<b>Bayan-Ulgii, Khovd, and Uvs Aimag governments</b>	<ul style="list-style-type: none"> <li>➤ Governors will enter into an annual contract with the executing agency and take necessary actions within their rights to implement the necessary clauses set out in the annual contract, including timely approval of their budget/activities by their citizen representative khural</li> <li>➤ Facilitate <i>aimag</i>- and <i>soum</i> level project support, including project workshops</li> <li>➤ Assign at least one <i>soum</i> officer per <i>soum</i> in each project site to attend meetings and trainings</li> <li>➤ <i>Soum</i> officers to ensure <i>soum</i> and <i>aimag</i> governments are updated on project progress</li> <li>➤ The <i>aimag</i> governors are co-chairs of the technical working group that will guide project implementation</li> <li>➤ Undertake regular coordination with the PIU</li> <li>➤ Participate in central- and <i>aimag</i> level meetings to define O&amp;M arrangements and financing for the project facilities, including the allocation of government funds for O&amp;M</li> <li>➤ Provides timely information and clarification on any local land issues and permits, as needed</li> <li>➤ Participates as members of the PSC</li> <li>➤ Reviews PIU progress reports</li> </ul>
<b>Other Domestic Agencies</b>	
General Agency for Specialized Inspection – environment, health, and safety inspectors	<ul style="list-style-type: none"> <li>➤ <i>Aimag</i> and <i>soum</i> environment, health, and safety inspectors will inspect project facilities and issue completion certificates</li> </ul>
Development partners, CSOs, and other donors	<ul style="list-style-type: none"> <li>➤ Coordinate with existing donor efforts in western Mongolia, including programs of the GIZ, KfW, TNC, and WWF</li> <li>➤ Collaborate with other relevant tourism and conservation programs in Mongolia including by UNDP</li> </ul>
<b>Asian Development Bank (ADB)</b>	<ul style="list-style-type: none"> <li>➤ Oversee project administration and timely execution of the loan and grant agreements by the executing and implementing agencies</li> <li>➤ Support MOF and MET to provide training related to ADB's policies, including procurement guidelines, financial management, loan disbursement, safeguards, and preparation of progress reports</li> <li>➤ Review and/or approve procurement actions for ADB financed procurement packages</li> <li>➤ Process withdrawal applications and release loan and grant funds</li> <li>➤ Review project compliance and targets against the DMF, EMP, SDAP, and GAP</li> <li>➤ Monitor project progress and conducts review missions</li> <li>➤ Serve as observer to the Project Steering Committee</li> <li>➤ Review annual audit reports and follow up on audit recommendations</li> <li>➤ Regularly update the project performance review reports with the assistance of the executing and implementing agencies</li> <li>➤ Regularly update the project information documents for public disclosure at ADB website, including safeguard documents</li> <li>➤ Monitor implementation of ADB's anticorruption policies</li> </ul>

ADB = Asian Development Bank, ATBNP = Altai Tavan Bogd National Park, CSO = civil society organization, DPAM = Department of Protected Areas Management, CPP = consultation and participation plan, DTPC = Department of Tourism Policy Coordination, EMP = environmental management plan, GAP = gender action plan, GIZ = Gesellschaft für Internationale Zusammenarbeit, JFPR = Japan Fund for Poverty Reduction, KfW = Kreditanstalt für Wiederaufbau, KKNP = Khan Khukhii National Park, KUNNP = Khar Us Nuur National Park, MCUD = Ministry of Construction and Urban Development, MET = Ministry of Environment and Tourism, MOF = Ministry of Finance, MRT = Ministry of Road and Transport Development, O&M = operation and maintenance, ODA MIS = official development assistance management information system, PAAO = protected area administration office, PCMA = Petroglyphic Complexes of the Mongolian Altai UNESCO World Heritage Area, PIU = project implementation unit, PSC = Project Steering Committee, SCS = stakeholder communication strategy, SDAP = social development gender action plan, TNC = The Nature Conservancy, TSC = Tsenkher Cave, UNDP = United Nations Development Programme, UVSPA = Uvs Nuur Strictly Protected Area, WWF = World Wildlife Fund.

<sup>a</sup> In compliance with Regulation No. 4 of Mongolia's Ministry of Finance, the project procurement will be coordinated by a qualified PIU procurement specialist. Mongolia's Department for Procurement will not be involved in the project procurement as the department's mandate is for state-financed (not donor-funded) projects.

Source: Asian Development Bank.

## B. Key Persons Involved in Implementation

<b>Implementing Agency 1</b> MET Department of Tourism Policy Coordination (DTPC)	Ms. Bayasgalan S. Director General Telephone (W): +976-51-263385 Telephone (M): +976-89111189 E-mail address: bayasgalan.saranjav@gmail.com
	Ms. Oyunshur Z. Officer Telephone (W): +976-51-264848 Telephone (M): +976-99278558 E-mail: oyunshur.tourism@gmail.com
<b>Implementing Agency 2</b> MET Department of Protected Areas Management (DPAM)	Mr. Batmunkh, D Director General Telephone (W): +976-91119568 E-mail: batmunkh4498@gmail.com
	Mr. Boldbaatar Senior Officer Telephone (W): +976-51-267283 E-mail: boldbaatar.tr@gmail.com
<b>Asian Development Bank</b> Environment, Natural Resources, and Agriculture Division of the East Asia Department	Mr. Thomas Panella Director, EAER Telephone (W): +63-2-6326769 Fax (W): +63-2-6362444 E-mail address: tpanella@adb.org
Mission Leader	Mr. Mark R. Bezuijen Principal Environment Specialist / Mission Leader, EAER Telephone (W): +63-2-6321519 Fax (W): +63-2-6362444 E-mail address: mbezuijen@adb.org



#### IV. COSTS AND FINANCING

24. The project is estimated to cost \$32.30 million, including taxes and duties of \$2.8 million. The major expenditure item is works, including two tourism complexes, two tourist streets, and small facilities within, and near five protected areas.

25. The government has requested a regular loan of \$30.0 million from ADB's ordinary capital resources to help finance the project. The regular loan will have a 25-year term, including a grace period of six years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year (the interest and other charges during implementation to be capitalized in the loan); and such other terms and conditions set forth in the draft loan agreement. Based on the straight-line method, the average maturity is 15.75 years, and the maturity premium payable to ADB is 0.10% per year. The government has also requested a grant of \$2 million from the Japan Fund for Poverty Reduction (JFPR).

26. The ADB loan will finance 92.9% of the total project costs through a regular loan (\$30.0 million), including expenditures relating to works, goods, and services. A cofinanced grant will finance 6.2% of the total project costs, including expenditures relating to small facilities and capacity building.

27. Central and *aimag* governments will contribute 0.9% of the total project costs through counterpart staff and exemption of value added taxes and duties for works and goods. The value added tax and custom duties exemptions will be accounted and recorded by the PIU, to properly account for the government counterpart financing for the project. The amounts exempted will be recorded as part of the cost of the assets purchased and/or services contracted. No land acquisition costs apply. All PIU staff and national consultant salaries are inclusive of personal income taxes; such personnel are responsible for fulfilling their Mongolian tax obligations. The government has assured ADB that it will provide additional funding for any shortfall of funds or cost overruns to ensure the success of the project.

28. **Climate change.** Climate mitigation is estimated to cost \$4.89 million and climate adaptation is estimated to cost \$0.5 million. ADB will finance 100% of mitigation and 100% of adaptation costs. Details are in the climate change assessment.<sup>29</sup>

##### A. Cost Estimates Preparation and Revisions

29. **Preparation.** The cost estimates were prepared jointly by the implementing agencies and ADB with assistance from the transaction technical assistance (TA) consultants. The sources and basis of cost estimates were reviewed during project preparation and confirmed by related parties. The process was facilitated by a model in Excel© software which enabled easy updating or revision, if necessary. The model is maintained by both the PIU and ADB.

30. **Revision.** Revision of cost estimates will be conducted when deemed necessary during implementation (including during detailed design). The PIU will be responsible for proposing and drafting the revisions which will be subject to ADB's approval.

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<sup>29</sup> Climate Change Assessment (accessible from the list of linked documents in Appendix 12 of the Report and Recommendation of the President to the Board of Directors).

## B. Key Assumptions

31. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: MNT2,849.79 = \$1.00 (as of 12 March 2021).
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 3: Escalation Rates for Price Contingency Calculation**

Item	2022	2023	2024	2025	2026	2027	Average
Foreign rate of price inflation	1.7%	1.7%	1.8%	1.8%	1.8%	1.8%	1.8%
Domestic rate of price inflation	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%

Source: Asian Development Bank estimates.



### C. Detailed Cost Estimates by Expenditure Category

**Table 4: Detailed Cost Estimates by Expenditure Category**

Item	MNT million			\$ million			% of Base Cost
	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total	
<b>A. Investment Costs</b>							
<b>A.1 ADB Loan</b>							
1 Works	24,210.50	24,210.50	48,421.00	8.50	8.50	17.00	63.40
2 Goods	9,995.40	1,110.60	11,106.00	3.51	0.39	3.90	14.54
3 Workshops, training, seminars	49.68	447.09	496.76	0.02	0.16	0.17	0.65
4 Community revolving fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5 Consulting services	3,016.13	3,016.13	6,032.26	1.06	1.06	2.12	7.90
6 Project management	546.72	4,920.50	5,467.22	0.19	1.73	1.92	7.16
7 Community participation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Subtotal (A.1)</b>	<b>37,818.44</b>	<b>33,704.82</b>	<b>71,523.25</b>	<b>13.27</b>	<b>11.83</b>	<b>25.11</b>	<b>93.66</b>
<b>A.2 JFPR Grant</b>							
1 Works	1,012.54	1,012.54	2,025.08	0.35	0.35	0.70	2.62
2 Goods	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Workshops, training, seminars	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 Community revolving fund	0.00	1,139.92	1,139.92	0.00	0.40	0.40	1.49
5 Consulting services	619.79	619.79	1,239.57	0.22	0.22	0.43	1.62
6 Project management	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7 Community participation	0.00	461.67	461.67	0.00	0.16	0.16	0.60
<b>Subtotal (A.2)</b>	<b>1,632.32</b>	<b>3,233.91</b>	<b>4,866.23</b>	<b>0.57</b>	<b>1.13</b>	<b>1.70</b>	<b>6.34</b>
<b>Subtotal (A)</b>	<b>39,450.76</b>	<b>36,938.72</b>	<b>76,389.49</b>	<b>13.84</b>	<b>12.96</b>	<b>26.81</b>	<b>100.00</b>
<b>B. Contingencies</b>							
<b>B.1 ADB Loan</b>							
a. Physical Contingency	1,890.19	1,684.59	3,574.78	0.66	0.59	1.25	4.68
b. Price Contingency	4,757.05	4,239.61	8,996.67	1.67	1.49	3.16	11.78
<b>Subtotal (B.1)</b>	<b>6,647.24</b>	<b>5,924.20</b>	<b>12,571.45</b>	<b>2.33</b>	<b>2.08</b>	<b>4.41</b>	<b>16.46</b>
<b>B.2 JFPR Grant</b>							
a. Physical Contingency	82.08	162.61	244.69	0.03	0.06	0.09	0.32
b. Price Contingency	206.57	409.25	615.82	0.07	0.14	0.22	0.81
<b>Subtotal (B.2)</b>	<b>288.65</b>	<b>571.86</b>	<b>860.51</b>	<b>0.10</b>	<b>0.20</b>	<b>0.30</b>	<b>1.13</b>
<b>Subtotal (B)</b>	<b>6,935.89</b>	<b>6,496.07</b>	<b>13,431.96</b>	<b>2.43</b>	<b>2.28</b>	<b>4.71</b>	<b>17.58</b>
<b>C. Financing Charges During Implementation</b>							
a. Interest During Construction	981.14	918.67	1,899.81	0.34	0.32	0.67	2.49
b. Commitment Charges	168.86	158.11	326.97	0.06	0.06	0.11	0.43
<b>Subtotal (C)</b>	<b>1,150.00</b>	<b>1,076.77</b>	<b>2,226.78</b>	<b>0.40</b>	<b>0.38</b>	<b>0.78</b>	<b>2.92</b>
<b>Subtotal ADB Loan (A.1+B.1+C)</b>	<b>45,615.68</b>	<b>40,705.80</b>	<b>86,321.48</b>	<b>16.01</b>	<b>14.28</b>	<b>30.30</b>	<b>113.00</b>
<b>Subtotal JFPR Grant (A.2+B.2)</b>	<b>1,920.97</b>	<b>3,805.77</b>	<b>5,726.74</b>	<b>0.67</b>	<b>1.34</b>	<b>2.00</b>	<b>7.50</b>
<b>Total Project Cost (A+B+C)</b>	<b>47,536.65</b>	<b>44,511.57</b>	<b>92,048.22</b>	<b>16.68</b>	<b>15.62</b>	<b>32.30</b>	<b>120.50</b>
<b>% Total Project Cost</b>	<b>51.64</b>	<b>48.36</b>	<b>100.00</b>	<b>51.64</b>	<b>48.36</b>	<b>100.00</b>	

ADB = Asian Development Bank, JFPR = Japan Fund for Poverty Reduction, MNT = Mongolian tugrik, USD = United States dollars.

Notes: Numbers may not sum precisely because of rounding.

Source: ADB estimates.

**D. Allocation and Withdrawal of Loan and Grant Proceeds****Table 5: Allocation and Withdrawal of ADB Ordinary Capital Resources Loan Proceeds**

ADB Financing		
Item	Amount Allocated (\$)	Percentage and Basis for Withdrawal from the Loan Account
	Category	
1. Works and Goods	20,597,738	100% of total expenditure claimed*
2. Consulting Services, Workshops, Project Management	4,209,520	100% of total expenditure claimed
3. Interest and Commitment Charges	781,382	100% of total amounts due
4. Unallocated	4,411,360	
<b>Total</b>	<b>30,000,000</b>	

\* Exclusive of value added taxes and duties for Works and Goods within the territory of the Borrower.

ADB = Asian Development Bank, PIU = project implementation unit.

**Table 6: Allocation and Withdrawal of JFPR Grant Proceeds**

ADB-administrated Financing -JFPR Grant		
Item	Amount Allocated (\$)	Percentage and Basis for Withdrawal from the Loan Account
	Category	
1. Works	700,000	100% of total expenditure claimed*
2. Consulting Services, Community Revolving Fund, Community Contracts, Unallocated**	1,300,000	100% of total expenditure claimed
<b>Total</b>	<b>2,000,000</b>	

\* Exclusive of value added taxes and duties for works in the territory of the borrower.

\*\* The unallocated amount also serves as a reserve for (a) currency fluctuations; and (b) payment of ADB's administration fees and bank charges or other charges pursuant to the applicable provisions of JFPR.

JFPR = Japan Fund for Poverty Reduction.

## E. Detailed Cost Estimates by Financier

**Table 7: Detailed Cost Estimates by Financier**  
(\$ million)

Item	ADB		JFPR		Government			% of Cost Category	Total Cost
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	Taxes and Duties <sup>a</sup>	Total		
<b>A. Investment Costs</b>									
<b>A.1 ADB Loan</b>									
1 Works	16.76	98.60	0.00	0.00	0.00	0.24	0.24	1.40	17.00
2 Goods	3.83	98.39	0.00	0.00	0.00	0.06	0.06	1.61	3.90
3 Workshops, training, seminars	0.17	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
4 Community revolving fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5 Consulting services	2.12	100.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12
6 Project management	1.92	100.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92
7 Community participation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Subtotal (A.1)</b>	<b>24.81</b>	<b>98.81</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.30</b>	<b>0.30</b>	<b>1.19</b>	<b>25.11</b>
<b>A.2 JFPR Grant</b>									
1 Works	0.00	0.00	0.70	100.00	0.00	0.00	0.00	0.00	0.70
2 Goods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Workshops, training, seminars	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 Community revolving fund	0.00	0.00	0.40	100.00	0.00	0.00	0.00	0.00	0.40
5 Consulting services	0.00	0.00	0.43	100.00	0.00	0.00	0.00	0.00	0.43
6 Project management	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7 Community participation	0.00	0.00	0.16	100.00	0.00	0.00	0.00	0.00	0.16
<b>Subtotal (A.2)</b>	<b>0.00</b>	<b>0.00</b>	<b>1.70</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.70</b>
<b>Subtotal (A)</b>	<b>24.81</b>	<b>92.55</b>	<b>1.70</b>	<b>6.33</b>	<b>0.00</b>	<b>0.30</b>	<b>0.30</b>	<b>1.12</b>	<b>26.81</b>
<b>B. Contingencies</b>									
<b>B.1 ADB Loan</b>									
a. Physical Contingency	1.25	100.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25
b. Price Contingency	3.16	100.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16
<b>Subtotal (B.1)</b>	<b>4.41</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.41</b>
<b>B.2 JFPR Grant</b>									
a. Physical Contingency	0.00	0.0	0.09	100.00	0.00	0.00	0.00	0.00	0.09
b. Price Contingency	0.00	0.0	0.22	100.00	0.00	0.00	0.00	0.00	0.22
<b>Subtotal (B.2)</b>	<b>0.00</b>	<b>0.0</b>	<b>0.30</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.30</b>
<b>Subtotal (B)</b>	<b>4.41</b>	<b>93.59</b>	<b>0.30</b>	<b>6.41</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.71</b>
<b>C. Financing Charges During Implementation</b>									
a. Interest During Construction	0.67	100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.67
b. Commitment Charges	0.11	100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.11
<b>Subtotal (C)</b>	<b>0.78</b>	<b>100.0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.78</b>
<b>Subtotal ADB Loan (A.1+B.1+C)</b>	<b>30.00</b>	<b>99.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.30</b>	<b>0.30</b>	<b>0.99</b>	<b>30.30</b>
<b>Subtotal JFPR Grant (A.2+B.2)</b>	<b>0.00</b>	<b>0.0</b>	<b>2.00</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.00</b>
<b>Total Project Cost (A+B+C)</b>	<b>30.00</b>	<b>92.88</b>	<b>2.00</b>	<b>6.19</b>	<b>0.00</b>	<b>0.30</b>	<b>0.30</b>	<b>0.93</b>	<b>32.30</b>
<b>% Total Project Cost</b>	<b>92.88</b>		<b>6.19</b>				<b>0.93</b>		<b>100.00</b>

ADB = Asian Development Bank, JFPR = Japan Fund for Poverty Reduction.

Notes: Numbers may not sum up precisely because of rounding. Works and goods are exempted from value added tax and duties in the territory of the borrower.

<sup>a</sup> Government's contribution on value added taxes and duties on works and goods will be provided through exemption. The estimated amount of exemption for works financed under the grant is not included in the government's contribution.

Source: ADB estimates.

## F. Detailed Cost Estimates by Outputs

**Table 8: Detailed Cost Estimates by Outputs (\$ million)**

Item	Output 1		Output 2		Output 3		Output 4		Total Cost
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	
<b>A. Investment Costs</b>									
<b>A.1 ADB Loan</b>									
1 Works	2.89	16.97	7.32	43.07	0.00	0.00	6.79	39.95	17.00
2 Goods	0.59	15.03	1.42	36.33	0.19	4.95	1.70	43.70	3.90
3 Workshops, training, seminars	0.00	0.00	0.00	0.00	0.00	0.00	0.17	100.00	0.17
4 Community revolving fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5 Consulting services	0.42	20.07	0.43	20.17	0.00	0.00	1.26	59.76	2.12
6 Project management	0.00	0.00	0.00	0.00	0.00	0.00	1.92	100.00	1.92
7 Community participation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Subtotal (A.1)</b>	<b>3.90</b>	<b>15.52</b>	<b>9.17</b>	<b>36.51</b>	<b>0.19</b>	<b>0.77</b>	<b>11.85</b>	<b>47.21</b>	<b>25.11</b>
<b>A.2 JFPR Grant</b>									
1 Works	0.00	0.00	0.00	0.00	0.08	11.70	0.62	88.30	0.70
2 Goods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Workshops, training, seminars	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 Community revolving fund	0.40	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
5 Consulting services	0.13	30.52	0.00	0.00	0.06	13.22	0.24	56.26	0.43
6 Project management	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7 Community participation	0.16	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
<b>Subtotal (A.2)</b>	<b>0.69</b>	<b>40.91</b>	<b>0.00</b>	<b>0.00</b>	<b>0.14</b>	<b>8.22</b>	<b>0.86</b>	<b>50.87</b>	<b>1.70</b>
<b>Subtotal (A)</b>	<b>4.59</b>	<b>17.13</b>	<b>9.17</b>	<b>34.19</b>	<b>0.33</b>	<b>1.24</b>	<b>12.72</b>	<b>47.44</b>	<b>26.81</b>
<b>B. Contingencies</b>									
<b>B.1 ADB Loan</b>									
a. Physical Contingency	0.19	15.50	0.46	36.44	0.01	0.76	0.59	47.29	1.25
b. Price Contingency	0.49	15.50	1.15	36.44	0.02	0.76	1.49	47.29	3.16
<b>Subtotal (B.1)</b>	<b>0.68</b>	<b>15.50</b>	<b>1.61</b>	<b>36.44</b>	<b>0.03</b>	<b>0.76</b>	<b>2.09</b>	<b>47.29</b>	<b>4.41</b>
<b>B.2 JFPR Grant</b>									
a. Physical Contingency	0.04	40.91	0.00	0.00	0.01	8.22	0.04	50.87	0.09
b. Price Contingency	0.09	40.91	0.00	0.00	0.02	8.22	0.11	50.87	0.22
<b>Subtotal (B.2)</b>	<b>0.12</b>	<b>40.91</b>	<b>0.00</b>	<b>0.00</b>	<b>0.02</b>	<b>8.22</b>	<b>0.15</b>	<b>50.87</b>	<b>0.30</b>
<b>Subtotal (B)</b>	<b>0.81</b>	<b>17.13</b>	<b>1.61</b>	<b>34.11</b>	<b>0.06</b>	<b>1.24</b>	<b>2.24</b>	<b>47.52</b>	<b>4.71</b>
<b>C. Financing Charges During Implementation</b>									
a. Interest During Construction	0.11	16.16	0.22	33.18	0.00	0.32	0.34	50.34	0.67
b. Commitment Charges	0.01	11.13	0.02	16.67	0.00	0.04	0.08	72.15	0.11
<b>Subtotal (C)</b>	<b>0.12</b>	<b>15.42</b>	<b>0.24</b>	<b>30.76</b>	<b>0.00</b>	<b>0.28</b>	<b>0.42</b>	<b>53.54</b>	<b>0.78</b>
<b>Subtotal ADB Loan (A.1+B.1+C)</b>	<b>4.70</b>	<b>15.51</b>	<b>11.01</b>	<b>36.35</b>	<b>0.23</b>	<b>0.75</b>	<b>14.36</b>	<b>47.38</b>	<b>30.30</b>
<b>Subtotal JFPR Grant (A.2+B.2)</b>	<b>0.82</b>	<b>40.91</b>	<b>0.00</b>	<b>0.00</b>	<b>0.16</b>	<b>8.22</b>	<b>1.02</b>	<b>50.87</b>	<b>2.00</b>
<b>Total Project Cost (A+B+C)</b>	<b>5.52</b>	<b>17.09</b>	<b>11.01</b>	<b>34.10</b>	<b>0.39</b>	<b>1.22</b>	<b>15.37</b>	<b>47.60</b>	<b>32.30</b>

ADB = Asian Development Bank, JFPR = Japan Fund for Poverty Reduction

Note: Numbers may not sum up precisely because of rounding. Works and goods are exempted from value added tax and duties in the territory of the borrower.

Source: Asian Development Bank estimates.

**G. Detailed Cost Estimates by Year****Table 9: Detailed Cost Estimates by Year**  
(\$ million)

Item	2022	2023	2024	2025	2026	2027	Total Cost
<b>A. Investment Costs</b>							
<b>A.1 ADB Loan</b>							
1 Works	0.00	0.00	6.01	7.53	3.46	0.00	17.00
2 Goods	0.14	0.00	0.00	0.00	2.11	1.64	3.90
3 Workshops, training, seminars	0.00	0.00	0.04	0.04	0.04	0.04	0.17
4 Community revolving fund	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5 Consulting services	0.00	0.36	0.48	0.44	0.56	0.27	2.12
6 Project management	0.19	0.29	0.29	0.38	0.38	0.38	1.92
7 Community participation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Subtotal (A.1)</b>	<b>0.33</b>	<b>0.65</b>	<b>6.83</b>	<b>8.40</b>	<b>6.55</b>	<b>2.34</b>	<b>25.11</b>
<b>A.2 JFPR Grant</b>							
1 Works	0.00	0.00	0.18	0.32	0.18	0.02	0.70
2 Goods	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Workshops, training, seminars	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 Community revolving fund	0.00	0.08	0.08	0.08	0.08	0.08	0.40
5 Consulting services	0.00	0.12	0.11	0.11	0.07	0.03	0.43
6 Project management	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7 Community participation	0.00	0.00	0.00	0.00	0.08	0.08	0.16
<b>Subtotal (A.2)</b>	<b>0.00</b>	<b>0.20</b>	<b>0.37</b>	<b>0.51</b>	<b>0.41</b>	<b>0.21</b>	<b>1.70</b>
<b>Subtotal (A)</b>	<b>0.33</b>	<b>0.85</b>	<b>7.20</b>	<b>8.91</b>	<b>6.96</b>	<b>2.55</b>	<b>26.81</b>
<b>B. Contingencies</b>							
<b>B.1 ADB Loan</b>							
a. Physical Contingency	0.02	0.04	0.34	0.42	0.33	0.12	1.25
b. Price Contingency	0.00	0.04	0.57	1.09	1.02	0.44	3.16
<b>Subtotal (B.1)</b>	<b>0.02</b>	<b>0.08</b>	<b>0.91</b>	<b>1.50</b>	<b>1.35</b>	<b>0.56</b>	<b>4.41</b>
<b>B.2 JFPR Grant</b>							
a. Physical Contingency	0.00	0.00	0.02	0.03	0.02	0.01	0.09
b. Price Contingency	0.00	0.00	0.04	0.07	0.07	0.03	0.22
<b>Subtotal (B.2)</b>	<b>0.00</b>	<b>0.01</b>	<b>0.06</b>	<b>0.10</b>	<b>0.09</b>	<b>0.04</b>	<b>0.30</b>
<b>Subtotal (B)</b>	<b>0.02</b>	<b>0.08</b>	<b>0.97</b>	<b>1.61</b>	<b>1.44</b>	<b>0.60</b>	<b>4.71</b>
<b>C. Financing Charges During Implementation</b>							
a. Interest During Construction	0.00	0.01	0.05	0.13	0.21	0.26	0.67
b. Commitment Charges	0.04	0.04	0.03	0.01	0.00	0.00	0.11
<b>Subtotal (C)</b>	<b>0.04</b>	<b>0.04</b>	<b>0.07</b>	<b>0.15</b>	<b>0.22</b>	<b>0.26</b>	<b>0.78</b>
<b>Subtotal ADB Loan (A.1+B.1+C)</b>	<b>0.39</b>	<b>0.77</b>	<b>7.81</b>	<b>10.05</b>	<b>8.12</b>	<b>3.16</b>	<b>30.30</b>
<b>Subtotal JFPR Grant (A.2+B.2)</b>	<b>0.00</b>	<b>0.20</b>	<b>0.43</b>	<b>0.63</b>	<b>0.50</b>	<b>0.25</b>	<b>2.00</b>
<b>Total Project Cost (A+B+C)</b>	<b>0.39</b>	<b>0.97</b>	<b>8.24</b>	<b>10.68</b>	<b>8.62</b>	<b>3.40</b>	<b>32.30</b>
<b>% Total Project Cost</b>	<b>1.20</b>	<b>3.00</b>	<b>25.51</b>	<b>33.05</b>	<b>26.70</b>	<b>10.54</b>	<b>100.00</b>

ADB = Asian Development Bank, JFPR = Japan Fund for Poverty Reduction

Note: Numbers may not sum up precisely because of rounding. Works and goods are exempted from value added tax and duties in the territory of the borrower.

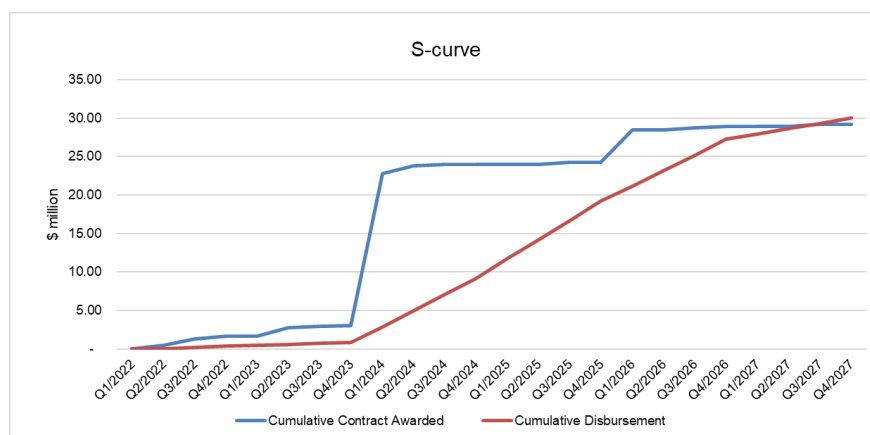
Source: Asian Development Bank estimates.

## H. Contract and Disbursement S-Curve

**ADB Loan (Regular OCR) (\$ million)<sup>a</sup>**

Year	Contract Award					Disbursement				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2022		0.45	0.88	0.30	<b>1.63</b>	0.01	0.02	0.18	0.18	<b>0.39</b>
2023		1.11	0.19	0.07	<b>1.37</b>	0.10	0.11	0.11	0.11	<b>0.43</b>
2024	19.79	0.99	0.22		<b>21.00</b>	2.05	2.10	2.11	2.11	<b>8.37</b>
2025			0.28		<b>0.28</b>	2.50	2.50	2.50	2.50	<b>10.00</b>
2026	4.15		0.29	0.22	<b>4.66</b>	1.98	1.98	1.99	2.10	<b>8.05</b>
2027			0.28		<b>0.28</b>	0.69	0.69	0.69	0.69	<b>2.76</b>
<b>Total</b>					<b>29.22</b>					<b>30.00</b>

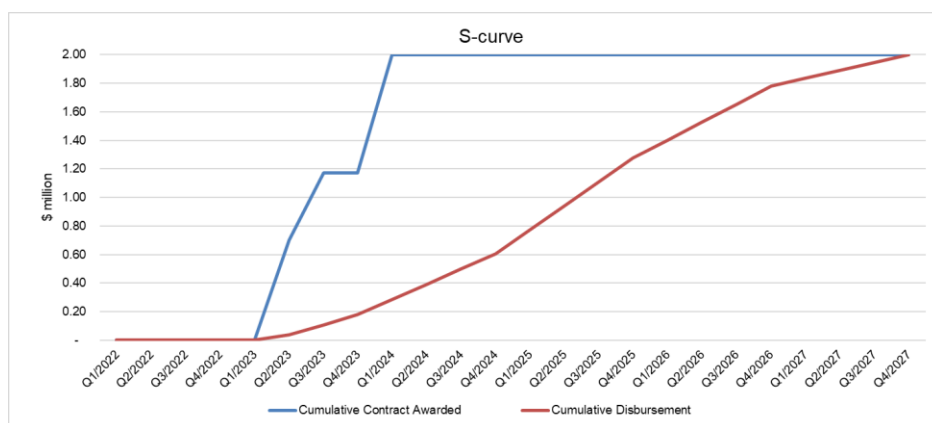
<sup>a</sup>Contract awards exclude financing charges in the amount of \$0.78 million. Disbursements include financing charges.  
Source: Asian Development Bank estimates.



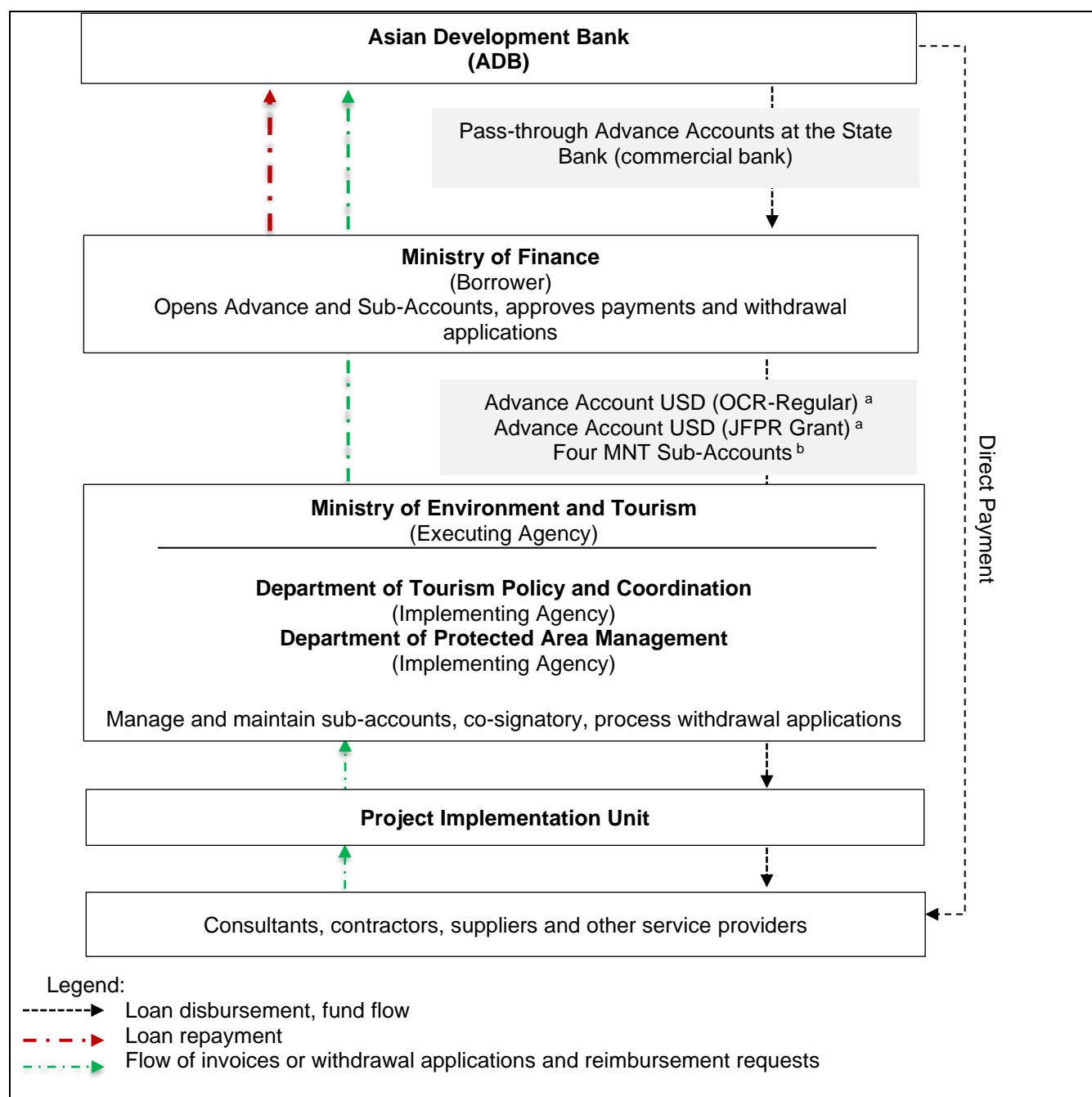
**Japan Fund for Poverty Reduction Grant (\$ million)**

Year	Contract Award					Disbursement				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2022					-					
2023		0.51	0.47	0.19	<b>1.17</b>		0.03	0.06	0.09	<b>0.18</b>
2024	0.83				<b>0.83</b>	0.10	0.10	0.11	0.11	<b>0.42</b>
2025						0.17	0.17	0.17	0.17	<b>0.68</b>
2026						0.12	0.12	0.13	0.13	<b>0.50</b>
2027						0.05	0.05	0.06	0.06	<b>0.22</b>
<b>Total</b>	<b>0.83</b>	<b>0.51</b>	<b>0.47</b>	<b>0.19</b>	<b>2.00</b>	<b>0.44</b>	<b>0.47</b>	<b>0.53</b>	<b>0.56</b>	<b>2.00</b>

Source: Asian Development Bank estimates.



## I. Fund Flow Diagram



ADB = Asian Development Bank, JFPR = Japan Fund for Poverty Reduction, OCR = ordinary capital resources.

<sup>a</sup> Advance Accounts at the Treasury Single Account

<sup>b</sup> MNT Sub-Accounts at the Treasury Single Account

Source: Asian Development Bank.

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

32. The financial management assessment (FMA) was prepared in accordance with the Financial Management Technical Guidance Note in line with SBA Operations Manual section OM G2.<sup>30,31</sup> The FMA was undertaken in October 2020 by the TA financial management specialist and was updated from January to March 2021. The assessment based on ADB's Financial Management Assessment Questionnaire (FMAQ) and interviews were conducted with officers and financial management specialist of the Finance, Investment, and Production Division (FIPD), Department of Tourism Policy Coordination (DTPC), Department of Protected Areas Management (DPAM), Department of Monitoring, Examination, Evaluation, and Internal Auditing (DMEEIA) of MET in Ulaanbaatar, in October 2020. The assessment and interview with *aimag* officials was held in January 2021 by online video meeting. The online interview with officers and financial management specialist of the Finance and State Treasury Fund Department (FSTFD), Investment, Development Policy Planning Department (IDPPD), DMEEIA of *Aimag* Governor's Office and Financial Control and Auditing Agency of *aimag* was conducted.<sup>32</sup>

33. The overall pre-mitigation financial management risk of the executing and implementing agencies is moderate (defined as "likely to occur, will have low impact if occurs"). The FMA indicated the following risks: (i) limited knowledge on ADB's rules and procedures and insufficient capacity of MET internal auditing staff, (ii) uncertainty of the ownership of assets, financed, and purchased during project implementation, and (iii) financial information software fails to meet requirements from ADB, resulting in overload and mismanagement of financial staff (Table 10). To mitigate the identified risks, a time-bound FM action plan (Table 11) has been agreed with the MET. With a moderate pre-mitigation FM risk assessment and timely implementation of the FM risk assessment, the FMA establishes the capacity of the Borrower (the Ministry of Finance) along with MET, to administer the advance accounts and Statement of Expenditures (SOE) procedures.

34. The financial management risk assessment, and project risk mitigation and management measures, are summarized in Table 10.

**Table 10: Risk Description and Rating**

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
<b>Inherent Risk</b>		
<i>Country Specific</i> - Mongolia's capital expenditures are high, and a major weakness of the budget is the low percentage of funds allocated to capital maintenance, which lead to decreased impact of the projects. Line ministries continue to give priority to new projects over adequate funding for operations and maintenance of existing capital assets.	Substantial	Covenant to ensure adequate allocation for O&M of project assets to be included in the legal agreements
<i>Entity specific risks</i> - The MET and its FIPD have	Moderate	Contracting out key financial

<sup>30</sup> ADB. 2014. *Financial Management, Cost Estimates, Financial Analysis, and Financial Performance Indicators. Operations Manual, G2*. Manila.

<sup>31</sup> ADB. 2015. *Financial Management Technical Guidance Note, Financial Management Assessment*. Manila.

<sup>32</sup> Detailed Financial Management Assessment is accessible the list of supplementary documents in Appendix 2 of the Report and Recommendation of the President to the Board of Directors).



Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
experienced and qualified personnel in the field of financial management. Although the ministry implemented a numerous donor-supported projects, it provided only professional supervision and was not involved in financial management or project transactions. It will be important to train the EA staff in ADB rules and guidelines		management through PIU consultants and training funded through the project
<b>Overall Inherent Risk</b>	<b>Moderate</b>	
<b>Project Risk</b> <i>Implementing entity</i> - IAs are responsible for monitoring and review PIU documents, Director Generals of IAs is co-signatory authority for all transactions and withdrawal applications. The IAs staff do not have financial professional background and are less familiar with ADB financial management requirements and procedures.	High	Training on ADB's disbursement procedures and financial management to be provided to IAs upon loan effectiveness or if Director General of IAs replaced
<i>Fund Flow</i> - Applications for withdrawals from advance and investment sub-accounts must be submitted and printed electronically in TSA and signed by both the MET and MOF within 3 working days. Incorrectness in the documentation of expenditures and contractor's payments, or appointment with ministries may lead to payment delays.	Low	PIU financial specialist follows Regulation of TSA operation in proper time planning
<i>Staffing</i> - MET's FIPD does not assigned to the management of foreign funded projects and is not involved in the financial management of PIU.	Moderate	Recruit PIU staff with English language skill and experience in ADB financed projects
<i>Accounting policies and procedures</i> - After project completion, it is not clear to whom the ownership of the assets, financed and purchased during project implementation, will be transferred, either state, <i>aimag</i> , or private sector.	Moderate	Accurate and clear statements of ownership to be defined in the project documents and agreements between parties involved in the project
<i>Internal Auditing</i> – Due to a staff shortage, the internal audits of externally funded projects are not performed each fiscal year but every two years or after completion.	Moderate	Monitoring and evaluation specialist of PIU will develop an internal audit work program with cooperation of DMEEIA of MET, DMEEIA of <i>Aimag</i> Governor's Office to enhance internal controls
<i>External Auditing</i> - Due to lack of staff in the Mongolia National Audit Office, there could be delays in the submission of external audit reports to ADB within 6 months from the end of the fiscal year resulting in non-compliance to a loan covenant.	Low	Appoint an independent external auditor acceptable to ADB and GOM
<i>Reporting and Monitoring</i> - The project outputs and its performance is not integrated into the EA overall plan and performance report. Additionally, EA and IA staff are not adequately trained in	Low	EA to integrate project outcomes into the MET working plan, and establish working group to monitor progress reports of PIU

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
procedures of ADB funded project, and monitoring & reporting against project goals.		
<i>Information system</i> - Existing financial information software fit to Mongolian accounting standards and provide general financial statements, but not project management oriented and not suitable for ADB requirements, thus financial specialist does double work, which leads to overload and errors.	Moderate	Procure and use a project tailored financial software to develop a unified financial management system and integrate budgeting, accounting, reporting, and project activities
<b>Overall Project Risk</b>	<b>Moderate</b>	
<b>Overall (Combined) Risk</b>	<b>Moderate</b>	

ADB = Asian Development Bank; DMEEIA = Department of Monitoring Examination, Evaluation, and Internal Auditing; EA = executing agency; FIPD = Finance, Investment, and Production Division; GOM = Government of Mongolia; IA = implementing agency; MET = Ministry of Environment and Tourism; MOF = Ministry of Finance; PIU = project implementation unit; L = Low; M = Moderate; S = Substantial; H = High.

Source: Asian Development Bank.

35. The identified financial management risks will be mitigated by the action plan shown in Table 11 and will be closely monitored during project implementation.

**Table 11: Financial Management Action Plan**

Risk	Action	Responsibility	Timing
MET's FIPD is not assigned to the management of foreign funded projects and its staff are not involved in the financial management of PIU.	Recruit and assign PIU financial Management staff with English language skill and experience in ADB financed projects.	ADB, MET DTPC	Immediately after loan effectiveness, Q3 2022
After project completion, it is not clear who will operate and manage the assets financed and purchased during project implementation.	Statements and agreements signed between parties involved in the project on management and maintenance of facilities.	MET DTPC and DPAM	Q2 2024, after detailed design of facilities completed
Due to a staff shortage, the internal audits of externally funded projects are not performed each fiscal year but every two years or after completion.	Monitoring and evaluation specialist of PIU will develop an internal audit work program with the cooperation with DMEEIA of MET, DMEEIA of Aimag Governor's Office to enhance internal controls.	MET, PIU	Quarterly and annually, consistent with the project annual working plan
EA and IAs staff are not adequately trained in procedures of ADB funded project, and monitoring, and reporting against project goals.	Training on ADB's disbursement procedures and financial management to be provided to EA, IA and PIU upon loan effectiveness.	ADB, MET DTPC	In Q4 2022, after recruiting the PIU Financial specialist
Existing financial information software fit to Mongolian accounting standards and provide general financial statements, but not project management oriented and not suitable for ADB requirements, thus financial specialist does double work, which leads to overload and errors.	Procure and use a project tailored financial software to develop a unified financial management system and integrate budgeting, accounting, reporting, and project activities.	MET, PIU	In Q4 2022, after recruiting the PIU Financial specialist

ADB = Asian Development Bank; EA = executing agency; IA = implementing agency; DMEEIA = Department of Monitoring, Examination, Evaluation, and Internal Auditing; DPAM = Department of Protected Areas Management; DTPC = Department of Tourism Policy and Coordination; FIPD = Finance, Investment, and Production Division; MET = Ministry of Environment and Tourism; PIU = project implementation unit.  
Source: Asian Development Bank.

## **B. Disbursement Arrangements for ADB and ADB-administered JFPR Funds**

36. The loan and JFPR grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time),<sup>33</sup> and detailed arrangements agreed upon between the government and ADB. MOF will maintain separate accounts and records for the loan and JFPR grant. The PIU will be responsible for project implementation, including daily management, accounting, procurement, training, monitoring, and reporting. It will prepare (i) disbursement projections, (ii) supporting documents, and (iii) withdrawal applications. Online training for project staff on disbursement policies and procedures is available.<sup>34</sup> Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

37. **Advance fund procedure.** After loan effectiveness, the GOM will establish two USD advance accounts under the Treasury Single Account (TSA) of the MOF, one for each financing source (ADB loan and JFPR grant). The currency of the advance account is the US dollar. The respective advance accounts will be used exclusively for ADB's and JFPR's share of the eligible expenditures and will be operated by MOF. To receive funding to TSA, the MOF will establish two pass through accounts in US dollar currency at a commercial State Bank. At the same day of the replenishment, the fund through the State Bank account will be transferred to the advance accounts at the TSA. The MOF, who administers the advance accounts, is accountable and responsible for proper use of advances to the advance account including advances to any sub-accounts.

38. **Project sub-account.** MET with support of PIU will submit request to MOF for approval to open sub-accounts, after which four sub-accounts in local currency (one investment sub-account and one operational sub-account under each USD advance account) will be established. These sub-accounts will be held under the TSA at MOF, but MET, with support of the PIU, will be responsible for the management, monitoring, and reconciliation of them. While investment sub-account will be exclusively for payment to contractors, the operational sub-account will be used exclusively for ADB's and JFPR's share of eligible expenditures to finance office management, vehicle operation, PIU salary costs, and workshop, and training activities. Every liquidation and replenishment of the sub-accounts shall be supported by sufficient documentation in accordance with *Loan Disbursement Handbook* (2017, as amended from time to time).

39. The total outstanding advance to the respective advance account should not exceed the estimate of ADB's and JFPR's share of expenditures to be paid through the respective advance account for the forthcoming 6 months. MOF may request for initial and additional advances to the respective advance account based on an Estimate of Expenditure Sheet setting out the estimated expenditures to be financed through the respective accounts for the forthcoming 6 months.<sup>35</sup> Supporting documents should be submitted to ADB or retained by MOF in accordance with ADB's

<sup>33</sup> The handbook is available electronically from the ADB website [ADB Loan Disbursement Handbook](#).

<sup>34</sup> Disbursement eLearning. [https://wpqr4.adb.org/disbursement\\_elearning](https://wpqr4.adb.org/disbursement_elearning)

<sup>35</sup> The estimate of expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

*Loan Disbursement Handbook* (2017, as amended from time to time),<sup>36</sup> and other detailed arrangements agreed by ADB and the government.

40. **Statement of expenditure procedure.**<sup>37</sup> The statement of expenditure procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance accounts. The ceiling of the SOE procedure is the equivalent of \$200,000 per individual payment. Supporting documents and records for the expenditures claimed under the statement of expenditure procedure should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

41. **Withdrawal application.** Before the submission of the first withdrawal application, the government should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. Co-signing responsibilities are as follows: (i) withdrawal applications submitted to ADB will be co-signed by MOF and MET, (ii) disbursements from the advance and investment sub-accounts will be co-signed by MET and MOF, (iii) disbursement from operational sub-accounts will be co-signed by PIU project coordinator and project Finance specialist.

42. The minimum value per withdrawal application is stipulated in ADB's *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by MET, and subsequently claimed to ADB through reimbursement; or (ii) through the advance fund procedure, unless otherwise accepted by ADB. MOF should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for Disbursements system is encouraged for submission of withdrawal applications to ADB.<sup>38</sup>

### C. Disbursement Arrangements for Counterpart Fund

43. Government counterpart contributions to the project are in-kind only in terms of financing of value added taxes and custom duties on goods in the form of tax exemption estimated at MNT 854.94 million (\$0.3 million equivalent). The exemption from value added tax will be regulated by MOF Decree #46<sup>39</sup> while custom duties exemptions will be regulated by sMOF Decree #317.<sup>40</sup> The PIU shall obtain the registration number from the state administrative organization in charge of customs and tax matters, and submit requests for tax exemption to MOF each quarter. MOF approves the list of project implementers receiving tax exemptions. The value added tax and custom duties exemptions will be accounted for and recorded by the PIU, to properly account for

<sup>36</sup> The *Loan Disbursement Handbook* (2017, as amended from time to time), describes which supporting documents should be submitted to ADB and which should be retained by the government for liquidation and replenishment of the advance account.

<sup>37</sup> The statement of expenditure forms are available in Appendixes 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

<sup>38</sup> The Client Portal for Disbursement system facilitates online submission of withdrawal applications to ADB, resulting in faster disbursement. The forms to be completed by the borrower are available online at [Guide to the Client Portal for Disbursements | Asian Development Bank \(adb.org\)](https://www.adb.org/en/client-portal-for-disbursements)

<sup>39</sup> MOF Decree #46. 5 February 2016. Regulation on Exemption from Value Added Tax on Goods, Works and Services Purchased from the Domestic Market with Humanitarian and Grant Assistance and Concessional Loans provided to Mongolia by International Organizations and Donor Countries through the Government.

<sup>40</sup> MOF Decree #317. 20 Nov 2015. Procedure for exemption from value added tax and customs duty on humanitarian and grant aid goods received from foreign governments and international organizations.

the government counterpart financing for the project. The amounts exempted will be recorded as part of the cost of the assets purchased and/or services contracted.

#### **D. Accounting**

44. MET will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following accrual based International Public Sector Accounting Standards. MET will prepare project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

#### **E. Auditing and Public Disclosure**

45. MET will cause the detailed project financial statements to be audited in accordance with International Standards on Auditing by an independent acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB by MET within 6 months from the end of the fiscal year.

46. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; and (ii) whether the proceeds of the loan and grant were used only for the purposes of the project.

47. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

48. The government, MET, DTPC and DPAM have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>41</sup> ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

49. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Access to Information Policy 2018.<sup>42</sup> After the review, ADB will disclose the audited project financial statements and the opinion of the

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<sup>41</sup> ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

<sup>42</sup> ADB's Access to Information Policy 2018: <https://www.adb.org/documents/access-information-policy>

auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter and additional auditor's opinions will not be disclosed.

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting

50. All advance contracting will be undertaken in conformity with ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).<sup>43,44</sup> The issuance of invitations for bids under advance contracting will be subject to ADB's approval. The MET and MET's DTPC and DPAM have been advised that approval of advance contracting does not commit ADB to finance the project. Advance contracting will apply to the recruitment of PIU staff. Advance actions under the advance contracting will include advertisements and selection for the PIU core staff and endorsement of proposed PIU core staff by ADB. However, the contracts can be signed only after the loan effectiveness.

### B. Procurement of Goods, Works, and Consulting Services

51. Procurement of all works and goods to be financed from the ADB loan and JFPR grant and recruitment of all consultants to be financed from the ADB loan and JFPR grant will be undertaken in accordance with the Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time) (footnotes 48 and 49).

52. The project has a total of 34 contracts to be financed from the ADB loan or JFPR grant; including five for works, nine for goods, seven for consulting services, and 13 for community participation in procurement; excluding 12 for PIU staff.

53. All invitations for bids under open competitive bidding (OCB) with national advertisement and request for quotations (RFQ) for works and goods will be advertised on the national e-procurement system (tender.gov.mn), in addition to daily national newspapers and MET website.<sup>45</sup> The PIU with ADB's support will try to use the national e-procurement system (tender.gov.mn) for bidding of OCB with national advertisement and RFQ for works and goods on pilot basis.

#### 1. Open Competitive Bidding

54. OCB with international advertisement will be used for a total of four contracts with high value which will attract foreign bidders: one contract each under works package W1 and W2, and two contracts under goods package G3. OCB with national advertisement will be used for a total of seven contracts, for which adequate number of qualified national bidders are expected based on the market assessment under the project procurement risk assessment: three contracts under works package W3, one contract under goods package G4, and three contracts under goods package G5.

55. For procurement under OCB with national advertisement: (i) an advertisement in Mongolian language will be published on the national e-procurement system (tender.gov.mn), in addition to daily national newspapers and MET website; (ii) the standard bidding documents developed by MOF and approved by ADB will be used unless otherwise agreed between the MOF, MET, and ADB; and (iii) documents for bidding and contracting will be only in Mongolian

<sup>43</sup> Available at: <https://www.adb.org/documents/adb-procurement-policy>

<sup>44</sup> Available at: <https://www.adb.org/documents/procurement-regulations-adb-borrowers>

<sup>45</sup> ADB and Mongolia Government Procurement Agency, with the Ministry of Finance support, agreed to use the national e-procurement system (tender.gov.mn) to publish all invitations for bids under national competitive bidding, OCB with national advertisement, shopping, and RFQ methods for procurement of goods and works funded by ADB from 19 April 2021, to encourage the development of domestic contracting and manufacturing industries in Mongolia.



language (except for documents which require ADB's review and approval), and the currency for bidding and payments will be in Mongolian tugrik, unless otherwise agreed between the MOF, MET, and ADB. Procurement under OCB will use single stage: one envelope procedure. The relevant sections of ADB's Anticorruption Policy (1998, as amended from time to time) will be included in all procurement documents and contracts.<sup>46</sup>

## **2. Request for Quotation**

56. RFQ will be used for three goods contracts under two goods packages, G1 and G2, with an estimated value of \$100,000 or below. For procurement under RFQ: (i) price quotations will be collected from at least three suppliers, and (ii) the supplier which submitted the lowest price will be selected.

## **3. Community Participation in Procurement**

57. To ensure sustainability and achieve social objectives of the project, the project will apply community participation in procurement (CPP) method to involve communities and procure community-led works and services. The CPP method will follow national procedures and sample bidding documents for community participation methods and comply with ADB Procurement Regulations for ADB Borrowers (2017, as amended from time to time) (footnote 48). For the CPP method, (i) a contract will be concluded with a community group established on the basis of a cooperation agreement which meets requirements of the Civil Law, and (ii) works and services to be procured do not require professional contractors. The community group through community-based organizations (CBOs) will operate and maintain small facilities in protected areas (under project output 4), purchasing materials and mobilizing labors required to undertake the tasks when necessary, provided that adequate expertise exists. The CBOs will purchase materials such as cement, wood, stone aggregate, and sand in bulk, preferably from local suppliers (for each purchase, at least three price quotations will be collected and a supplier which submitted the lowest price will be selected) All tasks by the CBOs will comply with domestic laws and regulations and ADB's Safeguard Policy Statement.

## **4. Consulting Services**

58. Individual consultant selection method will be applied to recruitments of 12 PIU staff members. Quality- and cost-based selection method with a quality-cost ratio of 90:10 will be applied to the recruitment of six firms. Consultants' qualifications selection method will be applied to the recruitment of an external environmental monitoring firm. Appendix 2 contains indicative TORs for firms to be financed from ADB loan and for PIU staff. Appendix 3 contains indicative TORs for firms to be financed from JFPR grant.

## **5. ADB Review**

59. ADB prior review will be applied to OCB contracts for works and goods and all contracts for consulting services and PIU staff to be financed from ADB loan or JFPR grant. For OCB contracts for works and goods for ADB prior review, ADB's prior review and approval is needed for each bidding step (i.e., preparation of invitation for bids and bidding documents, and bid evaluation) and for contract variations. For all contracts for consulting services and PIU staff for ADB prior review, ADB's prior review and approval is necessary for each recruitment step (e.g., evaluation of expressions of interest, preparation of a request for proposal, evaluation of technical

<sup>46</sup> Available at: <https://www.adb.org/documents/anticorruption-policy>



proposals, evaluation of financial proposals, final ranking, and finalization of the contract) and for contract variations. For CPP contracts, post review (sampling) will be conducted as soon as the first few contracts have been awarded so that lessons learned can be taken into account for subsequent contracts. For RFQ contracts, the contracts will be for post review.

## C. Procurement Plan

60. The procurement plan shall be updated as needed throughout the duration of the project.

### 1. Basic Data

<b>Project Name:</b> Sustainable Tourism Development Project (Phase 2)		
<b>Project Number:</b> 51422-002	<b>Approval Number:</b>	
<b>Country:</b> Mongolia	<b>Executing Agency:</b> Ministry of Environment and Tourism	
<b>Project Procurement Classification:</b> B	<b>Implementing Agency:</b> Department of Tourism Policy	
<b>Procurement Risk:</b> Low	Coordination for the loan, Department of Protected Areas Management for the grant	
<b>Project Financing Amount:</b> <b>ADB Financing:</b> \$30.00 million <b>Non-ADB Financing:</b> \$2.30 million Japan Fund for Poverty Reduction \$2.00 million Government \$0.3 million		<b>Project Closing Date:</b> 30 June 2028
<b>Date of First Procurement Plan:</b> April 2021		<b>Date of this Procurement Plan:</b> April 2021
<b>Procurement Plan Duration:</b> 18 months	<b>Advance contracting:</b> yes	eGP: yes

eGP =electronic government procurement.

### 2. Methods, Review, and Procurement Plan

61. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods, works, nonconsulting services, and consulting services:

Procurement of Goods, Works, and Nonconsulting Services	
Method	Comments
OCB for goods and works	OCB method will be used for contracts with estimated value of above \$100,000. Based on the project procurement risk assessment, four contracts (under two works and one goods package) will be internationally advertised. All 11 OCB contracts are subject to prior review.
Request for Quotation for Goods and Works	For small contracts (e.g., estimated value is \$100,000 or below), RFQ method will be used. All three RFQ contracts are subject to post review.
Community participation in procurement for small works	Up to equivalent of \$30,000; all contracts will be subject to post review.

OCB = open competitive bidding, RFQ = request for quotation.

Consulting Services	
Method	Comments
Quality and Cost-Based Selection, with a quality-cost ratio of 90:10	Prior review
Consultant's Qualification Selection	Prior review
Individual Consultant Selection	Prior review

### 3. Lists of Active Procurement Packages (Contracts)

62. The following table lists goods, works, nonconsulting services, and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan duration.

Goods, Works, and Nonconsulting Services							
Package Number	General Description	Estimated Value (\$)	Procurement Method	ADB Review	Bidding Procedure	Advertisement Date (quarter, year)	Comments
G1	PIU Office Establishment  Lot 1: Equipment Lot 2: Furniture	49,196  24,598 24,598	RFQ	Post	N/A	Q1 2022	Advertising: National  Number of Contracts: 2  Bidding Document: Goods
G2	PIU car	88,555	RFQ	Post	N/A	Q1 2022	Advertising: National  Number of Contracts: 1  Bidding Document: Goods
W1	Works for UVTC and Uvs tourist street	8,424,960	OCB (IA)	Prior	1S1E	Q2 2023	Advertising: International  Number of Contracts: 1  Bidding Document: Small works
W2	Works for RANCC and Khovd tourist street	8,338,240	OCB (IA)	Prior	1S1E	Q2 2023	Advertising: International  Bidding Documents: Large works  Number of Contracts: 1  Bidding Document: Small works

ADB = Asian Development Bank, 1S1E = one stage-one envelope, N/A = not available, OCB (IA) = open competitive bidding (international advertisement), PIU = project implementation unit, Q = Quarter, RANCC = rock art and nomadic culture center, RFQ = Request for Quotation, UVTC = Uvs Tourism Complex.

Consulting Services							
Package Number	General Description	Estimated Value (\$)	Selection Method	ADB Review	Type of Proposal	Advertisement Date	Comments
CS1	Ecotourism planning and protected area management	256,940	QCBS	Prior	BTP	Q2 2022	Type: Firm  Assignment: National  Quality-Cost Ratio: 90:10
CS2	Detailed engineering	474,900	QCBS	Prior	BTP	Q2 2022	Type: Firm

Consulting Services							
Package Number	General Description	Estimated Value (\$)	Selection Method	ADB Review	Type of Proposal	Advertisement Date	Comments
	design and construction supervision for UVTC and Uvs tourist street						Assignment: National  Quality-Cost Ratio: 90:10
CS3	Detailed engineering design and construction supervision for RANCC and Khovd tourist street	474,900	QCBS	Prior	BTP	Q2 2022	Type: Firm  Assignment: National  Quality-Cost Ratio: 90:10
CS5	External environmental monitoring firm	60,000	CQS	Prior	BTP	Q1 2023	Type: Firm  Assignment: National

ADB = Asian Development Bank, BTP = biodata technical proposal, CQS = consultants' qualifications selection, Q = quarter, QCBS = Quality and Cost-Based Selection, RANCC = rock art and nomadic culture center, UVTC = Uvs tourism complex.

#### 4. List of Indicative Packages (Contracts) Required Under the Project

63. The following table lists goods, works, nonconsulting services, and consulting services contracts for which procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e., those expected beyond the current procurement plan's duration).

Goods, Works and Nonconsulting Services						
Package Number	General Description	Estimated Value (\$)	Procurement Method	ADB Review	Bidding Procedure	Comments
G3	Equipment and Furniture for RANCC, UVTC and 2 tourist streets	3,162,754	OCB (IA)	Prior	1S1E	Advertisement Date: Q2 2025  Advertising: International
	Lot 1: UVTC and Uvs Tourist Street;	1,708,814				Number of Contracts: 2
	Lot 2: RANCC and Khovd Tourist Street	1,453,940				Bidding Document: Goods
G4	Equipment for Digital Museum	344,379	OCB (NA)	Prior	1S1E	Advertisement Date: Q2 2025  Advertising: National  Number of Contracts: 1  Bidding Document: Goods

G5	Procurement of waste trucks and portable toilets	189,655	OCB (NA)	Prior	1S1E	Advertisement Date: Q1 2026
	Lot 1: Uvs <i>Aimag</i>	59,627				Advertising: National
	Lot 2: Khovd <i>Aimag</i>	70,401				Number of Contracts: 3
	Lot 3: Bayan-ulgii <i>Aimag</i>	59,627				Bidding Document: Goods

ADB = Asian Development Bank, 1S1E = one stage-one envelope, OCB (NA) = open competitive bidding (national advertisement), Q = quarter, RANCC = rock art and nomadic culture center, UVTC = Uvs tourism complex.

Consulting Services							
Package Number	General Description	Estimated Value (\$)	Selection Method	ADB Review	Type of Proposal	Advertisement Date (quarter, year)	Comments
CS4	Detailed IT system design and establishment of supervision for Digital Museum in RANCC	850,000	QCBS	Prior	STP	Q3 2023	Type: Firm  Assignment: International  Quality-Cost Ratio: 90:10

ADB = Asian Development Bank, IT = information technology, Q = quarter, QCBS = quality and cost-based selection, RANCC = rock art and nomadic culture center, STP = simplified technical proposal.

## 5. List of Awarded and Completed Contracts

64. The following table lists the awarded and completed contracts for goods, works, nonconsulting and consulting services.

Goods, Works, and Nonconsulting Services					
Package Number	General Description	Contract Value	Date of ADB Approval of Contract Award	Date of Completion	Comments
[None]					

ADB = Asian Development Bank.

Consulting Services					
Package Number	General Description	Contract Value	Date of ADB Approval of Contract Award	Date of Completion	Comments
[None]					

ADB = Asian Development Bank.

## 6. Non-ADB Financing

65. The following table lists the works, goods, nonconsulting, and consulting services contracts over the life of the project, financed by non-ADB sources.

Goods, Works, and Nonconsulting Services				
General Description	Estimated Value (cumulative, \$)	Estimated Number of Contracts	Procurement Method	Comments
Small works for protected areas (toilets,	701,075	3	OCB (NA)	Package Number: W3

Goods, Works, and Nonconsulting Services				
General Description	Estimated Value (cumulative, \$)	Estimated Number of Contracts	Procurement Method	Comments
campsites, public cooking cabins, bird watching towers, ranger stations, fee collection stations) Lot 1:Uvs <i>Aimag</i> Lot 2: Khovd <i>Aimag</i> Lot 3: Bayan-ulgii <i>Aimag</i>	268,315 249,380 183,380			Financing Source: JFPR grant  Advertisement Date: Q2 2023  ADB Review: Prior  Bidding Document: small works
Community participation works at 5 protected areas	162,000	13 (for 13 CBOs)	CPP	Package Number: CPP1  Financing Source: JFPR grant  Advertisement Date: Q3 2023  ADB Review: Post  Bidding Document: Mongolian CPP sample bidding documents

ADB = Asian Development Bank, 1S1E = one stage-one envelope, CBO = community- based organization, CPP = community participation in procurement; JFPR = Japan Fund for Poverty Reduction, N/A = not applicable, OCB (NA) = open competitive bidding (national advertisement), PA = protected area, Q = Quarter.

Consulting Services				
General Description	Estimated Value (cumulative, \$)	Estimated Number of Contracts	Recruitment Method	Comments
Sustainable livelihoods, tourism business development, and capacity building	265,000	1	QCBS	Package Number: CS6  Financing Source: JFPR grant  Type: Firm  Assignment: National  Quality-Cost Ratio: 90:10  Type of Proposal: BTP  Advertisement Date: Q3 2022  ADB Review: Prior review
Detailed engineering design and construction supervision for small works at 5 protected areas	169,970	1	QCBS	Package Number: CS7  Financing Source: JFPR grant  Type: Firm  Assignment: National  Quality-Cost Ratio: 90:10  Type of Proposal: BTP  Advertisement Date: Q3 2022  ADB Review: Prior

ADB = Asian Development Bank, BTP = biodata technical proposal, JFPR = Japan Fund for Poverty Reduction, QCBS = quality- and cost- based selection.

**D. Consultant's Terms of Reference**

66. Appendix 2 contains indicative TORs for firms to be financed from the ADB loan and for the PIU staff positions. Appendix 3 contains indicative TORs for firms to be financed from the JFPR grant.

## VII. SAFEGUARDS

67. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (SPS, 2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

### A. Environment

68. **Institutional arrangements.** The project is classified by ADB as Category B for environment. The project environmental safeguard assessments and documents comprise an initial environmental examination (IEE) including an environmental management plan (EMP). The IEE and EMP have been disclosed on ADB's website ([www.adb.org](http://www.adb.org)). The EMP is in Appendix 1 of the IEE. The EMP covers all project components. The IEE, and EMP have been prepared in compliance with ADB's SPS. For all project matters relating to environmental safeguards, the EMP forms the basis of the official loan agreement between ADB and the executing agency. For domestic requirements, in accordance with Mongolia's Law on EIA (2012), an environmental baseline assessment has been prepared and a General EIA (GEIA) Letter for the project has been issued by the EIA Division of the Ministry of Environment and Tourism (MET). The GEIA Letter issued by MET indicated that domestic detailed EIAs (a requirement under national law for projects assessed to have potentially significant environmental safeguard risks) will be required for the project-funded tourism facilities: these are scheduled to be completed by Q2 2023 (for the Uvs tourism complex) and Q2 2024 (for the rock art and nomadic cultural center) (under Activities 2.1.1 and 4.2 in Section II.B [overall project implementation schedule]). Public consultation will continue during project implementation, and additional due diligence will occur if warranted by the finalized project investment designs including additional EBAs and preparation of GEIA applications for the MET to meet national EIA requirements.

69. **Content of the EMP.** The EMP describes (i) the project environmental safeguard objectives; (ii) roles and responsibilities for EMP implementation; (iii) mitigation measures; (iv) inspection, monitoring, and reporting arrangements; (v) training and institutional strengthening; (vi) a project-specific grievance redress mechanism; (vii) public consultation during project implementation; (viii) a COVID-19 risk management plan; and (ix) a feedback and adjustment mechanism. The EMP identifies specific roles and responsibilities for all agencies that will be involved in EMP implementation. The scope and content of the EMP complies with ADB's SPS for environmental safeguards and Mongolia's environmental laws and regulations. All project agencies are required to comply with the EMP. In the event of any proposed changes in scope or project site locations, the IEE and EMP will be updated as needed, specifically to ensure that: (i) any new risks which are not covered by the IEE and EMP, are identified; and (ii) the mitigation, monitoring, and reporting measures in the EMP adequately address the environmental safeguard management for all sites. In such event, no site works will proceed until the IEE and EMP has been updated as needed and re-disclosed on the ADB website. All project locations were confirmed during project preparation, especially within the protected areas. Due to the high ecological and/or cultural values of these protected areas, any changes in project location for any of the facilities, however small, will first be subject to review and endorsement by MET and ADB.

70. **EMP implementation.** The EMP will be implemented in all phases of the project: design, pre-construction, construction, and operation. The PIU will be responsible for ensuring that the project will be designed, constructed, decommissioned, and operated in accordance with (i) the national and local government environmental, health, and safety laws, regulations, procedures, and guidelines; (ii) ADB's SPS; and (iii) the IEE including the EMP. The executing agency, through the PIU, holds final responsibility for implementation of and compliance with the EMP.



71. For preparation of the detailed engineering designs for the project, the PIU will forward the EMP to the design firms that will be recruited for each package. The PIU environment safeguard specialist and other PIU staff will work with these firms to ensure that safeguard risks identified in the EMP are considered in the detailed designs and avoided, minimized, or mitigated. The EMP will be further updated at the end of the detailed design, as needed. To ensure that bidders respond to the EMP provisions, the PIU will prepare and provide the following specification clauses for incorporation into the bidding documents: (i) a list of environmental management requirements to be budgeted by the bidders in their proposals; (ii) environmental clauses for contractual terms and conditions; and (iii) the EMP, and domestic environmental assessments, for compliance. All tenders involving works will be required to include and fully address the EMP requirements, especially the mitigation and monitoring measures.

72. **Personnel.** The EMP will be under the responsibility and coordination of the following agencies: (i) MET, the executing agency, is responsible for the overall implementation of the EMP; (ii) MET's Department of Tourism Policy Coordination and Department of Protected Areas Management, the implementing agencies, will jointly oversee EMP implementation; (iii) the PIU environmental safeguard specialist (national; part-time over 6 years) will be responsible for overall coordination of EMP implementation; (iv) the three PIU supervision officers – based in each *aimag* – will support the day-to-day implementation of the EMP; (v) as part of the counterpart support, each *aimag* government will assign one environment safeguard focal officer (from the *aimag* Department of Environment and Natural Resources), who will work with the PIU team to ensure effective implementation of the EMP at the *aimag*, *soum*, and site levels, (vi) each detailed engineering design and construction supervision firm, and each works contractor, will be required to have at least one on site environment, health, and safety officer, to monitor compliance of works with the EMP; and (vii) one external environment monitoring firm will be engaged, to independently assess compliance with the EMP. At the end of the first year of project implementation, the EA and ADB will assess whether the number of person-months allocated for the position of PIU environment safeguard specialist position is sufficient to ensure effective implementation of the project EMP. Pending the results of this assessment, a portion of the loan budget will be allocated toward supporting additional person-months for the position, as needed.

73. **Capacity building.** MET has previous experience in implementing ADB projects, but the *aimag* and *soum* governments have limited experience. To ensure effective implementation of the EMP, a capacity building program is included in the EMP for training of project agencies in EMP implementation, mitigation measures, supervision, monitoring, reporting, and the grievance redress mechanism. Training will be provided by the PIU environment safeguard specialist. Trainees will include staff of the implementing agency, PIUs, contractors, construction supervision companies, and *aimag* and *soum* staff.

74. **Procedures for feedback and adjustment of the EMP, including in the event of non-compliance.** Based on site inspections and monitoring reports, the PIU shall decide, in consultation with the implementing agencies, construction supervision firms, and external environment monitoring, firm whether (i) further mitigation measures are required as corrective actions, or (ii) improvements are required for environmental management practices. The effectiveness of mitigation measures and monitoring plans will be evaluated by a feedback reporting system. Adjustment to the EMP will be made, if necessary, after any proposed adjustments are reviewed and endorsed by the executing agency and ADB. The PIU environment safeguard specialist and PIU Social, gender, and civil society specialist will play important roles in the feedback and adjustment mechanism. If during inspection and monitoring, non-compliance with the EMP is observed, or any changes are made to the project that may cause substantial adverse environmental impacts or increase the number of affected people, then the PIU will

immediately report to the implementing agency, who will consult with ADB and form an environmental assessment team to implement a corrective action plan and/or conduct additional environmental assessment. If necessary, further public consultation will be undertaken. A new or updated domestic environmental assessment(s) and IEE (including EMP) will be prepared and submitted to ADB for review, appraisal, and public disclosure. The revised EMP will be passed to the contractors, construction supervision consultants, and operators of the project facilities, for implementation.

75. **Monitoring and reporting for environmental safeguard.** See Chapter IX of this PAM.

76. **Climate change.** Climate mitigation is estimated to cost \$4.9 million and climate adaptation is estimated to cost \$0.5 million. ADB will finance 100% of mitigation and 100% of adaptation costs.<sup>47</sup>

## **B. Involuntary Resettlement**

77. The project is categorized as C for involuntary resettlement. The project is not expected to involve involuntary land acquisition, economic or physical displacement, or involuntary restrictions on land use or on access to protected areas. All works and activities will be implemented within the existing sites or on state-owned lands. A due diligence report confirming the category C on involuntary resettlement was prepared during the project preparation phase. The PIU will update the due diligence report during detailed design of relevant project components reconfirming that the following principles are met.

- (i) Land for civil works is located on land owned by *aimag* or *soum* governments. No encroachers or users are present on the land where works are planned.
- (ii) No physical displacement will result from civil works.
- (iii) No economic displacement/ structures affected or livelihood or source of income of structure owners affected from civil works.
- (iv) No vulnerable groups will be adversely affected in the proposed location of civil works.
- (v) The land was not previously assigned to any entities.
- (vi) No past or present concerns related to land acquisition is present on this land.
- (vii) No restriction on land use or on access to protected areas from civil works.
- (viii) The updated due diligence report will be submitted to ADB for review and clearance prior to award of civil works contracts.

## **C. Indigenous Peoples**

78. The project is categorized as “C” on indigenous peoples as defined under the ADB’s Safeguard Policy Statement (2009). The project is not expected to impact distinct and vulnerable communities of indigenous peoples. A due diligence report confirming the category C on indigenous peoples was prepared during the project preparation phase. The PIU will update the due diligence report during detailed design of relevant project components reconfirming that the project remains category C. The updated report will be submitted to ADB for review and clearance prior to award of civil works contracts.

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<sup>47</sup> Climate Change Assessment (accessible from the list of linked documents in Appendix 2 of the ADB Report and Recommendations of the President to the Board of Directors).

## **D. Grievance Redress Mechanism**

79. A project grievance redress mechanism (GRM) has been developed in compliance with ADB's SPS requirement to address environmental, health, safety, and social concerns associated with project. The GRM is described within the EMP (Appendix 1 within the IEE). The GRM is designed to achieve the following objectives: (i) provide channels of communication for local communities to raise concerns about environmental and social-related grievances which might result from the project, (ii) prevent and mitigate adverse environmental and social impacts to communities caused by project construction and operation, and (iii) contribute to cooperation between the project agencies and communities. Public grievances related to the project components to be addressed by the GRM may include damage to public roads, interruption of public services, dust emissions, noise, soil erosion, inappropriate disposal of waste materials, and safety for the general public and construction workers. The GRM is accessible to all members of the communities, including women, elderly, disabled youth, ethnic groups, and poverty-stricken residents. Multiple points of entry are available, including face-to-face meetings, written complaints, telephone conversations, e-mail, and social media. The details of the GRM, including a time-bound flow chart of procedures, are included in the project EMP (Appendix 1 in the IEE). The PIU will maintain an integrated reporting system to document, follow up, and report all cases. The PIU environment safeguard specialist and PIU Social, gender, and civil society specialist will train all relevant staff in the GRM. All project agencies will appoint GRM focal points and actively support implementation of the GRM.

## **E. Public Consultation, Participation, and Stakeholder Communication**

80. Public consultation and participation during project implementation are particularly important for this project, as some of the project locations are within or near areas of high cultural heritage and/or biodiversity conservation values. During project preparation, consultations were held with communities at the proposed project sites, as well as national and international CSOs, development agencies, and *aimag* and *soum* government agencies, to discuss the designs and safeguards. To ensure continued consultation and participation during project implementation, a consultation and participation plan (CPP) (Appendix 5) and stakeholder communication strategy (SCS) (Appendix 6) have been prepared.

81. The CPP and SCS emphasize consultation, and dissemination of project progress, throughout implementation. The implementing agencies and PIU will facilitate and implement consultations with communities in the project areas, and other key stakeholders such as CSOs, during preparation of the detailed designs, before and during construction, and operation of the project facilities. The CPP is based on the principles of meaningful consultation, including inclusive- and culturally-respectful approaches, prioritizing the involvement of women, vulnerable groups, unemployed people, single-parent households, disabled persons, and the poor. Whenever needed, consultation methods will be tailored to the specific situations of the target groups e.g. interviews with beneficiary households, meetings with women's groups and youth representatives, household visits to disabled persons, focused group discussions, and collective planning workshops. Concerns and suggestions raised by stakeholders and measures to address these will be documented in the project reports and incorporated as part of the appropriate measures. Documentary proof of consultations (e.g., attendance sheets, minutes of meetings, experts' records, photographs) shall be included in the documentation. The CPP also includes introduction and use of the project GRM, and procedures to document the project consultations.

82. The SCS focuses on the timely and effective dissemination of project activities, findings, and results, to stakeholders within and outside the project sites, including decision makers and

other donors and protected area managers.

83. The PIU is responsible for ensuring that all consultation and disclosure documentation is properly and systematically kept as part of the project records. The PIU shall make relevant project disclosure documents available in a form, language, and at a location in which they can be easily accessed by all stakeholders including residents. The results of environmental and social monitoring reports will be included in the project semiannual progress reports to ADB, which will be posted on ADB's website.

**F. Prohibited Investment Activities**

84. Pursuant to ADB's SPS (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS.

## VIII. GENDER AND SOCIAL DIMENSIONS

### A. Poverty Reduction and Social Development

85. A key project objective is to maximize local benefits from the tourism sector, through the creation of diversified opportunities for stable income generation, prioritizing the local population, particularly women, youth, the poor, and other vulnerable groups (herders, disabled persons, and single-parent headed households); as well as through the environmentally-friendly infrastructure improvements that will benefit both the local communities and the tourism sector.

86. The project has been designed for inclusive and sustainable tourism development, concentrating on the creation and distribution of equitable benefits to residents. The project will enhance tourism benefits for communities in the *soums* in and around project protected areas and national parks by: developing the first western Mongolia regional tourism master plan; upgrading project *aimag* tourism plans (Bayan-Ulgii, Khovd and Uvs); promoting favorable conditions for establishing and strengthening local tourism products and services; establishing tourism concession manuals for project protected areas; establishing site CBOs; establishing tourism complexes and tourism streets; establishing youth incubators, providing focused training for specific products and services and skills, building on the JFPR-supported trainings; prioritizing links between the communities and tour operators; and strengthening and expanding the existing local value chains for tourism goods and services, to expand markets and employment opportunities. The project designs for social benefits build upon and utilize the JFPR-supported initiatives, especially the CBOs, and community revolving funds established under the project, and training for income diversification.

87. Poverty and social analyses were conducted during project preparation. The project designs incorporate measures that target women, youth, the poor, and vulnerable groups. A social development action plan (SDAP) has been prepared (Table 12) and comprises measurable actions and indicators under each output to ensure that residents participate in and benefit from the project. The PIU Social, Gender and Civil Society specialist will facilitate and coordinate implementation of the SDAP.

### B. Gender

88. The project is classified “*effective gender mainstreaming*” under ADB’s project gender classification system. The project designs emphasize establishing and/or expanding livelihood opportunities for women, and greater participation in decision-making, leadership, and business creation. A gender action plan (GAP) has been prepared (Table 13). The GAP provides design targets to ensure that women benefit from the project through women-led tourism markets, capacity building, tourism related opportunities, and direct roles in the community-based tourism planning and management.

Table 12: Social Development Action Plan

Key Objectives	Main Tasks/ Actions	Targets/Indicators	Responsible	Schedule	Funding
<b>Output 1: Inclusive planning and capacity for community-based tourism enhanced</b>					
<b>Disseminate project information</b>					
Inform community, including poor and vulnerable, and other stakeholders on the objectives and activities of the project	a) Conduct information campaign on project objectives and activities among residents at <i>soum</i> level b) Ensure poor and vulnerable are targeted and reached by the information campaign c) Youth will also be specifically targeted	a) Representatives from 3,710 HHs (including at least 30% youth and 30% poor and vulnerable) attended information campaign b) All poor HHs received leaflet c) Accessible information material on project activities distributed Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b>Conduct consultations for regional tourism master plan, aimags tourism plans, tourism concession manuals, and eco-certification for tour camps in protected areas</b>					
Empowerment of local community including poor and vulnerable	a) Engage CSOs in developing tourism plans, tourism concession manuals, and eco-certification b) Include perspectives of disabled persons and their specific needs in plans and manuals c) Include provisions in manuals, ecotourism standards, and tourism plans that local residents are given priority job placement in tour camps/businesses	a) 18 local CSOs representatives (6 per <i>aimag</i> ), participated in stakeholder consultations, including 33% local youth organizations b) Universal access principles adopted in tourism plan and manuals c) New concession manuals and eco-certification program incorporated requirement of tour camps /businesses to employ majority staff from local communities, including poor and vulnerable people Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b>Establish CBOs for five sites: ATBNP, including PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs)</b>					
Empowerment of community, including poor and vulnerable	a) Establish CBOs for respective sites; b) Provide training and capacity building to CBOs	a) 13 CBOs established with 39 executive members, including at least 30% members being youth and 30% poor and vulnerable b) All members of CBOs are trained on leadership skills and management capacity Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b>Establish 2 tourism streets in Khovd and Uvs Aimags centers</b>					
Increase income from tourism for local vendors including poor and vulnerable	a) Involve residents in the design of the tourist streets through consultation workshops in each <i>aimag</i> center b) Install market stalls for local vendors in each of the 2 tourist streets c) Promote local community goods and services	a) Representatives of 719 HHs in Jargalant <i>soum</i> and 657 HHs in Ulaangom <i>soum</i> including 30% of youth and 30% poor and vulnerable involved in consultations for design of tourist streets b) 87 market stalls (Ulaangom: 27; Jargalant: 60) allocated to local vendors including 30% for poor and vulnerable	MET, PIU	2022–2027	Project budget

Key Objectives	Main Tasks/ Actions	Targets/Indicators	Responsible	Schedule	Funding
	d) Promote local traditions	c) Regular local traditional events are organized Baselines 2021: 0			
<b>Establish community revolving funds for 5 sites (ATBNP, KUNNP, KKNP, UVSPA and TSC)</b>					
Improve the livelihoods of local communities including poor and vulnerable through access to micro credit	a) Establish Community Revolving Funds (\$400,000) b) Establish CRF committees c) Public announcement in each <i>soum</i> about process of loan application and CRF criteria d) Provide training (i.e. financial management, leadership etc.) to CRF committees members e) Prepare CRF handbooks	a) 230 HHs representatives obtained CRF including 30% youth and 30% poor and vulnerable b) CRF committees established including 33% youth and 33% poor and vulnerable members; c) CRF information including loan applications forms are publicly available in each <i>soum</i> d) All CRF committee members received relevant training e) CRF handbooks are prepared Baselines 2021: 0	MET, PIU	2022–2027	
<b>Strengthen local competitiveness and capacity to obtain tourism jobs</b>					
Providing residents with technical and financial skills to improve livelihood and productivity	a) Organize vocational training for residents on production of tourist goods/services, marketing and finance b) Provide counseling on job placement for residents to get tourism related job c) Facilitate trainee application to CRF	a) 1,855 HHs representatives including 30% youth and 30% poor and vulnerable are trained in tourism goods and services b) All trainees received counseling on job placement and for CRF application Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b>Establish youth incubators to provide advice and assistance to small and medium businesses in the tourism sector</b>					
Creation of youth incubators for creating an enabling environment for youth entrepreneurs	a) Engage local youth organizations and economic actors in developing youth incubators b) Provide technical support, mentoring and advice for youth-led initiatives c) Facilitate use of the Community Revolving Fund for youth-led-initiatives	a) 2 youth incubators (one in RANCC and one in UVTC) are established b) 30 workspaces in the incubators are provided to youth entrepreneurs c) 30 youth entrepreneurs received training, mentoring, and advice on youth-led initiatives Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b>Output 2: Enabling infrastructure constructed</b>					
<b>Provide employment opportunities for residents, during construction and O&amp;M of UVTC and tourism street in Ulaangom</b>					
Creating employment opportunities for local residents including poor and vulnerable	Provide priority employment to residents during construction and maintenance of UVTC and tourist street	567 (31 skilled, 536 unskilled) jobs during construction and operation are provided to residents, including 30% poor and vulnerable Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b>Conduct awareness campaign on safety, HIV/AIDS/STIs prevention and domestic violence at tourism sites (this covers other outputs also)</b>					
Prevention of accidents, domestic violence HIV/AIDS,	a) Conduct awareness raising for residents on domestic violence, safety issues, and	a) 2,000 residents attended awareness raising events including 30% youth and 30% poor and vulnerable.	MET, PIU, <i>Soum</i> Health Center	2022–2027	Project budget

Key Objectives	Main Tasks/ Actions	Targets/Indicators	Responsible	Schedule	Funding
STIs, for workers and residents	HIV/AIDS/STIs prevention during construction and operation b) Provide construction workers under the project training on HIV/AIDS/STI	b) All construction workers attended training on HIV/AIDS/STI Baselines 2021: 0			
<b>Output 3: Sanitation and waste management improved</b>					
<b><i>Improve sanitation and waste water at tourist camps and public places at ATBNP, KUNNP, KKNP, UVSPA, and TSC</i></b>					
Improve sanitation at tourism sites to meet MET standards	a) Provide training to residents on use of public sanitation, including toilets, and wastewater collection b) Ensure that toilet design features meet needs of people with disabilities	a) 3,710 residents trained on public sanitation, including 30% youth and 30% poor and vulnerable b) At least 1 toilet in each tourism site meets needs of disabled people Baselines 2021: 0	MET, PIU	2022–2027	Project budget
Improve solid waste management in tour camps	a) Conduct awareness raising for residents on solid waste management b) Establish and distribute solid waste management procedures to tourists and local residents	a) 3,710 persons attended awareness raising on solid waste management, including at least 30% youth and 30% poor and vulnerable people b) Leaflets on solid waste management procedures are prepared and distributed Baselines 2021: 0	MET, PIU	2022–2027	Project budget
Provide employment opportunities for local residents including poor and vulnerable	Provide priority employment to residents during construction and maintenance of small facilities for tourism development	176 jobs (36 skilled and 140 unskilled) during construction and operation are provided to residents, including 30% to poor and vulnerable Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b>Output 4: Management of cultural heritage sites and protected areas strengthened</b>					
<b><i>Provide employment opportunities for residents during construction and O&amp;M of RANCC and tourist street in Jargalant</i></b>					
Provide employment opportunities for local residents including poor and vulnerable	a) Provide priority employment to residents during construction and maintenance of RANCC and tourist street in Jargalant b) Employ CBOs to manage the project-supported small facilities at each site (campsites, toilets, bird towers, litter)	a) 614 jobs (32 skilled and 582 unskilled) during construction and operation are provided to residents, including at least 30% to poor and vulnerable b) 39 personnel from CBOs employed to manage the small facilities including 30% poor and vulnerable Baseline 2021: 0	MET, PIU	2022–2027	Project budget
<b><i>Build capacity of stakeholders</i></b>					
Provide stakeholders with park management skills	Provide training to staff of government agencies, operators of project facilities, management councils, CSOs, youth organizations, and other stakeholders on aspects of revised park management	90 staff of relevant agencies and organizations are trained on park management Baseline: 0	MET, PIU	2022–2027	Project budget
<b><i>Involve stakeholders in revision of management plans</i></b>					



<b>Key Objectives</b>	<b>Main Tasks/ Actions</b>	<b>Targets/Indicators</b>	<b>Responsible</b>	<b>Schedule</b>	<b>Funding</b>
Empowerment of local CSOs	Engage CSO representatives in revising park management plans	6 CSOs in each site consulted in preparation and revision of park management plan Baseline: 0	MET, PIU	2022–2027	Project budget

AIDS = acquired immune deficiency syndrome, ATBNP = Altai Tavan Bogd National Park, CBO = community-based organizations, CRF = community revolving fund, CSO = civil society organization, km = kilometer, HH = households, HIV = human immunodeficiency virus, KKNP = Khan Khukhii National Park, KUNNP = Khar Us Nuur National Park, MET = Ministry of Environment and Tourism, O&M = operation and maintenance, PCMA = Petroglyphic Complexes of the Mongolian Altai, PIU = project implementation unit, RANCC = rock art and nomadic culture center, STI = sexually transmitted infection, TSC = Tsenkher Cave, UVSPA = Uvs Nuur Strictly Protected Area, UVTC = Uvs tourism complex, WWTP = waste water treatment plant.

Source: Asian Development Bank.

Table 13: Gender Action Plan

Actions	Performance Indicators/Targets	Responsible	Schedule	Funding
<b>Output 1: Inclusive planning and capacity for community-based tourism enhanced</b>				
<b><i>Disseminate project information</i></b>				
Conduct gender-focused information campaign on project objectives, scope, and activities	a) 3,710 representatives of beneficiary households including at least 50% women are informed b) Gender-targeted information materials on project sites, women-led market, CBOs, revolving funds, etc. prepared and distributed Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b><i>Conduct consultations for regional tourism master plan, aimag tourism plans, tourism concession manuals, and eco-certification for tour camps</i></b>				
a) Engage CSOs including women-led CSOs in developing tourism plans, tourism concession manuals and eco-certification to promote local employment b) Include perspectives of women and their specific needs in the tourism plans and concession manuals	a) 18 CSOs including 33% women-led CSOs participate in relevant consultation activities b) New tourism plans and concession manuals include priority employment for local residents, including a target for women Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b><i>Establish CBOs for at least five sites: ATBNP including the PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs)</i></b>				
a) Establish CBOs for respective sites b) Include women representatives in CBOs c) Encourage women leadership in CBOs	a) 13 CBOs established with total 39 executive members including at least 50% of women b) 33% CBOs are led by women c) All women members of CBOs are trained on leadership skills and management capacity Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b><i>Establish women-led markets at two tourism streets in Khovd and Uvs aimags centers and five protected areas: ATBNP, KUNNP, KKNP, UVSPA, TSC</i></b>				
a) Establish women-led markets and allocate market stalls to women in respective sites to increase income opportunities and empowerment of women b) Establish cooperatives for women-led markets	a) Nine women-led markets established, and 60% of market stalls are allocated to women b) Nine cooperatives established for women-led markets Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b><i>Establish community revolving funds for five sites (ATBNP, KUNNP, KKNP, UVSPA, and TSC)</i></b>				
a) Include women in CRF committees b) Facilitate women to prepare application forms for CRF to support their businesses c) Provide specialized training to CRF committee members, including women	a) 40% CRF committee members are women b) 33% CRF committees are led by women c) 230 HH representatives obtained CRF support, including 60% women d) All CRF committee members, including women are given training on financial, management, leadership etc. Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b><i>Strengthen local competitiveness and capacity to obtain tourism jobs</i></b>				
d) Organize vocational training for residents on production of tourist goods/services and on marketing and finance e) Provide counseling on job placement for residents to get tourism related jobs	a) 1,855 residents including 50% women are trained on tourism products and services. b) All trainees, including 50% women, received counseling on job placement Baselines 2021: 0	MET, PIU	2022–2027	Project budget

Actions	Performance Indicators/Targets	Responsible	Schedule	Funding
<b>Output 2: Enabling infrastructure constructed</b>				
<b><i>Provide employment opportunities for residents, during construction and O&amp;M of UVTC and tourist street in Ulaangom</i></b>				
a) Provide priority employment to residents, including women, during construction and maintenance of UVTC and tourist street in Ulaangom b) Provide equal job opportunities to men and women c) Provide separate toilets for women at construction sites	a) 567 (31 skilled and 536 unskilled) jobs are provided to residents, including at least 40% women b) All construction sites have separate toilets for women Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b><i>Conduct awareness campaign on safety, HIV/AIDS/STI prevention and domestic violence at tourism sites</i></b>				
a) Conduct awareness raising for residents on HIV/AIDS/STI prevention and domestic violence b) Provide all construction workers training on HIV/AIDS/STI	a) 2,000 residents including 50% women attended awareness raising events for HIV/AIDS/STI prevention and domestic violence b) All construction workers attended training on HIV/AIDS/STI Baselines 2021: 0	MET, PIU, <i>soum</i> health center	2022–2027	Project budget
<b>Output 3: Sanitation and waste management improved</b>				
<b><i>Improve sanitation and wastewater at tourist camps and public places at ATBNP, PCMA, KUNNP, KKNP, UVSPA, and TSC</i></b>				
c) Provide training to residents on sanitation d) Design toilet design features meeting needs of women e) Provide priority employment to residents during construction and maintenance of relevant facilities	a) WASH training program implemented for about 3,710 residents including about 50% women b) About 60 gender-sensitive toilets (at least 50% for women) constructed at public campsites and car parks c) 176 jobs (36 skilled and 140 unskilled) provided to residents, including 40% women Baselines: 0	MET, PIU	2022–2027	Project budget
<b>Output 4: Management of cultural heritage sites and protected areas strengthened</b>				
<b><i>Provide employment opportunities for residents during construction and O&amp;M of RANCC and tourist street in Jargalant</i></b>				
c) Provide priority employment to residents, including women, during construction and maintenance of RANCC and tourist street in Jargalant d) Provide equal job opportunities to men and women e) Install separate toilets for women and men at construction sites f) Engage CBO including women to manage small facilities at each protected area (campsites, toilets, bird towers, litter)	a) 614 jobs (32 skilled and 582 unskilled) provided to residents, including 40% women b) All construction sites have separate toilets for women and men c) The small management facilities are managed by CBOs and employ about 176 residents (40% women) Baselines 2021: 0	MET, PIU	2022–2027	Project budget
<b>Build capacity of stakeholders</b>				
a) Provide training to staff of government agencies, operators of project facilities, CSOs, and other stakeholders on relevant management aspects b) Engage CSOs in revising park management plans	a) At least 120 people (40% women and 30% youth) of CBOs, tour camps, park administrations, and <i>soum</i> agencies trained and report improved skills in O&M of project facilities b) Six CSOs including two women-led CSOs consulted in preparation and revision of each park management plan Baselines: 0	MET, PIU	2022–2027	Project budget

AIDS = acquired immune deficiency syndrome, ATBNP = Altai Tavan Bogd National Park, CRF = community revolving fund, CBO = community-based organization, CSO = civil society organization, HIV = human immunodeficiency virus, KKNP = Khan Khukhii National Park, KUNNP = Khar Us Nuur National Park, MET = Ministry of Environment and Tourism, O&M = operation and maintenance, PCMA = Petroglyphic Complexes of the Mongolian Altai, PIU = project implementation unit, RANCC = rock art and nomadic culture center, STI = sexually transmitted infection, TSC = Tsenkher Cave, UVSPA = Uvs Nuur Strictly Protected Area, UVTC = Uvs tourism complex.

Source: Asian Development Bank.

## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

### A. Project Design and Monitoring Framework

Impact the Project is Aligned with Sustainable tourism development in Mongolia improved and diversified (National Program on Tourism Development, 2016–2025) <sup>a</sup>			
Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
<b>Outcome</b> Sustainability and inclusiveness of tourism in western Mongolia increased	<b>By 2028</b> a. Governments of Bayan-Ulgii, Khovd andUvs <i>aimags</i> meet specific targets for livelihoods, conservation, and waste management in the approved regional tourism master plan (2020 baseline: not applicable) (OP 4.2.1)  b. About 1,349 jobs (40% women, 60% men) generated, of which at least 30% filled by youth and 30% poor (2020 baseline: 0) (OP 1.2, OP 2.1, OP 5.1)  c. At least 90% of tour camp operations in about 5 sites (ATBNP, KKNP, KUNNP, TSC, UVSPA) comply with tour camp concession manual, including targets for local employment and sanitation (2020 baseline: not applicable) (OP 3.3.4)  d. ATBNP, KUNNP, KKNP, and UVSPA meet the social, environmental, and sustainability criteria of the IUCN Green List of Protected Conserved Areas <sup>b</sup> (2020 baseline: 0)	a.–d. Protected area and <i>aimag</i> and <i>soum</i> annual reports; and project technical and progress reports	R: Tourism declines again due to COVID-19, other pandemics, or slow economy  R: Changes in political leadership and/or development priorities disrupt project implementation
<b>Outputs</b> 1. Inclusive planning and capacity for community-based tourism enhanced	<b>By 2027:</b> 1a. One regional tourism master plan developed, and three <i>aimag</i> tourism plans revised to include targets for tourism, livelihoods, gender, sanitation, and conservation, and also support cross-border tourism arrangements (2020 baseline: 0) (OP 2.3.2, OP4.2.1, OP 7.2.2)  1b. Tour camp concession manual and certification program produced, implemented by MET, and piloted for at least five sites (ATBNP, KKNP, KUNNP, TSC, UVSPA) (2020 baseline: not developed) (OP 3.3.4)  1c. Two tourist streets and nine women-led tourist markets <sup>c</sup> constructed (2020 baseline: 0) (OP 2.1.4, OP 5.1.1)  <b>With JFPR support</b> 1d. Pilot tourism development program established and at least 1,855 residents (50% women and 30% youth), 13 CBOs, and 80 MSME trained and report improved skills in tourism business planning, goods, and services (e.g., food supply, accommodation, tour camp services, guiding) (2019 baseline: 970 residents) <sup>d</sup> (OP 2.2)  1e. At least 230 loans issued under the pilot tourism development program to households, CBOs, and	1a.–f. Protected area and <i>soum</i> annual reports; project technical and progress reports; workshop and/or training attendance forms; and reports on participant surveys	R: Decreased support from commercial operators to involve communities in tourism

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
2. Enabling infrastructure constructed	<p>MSME of which at least 60% of loan applications are by woman and 30% by youth (2020 baseline: 0) (OP 2.1.3)</p> <p>1f. About 13 CBOs established, of which at least 50% of members are women (2020 baseline: 0) (OP 2.3)</p> <p>2a. UVTC constructed and meets EDGE green building standard<sup>e</sup> (2020 baseline: 0) (OP 3.2.5)</p> <p>2b. 1.2 circuit-km of new transmission line to UVTC are installed (2020 baseline: 0)</p> <p>2c. 12 car parks with capacity for 240 vehicles are constructed at ATBNP, KKNP, KUNNP, TSC, UVSPA, with associated gates, signs, and speed humps (2020 baseline: eight carparks) (OP 3.3.4)</p>	<p>2a.–c. Protected area annual reports; Local Authorization for State Inspection reports; engineering company reports; and project technical and progress reports</p>	
3. Sanitation and waste management improved	<p><b>With JFPR support</b></p> <p>3a. About 60 gender-sensitive toilets (at least 50% for women, 10% with wheelchair access) constructed at public campsites and car parks in five sites (ATBNP, KKNP, KUNNP, TSC, UVSPA) (2020 baseline: 0) (OP 2.4.1, OP 3.3.1, OP 3.3.4, OP 5.1.1)</p> <p>3b. WASH training program implemented for about 3,710 residents including about 50% women, 30% youth, and 30% poor, in 22 <i>soums</i> (2020 baseline: not implemented) (OP 3.3.4)</p> <p>3c. At least 95% of beneficiaries under the pilot tourism development program (output 1) and 95% of 22 <i>soum</i> governments in the project sites report adoption of new WASH hygiene and sanitation protocols (2021 baseline: not applicable) (OP 3.3)</p>	<p>3a.–c. Protected area annual reports; Local Authorization for State Inspection reports; engineering company reports; and project technical and progress reports</p>	
4. Management of cultural heritage sites and protected areas strengthened	<p>4a. RANCC is constructed and meets EDGE green building standard<sup>e</sup> (2020 baseline: not constructed)</p> <p>4b. Digital Museum is established, operational, and promotes rock art, education, and tourism (2020 baseline: not established) (OP 3.2.5)</p> <p><b>With JFPR support</b></p> <p>4c. At least 35 small management facilities constructed in five sites (ATBNP, KKNP, KUNNP, TSC, UVSPA), including about six campsites, three information centers, 11 information points, two birdwatching towers, two cooking cabins, three ranger stations, six fee collection stations, and upgrade of two existing public trails (2020 baseline: not established) (OP 5.1.1)</p> <p>4d. The small management facilities are managed by CBOs and employ about 176 residents (40% women, 30% youth, and 30% poor) (2020 baseline: 0) (OP 1.2, OP 2.1)</p> <p>4e. At least 120 people (40% women and 30% youth) of CBOs, tour camps, park administrations, and <i>soum</i> agencies trained and report improved skills in O&amp;M of project facilities (2020 baseline: 0) (OP 2.2, OP 6.1.1)</p>	<p>4a.–g. Protected area annual reports; Local Authorization for State Inspection reports; engineering company reports; project technical and progress reports; workshop and/or training attendance forms; and reports on participant surveys</p>	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	<p>4f. At least two sites (ATBNP, TSC) with revised management plans (2020 baseline: 0) (OP 3.3.3)</p> <p>4g. Management effectiveness score of at least two sites (ATBNP, TSC) rated as <math>\geq 70\%</math> (2021 baseline: not applicable)<sup>f</sup> (OP 3.3.4, OP 6.1)</p>		
<b>Key Activities with Milestones</b> <ol style="list-style-type: none"> <li><b>Inclusive planning and capacity for community-based tourism enhanced</b> <ol style="list-style-type: none"> <li>Recruit ecotourism firm by Q1 2023.</li> <li>Recruit design firm for the tourist streets and women-led markets by Q1 2023, complete detailed designs and award the contract by Q1 2024, and complete works by Q3 2026.</li> <li>Establish CBOs by Q4 2023.</li> <li>Prepare tourism concession manual and eco-certification program by Q4 2023.</li> <li>Establish, implement, and monitor pilot tourism development program: Q1 2023–Q4 2027.</li> <li>Prepare regional tourism plan by Q4 2023 and revise <i>aimag</i> tourism master plans by Q2 2024.</li> </ol> </li> <li><b>Enabling infrastructure constructed</b> <ol style="list-style-type: none"> <li>For UVTC, complete detailed designs and award contract by Q1 2024, and complete construction by Q3 2026. Prepare business management and O&amp;M plan by Q4 2025.</li> <li>For carparks and traffic management plans in 5 sites (ATBNP, KKNP, KUNNP, TSC, UVSPA), complete detailed designs and construction by Q4 2025.</li> <li>Make assets operational by Q4 2026.</li> </ol> </li> <li><b>Sanitation and waste management improved</b> <ol style="list-style-type: none"> <li>Design water, sanitation, and hygiene program by Q3 2023 and implement from Q4 2023–Q4 2027.</li> <li>For toilet systems in 5 sites (ATBNP, KKNP, KUNNP, TSC, UVSPA), recruit design firm by Q2 2023, complete detailed designs and award contract by Q2 2024, and complete construction by Q3 2026.</li> </ol> </li> <li><b>Management of cultural heritage sites and protected areas strengthened</b> <ol style="list-style-type: none"> <li>For RANCC, complete detailed designs and award contract by Q2 2024, and complete construction by Q3 2026. Prepare business management and O&amp;M plan by Q4 2025.</li> <li>For Digital Museum, recruit IT design firm by Q2 2024 and make Digital Museum operational by Q4 2025.</li> <li>Conduct assessment of protected area management capacity for 5 sites (ATBNP, KKNP, KUNNP, TSC, UVSPA) using <i>METT</i> by Q1 2023.</li> <li>For the small facilities in 5 sites (ATBNP, KKNP, KUNNP, TSC, UVSPA), recruit design firm by Q2 2023, complete detailed designs and award contract by Q1 2024, and complete construction by Q3 2026.</li> <li>Complete revision of 2 site management plans (ATBNP, TSC) by Q4 2025.</li> <li>Conduct training for O&amp;M of the project facilities: Q3 2024–Q4 2027.</li> </ol> </li> </ol> <p><b>Project Management Activities</b>  Establish project implementation unit by Q1 2022.  Prepare annual work plans. Meet targets in the design and monitoring framework, social development action plan, gender action plan, consultation and participation plan, stakeholder communication strategy, and project administration manual (2022–2027).  Monitor and evaluate the project outcome and outputs using sex-disaggregated project performance monitoring system, and submit semiannual progress reports and inception, midterm, and final reports (2022–2027).  Implement the environmental management plan and submit semiannual reports (2022–2027).  Conduct inception, annual, midterm and final review missions (2022–2027).  Submit project annual financial audit reports (2022–2027).  Submit the project completion report by 2028.</p> <p><b>Inputs</b>  ADB: \$30.0 million (loan)  JFPR Grant: \$2.0 million (grant)  Government: \$0.3 million  Beneficiaries: in-kind: (i) residents' time to implement CBOs; and (ii) private sector costs – time and costs by MSMEs and tour camp companies to attend project trainings and adopt standards for eligibility in the eco-certification program and sanitation standards.</p>			

ADB = Asian Development Bank, ATBNP = Altai Tavan Bogd National Park, CBO = community-based organization, COVID-19 = coronavirus disease, EDGE = excellence in design for greater efficiencies, IUCN = International Union for Conservation of Nature and Natural Resources, IT = information technology, JFPR = Japan Fund for Poverty Reduction, KKNP = Khan Khukhii National Park, km = kilometer, KUNNP = Khar Us Nuur National Park, MET = Ministry of Tourism,

METT = management effectiveness tracking tool, MSMEs = micro, small, and medium-sized enterprises, O&M = operation and maintenance, OP = operational priority, Q = quarter, RANCC = rock art research and tourism center, R = risk, TSC = Tsenkher Cave, UVTC =Uvs tourism complex, UVSPA =Uvs Nuur Strictly Protected Area, WASH = water, sanitation and hygiene.

<sup>a</sup> Government of Mongolia. 2015. *National Program on Tourism Development, 2016–2030*. Ulaanbaatar.

<sup>b</sup> IUCN. 2016. *IUCN Green List of Protected and Conserved Areas: Standard, Version 1.0*. Gland.

<sup>c</sup> The markets will be managed by local women's groups and will allocate a majority of stalls to women vendors. Two will be funded under the loan and seven will be funded under the grant.

<sup>d</sup> The beneficiary target of 1,855 residents represents 1,855 households in the project area with a total 2020 population of 8,162 residents. No training was conducted in 2020 due to the COVID pandemic.

<sup>e</sup> [Excellence in Design for Greater Efficiencies standard](#).

<sup>f</sup> Baseline values will be measured using the management effectiveness tracking tool. S. Stolton and N. Dudley. 2016. *METT Handbook: A Guide to Using the Management Effectiveness Tracking Tool*. London: WWF-UK.

### **Contribution to Strategy 2030 Operational Priorities**

The expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix two of the report and recommendation of the President). In addition to the OP indicators tagged in the design and monitoring framework, this operation will contribute results for:

OP 1.3 Poor and vulnerable people with improved standards of living (number)

OP 2.1.1 Women enrolled in technical and vocational education and training and other job training (number)

OP 3.1 Total annual greenhouse gas emissions reduction in tons of carbon dioxide equivalent per year (tCO<sub>2e</sub>/year)

OP 6.2 Entities with improved service delivery (number)

Source: Asian Development Bank.

## **B. Monitoring**

89. **Project performance monitoring.** To monitor the progress of the project in achieving the planned outcome and outputs, the PIU is responsible for the establishment and maintenance of the project performance management system (PPMS)—equivalent to a management information system—which will permit adequate flexibility to adopt remedial action regarding project design, schedules, activities, and development impacts. In addition, risk management for the project shall be incorporated in the PPMS. The monitoring will cover all indicators listed in the design and monitoring framework (DMF) as well as the indicators reflecting the development results contributed by the project. The PPMS will cover the following aspects of the project implementation: (i) project physical and financial progress; (ii) progress and results of capacity development; (iii) implementation of the EMP; (iv) implementation of the SDAP and GAP; and (v) compliance with loan covenants (policy, financial, economic, sector, and others).

90. At the beginning of project implementation, the PIU will finalize the comprehensive PPMS procedures to systematically generate data in the above areas. The PIU will refine the PPMS framework, confirm achievable targets and the monitoring and recording arrangements, and establish relevant systems and procedures not later than 6 months after project implementation begins. The PIU will assign staff or consultants to collect baseline and progress data at the requisite time intervals, including progress report on the implementation of the EMP, SDAP, and GAP. The PIU will be responsible for analyzing and consolidating reported data through its PPMS, and reporting outcomes to ADB through semiannual progress reports.

91. A project progress report, monitoring the project inputs and activities, will be submitted to ADB on a semiannually basis, starting from project effectiveness. The semiannual progress reports will provide information necessary to update ADB's PPMS.

92. Promptly after physical completion of the project, but not later than 6 months thereafter or such later date as ADB may agree for this purpose, MET will prepare and submit to ADB a project completion report (PCR), in such form and in such detail as ADB shall reasonably request, on the implementation and evaluation of the project, including project description, evaluation of design

and implementation, evaluation of performance, and overall assessment and recommendations.

93. **Compliance monitoring.** During project implementation, ADB and MET will closely monitor the compliance of all the covenants under the project; and will take necessary remedy actions for any non-compliance. The compliance status will be reported in the semiannual progress report by MET and will be reviewed during project review missions. Compliance monitoring will also be undertaken by (i) the PIU environment safeguard specialist, supported by the other PIU specialists, construction supervision companies, and external environment monitoring firm, to ensure compliance of all relevant agencies with the EMP; and (ii) the PIU Social, gender, and civil society specialist, to ensure overall compliance with the relevant social and gender targets and requirements. Semiannual environmental monitoring reports and social monitoring reports will be prepared by the PIU on behalf of MET, and submitted to ADB.

94. **Environmental safeguards monitoring.** The EMP includes a monitoring plan for the pre-construction, construction, and operation phases of the project. Three types of monitoring will be conducted: (i) environmental impact monitoring, to be conducted by the contractors, and supervised by detailed engineering design and construction supervision companies, with overall coordination by the PIU environment safeguard specialist; (ii) overall compliance monitoring, to ensure the EMP requirements – including the impact monitoring as well as mitigation and reporting requirements – are being implemented. The compliance monitoring will be conducted by the PIU environment safeguard specialist. The monitoring will in particular assess compliance with project measures to manage water use and waste management; and (iii) external environmental monitoring, to be conducted by a qualified independent firm that will conduct periodic site visits to assess overall project compliance with the EMP. ADB will review project compliance with the EMP on the basis of semiannual environmental monitoring reports provided by the PIU and review missions. The monitoring plan will determine how well prescribed mitigation measures of EMP are working and will document any unexpected impacts of the project investments on the environment.

95. **Environment safeguard reporting and disclosure.** The PIU will submit environmental monitoring reports to ADB, semiannually during construction and annually during operation. The reports will include: (i) progress made for EMP implementation; (ii) overall effectiveness of the EMP implementation (including public and occupational health and safety, COVID-19 risk management plan); (iii) environmental monitoring and compliance; (iv) institutional strengthening and training; (v) public consultation (including GRM); and (vi) any problems encountered during construction and operation, and the relevant corrective actions undertaken. The external environment monitoring agency will submit inception, progress, and final reports to the PIU, MET and ADB, at a frequency and schedule that will be tailored to fit the project construction progress and maximize the effectiveness of the site visits by the agency. The reporting frequency will be agreed with the PIU and described in the agency's inception report (see terms of reference, Appendix 2). The PIU will also include updates on the progress of the external environment monitoring agency within the PIU semiannual environment monitoring reports to ADB. ADB will review and disclose the reports on the ADB website.

96. **Environmental completion auditing.** Following national regulations, upon completion of the project facilities, environmental completion audits will be issued by the relevant national agencies e.g., General Agency for Specialized Inspection. These audits will be included in the semiannual EMP monitoring reports to ADB.

97. **Involuntary resettlement and indigenous peoples monitoring.** No involuntary resettlement impacts are expected under the project. The project is also not expected to impact



indigenous peoples that would trigger ADB SPS requirements. The PIU will monitor and further confirm the project's social safeguard categories and due diligence assessment after the detailed design. Findings of further due diligence and monitoring will be included in the project's semiannual progress reports.

98. **Gender and social dimensions monitoring.**<sup>48</sup> Monitoring of the SDAP and GAP implementation will be conducted and the targets are specified in the respective plans, and some indicators are also included in the DMF. To implement social and gender measures properly, PIU and project *aimags* will appoint social and gender focal points for implementation and monitoring. A national social, gender, and civil society specialist will be engaged under the PIU. The specialist will monitor and record implementation of the SDAP and GAP, including sex-disaggregated data and information on achievements against the targets on social, gender, and participatory aspects of the project implementation. Monitoring and evaluation results of the SDAP and GAP will be reported through regular progress reports. The PIU specialist will work closely with the project stakeholders during the monitoring.

### C. Evaluation

99. Project performance will be regularly monitored and rated through ADB's e-Operations project implementation module. ADB's overall loan implementation rating will be made based on five performance indicators: technical, procurement, disbursement, financial management, and safeguards (Section IX.B). Such rating will be updated semiannually based on MET's semiannual project progress reports and/or ADB review missions.

100. ADB will conduct an inception mission when the project becomes effective. ADB and the government will jointly field review missions of the project at least once a year. The missions will: (i) review overall implementation of the project and update, in consultation with the executing agency, the project implementation schedule; (ii) examine existing and potential implementation problems, and find out measures with the executing agency to resolve them; (iii) review progress in procurement and disbursement; (iv) review the loan recipient's compliance with loan covenants and, where there is any non-compliance or delay, discuss proposed remedial measures; and (v) assess the likelihood of attaining the project's outcome.

101. ADB and the government will undertake a midterm review at the beginning of the third year of project implementation, to assess implementation status, and take appropriate measures—including modification of scope and implementation arrangements, and reallocation of loan proceeds, as appropriate—to achieve the project's outcomes and impact.

102. A final ADB review mission will take place within 6 months after physical completion of the project. This mission will: (i) assess project performance against targets and benchmarks including any revision(s) as agreed during the midterm review; (ii) identify any incomplete activities, or unused project funds; and (iii) determine the project satisfactory rating. A project completion report will be prepared, in cooperation with the government. In case the project is selected as a sample for performance evaluation reporting, the project will be subject to more detailed performance evaluation and impact assessment about 3 or more years after completion.

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<sup>48</sup> ADB's [Handbook on Social Analysis: A Working Document](#), [Participation and Empowerment in ADB Projects](#), and [CSO Sourcebook: A Staff Guide to Cooperation with Civil Society Organizations](#).

## D. Reporting

103. MET will provide ADB with (i) semiannual progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the audited project financial statements together with the associated auditor's report, should be adequately reviewed.

104. MET has agreed on the following reporting commitments:

Report	Timing	Reference
Semiannual project progress reports	Semiannual, within 1 month after the end of each reporting period	Loan and grant agreements, schedule
Audited financial statements	Not later than 6 months after the closure of fiscal year	Loan and grant agreements, schedule
Social monitoring report (appended to the progress reports) comprising: SDAP and GAP implementation progress and results	Semiannual, within 1 month after the end of each reporting period	Loan and grant agreements, schedule
Environmental safeguards <ul style="list-style-type: none"> <li>➤ Construction phase</li> <li>➤ Operational phase</li> </ul>	Semiannually, within 1 month after each reporting period (i.e., January and July)  Annually, within 1 month after the end of each year (February), until the project completion report	Loan and grant agreements, schedule
Project completion report	Not later than 6 months after the physical completion of the project	Loan and grant agreements, schedule

GAP = gender action plan, SDAP = social development action plan.

Source: Asian Development Bank.

## X. ANTICORRUPTION POLICY

105. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>49</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB financed, administered, or supported activities and may not be awarded any contract under the project.<sup>50</sup>

106. To support these efforts, relevant provisions are included in the loan and grant agreements and the bidding documents for the project.

107. **Country- and project- specific context.** The legal and regulatory frameworks required for a well-functioning public sector by and large are in place in Mongolia, but that there are gaps in applied practices and in the enforcement of rules. Corruption is perceived to be endemic, and the anticorruption institutional system lacks independence and is subject to political pressure.<sup>51</sup> International ratings that measure corruption levels indicate that corruption appears to be increasing in Mongolia: (i) between 2015 and 2020, the Corruption Perception Index for Mongolia by Transparency International declined from a score of 39 to 35; and (ii) between 2017 and 2019, the Worldwide Governance Indicators of The World Bank assessed the Control of Corruption in Mongolia to decline from a score of 42 to 37.5.<sup>52</sup> For the project, corrupt practices could affect the project design, procurement, and implementation. Measures to mitigate these risks are described in this project administration manual and the project risk assessment and risk management plan and include the following.

- (i) An inter-ministerial project steering committee will be established to oversee, monitor, and ensure the integrity of project operations, especially for financial management, procurement, and anticorruption. The roles and responsibilities for the committee are described in Section III.A.
- (ii) Release of project funds will require co-signing by the director generals of each implementing agency and the PIU manager.
- (iii) Implementation of the project-specific financial risk management action plan described in Section V.A.
- (iv) Implementation of the project auditing requirements described in Section V.E.
- (v) Spot reviews of procurement and financial procedures will be undertaken.
- (vi) Assurances for governance and anticorruption are included in the loan and grant agreements.
- (vii) ADB under its technical assistance will conduct integrity knowledge management sessions for MET and other project stakeholders to increase their awareness and compliance with ADB's Anticorruption Policy.

## XI. ACCOUNTABILITY MECHANISM

108. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an

<sup>49</sup> Anticorruption Policy: [Anticorruption Policy | Asian Development Bank \(adb.org\)](https://www.adb.org/site/integrity/main)

<sup>50</sup> ADB's Office of Anticorruption and Integrity website is: <https://www.adb.org/site/integrity/main>

<sup>51</sup> ADB. 2020. *Country Governance Risk Assessment: Mongolia*. Manila.

<sup>52</sup> Transparency International. 2021. *Corruption Perceptions Index* (accessed 20 May 2021); and World Bank. 2021. *Worldwide Governance Indicators* (accessed 4 May 2021).

independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make efforts in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>53</sup>

## **XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL**

109. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement s-curves.

<b>No.</b>	<b>Description of Revision</b>	<b>Date</b>
1.	Discussed during loan fact-finding mission	29 March 2021
2.	Discussed and agreed during loan negotiations	

Source: Asian Development Bank.

<sup>53</sup> Accountability Mechanism. <https://www.adb.org/site/accountability-mechanism/main>.

## APPENDIX 1: PROJECT OUTPUTS AND COMPONENTS

No.	Output / Component	Activity / Quantity	Benefits	Loan / Grant
<b>Output 1: Inclusive planning and capacity for local tourism businesses enhanced</b>				
1.1	<b>Institutional framework</b>			
1.1.1	Regional tourism master plan – western Mongolia (Bayan-Ulgii, Khovd, Uvs <i>Aimags</i> )	<ul style="list-style-type: none"> <li>Prepare first tourism master plan for western Mongolia</li> <li><b>Design features:</b></li> <li>Best practice principles for inclusive and sustainable tourism, including for waste, water, energy, and management of heritage sites and protected areas</li> <li>Based on visitor and population growth projections, consensus on limits of acceptable change, and carrying capacity of key sites</li> <li>Establish measures to promote sector recovery from COVID-19 and resilience to future disease outbreaks e.g., waiving of entry fees, license fees for tour operators, and border fees for regional visitors; information campaign about domestic status of COVID-19 and control measures; increased online marketing for operators</li> <li>Promotional strategy linked with health management that reassures travelers of health and sanitation protocols</li> <li>Alignment with <i>Aimag</i> tourism plans</li> <li>Multi-stakeholder consultative process, including key local agencies e.g. Bayan-Ulgii Tourism Association</li> <li>To include assessment of procedures for issuance of tour camp licenses in protected areas (&gt;400 inactive licenses – “speculative” registrations which create uncertainty/risk of low standards)</li> </ul>	<ul style="list-style-type: none"> <li>Consistent regional brand for western Mongolia</li> <li>Consistency between regional- and <i>Aimag</i> level tourism plans and other <i>Aimag</i> development plans</li> <li>Consistent and improved regional tourism standards</li> <li>Social and environmental standards and targets for community-based tourism, poverty alleviation, and tour operations in cultural heritage sites and protected areas</li> </ul>	Loan
1.1.2	<i>Aimag</i> tourism plans (Bayan-Ulgii, Khovd, Uvs)	<ul style="list-style-type: none"> <li>Revise the 3 existing plans to integrate targets for livelihoods, conservation, sanitation, hygiene, and waste management, and risk management procedures (e.g., assessment, insurance, emergency planning, communications) to respond to unforeseen crises e.g., COVID-19</li> <li>Integrate <i>Aimag</i> tourism plans into <i>Aimag</i> development plans</li> <li><b>Design features:</b> As above</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the <i>Aimag</i> tourism plans</li> <li>Ensure their integration into development planning</li> </ul>	Loan
1.1.3	Tourism concession manual	<ul style="list-style-type: none"> <li>Establish and pilot a manual covering at least 5 sites: ATBNP including PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs)</li> <li>Establish a baseline of the 45 tour camps present in western Mongolia in 2020 and the skills and jobs of the ~117 employees, and measure how these jobs and number of workers change following the tourism concession manual and project trainings</li> <li><b>Design features:</b></li> <li>Apply lessons learned from MON-9183 Grant and MON-Loan 3787/3788 Loan and other donor projects</li> <li>Apply best practice <a href="#">UNDP guidelines</a> developed for Mongolia</li> <li>Coordination with CSOs e.g., WWF Mongolia in KUNNP</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen MET concessions management</li> <li>Social, environmental targets embedded in procedures</li> <li>Build on lessons learned from MON-3787/3788 Loan</li> </ul>	Loan
1.1.4	Eco-certification program for tour camps	<ul style="list-style-type: none"> <li>Expand program being developed under MON-Loan 3787/3788 to at least 5 sites: ATBNP including PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs)</li> <li><b>Design features:</b></li> <li>Certifications to include social and environmental targets</li> <li>Apply international ecotourism standards of GSTC (which is supporting MET to prepare national tourism standards)</li> <li>Draw upon extensive available international best practice e.g. <a href="#">here</a></li> </ul>	<ul style="list-style-type: none"> <li>Recognition of operators</li> <li>Promotion of western brand</li> <li>Build on experience from MON-3787/3788 Loan</li> </ul>	Loan
<b>1.2 Destination management and promotion</b>				
1.2.1	Community-based organizations	<ul style="list-style-type: none"> <li>Establish and/or train about 13 CBOs for at least 5 sites: ATBNP including PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs)</li> <li>The CBOs will (i) be responsible for O&amp;M of the small public facilities to be constructed in the protected areas and heritage sites (component 4.3), (ii) lead the <i>community participation in procurement package</i> described in PAM Sections VI.B.3 and VI.C.6 (total of 13 contracts: 1 contract per CBO) to coordinate</li> </ul>	<ul style="list-style-type: none"> <li>Inclusive tourism planning co-led by communities, with focus on local goods and services</li> <li>Alignment with site management plans</li> </ul>	Grant

		<p>and lead additional community-led tourism activities in these sites and procure materials and mobilize labor as needed, (iii) mobilize and coordinate the communities to participate in the project trainings (to be provided by the PIU and livelihood consulting services) to achieve these tasks</p> <ul style="list-style-type: none"> <li>Operational arrangements, roles and responsibilities, community-led selection of the CBO committee and members, and financing of the CBOs, including CBO salaries, will be (i) developed in consultation between the PIU, local government, protected area administration, and CBO upon CBO establishment, (ii) established within tripartite contracts between the CBO, protected area administrations, and local governments, (ii) funded by the project for the first 4 years of CBO operation, (iii) funded by domestic sources (e.g. visitor entry fees) for the remaining years of project operation and after the project</li> <li>These tasks will be coordinated by the PIU and livelihoods consulting services (PAM Appendix 2 – TORs for the PIU and consulting service package CS6)</li> </ul> <p><b>Design features:</b></p> <ul style="list-style-type: none"> <li>Collaborative approach to manage tourism at key sites</li> <li>Replicate MON-9183 Grant</li> </ul>		
1.2.2	Tourist streets in 2 <i>Aimag</i> centers	<ul style="list-style-type: none"> <li>Establish 2 tourist streets in Khovd and Uvs <i>Aimag</i> centers</li> <li>To include women-led market stalls, seating, sidewalks, information services, Wi-Fi stands, shops</li> <li>Install power, water, sanitation, and solid waste management</li> </ul> <p><b>Design features:</b></p> <ul style="list-style-type: none"> <li>Catalyze <i>aimag</i> capitals as gateways for visitor arrivals, venues for events, and links to cultural heritage sites, protected areas</li> <li>Tourism promotion to link with online sources e.g., CAREC tourism portal (under preparation); MET online platform; "Discover Bayan-Ulgii" (<a href="https://discover-bayanolgii.com/">https://discover-bayanolgii.com/</a>)</li> </ul>	<ul style="list-style-type: none"> <li>Promotion of community goods and services</li> <li>Strengthen links between <i>Aimag</i> centers, tourist sites, and protected areas</li> <li>Enrich visitor experience</li> </ul>	Loan
<b>1.3 Pilot tourism development program – improve local competitiveness to benefit from tourism</b>				
<ul style="list-style-type: none"> <li>Increase competitiveness and capacity of MSMEs and communities, including youth, to benefit from tourism</li> <li><b>Design features:</b> Holistic plan including business, training, microfinancing and to ensure synergy between the livelihood activities under the loan and grant. This will be within a <i>quality jobs and livelihoods strategy</i> and will include the following components.</li> </ul>				
1.3.1	Community revolving fund	<ul style="list-style-type: none"> <li>Establish fund for communities for 5 sites: ATBNP including PCMA (Bayan-Ulgii); KUNNP, TSC (Khovd); KKNP, UVSPA (Uvs)</li> <li>Link loans to protection of cultural heritage and nature</li> </ul> <p><b>Design features:</b> Replicate MON-9183 Grant</p>	<ul style="list-style-type: none"> <li>Sustainable financing for community-based tourism</li> <li>MON-9183 Grant well-received by stakeholders</li> </ul>	Grant
1.3.2	Women-led tourist markets	<ul style="list-style-type: none"> <li>Establish 9 women-led markets: at 2 tourist streets (output 1.2) and about 5 sites: ATBNP (Bayan-Ulgii), KUNNP and TSC (Khovd), KKNP, and UVSPA (Uvs)</li> </ul> <p><b>Design features:</b> Replicate MON-9183 Grant</p> <ul style="list-style-type: none"> <li>Management of women-led markets at the 2 tourist streets to prioritize stalls for communities from the project protected areas</li> <li>Replicate MON-9183 Grant</li> </ul>	<ul style="list-style-type: none"> <li>Gender-inclusive community-based tourism</li> </ul>	Loan (for 2 tourist streets), Grant (other sites)
1.3.3	Youth-led initiatives	<ul style="list-style-type: none"> <li>Tourism business incubator, focusing on supporting and mobilizing the initiative, innovation, and participation of youth</li> <li>Two incubators will be established by the project. These will comprise learning spaces within the 2 project-funded tourism complexes (components 2.1.1 and 4.1). Room spaces for each incubator are already included in the preliminary architectural designs for each complex</li> <li>An additional 5 youth incubator learning spaces for the project are tentatively also to be included in 5 agribusiness centers to be constructed in western Mongolia under the ADB ASDIP. These centers will be located in rural <i>soum</i> centers and <i>aimag</i> urban centers of Bayan-Ulgii, Khovd, and Uvs <i>aimags</i></li> <li>Establishment of the youth incubators and youth training will be designed and coordinated with the <i>aimag</i> youth employment centers and build upon previous short-term government training in tourism conducted in western Mongolia in 2019</li> </ul>	<ul style="list-style-type: none"> <li>Youth-inclusive community-based tourism</li> </ul>	Grant



1.3.4	Local competitiveness and capacity to obtain tourism jobs	<ul style="list-style-type: none"> <li>Vocational training for residents, MSMEs to develop tourism goods, services, jobs at tour camps, and apply for revolving funds</li> <li><b>Design features:</b> <ul style="list-style-type: none"> <li>'Quality jobs and livelihoods strategy' incorporating the tasks above and specific livelihood targets in the DMF, GAP, and SDAP and for synergy between the loan- and grant-funded activities</li> <li>Link with social, environmental targets, standards (output 1.1)</li> <li>Collaboration with Khovd University tourism course</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Tourism goods, services, and staff sourced locally</li> <li>Improved reliability, quality of goods, and services</li> <li>Sale of local products</li> </ul>	Grant
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## Output 2: Enabling infrastructure constructed

### 2.1 Tourism complex and supporting infrastructure

2.1.1	UVTC (to be located outsideUvs Aimag capital)	<p>Construct 1 tourism center. Including:</p> <ol style="list-style-type: none"> <li>Water supply: 2 wells, with total daily capacity of 55.4m<sup>3</sup>/day. To meet 100% of projected demand</li> <li>Sanitation: (i) 28 toilets within the complex, (ii) 22 portable toilets (to meet extra demand for large events and festivals), (iii) 1 on site Biofilm wastewater treatment system-WSB® clean of 60 m<sup>3</sup> capacity. Sludge from the plant will be transported to Ulaangom treatment plant (to be upgraded by ADB ASDIP)</li> <li>Solid waste management: litter bins, waste collection containers; and transport to Ulaangom landfill (to be upgraded by ADB ASDIP)</li> <li>Power and heating. For power: (i) 1.2 km transmission line with 10 kV capacity and 800 kW substation (to provide 71% of projected demand, of which 20% will be for operation of the GSHP) and (ii) solar panels (9%) (to provide 3% of power supply for the main building and 100% of power supply for outdoor lighting). For heating: (i) GSHP with 680 kW capacity (92%) and (ii) solar for hot water (8%)</li> <li>Interior furnishing</li> <li>O&amp;M, including sales, marketing, promote heritage, conservation</li> </ol> <p><b>Design features:</b></p> <ul style="list-style-type: none"> <li>Mandate on promoting local goods, services, cultural heritage</li> <li>Visitor capacity based on tourism and growth projections</li> <li>Eligibility for IFC EDGE certification (<a href="https://edgebuildings.com">https://edgebuildings.com</a>) for green building designs</li> <li>WWTP and solid waste collection based on projected waste volumes, water efficiency, proven designs elsewhere in Mongolia</li> <li>Reuse treated wastewater (per MNS 6734-2018) for: (i) toilet flushing (20% of total required water) and (ii) watering of site plantings (13% of total required water): significant water savings</li> <li>Sludge, solid waste disposal at Aimag facilities upgraded by ASDIP</li> <li>Work with PPDCs established under MON TA-9066</li> </ul>	<ul style="list-style-type: none"> <li>Iconic tourism landmark – catalyst for local tourism</li> <li>Inclusive planning with communities</li> <li>Multiple objectives – tourism, events, education</li> <li>Showcase for green design</li> <li>In situ protection of on site cultural heritage values</li> <li>Linked with protection of at least 2 protected areas, KKNP, and UVSPA</li> <li>Synergy with ADB ASDIP project including for solid waste and sewage treatment</li> </ul>	Loan
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### 2.2 Traffic management and safety at key tourism sites

2.2.1	Establish access roads and car parks for 2 tourism complexes; and improve traffic management at 5 protected areas	<ul style="list-style-type: none"> <li><b>UVTC:</b> construct 1 access road (0.3 km); and 1 car park with area of 6,656 m<sup>2</sup> and capacity for 10 buses and 145 cars</li> <li><b>RANCC:</b> upgrade 1 access road (3 km); and 1 car park with area of 5,951 m<sup>2</sup> and capacity for 12 buses and 148 cars</li> <li><b>At 5 protected areas:</b> upgrade 12 car parks, for total capacity of 240 vehicles. <b>ATBNP</b>–4 carparks (100 cars), <b>KKNP</b>–2 (30 cars), <b>KUNNP</b>–2 (30 cars), <b>TSC</b>–1 (20 cars), <b>UVSPA</b>–3 (60 cars)</li> <li><b>Design features:</b> <ul style="list-style-type: none"> <li>Regulate visitor flows, site access, and safety; protect cultural heritage sites and protected areas; improve visitor experience</li> <li>Climate-resilient road and car park designs</li> <li>Safety–pedestrian crossings, speed humps, barrier gates</li> <li>Designs based on traffic projections</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Vehicle parking regulated</li> <li>Improved visitor satisfaction</li> <li>Sites linked with women's tourist markets (output 1)</li> <li>Off-road impacts reduced</li> <li>Dust pollution reduced</li> <li>All-weather vehicle access</li> <li>Vehicle parking regulated</li> <li>Improved safety</li> </ul>	Loan – UVTC, RANCC  Grant – 5 sites
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## Output 3: Sanitation and waste management improved

3.1	<b>Water, sanitation, and hygiene (WASH) program</b>	<ul style="list-style-type: none"> <li>To include: sanitation standards for tour camps and community-led tourism service providers, awareness raising for hygiene measures, integration with local and national measures for disease risk management, border health screening, emergency response</li> <li><b>Design features:</b></li> <li>Apply best practice measures for WASH</li> <li>Alignment with national measures for disease risk management</li> <li>Alignment with <i>aimag</i> level measures e.g., border health screening</li> </ul>	<ul style="list-style-type: none"> <li>Tour camps comply with MET sanitation standards</li> <li>Improved protection of water quality of lakes and rivers</li> <li>Visitor satisfaction improved</li> <li>Resilience to future disease outbreaks is strengthened</li> </ul>	Grant
3.2	<b>Sanitation systems for tourist camps</b>	<ul style="list-style-type: none"> <li>Sanitation systems designed under MON-9183 Grant adopted by about 12 tour camps (Khovd <i>Aimag</i>–4; Uvs <i>Aimag</i>–7)<sup>a</sup></li> <li>Facilitate tour camps to install improved toilet designs</li> <li>Designs integrated in concession manuals (output 1.1.3)</li> <li><b>Design features:</b></li> <li>Dry toilets and/or minimum flush toilets</li> <li>Comply with national standards</li> <li>Replicate toilet designs piloted under MON-9183 Grant</li> <li>Complement measures planned by MET and KfW</li> </ul>	<ul style="list-style-type: none"> <li>100% coverage of camps</li> <li>Visitor satisfaction improved</li> <li>Tour camps comply with MET sanitation standards</li> <li>Improved water quality protection of wetlands e.g., Uvs, and Khar Us lakes</li> <li>Resilience to future disease outbreaks is strengthened</li> </ul>	Grant
3.3	<b>Sanitation systems for public places</b>	<ul style="list-style-type: none"> <li>Install about 60 public toilets at the 5 protected areas:</li> <li>Bayan-Ulgii <i>Aimag</i>: 22 toilets (ATBNP including PCMA–22)</li> <li>Khovd <i>Aimag</i>: 18 toilets (KUNNP–14, TSC–4)</li> <li>Uvs <i>Aimag</i>: 20 toilets (KKNP–8, UVSPA–12)</li> <li><b>Design features:</b></li> <li>Dry toilets (non-flushing for water-saving, low-cost)</li> <li>O&amp;M by CBOs</li> <li>Sustainability–CBO salaries paid from campsite fees</li> </ul>	<ul style="list-style-type: none"> <li>100% coverage of public places in the five selected protected areas</li> <li>As above</li> </ul>	Grant
3.4	<b>Wastewater collection and treatment</b>	<ul style="list-style-type: none"> <li>Establish wastewater and solid waste management procedures for project-funded facilities</li> <li>Procure 6 suction pump trucks to transport sewage and solid waste from project sites to landfill and wastewater treatment plants</li> <li><b>Design features:</b></li> <li>Treatment methods and capacity based on assessment of existing and projected waste volumes, cost, capacity, local materials</li> <li>Designs comply with national standards</li> <li>O&amp;M to be linked with ASDIP-funded WWTPs and landfills</li> </ul>	<ul style="list-style-type: none"> <li>Efficient waste management for all key public access locations in 5 protected areas</li> <li>Improved protection of lakes and rivers</li> <li>Improved visitor satisfaction</li> <li>Resilience to future disease outbreaks is strengthened</li> </ul>	Loan
<b>Output 4: Management of cultural heritage sites and protected areas strengthened</b>				
4.1	<b>Rock art and nomadic culture center (RANCC)</b>	<p>Construct 1 tourism center. Including:</p> <ol style="list-style-type: none"> <li>Water supply: 2 wells, with total daily capacity of 44 m<sup>3</sup>. To meet 100% of projected demand</li> <li>Onsite sanitation: (i) 20 toilets within the complex, (ii) 1 on site Biofilm wastewater treatment system-WSB® clean of 45 m<sup>3</sup> capacity. Sludge from the plant will be transported to Khovd treatment plant (to be upgraded by ADB ASDIP)</li> <li>Solid waste management: litter bins, waste collection containers; and transport to Khovd landfill</li> <li>Power and heating supply: (i) 5.4 km transmission line with 10 kV capacity and 800 kW substation for electricity (to provide 73% of projected demand, of which 19% will be for operation of the GSHP) and (ii) solar panels (5%) (to provide 3% of power supply for the main building and 100% of power supply for outdoor lighting. For heating: (i) GSHP with 610 kW capacity (91%) and solar for hot water (9%)</li> <li>Interior furnishing</li> <li>O&amp;M, including sales, marketing, promote heritage, conservation</li> </ol> <p><b>Design features:</b></p> <ul style="list-style-type: none"> <li>Mandate on promoting local goods, services, cultural heritage</li> <li>Specific focus on financing protection of TSC and Manchu fortress</li> </ul>	<ul style="list-style-type: none"> <li>First national center for rock art heritage including Digital Museum (component 4.2)</li> <li>Regional tourism identity</li> <li>O&amp;M linked with protection of 2 cultural heritage sites: TSC and Manchu fortress</li> <li>Linked with women-led tourist markets (output 1)</li> <li>Showcase for green design</li> </ul>	Loan



		<ul style="list-style-type: none"> <li>• Visitor capacity based on tourism and growth projections</li> <li>• Eligibility for IFC EDGE certification for green building designs</li> <li>• WWTP and solid waste collection based on projected waste volumes, water efficiency, proven designs elsewhere in Mongolia</li> <li>• Reuse treated wastewater (per MNS 6734-2018) for: (i) toilet flushing (29% of total required water) and (ii) watering of site plantings (18% of total required water): significant water savings</li> <li>• Sludge, solid waste disposal at <i>Aimag</i> facilities upgraded by ASDIP</li> <li>• Work with PPDCs established under MON TA-9066</li> </ul>		
4.2	Rock art Digital Museum – to be housed at RANCC	<ul style="list-style-type: none"> <li>• 2- and 3-D digital displays, virtual tours, photographic collection of Mongolian rock art sites, replicas of key sites</li> <li><b>Design features:</b></li> <li>• Application of high-level technology</li> <li>• Complement existing resources e.g., University of Oregon website – Bayan-Ulgii <i>Aimag</i> rock art (<a href="https://mongolianaltai.uoregon.edu/">https://mongolianaltai.uoregon.edu/</a>)</li> </ul>	<ul style="list-style-type: none"> <li>• First Digital Museum in Mongolia for rock art</li> <li>• Management integrated with protection of TSC</li> <li>• Platform for tourism, local jobs, and entrepreneurship</li> </ul>	Loan
4.3	Site protection and public access	<ul style="list-style-type: none"> <li>• Install about 35 small management facilities at 5 protected areas and cultural heritage sites (ATBNP, KKNP, KUNNP, TSC, UVSPA): comprising 6 campsites, 3 information centers, 11 information points, 2 birdwatching towers, 2 public cooking cabins, 3 ranger stations, 6 fee collection stations, and upgrade of 2 existing public trails</li> <li>• O&amp;M arrangements: (i) the protected area administrations will manage the fee collection stations and ranger stations, (ii) the CBOs established with project support will manage the other project-funded facilities. O&amp;M procedures will be developed for each site and included in the tripartite contracts to be established between the CBOs, protected area administrations, and local government (see component 1.2.1)</li> <li>• See next Table in this Appendix for list of these facilities</li> <li><b>Design features:</b></li> <li>• Strategic selection of sites and locations to address existing and projected increases in visitor numbers</li> <li>• Facilities tailored to site-specific needs</li> <li>• Materials selected for cost, durability, local availability, aesthetics</li> <li>• Facilities to be managed by CBOs (component 1.2.1), with training, and personal protective equipment provided</li> <li>• Complement support by WWF, The Nature Conservancy, KfW, and GIZ at KKNP, KUNNP, and/or UVSPA</li> <li>• Aligned with landscape-level “cluster approach” of KfW BACCP Phase II/III: holistic land management within and outside protected areas. Project sites consistent with KfW project areas, which were selected based on TNC regional classification</li> </ul>	<ul style="list-style-type: none"> <li>• Public access regulated</li> <li>• Natural values protected</li> <li>• Reduced damage of rock art</li> <li>• Improved visitor experience</li> <li>• Improved collection of site entrance fees and revenue</li> <li>• Job creation for local communities</li> <li>• Sustainability – campsite fees pay for CBO salaries</li> </ul>	Grant
4.4	Site management plans	<ul style="list-style-type: none"> <li>• Facilitate revision of management plans for 2 sites: ATBNP including PCMA (Bayan-Ulgii <i>Aimag</i>); TSC (Khovd <i>Aimag</i>)</li> <li>• Contribute to KfW-led revision of management plans for 3 sites: KUNNP (Khovd <i>Aimag</i>); KKNP and UVSPA (Uvs <i>Aimag</i>)</li> <li><b>Design features:</b></li> <li>• Incorporate—for the first time—site-specific actions and targets for tourism, traffic, and waste in the site management plans</li> <li>• O&amp;M procedures and costs for project facilities</li> <li>• Financing sources for project facilities</li> <li>• 4-year action plan and budget for each site</li> <li>• Revised internal site zoning (if needed)</li> <li>• Integration with <i>soum</i> development plans</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated management of tourism, livelihoods, waste, conservation</li> <li>• Complement and build on planned support by KfW to revise protected area management plans</li> <li>• Revised plans are a model for protected area management</li> </ul>	Grant
4.5	Capacity building	<ul style="list-style-type: none"> <li>• Train government personnel, operators of project facilities, CBOs, and other stakeholders to implement the revised site management plans and for O&amp;M of project facilities</li> <li><b>Design features:</b></li> <li>• Collaborative approaches; CSO participation</li> </ul>	<ul style="list-style-type: none"> <li>• Staff trained</li> <li>• Project facilities maintained</li> <li>• Management effectiveness increased</li> </ul>	Loan and Grant

<sup>a</sup> In 2020, 45 tour camps were present in western Mongolia (Bayan-Ulgii–15, Khovd–11, Uvs–19) but only 25 were located in or near protected areas, of which 11 were in the project protected areas: Khovd–4 (KUNNP–3, TSC–1) and Uvs (KKNP–7). During project implementation all tour camps will be invited to participate in the project activities.

ADB = Asian Development Bank, ASDIP = *Aimag* and *Soum* Centers Green and Resilient Regional Development Investment Program, ATBNP = Altai Tavan Bogd National Park, CAREC = Central Asia Regional Economic Cooperation, CBO = community-based organization, CSO = civil society organization, HLT = high-level technology, GSTC = Global Sustainable Tourism Council, km = kilometer, KKNP = Khan Khukhii National Park, KUNNP = Khar Us Nuur National Park, m<sup>2</sup> = square meter, m<sup>3</sup> = cubic meter, MET = Ministry of Environment and Tourism, O&M = operation and maintenance, PCMA = Petroglyphic Complexes of the Mongolian Altai UNESCO World Heritage Area, PIU = project implementation unit, PPDC = public-private dialogue council, RANCC = rock art and nomadic culture center, TSC = Tsenkher Cave, TOR = terms of reference, UVSPA = Uvs Nuur Strictly Protected Area, UVTC = Uvs tourism complex, WWTP = wastewater treatment plant.

*Aimag* = province, *soum* = county.

Source: Asian Development Bank estimates.

TABLE: CONFIRMED LIST OF SMALL FACILITIES IN PROJECT FIELD SITES

NOTE: GIVEN THE LOCATION OF THESE FACILITIES WITHIN AND NEAR PROTECTED AREAS AND POTENTIAL FOR ENVIRONMENTAL AND/OR HERITAGE IMPACTS, ANY PROPOSED CHANGE IN THE SCOPE OR LOCATIONS OF THESE FACILITIES WILL BE SUBJECT TO NEW ENVIRONMENTAL IMPACT ASSESSMENT AND REQUIRE PRIOR ENDORSEMENT OF THE GOVERNMENT AND ASIAN DEVELOPMENT BANK.

NAME	LOCATION (Coordinates, <i>Soum</i> )	PROPOSED PROJECT FACILITY (number)										
		Fee collection station	Camp site	Ranger Station	Info. Center	Info. Point	Car park		Toilets (seats)	Bird watching tower	Women- led market place (each with 4-6 stalls)	Other
							No	Capacity				
Altai Tavan Bogd National Park (ATBNP) and Petroglyphic Complexes of the Mongolia Altai (PCMA)	Oigor Entrance point (8809'54,477" E, 4908'58,093"N), <i>Ulaankhus soum</i>	1				1	1	20	4		1	
	Shiveet Khaikhan Entrance (Tsagaan Gol Post) (89018'8,642" E,4906'46,604"N) <i>Tsengel soum</i>	1				1	1	20	4		1	
	Main petroglyph site (49°19'12.49"N, 88°22'22.43"E)			1	1		1	20	4			Trail
	Basecamp#1 (for tourists) (49°8'38.31"N, 87°59'20.25"E), <i>Ulaankhus soum</i>		1			1	1	40	6			Cooking Cabin, trail
	Basecamp#2 (for professional mountaineers) (49°8'51.08"N, 87°56'52.00"E), <i>Ulaankhus soum</i>		1						4			Cooking Cabin
Khar Us Nuur National Park (KUNNP)	At the entrance gate of the Khar Us Nuur protected area, the entry point to the park: 47°49'39.4, 91°54'10.2 (Tsagaanburgas Bagh, Buyant <i>Soum</i> )	1				1	1	10	4			
	Durgun Lake, Agvash, Yumiin Hooloi (48°19'20.40"N, 92°33'38.29"E), <i>Durgun soum</i>		1 (HUB)	1		1	1	20	6	1	1	
	Durgun Lake, Argalant, Khar Lake Shanaa (48° 9'46.52"N, 93° 6'49.65"E), <i>Durgun soum</i>								4	1		
Tsenkher Cave (TSC)	47°21'15.11"N, 91°57'39.74"E, <i>Mankhan soum</i>				1		1	20	4		1	

NAME	LOCATION (Coordinates, <i>Soum</i> )	PROPOSED PROJECT FACILITY (number)										
		Fee collection station	Camp site	Ranger Station	Info. Center	Info. Point	Car park		Toilets (seats)	Bird watching tower	Women- led market place (each with 4-6 stalls)	Other
							No	Capacity				
	(1) At cave entrance, (2) Intersection between main trail and cave ascent trail, Mankhan <i>soum</i>					2						Upgrade trail, <b>lighting</b>
Khan Khukhii National Park (KKNP)	Khar Termes (49°19'24.09" N, 93° 9'49.32"E), Malchin <i>soum</i>	1				1	1	10	4		1	
	Sogoo Lake (49°22'53.511"N, 95°8'38.481"E), Zuunkhangai <i>soum</i>		1			1	1	20	4			
Uvs Nuur Strictly Protected Area (USVSPA)	Close to Uureg Lake restroom (50°12'8.91N, 91° 8'1.00E), Sagil <i>soum</i>		1			1	1	20	4			
	Renovate existing entrance point and Information 50° 6'32.28, 92°21'41.20	1		1	1		1	30	4		1	
	Tes, Salt Lake (50°23'1.23"N 93°18'57.69"E)	1	1 (HUB)			1	1	10	4		1	
TOTAL		6	4	3	3	11	12	240	60	2	7	5 (2 cabins, 2 trails, 1 lighting)

## APPENDIX 2: INDICATIVE TERMS OF REFERENCE FOR THE LOAN-FINANCED CONSULTING SERVICES

### A. OVERVIEW

1. The consulting services to be financed by the Asian Development Bank (ADB) loan are indicated below. The estimated time of each package is included in Table 1 and detailed in the individual terms of reference.

**Table 1: Summary of Consulting Services**

No.	Package Name	Summary Details	Estimated Value (\$)	Advertisement Date
CS1	Ecotourism planning and protected area management	QCBS (90:10), a national firm with national experts	256,940	Q2, 2022
CS2	Detailed Engineering Design and Construction Supervision for UVTC and Uvs Tourist Street	QCBS (90:10), a national consultant firm with international and national experts	474,900	Q2, 2022
CS3	Detailed Engineering Design and Construction Supervision for RANCC, Khovd Tourist Street, and Tsenkher Cave Information Center	QCBS (90:10), a national consultant firm with international and national experts	474,900	Q2, 2022
CS4	Detailed IT System Design and Establishment Supervision for Digital Museum in RANCC	QCBS (90:10), an international consultant firm with international and national experts	850,000	Q3, 2023
CS5	External Environmental Monitoring Firm	CQS, a consultant firm with national experts	60,000	Q1, 2023
ICS1	PIU Project Coordinator	Individual, national, 72 person-months	129,600	Q4, 2021
ICS2	PIU Finance Specialist	Individual, national, 72 person-months	100,800	Q4, 2021
ICS3	PIU Procurement specialist	Individual, national, 30 person-months	42,000	Q4, 2021
ICS4	PIU Deputy Team Leader and Monitoring and Evaluation specialist	Individual, national, 72 person-months	115,200	Q4, 2021
ICS5	PIU Sustainable Tourism and Protected Areas specialist	Individual, national, 50 person-months	70,000	Q2, 2022
ICS6	PIU Civil Engineer	Individual, national, 50 person-months	90,000	Q2, 2022
ICS7	PIU Environment Safeguards specialist	Individual, national, 36 person-months	58,800	Q2, 2022
ICS8	PIU Social, Gender, and Civil Society specialist	Individual, national, 48 person-months	67,200	Q2, 2022
ICS9	Uvs <i>Aimag</i> Supervision officer	Individual, national, 36 person-months	25,200	Q2, 2022
ICS10	Khovd <i>Aimag</i> Supervision officer	Individual, national, 36 person-months	25,200	Q2, 2022
ICS11	Bayan-Ulgii <i>Aimag</i> Supervision officer	Individual, national, 36 person-months	25,200	Q2, 2022

No.	Package Name	Summary Details	Estimated Value (\$)	Advertisement Date
ICS12	PIU Information Technology specialist	Individual, national, 36 person-months	67,200	Q2, 2022

ADB = Asian Development Bank, CS = consulting service, ICS = individual consulting service, IT = information technology, PIU = project implementation unit, QCBS = quality- and cost-based selection, RANCC = rock art and nomadic culture center, UVTC = Uvs tourism complex.

Source: Asian Development Bank.

2. The scope and tasks of the consulting services financed by the grant are described below.

## 1. CS1: Ecotourism Planning and Protected Area Management

### A. BACKGROUND

3. Mongolia has a small but emerging tourism sector, and developing the tourism sector is a high national priority to diversify the economy and create jobs. Government plans to develop tourism focus on nature- and heritage-based tourism in protected areas, yet most of these sites are underfunded and located in remote regions of high poverty. Tourism, if unmanaged, may result in ecological and cultural impacts and provide few local benefits. Western Mongolia comprises the three *Aimags* of Bayan-Ulgii, Khovd, and Uvs. Much of the region is characterized by extreme remoteness and limited economic development. It also supports a unique cultural heritage – the richest and most well-preserved rock art (ancient images on rock) in northern Asia, the highest number of ethnic groups in Mongolia, and a network of protected areas which include two World Heritage Sites and four Wetlands of International Importance. Visitor numbers are small but prior to COVID-19 were increasing rapidly. Growing attractions include four large, protected areas, and one heritage site – Altai Tavan Bogd National Park (ATBNP) including the overlapping UNESCO Petroglyphic Complexes of the Mongolian Altai World Heritage Area (PCMA) (Bayan-Ulgii), Khar Us Nuur National Park (KUNNP) and Tsenkher Cave (TSC) (Khovd), and Khan Khukhii National Park (KKNP) and Uvs Nuur Basin Strictly Protected Area (UVSPA) (Uvs) – as well as other many other sites of conservation and heritage value. The early stage of tourism development in western Mongolia provides a timely opportunity to help plan and manage tourism sustainably, support livelihoods, and protect key heritage sites.

4. Few residents in western Mongolia are currently able to derive income from tourism. This is due to several linked factors. At the institutional level, a regional planning approach is required for destination promotion, travel routes that maximize benefits to communities, and minimum standards for accommodation, goods, and services. *Aimag* tourism plans, prepared between 2015 and 2019, prioritize community-based tourism, support for micro, small, and medium enterprises (MSME), and capacity building, but lack specific measures to address these. Tour camps present a potential source of jobs and the use of locally sourced goods and services, yet the issuance of tour camp concessions is not based on systematic procedures or social and environmental standards. Elsewhere in Mongolia, these issues have favored external operators (who have greater access to finance and external markets), provided few benefits to local communities, and caused environmental damage. Communities have inadequate access to credit and training to produce quality goods (e.g., handicrafts) or services (e.g., food supplies, guiding). These issues have worsened due to the coronavirus disease (COVID-19) pandemic, which has disproportionately impacted rural communities.

5. Following previous ADB funded tourism projects in northern Mongolia, the Sustainable Tourism Development Project (Phase 2) will be implemented in western Mongolia over 6 years with an estimated cost of \$32.3 million, to be supported by a loan from ADB of \$30.0 million and a grant

of \$2.0 million from the Japan Fund for Poverty Reduction. The Ministry of Environment and Tourism (MET) seeks consultant services to be delivered under contract “**Consulting package CS1 Ecotourism planning and protected area management,**” funded by the loan.

6. During loan processing stage, The TA consultant had developed the various reports which meets the technical, economic, financial, social, environmental, and other due diligence requirements of the Asian Development Bank (ADB) and the Government of Mongolia to design the Project. These reports include the following but not limited to: the Report and Recommendation of the President to the Board of Directors; Project Administration Manual; *Social Development Action Plan*; *Gender Action Plan*; *Initial Environmental Examination*; *Risk Assessment* and *Risk Management Plan*; *Feasibility Study Report*; and *Climate Risk and Vulnerability Assessment*. The firm shall ensure that their deliverables follow the approved project targets and preliminary designs prepared during the processing and described in these reports.

7. **Synergy with overall project.** The consultant deliverables need to reflect a holistic design approach that ensures synergy and integration, where relevant, with the other project components and deliverables prepared by other consulting teams. Examples include, but are not limited to: (i) ensuring that the revised *aimag* tourism plans integrate the project components and operation and maintenance (O&M) plans for the project facilities, (ii) poverty, gender, and livelihood targets will be integrated within the regional tourism master plan, revised *aimag* tourism plans, and improved tour camp standards, and (iii) O&M of the loan-funded tourism complexes will include promotion of the grant-supported community goods, services, and protected areas. The firm is therefore required to have a good understanding of the overall project design and targets in addition to the specific deliverables under the consultancy.

## B. OBJECTIVE OF THE ASSIGNMENT

8. The objective of the assignment is to develop the following deliverables, focused on inclusive and sustainable tourism development in Bayan-Ulgii, Khovd, and Uvs *Aimags* (also referred to as “western Mongolia”). The preparation of these deliverables will include participatory approaches and build on previous and existing Government and donor efforts, be compatible with the conservation of natural and cultural values, and support measures which increase the socioeconomic benefits of tourism to local residents, including through community-based tourism.

1. Prepare a Regional Tourism Master Plan for western Mongolia.
2. Strengthen the three existing *Aimag* Tourism Development Plans.
3. Establish and pilot a Tourism concession manual for five sites: ATBNP (including the PCMA), KUNNP, TSC, KKNP, and UVSPA. The manual will comprise one overall manual, with additional requirements (or sub-manuals) added as needed for site-specific conditions of each site. The deliverable will include successful establishment, piloting, and application of the manual at these sites.
4. Preparation, establishment, and piloting of an eco-certification program for tour camps in key protected areas.
5. Establishment and training of community-based organizations (CBOs) for the project facilities in protected areas and heritage sites.

9. The main results of these instruments will be to:

- Limit the effect of potential negative tourism impacts on local communities while maximizing socioeconomic benefits and empowerment, especially among women and youth.

- Ensure that tourism development is sustainable and encompasses the protection and conservation of the highly relevant regional's natural and cultural resources, values, and traditions.
- Increase the destination's competitiveness through the tourism related infrastructure, human capital, financing, and product improvement.
- Contribute to and support the cross-border tourism arrangements with the People's Republic of China and the Russian Federation.
- Promote a comprehensive brand strategy that contributes to positioning the destination, reducing seasonality, and maximizing tourism expenditure.
- Facilitate integration of climate change adaptation, resilience to disease outbreaks, and natural hazards management into regional tourism development.

### C. SCOPE OF SERVICES, TASKS (COMPONENTS) AND DELIVERABLES

10. The firm will achieve the following general tasks inter alia:

- Identify and review in-depth all existing documents (e.g., plans, strategies, studies) of key stakeholders in tourism management and planning of western Mongolia at national, regional, *aimag* and *soum* level (including the Ministry of Environment and Tourism, *aimag* governments, international donors) in a way the expected results consider all previous efforts carried out.
- Identify key stakeholders and use a participatory approach to ensure buy-in of tourism sector, community stakeholders, and protected areas. The consultation process is considered equally as important as the result within this consultancy so ongoing discussion, feedback, and engagement are essential throughout the entire process.
- Develop participatory activities (workshops, interviews, focus group discussions, etc.) with private sector, government, protected areas, and civil society (including CSOs, CBOs) to ensure wide understanding and ownership of the results. Include women, youth, poor, and vulnerable groups in these discussions.
- Facilitate at least 3 rounds of consultations for the draft and final draft regional tourism master plan with relevant stakeholders, and at least 2 rounds for the rest of components.

11. The scope of the services will include the following outputs of the Sustainable Tourism Development Project (Phase 2), contained in its master table of components in Appendix 1 of the project administration manual: Output 1.1.1 Regional Tourism Master Plan – western Mongolia, Output 1.1.2. *Aimag* tourism plans, Output 1.1.3. Eco-certification program for tour camps, Output 1.2.1 Community-based organizations.

#### DELIVERABLE 1: REGIONAL TOURISM MASTER PLAN (project output 1.1.1)

12. The output to be obtained is an eight-year action-oriented plan, implementable within the scope of available public resources and considering the COVID-19 impacts on the regional tourism sector. This first Regional Tourism Master Plan in Mongolia will contain a detailed implementation framework for its development, monitoring and evaluation, led by the tourism key players in western Mongolia. It will be consistent with tourism policies, plans, and projects developed by Government of Mongolia, ADB and other donors at the national and regional level.

13. The Plan will be implemented in two phases which will assess the current and potential role of tourism in the socioeconomic regional development and will design the road map to



achieve the consensual western Mongolia's vision as a sustainable and inclusive destination. The scope of the work for consultancy services for Regional Tourism Master Plan shall include but not limited to the following activities:

## Phase 1: Baseline Analysis

### (1) Sector assessment

14. Conduct a rapid tourism sector assessment to document the region's current position. Consider previous efforts regarding sector assessment in western Mongolia, avoiding repetition. Carry out desk review, field survey, in-depth interviews with experts, and at least one workshop per *Aimag*. The sector assessment will include supply and demand analysis including the following components.

- **Policy and regulatory framework.** Review the key regulatory mechanisms impacting the regional tourism sector including but not limited to taxation, environmental safeguards, land use, construction permits, licensing and public concessions (tour camps in protected areas, etc.). Identify any gaps or areas in need of updating particularly related to tourism development in protected sites and inclusion of vulnerable groups. A rapid review of applicable tourism programs, plans, and strategies to western Mongolia, including results and lessons learned. *Aimag* tourism plans and the impact of synergic Government and donors' projects on regional tourism context should be focused.
- **Institutional framework.** This includes briefly assessing the organizational structure and analyzing the roles, capacity, effectiveness, and coordination between key stakeholders involved in the tourism development of western Mongolia: Governmental authorities, professional associations, developing agencies, Civil Society Organizations (CSOs), NGOs. Special focus should be put identifying capacity gaps in areas such as human capital, marketing, statistics, quality control, and budget. In addition, the consultancy will provide insights into the potential functionality of a Regional Tourism Governance Structure and scenarios for success in their establishment and administration.
- **Cultural and natural assets.** The baseline will include a detailed inventory of the main regional tourist assets, evaluating at least the following components: significance/values, zoning, conservation, carrying capacity, public management, accessibility, safety, infrastructure, and tourist facilities, linked tourist products/services and benefits for local communities. Key cultural heritage sites and protected areas should be prioritized in terms of tourism development potential within the destination.<sup>1</sup>
- **Tourism demand and further growth projections.** Conduct a full review of domestic and foreign visitor arrival statistics by the MET, National Statistics Office of Mongolia, and other sources. Current market demand assessment should be carried out with particular focus on domestic/inbound/cross-border markets, volume, seasonality, socioeconomic profile, travel patterns, visitors flow, and other related characteristics. Identify main national and international demand trends, visitor growth projections, and key segments for future development matched to potential key products. Summarize gaps between what regions offers and what target markets require. The consultant is expected to factor the impacts of COVID-19 pandemic on tourism market.

<sup>1</sup> Altai Tavan Bogd National Park (630,000 ha; designated in 1996) includes one World Heritage Site, the Petroglyphic Complexes of the Mongolian Altai (11,300 ha; 2011). KUNNP (850,272 ha; 1997) and the UVSPA (424,298 ha; 1993) are Wetlands of International Importance; the latter is part of the Uvs Nuur Basin World Heritage Site (898,064 ha; 2003). Khan Khukhii National Park (221,598 ha; 2000) includes Khyargas Lake, a popular tourism destination. The TSC is an unprotected cave system with the oldest rock paintings in Mongolia.

- **Public infrastructure and supporting services.** Analysis of public infrastructure that is part of tourist's experience in western Mongolia, such as visitor's centers, museums, cross-border and transport infrastructure, telecommunications, health facilities, security resources. In the case of tourist facilities, the consultant should assess staff capacity building, Universal access (for disabled, elderly and children), environmental management (e.g., waste), financing and supply system (e.g., water, electricity). Identify connectivity and transport challenges.
- **Tourism supply.** The consultant will assess the local tourism enterprises (formal and informal) that directly cater to visitors, including accommodations (e.g., tour camps, hotels, motels), restaurants, and other tourism related services. This analysis should include at least the number and classification based on type, size, location, number of employees (gender segregation), revenues, as well as community-based products/services being offered by the identified enterprises, application of environmental and quality standards, and staff capacity. The consultant shall evaluate whether and how the tourism supply is equipped to meet the current and potential demand. Analysis of the current status of tourism cooperatives in the region. Finally, the consulting firm should identify the main challenges derived from COVID-19 impact on the regional tourism sector.
- **Product development and marketing.** Evaluate tourist products, circuits, events, and routes in western Mongolia by type, location, visitors' patterns, and flow, as well as destination marketing and promotion efforts made so far at national or *Aimag* level.
- **Environmental, economic, and social impacts of tourism development.** Based on wide discussions with public and private stakeholders, the consultant will describe the current situation and outlook regarding social, economic, and environmental impacts of tourism in western Mongolia. Tourism impacts on protected areas and cultural sites conservation and community benefits should be particularly analyzed. Impediments to local community involvement (with special attention to women, youth, and vulnerable groups) into tourism businesses and governance will be assessed.
- **Resilience to disease outbreaks, natural hazards, and climate change.** Conduct a rapid assessment to regional level on current measures in preparedness to mitigate the impact of crisis, management to effectively address the crisis and responsiveness to ensure a speedy recovery. Coordinate closely with the grant-financed consulting services and incorporate the results of the grant-financed WASH program and sanitation standards into all deliverables.
- **Regional tourism agreements.** Review (i) the existing tourism agreements between Mongolia, the People's Republic of China, and the Russian Federation, and (ii) existing cross-border tourism arrangements in western Mongolia with these countries including border health screening. Identify opportunities to improve cross-border arrangements to facilitate visitor flows and contribute to national health and COVID-19 screening.
- **Strategic environmental assessment (SEA).** An SEA will be prepared as part of the regional tourism master plan. This will comprise an essential strategic planning aspect of the master plan. The SEA will comprise a road map with specific actions required to ensure that the cumulative impacts of new planned tourism developments are assessed in a holistic manner considering other planned development; and are aligned with the principals and priorities of the master plan. The sector assessment phase of preparation will include (i) compilation of existing SEA (if any) for Mongolia, and (ii) next steps for SEA preparation.

15. As a conclusion and summary of the knowledge gathered through research, analysis, and consultation in this section, the midterm challenges in each component as above will be identified and a SWOT analysis of the destination will be elaborated. In addition, a set of recommendations for tourism policy improvement and mapping of sources of funding for the subsequent execution of master plan actions will be elaborated.

## (2) Benchmarking analysis

16. As a conclusion and summary of the knowledge gathered through research, analysis, and consultation in this section, identify the midterm challenges in each component as above and elaborate a SWOT analysis of the destination. In addition, elaborate a set of recommendations for tourism policy improvement and mapping of sources of funding for the subsequent execution of master plan actions.

## Phase 2: Formulation of the Strategy

### (1) Strategic vision

17. Based on the previous situational analysis, this activity will define the tourism development vision for western Mongolia, setting out where it should be by the end of the life of the strategy and, through the identification of strategic objectives, the ways in which the vision will be achieved. These objectives should be achievable within the timespan to be covered by the Strategy, as well as realistic within the potential sources of funding.

18. The destination vision and action plan shall be in line with population and visitor growth projections, existing tourism policy and planning, prioritized geographic areas for tourism development, acceptable limits for tourism development, carrying capacity of key sites, and based on stakeholder consensus.

19. The tourism development vision for western Mongolia, to be determined by the Regional Master Plan, should be based on 3 main targets: (i) To become a first-order Mongolian destination in terms of brand and visitors' number; (ii) To be recognized as a sustainable and inclusive destination; (iii) To become tourism as a relevant sector for regional poverty reduction through income and employment generation.

20. **Strategic environmental assessment (SEA).** The overall vision and objectives of the master plan will embed the principals of sustainable development. Best practice safeguard assessment will be a fundamental part of this process, and the SEA will be embedded in the master plan objectives.

21. Monitoring of the plan's effectiveness, and, of visitor preferences. The plan will include a self-monitoring component to be led by MET and the *Aimag* Governments at defined intervals after final endorsement of the plan by the government, to assess progress for implementation of the plan. The plan will also include the need for monitoring of visitor feedback and preferences for the existing and project-supported facilities. This monitoring will include (i) surveys of visitors to western Mongolia, including to the project-supported facilities and protected areas, and (ii) data and information compiled from the operators of the project facilities, community-based organizations, MET, the protected area administrations, aimag government agencies, and other donor agencies.

22.

### (2) Eight-year action plan

23. The consulting firm will design an eight-year action plan for western Mongolia with activities to reach the vision. These actions will include a clear implementation framework with detailed budget, funding sources, responsible entity, and support entities. The plans' objectives

and targets will be based on the sector diagnostic and grounded in the realistic and sustainable utilization of the region's tourism assets. This action plan will be complementary to the existing *Aimag* tourism plans.

24. The below are some but not an exhaustive list of the suggested areas of importance to prepare the strategy under the project:

- **Destination governance and management.** Designing a clear regional governance structure with defined and appropriate roles of *aimag* government entities, private sector, and civil society organizations, if required. Strengthening the transboundary cooperation with PRC and Russian Federation for a synergic tourism development in common areas. Cooperation with other Mongolian government institutions (Academy, etc.).
- **Tourism related human capital development.** Supporting *aimag* level government capacity to establishing and maintaining a competitive sector; targeting improvements to management capacities of public officials responsible for tourism management in protected areas; identification of any direct and indirect financial or non-financial assistance measures that the public sector can adopt to support the private sector in the human capital development (vocational training, tourism business incubator, etc.).
- **Managing social and environmental impacts.** Strengthening local residents' stewardship of tourism assets (protected areas, cultural heritage sites, etc.); strengthening of park visitor management system; ensuring community involvement in operations and maintenance of key tourism infrastructure, cultural heritage sites, and natural assets; information and education campaigns to promote sustainable tourism and appropriate behavior targeting tourists and hosts; increasing the participation of women, youth, and vulnerable groups in tourism planning and decision-making institutions; improving the management of solid waste, wastewater, pollutants, and carbon emissions generated by the tourism industry.
- **Commercializing the natural and cultural assets in a sustainable way.** Connecting the natural and cultural assets better to the tourism market, providing opportunities for tourism income generation for the local communities, while ensuring the preservation and sustainability of the assets for future generations.
- **Product development and marketing for realizing key target market opportunities.** Creation of guidelines for preparing a concise marketing action plan for western Mongolia with recommendations for a consistent branding strategy linked with health management that reassures travelers of health and sanitation protocols, measures to enhance demand from appropriate high yield markets, expand the tourism season, mechanisms to sustainably finance marketing and promotion efforts, and monitor the effectiveness of the action plan. Creation of events and tourism products (auto route, horse, and camel route, etc.) connecting three *aimags*. Creation of tourism complexes and tourism streets.
- **Private sector investment promotion and public-private partnerships.** Improving access to finance community-based MSMEs (particularly led by women and youth); expanding eco-certification programs in tourist services; strengthening MET concessions management for developing strategic and inclusive business models; targeting priority areas for green investments in public tourism facilities, accommodation, transportation, and tour services, particularly tourism enterprises that can directly and indirectly support payments for environmental services and heritage management; promoting tourism cooperatives and public-private partnerships to boost destination marketing and promotion.
- **Cross-border and internal travel facilitation.** Improving arrangements for cross-border travel; streamlining visa procedures for high-priority markets and improved efficiency of visa processing; improving connectivity and transport challenges (air and land) and identifying solutions that could be implemented within western Mongolia.

- **Tourism related infrastructure.** Prioritizing climate friendly and climate-resilient infrastructure to improve access to tourist destinations and attractions in developing areas and catalyze private investment; improve public services such as water supply and wastewater treatment, electricity, sanitation, and solid waste management; facilitate movement of tourists at border crossings.
- **Policy-level COVID-19 mitigation and recovery measures** for the destination in the short-term, considering international and national recommendations.
- **Risk management.** Improving resilience to disease outbreaks, natural hazards and climate change through actions aimed at strengthening the crisis readiness in the destination (Emergency Action plans, Education programs, etc.).
- **Support for implementation of existing tourism agreements between Mongolia, the People's Republic of China, and the Russian Federation.** Integrate measurable actions in the regional master plan to support and strengthen existing cross-border tourism arrangements in western Mongolia with these countries, especially for (i) border health screening, (ii) facilitation and monitoring of visitor flows, and (iii) cross-border visitor itineraries that maximize exposure to the project-funded tourism facilities and other locations in western Mongolia.
- **Monitoring of the plan's effectiveness, and, of visitor preferences.** The plan will include a self-monitoring component to be led by MET and the *Aimag* Governments at defined intervals after final endorsement of the plan by the government, to assess progress for implementation of the plan. The plan will also include the need for monitoring of visitor feedback and preferences for the existing and project-supported facilities. This monitoring will include (i) surveys of visitors to western Mongolia, including to the project-supported facilities and protected areas, and (ii) data and information compiled from the operators of the project facilities, community-based organizations, MET, the protected area administrations, *aimag* government agencies, and other donor agencies.
- **Strategic environmental assessment (SEA).** Implementation of the SEA and specific procedures to integrate the SEA into regional and *aimag* level planning will be developed and included at all relevant stages and sections of the master plan.

25. The Action plan shall integrate the impact of all the planned activities of the Sustainable Tourism Development Project (Phase 2), contained in its master table of components, focused on inclusive benefits for communities, the protection of nature and cultural heritage, and post-COVID-19 recovery, and resilience.

### (3) Implementation framework

26. The master plan will contain a detailed implementation framework for its development, monitoring, and evaluation, led by the tourism key players (e.g., *aimag* government, private sector, CSOs) in western Mongolia. It should include a road map summary, financing requirements, monitoring and evaluation plan, as well as an institutional framework for its implementation (roles and responsibilities, recommendations for institutional capacity building requirements). The monitoring plan should contain international standardized indicators on the social, environmental, and economic impacts with measurable annual and 8-year targets. Implementation of the SEA will be integrated in all relevant steps and procedures of the framework.

### (4) Potential replicability in Mongolia: recommendations and lessons learned

27. As innovative experience in Mongolia, include recommendations and lessons learned about the regional planning process with the aim of guiding further elaboration of Tourism Master Plans in other Mongolian regions.

28. The Regional Tourism Master Plan shall ensure that the following measures are complied with: (i) Strict prohibition of sale or consumption of protected flora and fauna, and (ii) Inclusion of wildlife trade in the awareness materials and training for the beneficiaries, especially on the prohibition of selling protected flora and fauna and/or their products and parts, to tourists.

29. **Output deliverables:**

- Inception report (common for all outputs).
- Draft Baseline Analysis and Diagnostic report.
- Draft Strategic Vision, Eight-year action plan, and implementation framework report.
- Draft final Regional Tourism Master Plan report.
- Final Regional Tourism Master Plan, including Dissemination program, and Executive summary, that has been reviewed and endorsed by the Project Steering Committee, MET, and the Governments of Bayan-Ulgii, Khovd, and Uvs *Aimags*.

**DELIVERABLE 2: STRENGTHENING THE *AIMAG* TOURISM DEVELOPMENT PLANS (Output 1.1.2)**

30. This action is aimed at strengthening tourism planning in Bayan-Ulgii, Khovd, and Uvs *Aimags* through the inclusion of missing targets related to livelihoods, conservation, sanitation, hygiene, waste management, and risk management for disease outbreaks and natural hazards, as well as ensure the integration of the tourism plans into *Aimags* development planning.

31. The scope of the work for consultancy services for strengthening the *Aimag* tourism development plans shall include but not limited to the following activities:

- Elaborate a baseline situation and SWOT analysis of *Aimags* tourism development regarding three key areas: (i) Supporting livelihoods; (ii) Conservation, sanitation, hygiene, and waste management; (iii) Preparedness to mitigate the impact of crisis (disease outbreaks, natural hazards, and climate change), management to effectively address the crisis and responsiveness to ensure a speedy recovery.
- Conduct a rapid assessment related to objectives/actions/targets in current *Aimag* tourism plans aimed at addressing the previous issues, as well as strategic alignment with *Aimags* development planning.
- Conduct stakeholder consultations to discuss the assessment findings and collect ideas for update the plans.
- Elaboration of specific measures and steps to: (i) Achieve the timely integration of project targets into tourism planning, tailored to the conditions of each *Aimag*, and aligned with parallel ADB projects on disaster risk management, border control, and health screening; (ii) Improve the integration of *Aimags* tourism Plans into *Aimags* development plans.
- Prepare an updating proposal for each *Aimag* tourism plan/sub-program.
- The revision of the Sub-Program of Uvs and Khovd *Aimags* must support the operations of UVTC and RANCC under the sustainable tourism approach and integrate the relevant components of these complexes into plan.

32. The *Aimag* tourism plans shall ensure that the following measures are complied with: (i) Strict prohibition of sale or consumption of protected flora and fauna, and (ii) Inclusion of wildlife

trade in the awareness materials and training for the beneficiaries, especially on the prohibition of selling protected flora and fauna and/or their products and parts, to tourists.

33. **Output deliverables:**

- Baseline situation and SWOT analysis report
- Stakeholder consultations report
- Draft review and recommendations, which will include specific proposed revisions to the 3 *aimag* tourism plans, especially, to (i) incorporate project targets for livelihoods, poverty, gender, sanitation, protected area management, and O&M of the project facilities, (ii) strengthen consistency, alignment, and integration of the *aimag* tourism plans, *aimag* master plans and other relevant development plans, and the site management plans for the ATBNP, KKNP, KUNNP, TSC, and UVSPA
- Three 5-year financing plans to support implementation of the revised tourism plans, including financing sources
- Three draft revised *aimag* tourism plans, annotated with specific proposed revisions, to incorporate the measures above. The draft plans will have been reviewed and endorsed by the Project Steering Committee, MET and the Governments of Bayan-Ulgii, Khovd, andUvs *aimags*

**DELIVERABLE 3: TOURISM CONCESSION MANUALS FOR PILOT PROTECTED AREAS (Output 1.1.3)**

34. The consultant will (i) establish a tourism concession manual template for five project sites, (ii) prepare site-specific manuals based on the template, and (iii) pilot these for each site: ATBNP, including the PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs). The manuals will apply UNDP Guidelines for tourism concessions in Mongolia's protected areas; as well as the draft tourism concession manual and lessons learned from MON-3787/3788 Loan (Sustainable Tourism Development Project, Phase 1 and other relevant projects supported by ADB and/or other donors, including MON-9183 Grant Integrated Livelihoods Improvement and Sustainable Tourism in Khuvsgul Lake National Park). Coordination with previous efforts of CSOs in selected sites will be essential (e.g., WWF Mongolia in KUNNP).

35. The key components of the tourism concession manuals will inter alia be to:

- Processing and allocation of tourism concessions will be tailored to the specific requirements of selected sites.
- Issues addressed in concession agreement will be suitability (skills and qualifications of applicant), operational details and performance standards (range of services, etc.), fees and monitoring and enforcement (to meet agreed standards).
- Establishment of clear objectives of concession management system to staff, applicants and other government agencies; reflected in clear Terms and conditions of the concession agreement.
- Both proactive (government led) and reactive (private/NFP/NGO led) approaches will be used to achieve objectives and invite and control investment.
- A range of tenures and fees available for use will reflect nature of the use and level of investment.
- Simple procedures and performance standards available for staff and stakeholders for assessing and awarding concessions.
- Enforcement, compliance, and mechanism for termination will be included.

36. **Establish a baseline of the employment status for existing registered tour camp operations in western Mongolia.** In 2021, only about 45 registered tour camps with about 117 employees were operating in western Mongolia, mostly within or near protected areas and/or heritage sites. Document and summarize the skill levels and jobs of employees in the registered tour camps of western Mongolia. This will provide a baseline from which to help measure the effectiveness of the tour camp concession manual, eco-certification program, and project trainings. Identify potential project targets to measure changes in the number, composition, and skillsets of tour camp employees pre- and post-project.

37. **Output deliverables:**

- Baseline status of registered tour camps in western Mongolia including employees and skillsets of each tour camp
- Draft Tourism concession manuals
- Final Tourism concession manuals

**DELIVERABLE 4: PILOT ECO-CERTIFICATION PROGRAM FOR TOUR CAMPS (Output 1.1.4)**

38. Introduce an eco-certification program for tour camps in ATBNP and PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs). It is expected that the Eco-certification program for western Mongolia will expand the program previously developed under MON-3787/3788 Loan (Sustainable Tourism Development Project, Phase 1) to these selected areas. GSTC has already made progress for their introduction in Mongolia, as well as have developed standards potentially applicable to the tour camps and protected areas, in cooperation with MET. It is expected that ecotourism certification program will be based on this international standard. In addition to this, it should be aligned with the two national standards set forth as regulations for accommodation operators in the countryside (National Standards MNS:4934:2002 on “Tourist *ger* camp quality and general requirements” and MNS 6043:2009 for “Resorts, tourist camp and *ger* camps”).

39. **Output deliverables:**

- Draft Eco-certification program for tour camps
- Final Eco-certification program for tour camps

**DELIVERABLE 5: DESIGN AND IMPLEMENT PROJECT TRAININGS FOR ECOTOURISM SKILLS FOR THE PROJECT AGENCIES AND COMMUNITIES (Output 1.2.1)**

40. Identify the ecotourism skills most relevant to support agencies and communities in the project sites. Establish a measurable baseline of pre- and post-project ecotourism skills. Develop and implement a training program to strengthen the skills of (i) local government and protected area administrations for tourism planning and management within the project protected areas and heritage sites, and (ii) the local communities in the project sites, focused especially on the community-based organizations (CBOs) to be supported under the project. Work closely with the consulting services package *CS6: Livelihoods and Tourism Business Development and Capacity Building* to ensure the training program is closely integrated, designs, organized, and implemented, within the training of the consulting services package CS6.

41. **Output deliverables:**

- Training program in ecotourism for local agencies and communities.
- Implementation of the training program.



- Pre- and post- measurement of the training outcomes.

## FINAL DELIVERABLES

42. The firm will provide the following.
- Regional Tourism Master Plan for western Mongolia.
  - Updating proposal of the three *Aimag* tourism development plans (Bayan-Ulgii, Khovd andUvs *Aimag*s).
  - Tourism concession manuals for key protected areas: ATBNP and PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs).
  - Eco-certification program for tour camps in key protected areas: ATBNP and PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs).
  - Ecotourism training program in key protected areas: ATBNP and PCMA (Bayan-Ulgii); KUNNP and TSC (Khovd); KKNP and UVSPA (Uvs).
  - The final report will include (i) a summary of lessons during implementation and measures or corrective actions taken to address challenges encountered, and (ii) recommendation on the potential for, and steps to, replicate or scale up relevant deliverables to other regions of Mongolia.

## D. TEAM COMPOSITION & QUALIFICATION REQUIREMENTS FOR THE KEY EXPERTS

43. General requirements for the Consultant are below. These shall equally apply for the sub-consultants' qualifications.
- The Consultant could be either a single firm or a joint venture of companies that have at least 7 years of extensive experience in respective fields.
  - At least 5 years of proven experience with the contracts of similar size and nature.
  - The consultant should provide the reference letters from previous three (3) Clients specifically to the similar projects to prove that the Consultant had had successfully completed with the relevant projects.
  - In the financial proposal, prove the experts are the consultant's full time staff by providing at least 2 years of the payment records of the social insurance to claim overhead costs for the proposed experts.
44. Subcontractors, if any, shall be approved by the MET and ADB based on complying to the below minimum requirements.
- At least 7 years of extensive experience in required fields. Must be a licensed company for the required fields if required by Mongolian Law and Standards and Norms.
  - Must prove financially sound status.
  - Available personnel qualified to do required works.
  - Experts must have at least 7 years' professional experience.
  - Must provide the CV of the experts for the MET review and approval.
45. The assignment will be carried out by a consulting firm. Proposing entities will determine the number and the specific expertise along with their inputs of the specialists they will require to achieve the objectives of the contract, in accordance with their proposed approach and methodology. However, MET requires a minimum of six key experts (see below), one of which will be expected to act as team leader. The firm will be recruited through the MET, and work under the coordination of the project implementation unit (PIU). The specialists will liaise with *aimag* and *soum* governments and other stakeholders as needed to develop and implement the program.

46. In addition to the above required key experts, the proposing entities should also identify “non-key experts” required to achieve the terms of reference. For example, specialists in solid waste management, sanitation, archaeological heritage, climate change, tourism business development, and health risk management. The firm will mobilize such specialists as needed.

47. The services of the consulting firm will be required over a period not exceeding 12 months to undertake the various needed activities outlined in the Term of Reference. The total level of effort for the assignment is estimated in 57 people/month of expert’s input.

48. Qualification requirements and responsibilities for the key experts are detailed below.

1. **International Tourism Planning Specialist** (international, intermittent, 2 person/month). The specialist will have: (i) at least 10 years’ experience in the creation and/or implementation of tourism plans, strategies, or policies at regional or national level; (ii) a master’s degree in Tourism Management, Tourism Policy, Tourism Planning, Sustainable Tourism Development, or related fields; (iii) knowledge and experience in Tourism development in Central Asia would be an asset; (iv) excellent written and oral communication in English. Specific tasks and responsibilities will include, but are not limited to the following:
  - a) For all the outputs, provide advise based on international best practice principles and standards for ecotourism and green development within and near protected areas and cultural heritage sites, when requested by the team leader.
  - b) Identify main international demand trends, visitor growth projections, and potential key segments matched to regional key tourism products.
  - c) Conduct a benchmarking analysis of similar destinations, regarding best practices in inclusive and sustainable tourism development.
  - d) Contribute to define the tourism development vision for western Mongolia.
  - e) Co-elaborate Policy-level COVID-19 mitigation and recovery measures for the destination in the short-term, considering international and national recommendations, as well as measures to improve resilience to disease outbreaks, natural hazards, and climate change.
  - f) In collaboration with the national Tourism Planning Specialist, design a Regional Tourism Governance Structure for western Mongolia and a detailed implementation framework for the Regional Tourism Master Plan, in line with international best practice.
  - g) Provide inputs to integrate project targets into the *aimag* tourism plans.
  - h) Guide the elaboration process of the tourism concessions manuals, eco-certification program for tour camps, and CBO development program, providing expertise on
2. **Team Leader/Tourism Planning Specialist** (national, intermittent, 7 person/month). The specialist will have: (i) at least ten (10) years’ experience in the creation and/or implementation of tourism plans, strategies, or policies at regional or national level; (ii) at least three (3) similar assignments handled, and experience with Government and/ or ADB policies and procedures; (iii) at least a master’s degree in Tourism Management, Tourism Policy, Tourism Planning, Sustainable Tourism Development, or related fields; (iv) outstanding analytical skills; (v) outstanding organizational, project management and leadership skills; (vi) proven track record in managing ensuring good client communication; (vii) excellent written and oral communication in English and Mongolian. Specific tasks and responsibilities will include, but are not limited to the following:

- a) Lead preparation of outputs in coordination with international and national consultants, keeping track of, and structuring various tasks.
  - b) Ensure timely achievement and smooth implementation of contract activities, covering all client's requirements.
  - c) Apply international best practice and standards for inclusive and sustainable tourism, ensuring that outputs are tailored to the specific conditions, needs, and resources of western Mongolia.
  - d) Apply lessons learned from previous ADB and other donor projects in Mongolia.
  - e) Lead role to deliver a holistic and integrated tourism planning design at regional and *aimag* level.
  - f) As Tourism Planning Specialist, contribute to all output deliverables.
  - g) Design and coordinate domestic studies as needed.
  - h) Conduct sites visits as required.
  - i) Participate in and present findings at consultations and workshops.
  - j) Ensure outputs are properly validated by key stakeholders as per the approved elaboration process.
  - k) Ensure that all outputs are reviewed and checked by the International Tourism Planning Specialist.
  - l) Undertake quality assurance checking of reports produced by self and that of other team members.
  - m) Maintain open and effective communication with the PIU, reporting on progress, activities, and results of activities regularly.
  - n) Any other tasks reasonably requested by the PIU to successfully complete the project.
3. **Protected Area Management Specialist** (national, intermittent, 4 person/month). The specialist will have: (i) at least 10 years of experience in biodiversity conservation, protected areas, or natural ecosystems management in Mongolia, (ii) advanced degree in the area of biology, ecology, wildlife or forest conservation/management, or closely related field with appropriate background, (iii) experience in tourism planning and management in protected areas is a plus, (iv) experience with GIS is a plus, (v) excellent written and oral communication in English and Mongolian. Specific tasks and responsibilities will include, but are not limited to the following:
- a) Review of planning and regulatory mechanism impacting tourism development in protected areas.
  - b) Evaluation of existing conditions and tourism development potential of natural assets.
  - c) Co-elaborate an analysis of tourism impacts and benefits on protected areas.
  - d) Co-elaborate measures to improve resilience to disease outbreaks, natural hazards, and climate change.
  - e) Contribute to develop sustainable tourism business models in protected areas: tourism concession manuals, eco-certification program for tour camps, and Community-based organizations.
  - f) Ensure that outputs are aligned with protected areas management plans.
  - g) Conduct sites visits as required.
  - h) Participate in and present findings at consultations and workshops.
  - i) Assess the management effectiveness status of each of the 5 project protected areas, using an international methodology e.g. METT. The assessment will be conducted in year 1 of project implementation to provide a baseline for the project design and monitoring framework.
  - j) For the ATBNP, KUNNP, KKNP, and UVSPA, assess progress toward the following project outcome indicator: ATBNP, KUNNP, KKNP, and UVSPA meet the social,

environmental, and sustainability criteria of the IUCN Green List of Protected Conserved Areas. Facilitate consultation meetings with local agencies, CSOs, and development agencies to identify challenges and issues to be addressed by the project and other donors to help achieve this outcome target

4. **Business Development and Marketing Specialist** (national, intermittent, 8 person/month). The specialist will have: (i) at least ten (10) years of experience in marketing, branding, or promotion in national and regional destinations, tourism business development in national and regional destinations. Experience in protected areas is a plus, (ii) Bachelor's Degree in Business Development, Economics, Marketing, Destination branding, Marketing branding, image positioning, product development, economics, or related field or similar. (iii) work experience in cultural-based and nature-based products and Ecotourism will be an asset, (iv) Master of Business Administration Degree (MBA) preferred, (v) excellent written and oral communication in English and Mongolian. Specific tasks and responsibilities will include, but are not limited to the following:
  - a) Provide inputs to the Baseline situation, Diagnosis, and Action plan of the Regional Tourism Master Plan in terms of tourism supply, product development, and marketing.
  - b) Prepare guidelines for preparing a marketing action plan for western Mongolia with recommendations for a consistent branding strategy.
  - c) Creation of events and tourism products connecting three *aimags*.
  - d) Lead role to develop sustainable tourism business models in protected areas: tourism concession manuals for protected areas, eco-certification program for tour camps, and Community-based organizations.
  - e) Ensure preservation and sustainability of the assets, while providing opportunities for tourism income generation for the local communities.
  
5. **Stakeholder Consultation Specialist** (national, intermittent, 8 person/month). The specialist will have: (i) a bachelor's degree or higher degree in sociology or related fields; (ii) 10 years working experience as a social and gender specialist; (iii) working experience in preparation or implementation of World Bank/ADB funded projects; (iv) good knowledge on the ADB's social, gender and safeguards policies; and (v) proficiency in spoken and written English. He/she will be responsible to provide social and gender aspect support for ecotourism planning and protected area management in compliance of ADB social policies and procedures, and covenants on social aspects. The specific tasks include, but are not limited to:
  - a) Ensure that social perspective is included in the preparation of tourism plans and tourism concession manuals and eco-certification; in particular ensure priority of employment for local residents (including women, poor and vulnerable and youth) based on the indicators set-up in the SDAP and GAP.
  - b) Ensure the perspective of women and of disabled persons and their specific needs are included in plans & manuals.
  - c) Support the establishment of women-led-market in protected areas; prepare a plan for the establishment of women-led-market. This plan should include: i) identification women willing to be part a woman-led market; ii) organization of women in cooperative to manage the women-led markets; iii) integration of women-led market in campsites and in fee collection stations; iv) ensure women receive necessary training; v) time line for establishment of women-led market and vi) costs.
  - d) Submit this plan for review to PIU and ADB.
  - e) Implement this plan with the support of the PIU and other team members.

- f) Ensure local people (including women and poor and vulnerable persons) are employed during construction and O&M of small tourism facilities in selected sites as per indicators set-up in the SDAP and GAP.
6. **Historian and Cultural Heritage Specialist** (national, intermittent, 2 person/month). The specialist will have: (i) at least ten (10) years of working experience in preservation, management, promotion, development, reporting, and monitoring of cultural heritage. (ii) at least a master's degree in cultural heritage management or related area, (iii) excellent written and oral communication in English and Mongolian. Specific tasks and responsibilities will include, but are not limited to the following:
- a) Conduct sites visits as required.
  - b) Undertaking desk review of the brief history of the sites and identifying historical documentation whenever possible.
  - c) Evaluation of existing conditions and tourism development potential of cultural assets.
  - d) Provide inputs to the Baseline situation, Diagnosis, and Action plan of the Regional Tourism Master Plan in terms of cultural heritage.
  - e) Co-elaborate an analysis of tourism impacts and benefits on protected areas.
7. **Non-key Specialists.** The firm will propose additional non-key specialists as needed to achieve the deliverables. These might include, but not be limited to: tourism product specialist, local stakeholder consultation specialist, legal specialist.

## **E. REPORTING REQUIREMENTS AND TIME SCHEDULE FOR DELIVERABLES**

49. The consulting firm will be hired by and report to the PIU. The PIU (through the project coordinator) will act as liaison between the consulting firm and the implementing agency, executing agency, ADB and other relevant national and regional stakeholders for the project implementation. The PIU will facilitate the workflow and ensure that all relevant activities, all the reports, all the documents and relevant data as well as the entire assignment will be completed effectively and successfully by the consulting firm within the allocated time based on the agreed workplan. Validation/comments on deliverables will be provided within 7 days from receipt of the report.

50. All communications and reports will be submitted both in English and Mongolian, using a standard report format required by the PIU. The Consultant shall submit three hard copies and one electronic copy of each deliverable. Besides, each deliverable will be accompanied with a summary in Power point format. Final reports shall be delivered in CD ROM in addition to the specified number of hard copies.

### **51. Overall reporting deliverables.**

- (i) Inception report, within 1 month of mobilization.
- (ii) Progress reports.
- (iii) Draft final report; and final draft report.
- (iv) Draft and final draft of one knowledge product that summarizes the results, challenges, impacts, and lessons learned of the consultancy. The knowledge product will be of high-quality and focus on disseminating valuable lessons and opportunity for replication, innovation, and scaling up for other regions.
- (v) All deliverables will include (i) a summary of lessons learned during the process of preparation, and (ii) recommendation on the potential for, and steps to, replicate or scale up each deliverable to other regions of Mongolia

52. Deliverables and dates of submission are listed below.

Deliverable	Due date											
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
<b>Regional Tourism Master Plan</b>												
<b>Inception report*</b> . Including Methodology, management plan, communication plan, Stakeholder's involvement strategy, List of documentary sources to be reviewed	Week 2											
<b>Draft Baseline Analysis and Diagnostic</b>		X										
<b>Draft Strategic Vision, Eight-year action plan, and implementation framework</b>				X								
<b>Draft Regional Tourism Master Plan</b>						X						
<b>Final Regional Tourism Master Plan</b> , including Dissemination program and Executive summary								X				
<b>Public presentation*</b>												X
<b>Strengthening the <i>Aimag</i> Tourism Development Sub-programs</b>												
Baseline situation and SWOT analysis		X										
Stakeholder consultations report			X									
Update <i>Aimag</i> tourism plan/sub-program					X							
<b>Elaboration of Tourism concession manuals for key protected areas</b>												
Draft Tourism concession manuals								X				
Final Tourism concession manuals										X		
<b>Introduction of an Eco-certification program for four camps in key protected areas</b>												
Draft Eco-certification program								X				
Final Eco-certification program										X		
<b>Establish and train CBOs in key protected areas</b>												
Draft CBOs development program					X							
Final CBOs development program							X					

\* This deliverable is common for all six products.

## F. CLIENT'S INPUT AND COUNTERPART PERSONNEL

53. Services, facilities, and property to be made available to the Consultant by the Client: facilitate interaction between the consultant and stakeholders in the tourism sector and other Government Ministries and Agencies and ensure that the consultant has access to all relevant documentation necessary that may be legally allowed for the performance of his or her duties.

## 2. CS2: Detailed Engineering Design and Construction Supervision of UVTC and Uvs Tourist Street in Uvs *Aimag*

### A. BACKGROUND

1. The Sustainable Tourism Development Project (Phase 2) will support the development of sustainable tourism within the three *Aimags* of western Mongolia, Bayan-Ulgii, Khovd, and Uvs through four outputs: (i) inclusive planning and capacity for community-based tourism enhanced, (ii) enabling infrastructure constructed, (iii) sanitation and waste management improved, and (iv) management of cultural heritage sites and protected areas strengthened. The Ministry of Environment and Tourism (MET) is the executing agency to implement the project. MET's Department of Tourism Policy Coordination (DTPC) is the implementing agency (IA) for the loan and the Department of Protected Areas Management (DPAM) will be the implementing agency (IA) for the Japanese Fund for Poverty Reduction (JFPR) grant: Strengthening Community Livelihoods in Buffer Zones of Protected Areas. The MET has established Project Steering Committee (PSC) for the project to facilitate the technical and administrative implementation of the project. The PSC is the main body of the project implementation related consultation and decision-making.

2. During loan processing stage, The TA consultant had developed the various reports which meets the technical, economic, financial, social, environmental, and other due diligence requirements of the Asian Development Bank (ADB) and the Government of Mongolia to design the Project. These reports include the following but not limited to: the Report and Recommendation of the President to the Board of Directors; Project Administration Manual; *Social Development Action Plan*; *Gender Action Plan*; *Initial Environmental Examination*; *Risk Assessment* and *Risk Management Plan*; *Feasibility Study Report*; and *Climate Risk and Vulnerability Assessment*. The firm shall ensure that their deliverables follow the approved project targets and preliminary designs prepared during the processing and described in these reports.

3. The consultant deliverables need to reflect a holistic design approach that ensures synergy and integration, where relevant, with the other project components and deliverables prepared by other consulting teams. Examples include, but are not limited to: (i) ensuring that the revised *aimag* tourism plans integrate the project components and operation and maintenance (O&M) plans for the project facilities, (ii) poverty, gender, and livelihood targets will be integrated within the regional tourism master plan, revised *aimag* tourism plans, and improved tour camp standards, and (iii) O&M of the loan-funded tourism complexes will include promotion of the grant-supported community goods, services, and protected areas. The firm is therefore required to have a good understanding of the overall project design and targets in addition to the specific deliverables under the consultancy.

### B. OBJECTIVE OF THE CONSULTING SERVICE

4. The objectives of this consultancy are to produce detail design and deliver construction documents including appropriate budget estimates for Uvs Tourism Complex and Uvs Tourist street (Uvs Tourism Facilities), to support the MET in reviewing bidding documents, and to supervise construction works until its completion.

5. The following design characteristics should be reflected to all design activities.

- Rationality and proper capacity: Uvs Tourism Facilities will be aimed to (i) enabling infrastructure for tourism, (ii) enhancing the capacity for tourism businesses, and (iii) promoting community-led tourism based on heritage, education. The proposed

design should be prepared based on sound evidence-based data and an assessment of the relevant needs to the functionality of the tourism facility in Mongolia. The design must be generated to consider the future expansion of the site.

- Model and accreditation: The Uvs Tourism Facilities will follow international best practices in sustainable design specifically complying with the EDGE standard. The design of Tourism Facilities will be used as a model to be inspired in other regions of Mongolia.
- Modernization: Investments will cover (i) modern infrastructure facilities and equipment which shall be in adequate capacity; (ii) integrated business and operational management; (iii) proper waste management; and (iv) quality management.

6. The assignment is expected to be commenced in Q1 2023 and be completed within 4 years after signing on the contract. The MET is targeting to commence the construction works of the Uvs Tourism Facilities in Q2, 2025.

**Table 1: Indicative Duration for the Assignment**

№	Tasks	2023				2024				2025				2026			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1	Design development including bid documents																
2	Bidding process																
3	Construction and supervision contract administration																

### C. SCOPE OF THE CONSULTING SERVICES AND EXPECTED DELIVERABLES

7. The Consultant will perform professionally and undertake activities necessary to achieve the objectives as defined above by (i) coordinating design, and contract administration activities, and prepare construction documents in professional standards, (ii) carrying out site survey and geotechnical survey, (iii) developing final architectural detail design, (iv) developing the structural design, (v) developing mechanical, electric, and plumbing design, (vi) developing telecommunication and automation design, (vii) providing for construction cost estimates, (viii) developing the bidding documents for construction, (ix) providing technical support to the MET in evaluation of bidding documents and provide expert's comments and recommendation, (x) providing monitoring and reports on; structural inspection, mechanical inspection, electrical inspection, plumbing inspection including all external engineering works, landscape design, record drawings, and certification of the progress, and (xi) providing a deficiency assessment, total inspection.

8. The scope of services includes the following.

- (i) The Consultant will develop Detailed Engineering Designs of Uvs Tourism Complex and Uvs Tourist street:
  - a. All detailed engineering designs shall be prepared based on the approved conceptual design pursuant to relevant laws and regulations of Mongolia. All the design should be in conformity with the highest engineering standards adopted internationally and locally specifically complying to the EDGE standard.
  - b. Project related data, maps, and other information shall be obtained from the MET DTPC and DPAM, Border Projection Agency, National Center for Cultural Heritage,



Land Authority of Uvs *Aimag*, the project implementation unit (PIU) and other relevant agencies, organizations as required. The Consultant needs to review the previous data prior to preparation of detailed engineering design.

- c. The detailed designs will, as a minimum, include construction drawings, detailed cost estimates, necessary calculations to determine, and justify the engineering details, detailed specifications of equipment, architectural/engineering drawings, bill of quantities (BOQ), implementation schedule, detailed criteria for the procurement of contractors etc. The technical specifications should be in accordance with the best national and international practices and should be prepared to achieve the highest standard of quality. For adopting market rates for the detailed cost estimates, a proper rate analysis should be carried out. Construction drawings should be prepared with sufficient details to permit contractors to carry out construction work effectively, unambiguously and with the highest standards of quality.
- d. The final design drawings, along with relevant documentations, technical reports, and working drawings comprising of the following, shall be submitted to and accepted by the Client, but not limited to: (i) Architectural drawings; (ii) Construction drawings; (iii) HVAC drawings; (iv) Technology drawing; (v) Sewerage and Plumbing; (vi) Electricity supply; (vii) Communication/IT wiring; (viii) Fire and Security alarm systems; (ix) Site plan and exterior civil site work, including parking, landscaping, signage, etc. (x) Other drawings necessary to describe the work to be done; (xi) Requirements for construction works; (xii) equipment and furniture delivery schedule; and (xiii) Permissions from the environmental, sanitary, and fire controlling authorities.
- e. The designs shall be at the necessary level of detail to finalize the bidding documents for the relevant construction works, which shall be reviewed and approved by the Client, comprising of the following, but not limited to: (i) A site plan at 1/500 scale and 1/1000 scale; (ii) Plans for each level on a scale of 1/100, with details at 1/50 and 1/20; (iii) Sections and elevations on a scale of 1/100, with details at 1/50 and 1/20; (iv) Structural details (columns, beams, slabs, etc.); (v) Foundation details; (vi) Site plan and engineering utilities, including parking, landscaping, signage, etc. (vii) Equipment Specification, (viii) BOQ; (ix) Cost estimate; (x) Other documents, as needed; The original design assignment will be provided in Mongolian with its English translation for the service purpose.
- f. All the drawings, reports and manuals, to be furnished in both soft and hard copies, duly attested. The Consultant shall be fully responsible for accuracy of all the data, rate analyses for items of work used in the preparation, cost estimates and design irrespective of the fact whether the same has been examined and approved by the PIU or not.
- g. The design shall be prepared in close consultation with, and to meet the requirements of the PIU/IA/EA and will be incorporated into a detailed engineering design report to be submitted for approval of respective professional expertise institutions as per the Law on Construction. Therefore, the consultant may cooperate with the certified companies to obtain such approval, and the fees involved for review and approval of the detailed design drawings by the state expertise should be budgeted by the Consultant.
- h. The design of green areas should comply with traffic engineering design and road safety issues.
- i. Carry out all engineering surveys and investigations such as geodetic and topographical surveys, geotechnical and soil survey, etc., required for the development of UVTC and UTS. All surveys and investigations shall be accurate

and submitted for review or approval of the PIU/IA/EA, endorsing professional institutions; Consultant shall budget all survey expenses in its financial proposal.

- (ii) The Consultant will develop detailed engineering design for access road, car parking of Uvs Tourism Complex and Uvs Tourist street as below but not limited to:
  - a. Design (i) road structure, (ii) provide production of design drawings showing plan in 1:500 scale, Longitudinal profile in 500H to 100V scale, cross-sections, if any, at 20 m interval in 1:100 scale, (f) design of footpaths, bus stops, roadside parking facilities as appropriate.
  - b. Use the data collected during the hydrological survey and determine the following: (i) type of the cross drainage structure if any; (ii) structural design of slab and box culverts; (iii) size and location of roadside drainage and cross drainage structures (appropriate side drains and cross drainages such as pipe culverts); (iv) design of the water conduit/rain water inlets/manholes to take storm water safely to the nearby natural stream.
  - c. The traffic engineering and traffic management plan in detailed engineering design includes: (i) traffic engineering, ii) pedestrian paths and car parking and crossings, iii) bus station areas, and iv) intersection design including turning movement lane allocations, traffic signal phasing and times if any.
  - d. Produce traffic management measures during the construction period, and
  - e. Any other road tasks required for the successful project implementation by the IA/PIU.
- (iii) The Consultant will develop an Operational and Management Plan for the Uvs Tourism Facilities as below but no limited to:
  - a. The Operational and Management Plan will detail implementation strategies within the Regional Tourism Master Plan and Uvs *Aimag* Tourism Sub-Program, and will compose the detailed institutional structure and operational and management procedure for the Tourism Facilities.
  - b. Develop Institutional model/structure for management of the UVTC and UTS through a local-owned enterprise (LOE). The local-owned enterprise will function as a dedicated management unit with highly qualified staff and operational independence that oversees operating contracts for the UVTC and UTS. High-priority operating entities will be the tourism business entities, young and women-led business, the businesses supported under Credit revolving funds.
  - c. Prepare detailed staffing and financial plans for the LOE. The Consultant also will describe the division of responsibilities between the LOE, other government departments, and private sector participants in operations and ownership. The plan should include a time line for set-up of the LOE.
- (iv) The consultant shall prepare quantity estimates, rate analysis, detailed cost estimates and bidding documents but not limited to:
  - a. Ensure market rate for basic materials.
  - b. Prepare BOQ based on the various items of work in line with the detailed drawings.
  - c. A Confidential Detailed Cost Estimate shall be developed, based on the BOQ for each work item and work category. Prices shall be broken down into direct costs (labor, materials, transportation and equipment), indirect costs (mobilization, on site and general overheads, contractor's contingencies and profit) and taxes; A detailed cost estimate is subject to review by the Client and if necessary by an independent estimator.

- d. Government approved norms will be applied wherever applicable; and where the government approved norms are poor or not available, improve, develop and get necessary approval on norms with PIU's support.
  - e. There should not be any lump sum items for work related items in the BOQ. For items not covered under schedule of rates, market rates to be assessed. (Necessary documents on quotations received should be made for assessment of market rates. This will be subject to scrutiny and approval of PIU); and
  - f. Finalize Bidding Documents (The Procurement Document for Prequalification of Bidders, if required) using master bidding documents and specific qualification requirements of each project component, with due consideration to Open competitive bidding for international advertising and National advertising.
  - g. Provide advice and inputs on the EA's procurement submissions which will include bidding documents, bid evaluation reports and contract administration queries. The timeframe and format in which Consultant's advice and assistance to be provided shall be strictly in line with project implementation schedule for 2022-2026 approved by the Project Steering Committee.
  - h. Prepare compliance checklists of Evaluation and Qualification Criteria of the issued bidding documents, based on the submitted bids.
- (v) **EDGE rating.** The Consultant will ensure the detailed engineering designs are compliant with, and meet, the minimum EDGE certification rating: "EDGE Certified /20%". This rating level is to ensure the designs achieve 20% reduction in energy consumption, water consumption and building materials. Note: the preliminary engineering designs prepared for the tourist street and tourism complex during project preparation already meet this EDGE rating target and may exceed it.
- (vi) Specific tasks and responsibilities of the detailed engineering design and construction supervision company (DED/CSC) for DEIA will include the following.
- a. Ensure familiarity of the design engineers with the EBA, General EIA Letter, IEE, and EMP.
  - b. Ensure that all required environment management, monitoring, and reporting measures are included in the site tasks of the DED/CSC's personnel.
  - c. Subcontract, and work closely with, the firm that will prepare the Detailed EIA (DEIA) to: (i) provide all needed support, and (ii) ensure that the design engineers incorporate the DEIA findings to avoid impacts and mitigate remaining risks.
  - d. Assign at least one qualified environment, health, and safety (EHS) specialist to oversee all onsite activities. Ensure that on site meetings are made with the contractor, local government, and PIU before any works are initiated. Clarify and confirm pre-works readiness for all safeguard measures.
  - e. Prepare the detailed site EMP, based on the project EMP and findings of the DEIA.
  - f. Confirm the conditions and details provided by the Contractor for work clearance (the work go-ahead – that it is correct and appropriate).
  - g. Identify appropriate locations and perspectives at each work site to support time-series photography at regular intervals ("same-frame" photographs), immediately before, during, and immediately after construction works. Implement this photo-monitoring program.
  - h. Undertake regular site visits and review the environmental monitoring reports provided by the Contractor, for EMP compliance, correctness/rigor, design and implementation effectiveness of corrective actions; recommend work stoppages, if needed.

- i. Undertake environmental compliance monitoring (independent of the contractor) according to the environmental monitoring parameters, location, and frequency noted in the IEE and EMP (to allow comparisons with contractor monitoring data).
  - j. Maintain regular communication with the Contractor and PIU environment safeguard specialist.
  - k. Confirm the site conditions (at completion of construction works) for hand-over to the local authorities.
  - l. Document and report on EMP implementation and environmental monitoring activities, as required in the overall contract.
  - m. TOR for Domestic DEIA is attached to this TOR as Appendix C.
- (vii) The Consultant will carry out following tasks for project management, construction supervision and quality assurance but not limited to:
- a. Develop detailed work plan, implementation schedule. The detailed work plan will be approved by the project director and will serve as basis for contract monitoring.
  - b. Prepare narrative and photographic progress reports every month and at the end of every three months showing the current situation of works on site to ensure effective monitoring and timely project outputs, and regularly update the PIU.
  - c. Prepare project completion report including submission of approved as-built drawings prepared by contractor wherever necessary, on the completion of works.
  - d. Prepare Quality Assurance and Quality Control (QA & QC) Plans, Risk Assessment and Safety Manuals to be followed on the respective construction sites so as to enforce adequate QA and QC, and safety of construction workers, engineers, and citizens.
  - e. Assist the IA/EA in preparing guidelines for contract administration for the use of PIU, for their day-to-day contract administration requirements such as measurement of works; approval of variation, contract extension and contractor's claim, issue of completion certificate, financial closure of contract, and management during the Defects Liability Period (DLP).
  - f. Prepare the standard construction management system to be followed by contractors at construction sites comprising important components such as planning of activities (work plan), procurement of construction material, and equipment; construction methodology: deployment of construction machinery, deployment of workers, disbursement of funds, etc.; and implement the same.
  - g. Provide services as necessary during the Defects Liability Period, issue a Defects Liability Certificate and certify any final payment that is due to the contractor.
  - h. Provide all necessary support to the PIU and the IA/EA regarding on communication and reporting to all relevant authorities such as the Asian Development Bank (ADB), line ministries and government bodies, and all other stakeholders as and when needed.
  - i. Consultant shall comply indicated baseline of the Gender Action Plan of the Project in every surveys and design stages.
  - j. The consultant may be called upon to deliver customized training on specific topics such as FIDIC contracts and issues related to subject matter.
  - k. During the Detailed Engineering Design of the Project, the Consultant shall closely work with the PIU/IA/EA and perform additional works which are not specified in TOR when necessary.

- (viii) Each staff of the Consultant shall provide the training to PIU/IA/EA staff on their expertise according to agreed schedule with PIU/IA/E but not limited to as follows:
- Ensure implementation of the Gender Action Plan during the preparation of curriculum of each training/workshop/seminar.
  - Consider the technology transfer as an important aspect in design and supervision stages of the service. The Consultant shall provide the opportunity to the PIU/IA/EA officers and staffs to be involved in the working team of consultants during the design, contract administration and supervision works for their capacity development wherever possible. If requested by the PIU, the Consultant shall brief and demonstrate the survey and design procedure, the construction supervision and contract management process and procedures. The consultant shall assist the PIU and its staff to build their capacity as a part of on-the-job training under this project.

### C.1 Expected Design Deliverables

9. The design developments for Uvs tourism facilities have to be according to Client's Concept Designs and Architectural Specifications. The structural, mechanical, electrical, and plumbing design have to be according to Client's Outline of Construction and Engineering Specifications. Following is the work program and the deliverables.

- Project Management
- Site Survey and Geological report
- Architectural Design
- Structural Design
- Interior Design
- Mechanical, Electrical, and Plumbing design
- Internet, Telecommunication, Automation, and Fire safety
- Construction and Supervision contract administration

**Table 2: Project Management**

Project Management	Document Type/Scale	Phase 1 Design development	Phase 2 Construction documents	Phase 3 Bidding documents
Program of Requirements	Document/Narrative Text	✓		
Project Initiation Document	Document/Narrative Text	✓		
Project Organization Structure	Diagram//Schematic	✓		
Communication Strategy	Document/Narrative Text	✓		
Issues Log & Risk Register	MS Excel Table	✓	Revision/Record	
Design Deviations & Derogations List	MS Excel Table	✓	Revision/Record	
Program Timetable	MS Project Table	✓		
Responsibility Matrix	MS Excel Table	✓		
Interface Agreements	Narrative Text	✓		
Project Communication Portal	SharePoint website	✓		
Licensing & Contracting Issues	Government Approvals & Certification	✓		
Commissioning procedures	Document/Narrative Text	✓		

**Table 3: Site Survey**

<b>Site Survey</b>	<b>Document Type/Scale</b>	<b>Phase 1 Design development</b>	<b>Phase 2 Construction documents</b>	<b>Phase 3 Bidding documents</b>
Geotechnical soil survey including drainage, water courses	Narrative Text, Diagrams/Table	To be done before detailed design begins.	Record	✓
Site hazardous material/substances investigation	Narrative Text, Diagrams/Table		Record	✓
Topography map and analysis of city utility services available to site	Narrative Text, Diagrams/Table CAD version	To be done before detailed design begins.	Revision	✓
Master Plan	Document Type/Scale	Phase 1 Design development	Phase 2 Construction documents (scale)	Phase 3 Bidding documents
Master plan	Detailed drawing	1:500	Revision	✓
Access road/Pedestrian path/Parking design	Detailed drawing	1:500	Revision	✓
Grading/cartogram	Detailed drawing		1:500	✓
Landscape design	Detailed drawing	1:100/200	Revision	✓
Distance Plan	Detailed drawing		1:300/500	
Urban planning & Integration	Narrative Text, Diagrams/Table	✓	Revision	✓

10. The architectural design comprises all documents for approvals and permits from the appropriate local authorities. Following drawing list are minimum requirements, but is not limited to the following documents.

**Table 4: Architectural Design**

<b>Architectural Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Building engineering physics report	Narrative Text, Diagrams/Table	✓	Revision	✓
Design Description and technical data	Narrative Text, Diagrams/Table	✓	Revision	
Layouts of basement, ground, and upper floor levels	Detailed drawing	1:50/100	Revision	✓
Section/Cross section	Detailed drawing	1:50/100	Revision	✓
Elevations	Detailed drawing	1:50/100	Revision	✓
Reflected ceiling plan	Detailed drawing	1:50/100	Revision	✓
Furniture Plans	Detailed drawing		1:50/100	✓
Entrance and canopy details	Detailed drawing		1:10/25	✓
Façade details	Detailed drawing		1:10/25	✓

Ramp details	Detailed drawing		1:10/25	✓
Toilet Plans/Section/Elevations	Detailed drawing		1:25/50	✓
Floor finish plan	Detailed drawing		1:25/50	✓
Floor details				✓
Roof finish details	Detailed drawing		1:10/25	✓
Door and window schedules	Detailed drawing		1:10/25	✓
Door head, jamb, and sill	Detailed drawing		1:10/25	✓
Door handle details	Detailed drawing		1:10/25	✓
Handrail details	Detailed drawing		1:10/25	✓
Tactile Paving details	Detailed drawing		1:10/25	✓
Universally accessible equipment details	Detailed drawing		1:10/25	✓
Architectural Specifications	Narrative Text, Diagrams/Table	✓		✓
Bill of Quantities	MS Excel Table	✓		✓

11. The structural Design comprises all documents for approvals and permits from the appropriate local authorities. This comprises, but is not limited to the following documents.

**Table 5: Structural Design**

Structural Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Drawing list, explanation note	Narrative Text, Diagrams/Table	✓		✓
Foundation settling drawing	Detailed drawing		1:100	✓
Foundation layout	Detailed drawing		1:50/100	✓
Foundation section, details, quantity estimation	Detailed drawing		1:10/20/25/50	✓
Plan of trenches in foundation, section, and details	Detailed drawing		1:20/25/50/100	✓
Layout, section, reinforcement, quantity estimation of 1st floor slab, outside ramp	Detailed drawing		1:20/25/50/100	✓
Internal ramp, plan, section, detail, and quantity estimation	Detailed drawing		1:10/20/25/50	✓
RC frame layout and quantity estimation	Detailed drawing		1:20/25/50/100	✓
RC column reinforcement plan, section, detail, quantity	Detailed drawing		1:10/20/25/50	✓

RC beam reinforcement plan, section, detail, quantity	Detailed drawing		1:10/20/25/50	✓
RC slab layout, reinforcement, section and quantity estimation	Detailed drawing		1:20/25/50/100	✓
Masonry wall mesh and fixing layout, details, and quantity estimation	Detailed drawing		1:20/25/50/100	✓
RC lintel layout, section, quantity estimation	Detailed drawing		1:20/25/50/100	✓
Steel frame layout, section, details, and quantity estimation	Detailed drawing		1:20/25/50/100	✓

NOTE: \*The seismic and soil condition differ to each site. Additional drawings are required for structural designs.

**Table 6: Interior Design**

Interior Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Interior Design Colors, Finishes, Materials & Specifications	Narrative Text, Diagrams/Table	✓	Revision	✓
Reception counters/desk and fixed cabinetry	Drawing/Schematic	1:50/100 / 1:5	Revision	✓
Interior Design Bill of Quantities	MS Excel Table	✓	Revision	✓
Interior Design Sample Boards	Color, Finishes & Material Samples	✓	Revision	✓
Special Sanitary Equipment	Color, Finishes & Material Samples	✓	Revision	✓
Children Sanitary Equipment	Color, Finishes & Material Samples	✓	Revision	✓

**Table 7: Heating, Ventilation, and Air-conditioning design**

Heating, Ventilation, and Air-conditioning design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Room Environmental Design Calculations	Narrative Text, Diagrams/Table	✓	✓	✓
HVAC System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
HVAC Control System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
HVAC Duct Riser Diagrams	Drawing/Schematic	1:100/200	1:50/100	✓
Specialist Air Handling & Ventilation Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Main Ducts/Pipe Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓
Schedules of Equipment	Narrative Text, Diagrams/Table	✓	✓	✓
Mechanical Systems Specifications	Narrative Text, Diagrams/Table	✓	✓	✓
Mechanical Systems Bill of Quantities	MS Excel Table	✓	✓	✓



**Table 8: Electrical Design**

<b>Electrical Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Room to Room Electrical Service Requirements	Narrative Text, Diagrams/Table	✓	✓	✓
Main Electrical Power Distribution Systems 3Ø, LV & ELV	Drawing/Schematic	1:100/200	1:50/100	✓
Earthing Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Essential Electrical Services	Drawing/Schematic	1:100/200	1:50/100	✓
Non-essential Electrical Services	Drawing/Schematic	1:100/200	1:50/100	✓
Emergency Power Supply Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Distribution Board/Panel Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Motor Control Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Main Cable Ducts/Trays Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Lighting Systems & Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Catering & Laundry Systems Schematics	Drawing/Schematic	1:100/201	1:50/100	✓
Lightning Protection Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Electrical Systems Specifications	Narrative Text, Diagrams/Table	✓	✓	✓
Electrical Systems Bill of Quantities	MS Excel Table	✓	✓	✓

**Table 9: Water Supply and Plumbing design**

<b>Water Supply and Plumbing design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Chilled Water Riser Diagrams	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Strategy & Safety Systems Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Service Dry Riser Diagram	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Sewage Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Drainage System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Hot & Cold Water Distribution System Schematic	Drawing/Schematic	1:100/200	1:50/100	✓
Treated Water Supply & Distribution System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Plant Room Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Main Ducts/Pipe Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓

<b>Water Supply and Plumbing design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Schedules of Equipment	Narrative Text, Diagrams/Table	✓	✓	✓
Specifications	Narrative Text, Diagrams/Table	✓	✓	✓
Bill of Quantities	MS Excel Table	✓	✓	✓

**Table 10: Internet and Telecommunication, Automation, and Fire safety**

<b>Mechanical Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
IT and security	Narrative Text, Diagrams/Table/Schematic drawing	✓	✓	✓
BMS	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Strategy & Safety Systems & Layouts	Drawing/Schematic	1:100/200	1:50/100	✓

**Table 11: External Mechanical, Electrical, and Plumbing engineering work**

<b>Mechanical Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Permission for connection to power grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to Sewage grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to Water grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to heating grid	Narrative Text, Diagrams/Table		1:50/100	✓
External electrical design and details	Detailed drawing		1:50/100	✓
External water supply and sewage system, connection details	Detailed drawing		1:50/100	✓
External heating design	Detailed drawing		1:50/100	✓
External telecommunication design and details	Detailed drawing		1:50/100	✓
Technical specification for MEP works	Narrative Text, Diagrams/Table			✓
Bill of quantities	Narrative Text, Diagrams/Table			✓
Estimating for External MEP Construction work	Narrative Text, Diagrams/Table			✓

NOTE: \*The grading of the building differs to each site. The connectivity of external MEP differs to the distance of the sources. Additional and design adjustments are required.

**Table 12: Construction and Supervision Contract Administration**

<b>Construction contract administration</b>	<b>Document Type/Scale</b>
Construction Inspection and Review	<i>Narrative Text, Diagrams/Table</i>
Progress Reports/Evaluation	<i>Narrative Text, Diagrams/Table</i>

<i>Construction contract administration</i>	<i>Document Type/Scale</i>
Process Certificates for Payment	<i>Certificates</i>
Review of Shop Drawing Product Data/Sample	<i>Narrative Text, Diagrams/Table</i>
Change Orders	<i>Change Orders</i>
Substantial Performance Report and Certification	<i>Narrative Text, Diagrams/Table</i>
Client Consultation	<i>Narrative Text, Diagrams/Table</i>
Interior Construction Inspection	<i>Narrative Text, Diagrams/Table</i>
Full time Project Representation	<i>Narrative Text, Diagrams/Table</i>
Administration of Separate Contracts	<i>Narrative Text, Diagrams/Table</i>
Structural Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Mechanical Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Electrical Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Record Drawings	<i>Recordings</i>
Pre-installation F&E Inspection	<i>Narrative Text, Diagrams/Table</i>
Civil Construction Inspection	<i>Narrative Text, Diagrams/Table</i>
Landscape Inspection	<i>Narrative Text, Diagrams/Table</i>
Detailed Cost Accounting	<i>Narrative Text, Diagrams/Table</i>
Commissioning procedures	<i>Narrative Text, Diagrams/Table</i>

#### **D. TEAM COMPOSITION AND QUALIFICATION REQUIREMENTS FOR KEY EXPERTS**

12. General requirements for the Consultant are below. These shall equally apply for the sub-consultants' qualifications.

- (i). The Consultant could be either a single firm or a joint venture of companies that have at least 10 years of extensive experience in respective fields.
- (ii). At least 7 years of proven experience in detailed architectural and engineering designs and supervision of contracts with the contracts of similar size and nature.
- (iii). Available personnel qualified in architecture, engineering, cost estimating/ BOQ, equipment specification and reporting software programs (CAD applications) to produce deliverables and supervise construction works.
- (iv). The consultant should provide the reference letters from previous three (3) Clients specifically to the similar projects to prove that the Consultant had had successfully completed with the relevant projects.
- (v). In the financial proposal, prove the experts are the consultant's full time staff by providing at least 3 years of the payment records of the social insurance to claim overhead costs for the proposed experts.

13. Subcontractors shall be approved by the MET and ADB based on complying to the below minimum requirements:

- (i). At least 10 years of extensive experience in required fields. Must be a licensed company for in the required fields if required by Mongolian Law and Standards and Norms.
- (ii). Must prove financially sound status.
- (iii). Available personnel qualified to do required works.
- (iv). Experts must have at least 7 years' professional experience.
- (v). Must provide the CV of the experts for the MET review and approval.

14. The total person-months estimated for Detailed Engineering Design team are 132 person-months (for international experts - 4PMs and for national experts - 128PMs). The person-months (PM) estimation is given in the Table 13.

**Table 13: Estimated Person-Months for Key Experts**

No	Key Experts	Number of Experts	Person/month input		Total
			Home	Field	
<b>I</b>	<b>International key experts</b>				
1	International Architect	1	3.00	1.00	4.00
<b>II</b>	<b>National key experts</b>				
2	Team Leader/National Architect	1	6.00	2.00	8.00
3	Deputy Team Leader/Structural Engineer	4	6.00	2.00	8.00
4	CAD Drafters (at least 4 persons)	1	12.00	2.00	14.00
5	Heating, Ventilation, and Air-Conditioning (HVAC) Engineer	1	8.00	2.00	10.00
6	Water Supply and Wastewater Engineer	1	8.00	2.00	10.00
7	Electrical Engineer	1	8.00	2.00	10.00
8	Automatic and Communication Engineer	1	8.00	2.00	10.00
9	Quantity Surveyor/Budget Estimator	1	3.00	0.00	3.00
10	Green Design Specialist	1	3.00	2.00	5.00
11	Road Engineer	1	6.00	2.00	8.00
12	Resident Engineers (2 persons for construction supervision)	1	0.00	42.00	42.00
<b>TOTAL</b>		<b>15</b>	<b>71.00</b>	<b>61.00</b>	<b>132.00</b>

15. The Consultant may propose other supporting staff required to accomplish the tasks outlined in the TOR. It is the Consultant's responsibility to select the optimum team and to propose the professionals, which he or she believes best meets the needs of the IA/EA.

16. The qualifications and experience required for key team members are below:

17. **Team Leader/National Architect** (national, 8 person-months). The specialist should have (i) graduate degree and/or higher in architecture; (ii) 10 years of professional experiences in the field of architectural design, preferably completed the design of 5 public buildings; (iii) at least 7 years team leadership experience, including demonstrated ability to lead a large team, prepare reports, and work with the government and private sector, communities, and CSOs; (iv) excellent facilitation skills for meetings and negotiations for a wide range of stakeholders, especially governments, private sector, and communities; (v) Excellent computer skills, including CAD applications (AutoCAD, Photoshop etc.); (vi) Proven knowledge in construction law, construction processes, and preparing and reviewing cost estimates; (vii) Previous experience of working with IFI's is an important asset; and (viii) a good command of English.

18. Specific tasks and responsibilities will include, but are not limited to the following.

- (i) Lead preparation of detailed and architectural design for the Uvs Tourism Facilities.
- (ii) Identification, assessment and finalization of the various project requirements and parameters on the basis of the required functions of tourism facilities design in consultation with the client.
- (iii) For these facilities, apply international best practice and standards, ensuring that environmental risks are avoided or minimized, and that designs are culturally appropriate and sensitive to landscape and aesthetic values.
- (iv) Design and coordinate domestic studies as needed to support preparation of the detailed designs.
- (v) Ensure that the detailed designs are prepared to a level of detail that will enable finalization of the architectural designs and preparation of the detailed engineering designs during project implementation.

- (vi) Make amendments to the design as required.
- (vii) Undertake detailed design work on projects as required, and fully check and ensure designs are properly validated as per the approved design process.
- (viii) Undertake site visits as required.
- (ix) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members as directed by International project Architect.
- (x) Ensure that all drawings are reviewed and checked by International project Architect to external issue.
- (xi) Produce architectural design briefs, documents, reports, and specifications as required.
- (xii) Produce architectural drawings utilizing Revit and/or AutoCAD as appropriate for the project.
- (xiii) **EDGE rating and certification.** Confirm the detailed engineering designs meet – at minimum – the “EDGE Certified/20%” rating achieved for the preliminary engineering design during project preparation. Assess the cost / benefit tradeoff between aiming for a higher EDGE rating versus the increased cost to do so – for both construction and operation of the facilities – and the available project budget. Follow up with EDGE team to coordinate and achieve an updated EDGE assessment and certification for the project facility.
- (xiv) Ensure timely achievement of outputs and smooth implementation of contract activities in close coordination with the Deputy Team leader, and Residents Engineers.
- (xv) Conduct visits to the sites and supervise progress and the quality of construction works; identify design and construction defects and recommend corrective actions.
- (xvi) ny other tasks reasonably requested by the IA/PIU to successfully complete the project.

19. **Deputy Team Leader/Structural Engineer** (national, 8 person-months). The specialist should have (i) Graduate degree qualified in Structural or Civil Engineering, (ii) Be a licensed Structural Engineer or Civil Engineering, (iii) Professional experience in engineering design and construction supervision, particularly in preparation of structural drawings, structural calculations according to Mongolian and international standards and legislation, quality assurance and quality control, building and site layout surveys, on site material testing, concrete mix design, planning, and scheduling, safety engineering, and cost engineering and budgeting (iv) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy, (v) Advanced knowledge of Structural Engineering Analysis & Design software packages (preferably SAP 2000) as well as CAD and general office software packages. (vi) Intermediate knowledge of International Building Codes and Design standards, (vii) Intermediate leadership skills with the ability to manage teams with a strong results-orientation, (viii) Intermediate written and spoken communication skills with a minimum basic understanding of English and (ix) Previous experience within design teams and on Author's Supervision duties.

20. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Co-lead the consultant team with the national architect and lead the engineering staff to ensure the infrastructure and engineering components are complied with international and domestic law and requirements.
- (ii) Careful consideration of seismic and geological conditions for each location.
- (iii) Undertake structural calculations and analysis and produce economic and efficient buildable designs.

- (iv) Oversee the building and site layout surveys, on site material testing, concrete mix design, planning and scheduling, safety engineering, cost engineering and budgeting in consideration of the earthquake and seismic resistant requirements.
- (v) Liaise with the project architects, other engineering disciplines, sub-consultants and clients are required.
- (vi) Undertake site visits as required.
- (vii) Carry out detailed structural design and preparation work for foundation.
- (viii) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members as directed by Team Leader.
- (ix) Coordination of the works of structural design engineers for timely completion of the structural design.
- (x) Ensure that all drawings are reviewed and checked by Team Leader prior to external issue.
- (xi) Produce structural design briefs, documents, reports and material specifications as required for civil construction.
- (xii) Supervise all civil construction works.
- (xiii) Assist Resident Engineer during the design, construction and post construction phases.
- (xiv) Monitor post construction activities as and when required.
- (xv) Prepare and update construction supervision plan and quality check tools.
- (xvi) Supervise the implementation and reporting of environmental, health and safety management plans by works contractors.
- (xvii) Review works contractors' reports, claims, proposed changes and variations, and recommend approval, revision, or rejection to MET and PIU.
- (xviii) Any other tasks reasonably requested by the PIU, Team Leader, Deputy Team Leader to successfully complete the project.

21. **International Architect** (international, 4 person-months) The specialist should have (i) a graduate or post-graduate degree in architecture, engineering and design, or related area., (ii) at least 10 years of experience in architectural and engineering design, relevant international architectural certifications, and (iii) a track record in innovative designs tailored to local culture and landscapes, (iv) Professional experience in preparation of community-based facilities, multi-purpose use space such as well as office building design and drawings.

22. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Identification, assessment and finalization of the various project requirements and parameters on the basis of the required functions of universal design in consultation with the client.
- (ii) Leading the planning and design team in design of the physical facilities.
- (iii) Advise and support the team leader/national architect to prepare detailed and architectural design for Uvs Tourism Facilities
- (iv) For these facilities, ensure applying international best practice and standards, ensuring that environmental risks are avoided or minimized, and that designs are culturally appropriate and sensitive to landscape and aesthetic values.
- (v) Advise to design and coordinate domestic studies as needed to support preparation of the detailed designs.
- (vi) Advise the team in preparation of architectural and engineering designs including space planning keeping in view the equipment and future layouts and other requirements of the client to achieve an efficient interrelationship of functions.
- (vii) Guide the architectural team in interior decoration and design of furniture.
- (viii) Guide the project team in identifying special equipment in discussion with the

- client.
- (ix) Guide management of supervision specially to ensure attainment of architectural aspects.
- (x) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

23. **CAD Drafters** (national, 4 experts, 4 person-months each). The consultant should have (i) a bachelor's degree or higher in architecture or engineering; (ii) At least 5 years of Professional experience in architectural presentations using the CAD and in the preparation of design of drawings., (iii) Professional experience in similar project or in development partner funded project would be an advantage, and (iv) Good command of English.

24. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Assist the Project Architect and Architect in the planning and designing facilities.
  - (ii) Assess space planning for different facilities and assist in maximizing space utilization.
  - (iii) Prepare architectural presentations using the CAD and oversee CAD production
  - (iv) Assist in the preparation of design and production of drawings
  - (v) Provide inspection during construction as necessary to assist the Team Leader in conducting quality audit and administration of QA plan

25. **Heating, Ventilation, and Air-Conditioning (HVAC) Engineer** (national, 10 person-months). The consultant should have (i) a graduate degree or higher in HVAC engineering or equivalent, (ii) Additional relevant post-graduate courses that complement/ supplement the main degree are a strong asset; (iii) At least 8 years demonstrated experience in developing detailed engineering designs and on site heating system; (iv) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy; (v) Advanced knowledge of design software in relation to MEP design including AutoCAD and MS office software such as Excel, Word, PowerPoint, MS Pro; (vi) Site inspection or supervision experience on building construction projects, (vi) Intermediate knowledge of International Building Codes and Design Standards; (vii) Intermediate written and spoken communication skills with a minimum basic understanding of English; and (viii) Previous experience within design teams and on Author's Supervision duties.

26. The Heating, Ventilation, and Air-Conditioning (HVAC) Engineer shall take overall responsibility to support the successful implementation of the project in terms of water supply and wastewater related issues and provide all necessary support to MET/PIU to fully comply with the ADB requirements.

27. Specific tasks and responsibilities will include, but are not limited to the following.
- (i) Ensure all duties are undertaken within the required timeframe.
  - (ii) Prepare detail design of HVAC drawings.
  - (iii) Undertake all necessary design calculations and analysis along with schematic diagrams and select appropriate equipment size.
  - (iv) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members.
  - (v) Undertake site visits as required.
  - (vi) Undertake design of air-conditioning and mechanical ventilation system.
  - (vii) Review shop drawings and material submission from contractor/construction manager.
  - (viii) Liaise with contractors and undertake inspection of all mechanical works at site

- and attend to any revision of design, if required, during supervision.
- (ix) Undertake appropriate due diligence on the heating system design aspects of the detailed design, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design for tourism facilities in Uvs *Aimag*.
- (x) Liaise with local authorities and other institutions and apply for design permission.
- (xi) Prepare O&M plan.
- (xii) Ensure that all drawings are reviewed and checked before submission to approval of Expertise and Fire Safety.
- (xiii) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

28. **Water Supply/ Wastewater Engineer** (national, 10 person-months). The Consultant should have (i) a bachelor's or graduate degree in plumbing systems, (ii) 5 years of professional experience in sanitary systems including clean water, sewage systems, sanitary drainage and water treatment systems is an advantage, (iii) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy, (iv) Advanced knowledge of design software in relation to MEP design including AutoCAD and MS office software such as Excel, Word, PowerPoint, MS Project, (v) Site inspection or supervision experience on building construction projects, (vi) Intermediate knowledge of International Building Codes and Design Standards, (vii) Intermediate written and spoken communication skills with a minimum basic understanding of English, and (viii) Previous experience within design teams and on Author's Supervision duties.

29. The Water Supply and Wastewater Engineer shall take overall responsibility to support the successful implementation of the project in terms of water supply and wastewater related issues and provide all necessary support to MET/PIU to fully comply with the ADB requirements.

30. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Prepare designs, documentation, cost estimates and phasing of work in respect of water supply, plumbing, sanitary, and drainage systems.
- (ii) Provide inspection of the works during construction.
- (iii) Assist the Team Leader and Resident Engineer in the efficient implementation of the project.
- (iv) Assist HVAC and Building Services Expert.
- (v) Assess requirements for elevators, air-conditioning, and ventilation, water supply, and firefighting works, determine baselines, and design parameters.
- (vi) Undertake design of lifts, air-conditioning, and mechanical ventilation system, water supply and fire detection/fighting system.
- (vii) Supervise preparation of mechanical design drawings.
- (viii) Undertake supervision of all mechanical works at site and attend to any revision of design, if required, during supervision.
- (ix) Undertake appropriate due diligence on the water supply and wastewater disposal system design aspects of the detailed design, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design for tourism facilities in Uvs *Aimag*.
- (x) In consultation with other engineers, reach mutually understanding and solution on detailed drawing and liaise with local authorities and other institutions and apply for design permission.
- (xi) Conduct the feasibility analysis of wastewater disposal system in tourism



- facilities.
- (xii) Prepare O&M plan.
- (xiii) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

31. **Electrical Engineer** (national, 10 person-months). The Consultant should have (i) a bachelor's or graduate degree in electrical engineering, (ii) a Minimum 5 years of professional experience in electrical engineering for building, building automation, process electrification and automation, programming and instrumentation design, (iii) Be a licensed Electrical Engineer or be eligible to become a licensed Electrical Engineer, (iv) Professional experience working within an Engineering consulting environment such that electrical engineering for building, building automation, process electrification and automation, programming and instrumentation design, (v) Experience in finding power source alternatives for saving electricity, emergency power supplies, fire detection systems, lighting, telephone and paging systems, elevator control etc. and (vi) Good command of English.

32. The Electric Engineer shall take overall responsibility to support the successful implementation of the project in terms of electrical supply and related issues and provide all necessary support to MET/PIU to fully comply with the ADB requirements.

33. Specific tasks and responsibilities will include, but are not limited to the following.

- (i) Ensure all duties are undertaken within the required timeframe.
- (ii) Assist the investigation teams during design services.
- (iii) Undertake planning and detail designs of internal and external electrical works including area lighting and emergency power supply system.
- (iv) Prepare detail design of electrical drawings in Auto CAD or Revit, ensuring that the design is undertaken in accordance with local codes and international standards.
- (v) Liaise with the project architects, other engineering disciplines, sub-consultants, and clients as required.
- (vi) Undertake site visits as required.
- (vii) Produce design specifications, design reports, and to finalize all designs calculations as required.
- (viii) Prepare the BOQ, cost estimates, and specifications for electrical works.
- (ix) Review shop drawings and material submission from contractor/construction manager.
- (x) Liaise with contractors and undertake site inspection duties as required.
- (xi) Ensure quality control, cost control, measurement of works, testing of materials, Verification of measurement of records, certification of bills, monitoring of progress, and recommending appropriate actions, supervising finalization of as-built drawings.
- (xii) Ensure that all drawings are reviewed and checked before submission to approval of Expertise and Fire Safety.
- (xiii) Undertake appropriate due diligence on the electricity supply design aspects of the detailed design, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design.
- (xiv) Examine all technical issues related to and arising during implementation of electrical works.
- (xv) Develop plans and systems maintenance and monitoring of power generators and their associated switchgears, controls, alarms and shutdown systems, protections,

and auxiliary equipment.

- (xvi) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

34. **Automation and Communication Engineer** (national, 10 person-months). The consultant should have (i) a bachelor's or graduate degree in Communication or related fields, (ii) At least 5 years of experience in communication related design, (iii) Professional experience in similar project or in development partner funded project would be an advantage and (iv) Good command of English is also an advantage.

35. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Undertake communication related works such as internet network planning / fiber optic and wireless technology / television system / IP TV, CATV, Analog and digital technology / Radio communication and warning system planning / Shortest and short range radio communication /, Fire alarm and fire extinguishing system, Security alarm, camera / IP and wireless, analog system /, Automation system and paging system, telephone.
- (ii) Prepare detail design of automation and firefighting systems.
- (iii) Prepare cost estimate and planning on related task.
- (iv) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members.
- (v) Undertake site visits as required.
- (vi) Review shop drawings and material submission from contractor/construction manager.
- (vii) Liaise with contractors and undertake inspection of all mechanical works at site and attend to any revision of design, if required, during supervision.
- (viii) Assist in preparation of equipment and material quantity for cost estimates.
- (ix) Ensure that all drawings are reviewed and checked before submission to approval of Expertise and Fire Safety.
- (x) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

36. **Quantity Surveyor/Budget Estimator** (national, 3 person-months). The cost estimator/quantity surveyor should have (i) Master's degree or higher in engineering and design, or related area, (ii) Professional experience supervising all activities of the project including pre-construction activities, survey, soil investigations, specially to ensure attainment of all works, monitoring of post construction work, (iii) Experience in testing of materials and works at site or at suitable laboratories, and (iv) Knowledge in interpretation of drawing, specifications, conditions of contract to the contractors/suppliers.

37. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Guide the design and construction supervision team
- (ii) Advise the project team in making appropriate assessment of field data and forecasting demands of users, facilities, services, and equipment in respect of survey and soil investigations
- (iii) Oversee and supervising all activities of the project including pre-construction activities, survey, soil investigations, supervision of construction including management and monitoring
- (iv) Guide, supervising, and coordinating activities of other project team members
- (v) Guide management of supervision specially to ensure attainment of all works
- (vi) Oversee progress monitoring, cost, and quality control

- (vii) Monitor of post construction work
- (viii) Supervise all activities of the project including survey, soil investigation, and construction work
- (ix) Initiate testing of materials and works at site or at suitable laboratories
- (x) Interpret drawing, specifications, conditions of contract to the contractors/suppliers
- (xi) Verify records of measurements of works done
- (xii) Scrutinize & certify contractor's/supplier's bills for payment
- (xiii) Check and certify as-built drawings
- (xiv) Supervise progress of works and recommend appropriate actions and will prepare weekly and monthly progress report

38. **Green Design Specialist** (national, 5 person-months). The consultant should have (i) bachelor's degree and/or higher in architectural design, (ii) 7 years of professional experiences in the field of architectural design, preferably completed the green design of 2 buildings, (iii) Excellent computer skills, including CAD applications (AutoCAD, Photoshop etc.); (iv) Proven knowledge in construction law, construction processes, and preparing and reviewing cost estimates; (v) Previous experience of working with IFI's is an important asset; and (vi) a good command of English;

39. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Support setting up green building design criteria and capacity development related to sustainable building.
- (ii) Research on the locally sourced available materials that is appropriate for green building construction.
- (iii) Set-up green building design criteria and provide green design analysis appropriate for Uvs *Aimag*.
- (iv) Assist construction teams in implementation of the project to meet the green standard.
- (v) Prepare training materials on the green building to contractors and occupants to meet the requirements of the green building standard.
- (vi) Comply with requirements of green building impact toward productive areas such as agriculture and tourism.
- (xix) Formulate the project document for EDGE certified green building. Within the cost estimates for O&M of the tourist street and tourism complex, include the cost for required EDGE assessment as needed to retain the EDGE rating.
- (vii) At the completion of works, coordinate, in collaboration with the Contractor and PIU, the formal EDGE rating process, leading to issuance of the EDGE certification by the EDGE assessors.
- (viii) Monitor project during construction supervision.
- (ix) Articulate green building science principles, best practices on sustainability and green building program requirements to participants.
- (x) Review prototype submissions for alignment with green building best practices and criteria.
- (xi) Verify appropriate site implementation to align with green building implementation requirements.
- (xii) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

40. **Road Engineer** (national, 8 person-months). The Consultant should have (i) a Bachelor's or graduate degree in road engineering, (ii) At least 10 years of professional experience in

transport sector projects preferably with projects that include roads, bridges and tunnels is required, (iii) Experience of supervising road works during construction period and testing of materials and works at site or at suitable laboratory building are preferable, (iv) Excellent knowledge of Mongolian construction standards, norms and regulations, (v) Excellent knowledge in interpretation of drawing, technical specifications, conditions of contract to the suppliers, (vi) experience in Project Management, Construction Supervision and Contract Administration, and (vii) Good command of English.

41. The Road Engineer shall take overall responsibility to support the successful implementation of the project in terms of road construction and related issues and provide all necessary support to MET/PIU to fully comply with the ADB requirements. Specific tasks include but are not limited to the following:

42. Specific tasks and responsibilities will include, but are not limited to the following:
- (i). Prepare detailed design for road facilities
  - (ii). For the detailed design of the roads including safety improvement works; assist the team leader with the administration and supervision of road construction works including coordination and liaison with the Employer
  - (iii). Day-to-day construction supervision through the Resident Engineers and other site staff; review of daily reports prepared by site staff
  - (iv). Prepare and maintain progress monitoring schedule; reviewing and approving shop drawings and preparation of as-built drawings
  - (v). Identify potential access road connections between the proposed bypass and tourist complexes
  - (vi). Undertake appropriate due diligence on the road design aspects of the detailed design, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design
  - (vii). Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

43. **Resident Engineer** (2 experts, national, 21 person-months each). The Consultant should have (i) Bachelor's degree in Engineering or equivalent work experience (supervisor level), (ii) 5+ years of experience in construction/site environment including main contractor works, (iii) Intermediate time management skills with the ability to work under pressure and to tight timeframes on occasion, (iv) Basic written and verbal communication skills, with the ability to collate materials into a template report, (v) Basic working knowledge of software such as MS Word, Excel and AutoCAD, (vi) Team player and able to adapt to changes within the construction process and (vii) Fluency in written and spoken English is preferred.

44. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Review and comment on drawing specifications and any other documents that may be required for the project.
  - (ii) Review and inspect the contractor capability in term of personal, equipment and other conditions with regard to the contract/bid conditions and legal requirements
  - (iii) Where applicable provide suggestions or observations in respect to the element of the works.
  - (iv) Assist with the development of the inspection process for the C&S/Finishing works at site.
  - (v) Record accurate inspections carried out in line with the site documents.
  - (vi) Advise line manager and record where applicable any works not carried out in

- accordance with the drawings and specifications,
- (vii) Check the work done by the contractor.
- (viii) Assist with the H&S at site and advise line manager of any infringements.
- (ix) Assist where required in the development of the commissioning procedures that are required for the project.
- (x) Review and comment in respect to as-built drawings, and operations manuals.
- (xi) Provide support for the functional area of the project within which they are allocated, or for the project team as a whole, as required by the structure of the project team.
- (xii) Monitor and advise line manager of all of the works within their specific area of concern.
- (xiii) Any other duties that may be assigned as part of the construction works. Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

45. **Procurement Specialist** (national, 1 person-months). The consultant should have (i) a graduate degree in business administration, law, economy or other relevant fields, (ii) 7 years of experience as procurement specialist at ADB funded projects, (iii) at least 5 years' experience on Mongolian Procurement Law, ADB Procurement Guidelines, (iv) Good command of English.

46. Specific tasks and responsibilities will include, but are not limited to the following.
- (i) Finalize the bidding document in compliance with the ADB guidelines.
  - (ii) Include the ADB and the PIU comments and proposals in the bidding document and prepare the document again, and submit to the PIU and EA.
  - (iii) In accordance with the No-Objection from ADB, hand in the final version of the bidding document to the PIU.
  - (iv) During the tender evaluation or procurement processing, provide support to the EA.
  - (v) Monitor the procurement whether it is complying with all the requirements.

## **E. REPORTING REQUIREMENTS AND TIME SCHEDULE FOR DELIVERABLES**

47. The Consultant will directly report to the PIU project coordinator who will monitor contract implementation and the quality of the deliverables with the support of PIU M&E specialist under close supervision of project director. The project implementation unit (PIU) and the MET will evaluate the consultant's performance based on the agreed deliverables and approve the invoices for the reviewed and accepted deliverables.

48. Within 10 working days of the commencement of the Contract, a detailed work plan in accordance with scope of the work will be delivered to the PIU and approved by MET. The plan will serve as the basis for measuring progress on desired outcomes and goals for the entire consultancy service. Detailed work plan shall include Reporting Requirements and Time Schedule for Deliverables.

49. At a minimum, it should include the following.
- (a) Format, frequency, and contents of reports. Content will indicate what deliverables will be included in the report.
  - (b) Number of copies, and requirements to electronic submission if any (or on flash disk). Final reports shall be delivered in flash disk in addition to the specified number of hard copies.
  - (c) Dates of submission for each report.
  - (d) Persons (indicate names, titles, submission address) to receive them.

50. Following reports will be provided or modified in consultation with the MET.
- Inception report after 1 month of consultant's mobilization
  - Monthly and quarterly reports reporting the progress of the outputs within the above scope of work.
  - Yearly report within 10 days of first month of the year.
  - Final report by end of the contract. The final report will include a summary of lessons learned during implementation and measures or corrective actions taken to address challenges encountered.
  - Any other deliverables reasonably requested by the PIU and MET.
  - One report after each field monitoring session, including analysis and results of field sampling; a draft final report; and, a final report for DEIA.
51. The consultant is required to PIU various reports/documents including among others:

No	Types of Reports	Date of Submission	Number of copies
1	Inception report	Within 1 month after commencement of supervision	4 copies
2	Weekly progress report	Each week after commencement supervision	3 copies
3	Monthly report	Each month	4 copies
4	Defect liability Period Report	Within 28 days of issue of certificate of completion	4 copies
5	Project Completion Report	End of the consultant's work	4 copies
6	Monitoring and Evaluation Reports	Three months after project completion report	4 copies
7	Project Performance Management Report	Before, during and end of project implementation	4 copies

52. The supervision progress report are as follows.
- Inception report will cover at a minimum an assessment of the project procurement status, implementation delays and recommended corrective actions (if any), the status of design development for the installations nominated as Provisional Sum in the construction contract.
  - Weekly progress report shall include details of the works carried out during the previous week, the problems encountered or anticipated, information on outstanding claims complete with summaries of both Contractor and Employer compliance with contract time notification periods. The report will document the status of design development for the installations nominated as Provisional Sum in the construction contract. The report will detail the steps taken or the recommendations given to address the given circumstance, and the report shall capture financial and physical progress to date.
  - Monthly progress report shall comprehensively cover all project aspects: the overall project progress, updates on implementation arrangements or changes in project scope, contract awards and disbursement status, payments to the consultants and contractors, progress of works, status of training programs, difficulties and delays encountered or anticipated, and remedial actions taken or suggested, and summarize the compliance status related to the grant/loan covenants and social and environmental safeguard.
  - Progress reports will include an assessment on construction progress against program, an indication of key outstanding issues, and an updated development program (if relevant) for key project activities. Copies of each report will be submitted

- to PIU in English. The Consultant shall transmit an electronic version of the reports to ADB on issue of the reports to the Employer.
- 5) Progress reports will include an assessment on construction progress against program, an indication of key outstanding issues, and an updated development program (if relevant) for key project activities. Copies of each report will be submitted to PIU in English. The Consultant shall transmit an electronic version of the reports to ADB on issue of the reports to the Employer.
  - 6) Project completion report shall include a detailed description of all the work by items of technical and non-technical matters, as-built drawings, economic analysis, financial and disbursement data, analyses, difficulties and delays encountered and reasons, and remedial actions taken, the overall progress of the Project.
53. All reports will be reviewed upon submission by the MET. The Consultant shall respond in writing to the comments of the EA and IA or any of the reviewing bodies. The Consultant shall meet with these agencies, as necessary, to resolve any problems or concerns which may surface during the review. The Consultant shall have their own internal review system to review drawings prior to EA and IA's approval. The Consultant shall become familiar with local holidays and customs so that in setting submittal schedules, the project and EA and IAs can take full advantage of the time periods scheduled for reviews and approvals.
54. Drawings prepared and submitted by the Consultant shall be to the standard size of A0, A1, A2; and one-half size reductions as may be required by the MET. The scale of all drawings is to be determined by mutual consent of the EA, IAs and the Consultant prior to the commencement of each project phase, at which time the Consultant shall also identify the number of drawings to be produced. All drawings information should be clear and legible. The Consultant shall submit the final drawings in digital format approved and reviewed by the MET. State expertise approved final drawings (three hardcopies) will be submitted to MET in English and Mongolian version.

#### **F. CLIENTS INPUTS AND COUNTERPART PERSONNEL**

55. The following staff will be assigned by the Client to support the Consultant's team:
- MET DPAM and DTPC Counterpart Specialists
  - All PIU staff
56. Counterpart Contribution to be provided by the Client:
- Support to obtain necessary approvals regarding external utilities (power, heating, water and sewage, communication, IT etc.) from relevant authorities (as appropriate)
  - Support to arrange meetings with government organizations
  - Support to obtain relevant information and negotiations with Clients
57. The Client will provide the following documents and papers to facilitate preparation of the proposals:
- Previous data, TA consultant's report

## **APPENDIX A to the TOR**

### **UNIVERSAL DESIGN PRINCIPLES**

1. The following design consideration for each types of disability must be reflected on building design development and detail design stages. The Consultant must follow the Synthesis of the standards ISO/IEC Guide 71:2014

#### **1) Sensory Abilities and Characteristics**

- (i) Multiple means of information presentation such as auditory or tactile to supplement or substitute for visual information
- (ii) Appropriate size, contrast, form, luminance, lighting and viewing distance in relation to context of use
- (iii) Avoidance of glare; redundant forms of coding to supplement or substitute for information conveyed with color coding, e.g. shape or texture coding
- (iv) Appropriate physical construction and properties of fonts such as size, spacing, with or without serif, upright form or italics, and light, medium or bold appearance within a specific context of use
- (v) Visual information and controls placed in a prominent position, or a positioning that is flexible, adjustable or duplicated
- (vi) Avoidance of flicker rates with flashing or blinking text, objects or video screens, especially those that can trigger visually induced seizures
- (vii) Distinctive form to facilitate identification of a product/environment and/or parts of a product/environment (including orientation, e.g. top/bottom, front/back, entrance/exit)
- (viii) Colored markings that draw attention to steps and potentially dangerous places
- (ix) Tactile indicators that draw attention to stairs, platform edges and pedestrian crossings
- (x) Traffic lights equipped with acoustic signals to indicate when pedestrians can cross streets safely

#### **2) Hearing Consideration**

- (i) Multiple means of information presentation such as visual (text or pictures) or tactile to supplement or substitute for auditory information
- (ii) Appropriate volume, pitch and frequency of spoken announcements, warnings and warning sounds in relation to context of use
- (iii) Adjustable volume over a wide range and with multiple frequencies
- (iv) Avoidance of sudden changes in volume of auditory signals
- (v) Constant signal-to-noise ratio between the level of an announcement and that of the background noise
- (vi) Group assistive listening devices or communication systems such as induction loops, infrared or radio systems
- (vii) Emergency announcements that are visual with text, and where appropriate, in sign language, as well as of an appropriate volume and pitch decrease risk for persons with hearing impairment
- (viii) A good acoustic environment, that reduces background sounds and promotes sound that is important to be heard
- (ix) Accommodation for and compatibility with relevant assistive products, assistive technology and supports.



**3) Touch Functions**

- (i) Multiple means of information presentation such as visual or auditory information to supplement or substitute for tactile information or biometric controls.
- (ii) Multiple means of control such as eye and voice control, sensors and automatic or remote controls.
- (iii) Avoidance of sharp and uneven points/edges/surfaces.
- (iv) Avoidance of excessively hot or cold surfaces which can be touched (even inadvertently).
- (v) Distinctive form to facilitate identification of a product and its parts, which in turn can facilitate use/handling/assembly.

**4) Taste Functions and Smell Functions**

- (i) Multiple means of information presentation to supplement or substitute for information gained by taste and smell functions.
- (ii) information in labeling on ingredients, use by and expiration dates.
- (iii) Visual and auditory signals to alert people to the presence of smoke or dangerous chemicals.
- (iv) Information or labeling to warn about strong smell or taste.
- (v) Provision of minimal odors and taste, except where necessary (e.g. odors and taste are expected in foods).

**5) Immunological System Functions**

- (i) Avoidance of inclusion of allergens, sensitizing substances and chemicals known to cause hypersensitivities in products, foodstuffs and environments.
- (ii) Appropriate information and labeling of ingredients/contents (including allergens, sensitizing and chemical substances known to cause hypersensitivities) in accessible format, the provision of this information being mostly subject to national or international regulation and which can include
- (iii) A list of ingredients,
- (iv) A separate statement that declares any major allergens or sensitizing substances included, and warnings such as information regarding any change in composition of significance related to allergens and sensitizing substances.
- (v) Ventilation systems that filter out respiratory allergens.
- (vi) Prevention of mold growth, e.g. by controlling level of indoor humidity, and following appropriate cleaning routines.
- (vii) Avoidance of dust-collecting furnishings in public areas.
- (viii) Availability of “allergy-free” areas such as smoke-free and allergy-free rooms in hotels, and animal- free areas in public transportation.

**6) Physical Abilities And Characteristics**

- (i) Additional space in built environments.
- (ii) Space for clothing and personal protective equipment.
- (iii) Multiple size offerings and / or adjustability.
- (iv) Height clearance for tall persons.
- (v) Width clearance for large persons.
- (vi) Step heights and reach distances for small persons.
- (vii) Space for assistive products, assistive technology, service animals and accompanying persons.
- (viii) Load capacities of system components appropriate for larger mass (weight) requirements.

- (ix) Systems with a clear line of sight to important components for seated or standing users.
- (x) Systems with a comfortable reach to all components for seated or standing users.
- (xi) Grip sizes in systems components that accommodate variations in user sizes and shapes.

**7) Movement: Functions Of Upper Body Structures And Fine Hand Use Abilities**

- (i) Manufacturing materials of lighter weight or lower density to reduce the weight of products.
- (ii) Products shaped to facilitate easy grasping, lifting and carrying with either or both hands.
- (iii) Manual controls that allow a comfortable grip, avoid the need for twisting of the wrist, and offer minimal resistance.
- (iv) Controls that avoid the need to manipulate multiple controls at the same time.
- (v) Non-slippery surface that aids gripping and manipulating for people with limited dexterity.
- (vi) Textured surfaces, to increase friction, and facilitate the application of force.
- (vii) Design and spacing of controls that guard against inadvertent activation of a control other than the one intended.
- (viii) Containers that allow easy opening and closing with reasonably low attainable operating force.
- (ix) Simple and straightforward sequences for opening of packaging and assembling, installing or operating a product.
- (x) Avoidance of simultaneous double movements, e.g. pushing and twisting.
- (xi) Alternative controls for accommodation of upper body movement impairments.

**8) Movement: Functions Of Lower Body Structures**

- (i) Slip-resistant, threshold-free layout, e.g. in buildings and paved outdoor environments.
- (ii) Avoidance of sudden changes in surface level, obstacles, bumps or protrusions.
- (iii) Equipment, such as elevators and other lifting systems.
- (iv) Ramps with appropriate slopes and adequate space to allow for approach and maneuvering, and use of wheelchairs, walking frames, or walking aids.
- (v) Stairs with appropriate dimensions and banisters or hand grips alongside.
- (vi) Ample time for persons with mobility limitations to pass through automatic doors and to use pedestrian crossings.

**9) Muscle Power And Muscle Endurance**

- (i) Use of power grip (whole hand) which requires less effort than pinch grip (between thumb and index or middle finger).
- (ii) Appropriate handling characteristics (e.g. size and weight) for systems that involve lifting, holding, carrying or opening.
- (iii) Avoidance of long handling time and unnecessary repetition of operations.
- (iv) Avoidance of long service lines that cause people to stand unsupported for long periods of time.
- (v) Alternative means of control in vehicles to accommodate lower body movement.

**10) Voice And Speech**

- (i) Alternative forms of communication such as via text, facial expressions, hand movements or signs, body postures, and other forms of body language.

- (ii) Augmentative and alternative communication based on symbols, aids, techniques, and/or strategies.
- (iii) Support for the use of assistive products such as speech synthesizers and communication amplifier and video communication.
- (iv) Provision of alternative means to interact with interactive voice systems and intercom systems, such as real-time text.

## 11) Cognitive Abilities

- (i) Information about time and place.
- (ii) Schedules, structures, signals to indicate start and termination of activities.
- (iii) An overview that informs the user what to expect before providing any details.
- (iv) Appropriate feedback/cues/reminders that hold the user's attention and give support through a process.
- (v) Feedback that is adjustable to the needs and preferences of users.
- (vi) Environments and presentations that are stimulating but also avoid distractions.
- (vii) Systems and procedures that adapt to individual situations, abilities and preferences.
- (viii) Similar arrangement/layout and design of feedback and control logic on products of a similar type.
- (ix) Similar design of feedback and control logic on products of a similar type.
- (x) Error-tolerant operating sequences.
- (xi) Flexible time period for assimilation of information and response.
- (xii) Simple and straightforward sequences for opening of packaging and assembling, installing or operating a product.
- (xiii) Information provided in multiple formats, e.g. text is read out, diagrams are provided in addition to text.
- (xiv) Information and instructions that are easy to understand in the language of the user.
- (xv) Explicit information on expectations placed on the user.
- (xvi) Systems that can be used (as far as possible) without an instruction manual.
- (xvii) Procedures that facilitate learning (learning by doing is generally easier than memorizing instructions, repetitions).
- (xviii) Multiple means of information presentation (e.g. text is read out, widely recognized symbols).
- (xix) Emergency evacuation routes designed so that they are intuitive and easy to follow which clearly designate any alternative routes that accommodate for persons with disabilities.
- (xx) Accommodation for/compatibility with relevant supports and assistive products and assistive technology.

## **APPENDIX B to the TOR**

### **LOCAL BUILDING CODES, REGULATIONS AND STANDARDS**

1. The Consultant will comply with local building codes and regulation in terms of accessibility and international best practice, including but not limited to the following.

**1) Norms On Architectural Design**

- (i) BNbD: 30-01-04 /CCM 30-01-04/ Norm and Regulation for Urban Resettlement planning and building construction, Decree No.130 by the Ministry of Infrastructure, 2004
- (ii) BD 31-101-04 /31-104-04/ Handbook for barrier-free construction planning for the handicapped, Decree No.17 by Director of Construction, Urban Development and Public Utilities Office, 2004
- (iii) BD 31-112-11 Building regulations of space planning for the requirements of handicapped people, Decree No.256 by the Ministry of Construction and Urban Development.
- (iv) Other related norms and regulations

**2) Norms On Structural Design**

- (v) BNbD: 2.01.07.90 Load and effect
- (vi) BNbD: 22.01.01\*2006 Building cod of seismic regions
- (vii) BNbD: 2.02.01.94 Ground and Foundation code for building design work
- (viii) BNbD: 52.02.05 Cast in situ concrete and reinforced concrete
- (ix) BNbD: 53.02.05 Steel Structure
- (x) BNbD: 2.03.02.90 Masonry and reinforced masonry structure
- (xi) BNbD: 52.01.10 Concrete and *reinforced concrete structure*

**3) Norms On Electrical Design**

- (i) BD 43-101-03 The regulations of electrical installations
- (ii) BD 43-101-03\*12 The regulations of electrical installations
- (iii) BD 43-103-08 The instruction for design of the lighting protection of building and facilities
- (iv) BD 43-102-07 Design and installation of electrical equipment in residential and public buildings

**4) Norms On Fire Safety And Automation**

- (i) BNbD 21-01-02 Fire safety of buildings and facilities
- (ii) BNbD 21-02-02 Norm on fire safety for developing construction design drawings
- (iii) BNbD 21-04-05 Automatic fire extinguisher and alarm equipment of buildings and facilities
- (iv) BNbD 3.05.07-85 *Automation systems for building*

**5) Norms On HVAC Design**

- (i) BNbD 41-01-11 Heating, ventilation and air-conditioning
- (ii) BNbD 43-03-07 Boiler equipment
- (iii) BD 41-102-11 Design of independent heat supply sources
- (iv) BNbD 23-01-09 Climate and geophysical parameters for construction
- (v) BNbD 23-02-09 Building thermal performance
- (vi) BD 23-103-10 *Designing thermal performance for building*

**6) Norms On Water Supply, Plumbing Design**

- (i) BNbD 3.05.04-90 Water supply, sewerage, outdoor pipelines and facilities
- (ii) BNbD 3.05.01-88 Indoor plumbing system
- (iii) BNbD 40-05-98 Indoor water supply and sewerage pipelines
- (iv) BNbD 40-02-06 *Water supply, outdoor pipelines and facilities*

**7) Mongolian National Standards**

- (i) MNS 6055:2009 – Space planning for building and environment with the requirements of handicapped people, 2009
- (ii) MNS 6056:2009 – Design manual for planning and designing accessibility for handicapped people, 2009

**8) International Standards**

- (iii) EDGE standard

**APPENDIX C to the TOR: Domestic Detailed Environmental Impact Assessment for the proposed Uvs Tourist Complex, and Uvs Tourist Street, Uvs Aimag**

**A. Background**

1. The Sustainable Tourism Development Project (Phase 2) is being implemented by the Government of Mongolia through the Ministry of Environment and Tourism (MET), with funding support from the Asian Development Bank (ADB). The project includes the planned construction of two visitor centers, the Rock Art and Nomadic Cultural Center (RANCC) (Khovd *Aimag*) and Uvs Tourism Complex (UVTC) (Uvs *Aimag*), two tourist streets (one each in Khovd *Aimag* and Uvs *Aimag*), and about 35 small facilities – public campsites, public toilets, carparks, information centers, information points, public cooking cabins, trail upgrades, fee collection stations, ranger stations – in five sites: Altai Tavan Bogd National Park and the Petroglyphic Complexes of the Mongolian Altai (Bayan-Ulgii *Aimag*), Khar Us Nuur National Park and Tsenkher Cave (Khovd *Aimag*), and Khan Khukhii National Park and Uvs Nuur Special Protected Area (Uvs *Aimag*).

2. In 2020 and 2021 the following documents were prepared: (i) preliminary engineering designs and feasibility study report, (ii) a domestic environment baseline assessment (EBA), and (iii) an initial environmental examination (IEE) and environment management plan (EMP); as required by ADB's Safeguard Policy). In 2021, a General EIA Letter was issued by the MET, which requires the preparation of a Detailed EIA (DEIA) for the proposed facilities. The project will be implemented from December 2021 to December 2027. Implementation is coordinated through a project implementation unit (PIU), including an environment safeguard specialist.

3. The UVTC site is 14.5 km from the center of Uvs *Aimag* capital, Ulaangom. The tourist street is a total of 6.4 ha of land to the southeast of the Uvs *Aimag* center, to the east of *Aimag* Central Stadium, and to the southwest of *ger* residential area directly connected to the main road was allocated. The existing parking lot of the nearby stadium will be used. This site location was agreed between the *aimag* government and MET. A detailed engineering design and construction supervision company (DED/CSC) will be engaged to design these facilities and oversee their construction. The DED/CSC will subcontract a qualified domestic firm to prepare the DEIA. This terms of reference is for the preparation of the DEIA for the UVTC and Uvs tourist street.

## B. Objective of the Consulting Services

4. The objective is to prepare a DEIA that fulfills domestic requirements. In fulfilling the consulting services, the firm will work closely with the DED/CSC, PIU environment safeguard specialist, MET, local government agencies, ADB project team, and other stakeholders as needed.

## C. Scope of the Consulting Services

5. The DEIA firm will do the following.
- (i) Review and be familiar with the preliminary engineering design, environment baseline assessment, initial environment examination, and General EIA Letter.
  - (ii) Review and be familiar with the draft detailed engineering designs.
  - (iii) Conduct all required field surveys and site assessments to prepare the DEIA.
  - (iv) Prepare a separate DEIA report for each facility. The reports will be developed in accordance with the “Methodology on Environmental Impact Assessment” which was adopted with Environment Minister’s Order No. A-117 on 10 April 2014.
  - (v) Work closely with the DED/CSC firm to ensure that the DEIA findings help improve the DED, to avoid any risks and impacts as far as possible.
  - (vi) Identify and highlight any new or additional impacts not identified in the EBA or IEE.
  - (vii) Prepare a domestic EMP to address the identified risks and domestic monitoring and reporting requirements.
  - (viii) Ensure there is alignment between the domestic EMP and the ADB funded IEE and EMP. If the domestic EMP proposes any measures or actions which conflict (or contradict) the ADB funded IEE and EMP, identify these. Seek discussion with the DED/CS firm and PIU environment safeguard specialist (who will discuss also with the ADB project environment specialist).
  - (ix) Submit the draft DEIA to the DED/CS firm and PIU for review. After internal endorsement, submit the draft DEIA to MET for review.
  - (x) Facilitate MET review of the draft DEIA.
  - (xi) Revise and finalize the draft DEIA based on the comments received.

## D. Team Composition and Qualification Requirements for key experts

6. The firm will have: (i) all required domestic qualifications and certifications to prepare a DEIA; (ii) at least 10 years of relevant professional experience in related fields and projects, especially in the construction sector; (iii) have completed at least 3 DEIAs for projects funded by ADB or other international development agencies; (iv) all specialists as needed to conduct the environmental assessments required (physical, chemical, biological, ecological, and socioeconomic parameters); (v) ability to communicate and work effectively with local communities and government agencies; and (vi) ideally, proficiency in English. The firm will provide reference letters from a minimum of three previous clients for similar projects.

7. **Output-based Terms of Reference.** The assignment will be carried out by a consulting firm. Proposing entities will determine the number and the specific expertise along with their inputs of the specialists they will require to achieve the objectives of the contract, in accordance with their proposed approach and methodology. All proposals will include **a minimum of six key experts**, one of which will be expected to act as team leader (Table 1).

**Table 1: Key Expert Positions and Estimated Person-Months**

No.	Key Experts	Number of Experts	Person/month input		Total
			Home	Field	
1	Team leader/ Senior Technical specialist	1	3	1	4
2	Biologist/ecologist	1	1.5	1	2.5
3	Physical science specialist	1	1.5	1	2.5
4	Socioeconomic specialist	1	1.5	1	2.5
5	Cultural resource specialist	1	1.5	1	2.5
6	Field logistics assistant	1	1	1.5	2.5
<b>TOTAL</b>		<b>6</b>	<b>10</b>	<b>6.5</b>	<b>16.5</b>

8. **Team leader/Senior Technical Specialist** (national). The specialist will have: (i) a master's degree or equivalent in relevant field, (ii) at least 10 years professional experience in environmental impact assessment in Mongolia, including with construction or infrastructure projects, and experience with protected area concepts and management, (iii) ability to communicate and work effectively with local communities and government agencies, (iv) ability to quickly undertake field observations, analyses, and consultations required for EIA, (v) strong analytical and report writing skills, and, (vi) ideally, proficiency in English. Specific tasks and responsibilities will include, but are not limited to, the following.

- (i) Lead the other technical specialists to ensure coverage of all environmental aspects affected by this project (physical, chemical, biological, and socioeconomic parameters).
- (ii) Maintain communication and coordination with the DED/CS firm, PIU, and MET.
- (iii) Set the template and schedule for proper completion of the EIA report.
- (iv) Lead overall preparation of the draft and final draft DEIA, and assume responsibility for overall quality control.

9. **Technical Specialists** (4 experts, national). The specialists will each have (i) a master's degree or equivalent in relevant field, (ii) at least 10 years professional experience in their respective fields, for environmental impact assessment in Mongolia, including with construction or infrastructure projects, and experience with protected area concepts and management, (iii) ability to communicate and work effectively with local communities and government agencies, (iv) ability to quickly undertake field observations, analyses, and consultations required for EIA; and, (v) ideally, proficiency in English. Specific tasks and responsibilities will include, but are not limited to, the following.

- (i) Cover all environmental aspects affected by this project (physical, chemical, biological, and socioeconomic parameters), as follows.
- (ii) Gain familiarity with the four project sites and potential impacts and required mitigation measures through: (i) review of the current IEE and EMP; (ii) review of the latest detailed designs and specifications for the facilities at the four sites; (iii) meetings with the project agencies; and (iv) site visits.
- (iii) Verify the proposed project sites and undertake field observations and consultations to confirm the baseline environmental, PCR, and socioeconomic features at the four sites.
- (iv) Re-configure and update the environmental baseline report for the four sites and adjust the impact matrix and mitigation measures accordingly, as well as the environmental monitoring plan.
- (v) Undertake an initial review of findings with MET and the PIU; revise draft report as needed.

- (vi) Complete the detailed EIA for the four sites to meet domestic requirements.

10. **Field Logistics Assistant** (national). The position will have at least five years professional experience in coordinating field work and travel in Mongolia and handling related office duties and project documentation. Specific tasks and responsibilities will include, but are not limited to, the following.

- (i) Gain familiarity with all the project requirements, the four sites, and the local government agencies and stakeholders who will be engaged with the project.
- (ii) Determine field visit requirements of each of the technical specialists.
- (iii) Work out schedules and coordination between the four specialists.
- (iv) Arrange travel, housing, and consultation requirements to ensure successful field visits.
- (v) Maintain project documentation for all field work and public consultation records/photo log, etc.

#### **E. Deliverables and Work Schedule**

11. The following reports will be provided, in consultation with the DED/CS firm, MET and PIU.

- (i) Inception report. Fourteen (14) days after consultant's mobilization. Format: Digital copy, in Mongolian language.
- (ii) Progress report. Two (2) months after consultant's mobilization. Format: Digital copy, in Mongolian language.
- (iii) Draft EIA reports, including EMPs, for the project sites. Three (3) months after consultant's mobilization. Format: digital copy and at least 5 hard copies. In Mongolian and English language.
- (iv) Final EIA reports, including EMPs. Four months after consultant's mobilization. Format: digital copy and at least 5 hard copies. In Mongolian and English language.
- (v) Any other deliverables as reasonably requested by the DED/CS firm, PIU, and MET.



### 3. CS3: Detailed Engineering Design and Construction Supervision of Rock Art and Nomadic Cultural Center and Khovd Tourist Street

#### A. Background

1. The Sustainable Tourism Development Project (Phase 2) will support the development of sustainable tourism within the three *Aimags* of western Mongolia, Bayan-Ulgii, Khovd, and Uvs by (i) enhancing inclusive planning and capacity for local tourism businesses; (ii) enabling infrastructure for tourism constructed; (iii) improving sanitation and waste management; and (iv) strengthening management of cultural heritage sites and protected areas.

2. The Ministry of Environment and Tourism (MET) is the executing agency to implement the project. MET's Department of Tourism Policy Coordination (DTPC) is the implementing agency (IA) for the loan and the Department of Protected Areas Management (DPAM) will be the implementing agency (IA) for the Japanese Fund for Poverty Reduction (JFPR) grant: Strengthening Community Livelihoods in Buffer Zones of Protected Areas. The MET has established Project Steering Committee (PSC) for the project to facilitate the technical and administrative implementation of the project. The PSC is the main body of the project implementation related consultation and decision-making.

3. During loan processing stage, The TA consultant had developed the various reports which meets the technical, economic, financial, social, environmental, and other due diligence requirements of the Asian Development Bank (ADB) and the Government of Mongolia to design the Project. These reports include the following but not limited to: the Report and Recommendation of the President to the Board of Directors; Project Administration Manual; *Social Development Action Plan*; *Gender Action Plan*; *Initial Environmental Examination*; *Risk Assessment and Risk Management Plan*; *Feasibility Study Report*; and *Climate Risk and Vulnerability Assessment*. The firm shall ensure that their deliverables follow the approved project targets and preliminary designs prepared during the processing and described in these reports.

4. The consultant deliverables need to reflect a holistic design approach that ensures synergy and integration, where relevant, with the other project components and deliverables prepared by other consulting teams. Examples include, but are not limited to: (i) ensuring that the revised *aimag* tourism plans integrate the project components and operation and maintenance (O&M) plans for the project facilities, (ii) poverty, gender, and livelihood targets will be integrated within the regional tourism master plan, revised *aimag* tourism plans, and improved tour camp standards, and (iii) O&M of the loan-funded tourism complexes will include promotion of the grant-supported community goods, services, and protected areas. The firm is therefore required to have a good understanding of the overall project design and targets in addition to the specific deliverables under the consultancy.

#### B. Objective of the Consulting Service

5. The objectives of this consultancy are to produce detail design and deliver construction documents including appropriate budget estimates for Rock Art and Nomadic Cultural Center (RANCC) and Khovd tourist street to support the MET in reviewing bidding documents, and to supervise construction works until its completion.

6. The following design characteristics should be reflected to all design activities.
- Rationality and proper capacity: Tourism facilities will be aimed to (i) enabling infrastructure for tourism, (ii) enhancing the capacity for tourism businesses, and (iii)

promoting community-led tourism based on heritage, education. The proposed design should be prepared based on sound evidence-based data and an assessment of the relevant needs to the functionality of the tourism facility in Mongolia. The design must be generated to consider the future expansion.

- Model and accreditation: The Khovd Tourism Facilities will follow international best practices in sustainable design specifically complying with the EDGE standard. The design of Tourism Facilities will be used as a model to be inspired in other regions of Mongolia.
- Modernization: Investments will cover (i) modern infrastructure facilities and equipment which shall be in adequate capacity; (ii) integrated business and operational management; (iii) proper waste management; and (iv) quality management.

7. The assignment is expected to be commenced in Q1, 2023 and be completed within 4 years after signing on the contract. The MET is targeting to commence the construction works of the Khovd Tourism Facilities in Q2, 2025.

**Table 1: Indicative Duration for the Assignment**

№	Tasks	2023				2024				2025				2026			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1	Design development including bid documents																
2	Bidding process																
3	Construction and supervision contract administration																

### C. Scope of the Consulting Services and Expected Deliverables

8. The Consultant will perform professionally and undertake activities necessary to achieve the objectives as defined above by (i) coordinating design, and contract administration activities and prepare construction documents in professional standards, (ii) carrying out site survey and geotechnical survey, (iii) developing final architectural detail design, (iv) developing the structural design, (v) developing mechanical, electric and plumbing design, (vi) developing telecommunication and automation design, (vii) providing for construction cost estimates, (viii) developing the bidding documents for construction, (ix) providing technical support to the MET in evaluation of bidding documents and provide expert's comments and recommendation, (x) providing monitoring and reports on; structural inspection, mechanical inspection, electrical inspection, plumbing inspection including all external engineering works, landscape design, record drawings and certification of the progress, and (xi) providing a deficiency assessment, total inspection.
9. Detailed scope of services has been outlined below but the defined services are not an exhaustive list but are indicative only as following:
  - (i) The Consultant will develop Detailed Engineering Designs of Rock Art and Nomadic Culture Center (RANCC) and Khovd Tourist street:
    - (a) All detailed engineering designs shall be prepared based on the approved conceptual design pursuant to relevant laws and regulations of Mongolia. All the design should be in conformity with the highest engineering standards adopted internationally and locally specifically complying to the EDGE standard.

- (b) Project related data, maps and other information shall be obtained from the MET DTPC and DPAM, Border Projection Agency, National Center for Cultural Heritage, Land Authority of Khovd and *Aimags*, the project implementation unit (PIU) and other relevant agencies, organizations as required. The Consultant needs to review the previous data prior to preparation of detailed engineering design.
- (c) The detailed designs will, as a minimum, include construction drawings, detailed cost estimates, necessary calculations to determine and justify the engineering details, detailed specifications of equipment, architectural/engineering drawings, bill of quantities (BOQ), implementation schedule, detailed criteria for the procurement of contractors etc. The technical specifications should be in accordance with the best national and international practices and should be prepared to achieve the highest standard of quality. For adopting market rates for the detailed cost estimates, a proper rate analysis should be carried out. Construction drawings should be prepared with sufficient details to permit contractors to carry out construction work effectively, unambiguously and with the highest standards of quality.
- (d) The final design drawings, along with relevant documentations, technical reports and working drawings comprising of the following, shall be submitted to and accepted by the Client, but not limited to: (i) Architectural drawings, (ii) Construction drawings; (iii) HVAC drawings; (iv) Technology drawing; (v) Sewerage and Plumbing; (vi) Electricity supply; (vii) Communication/IT wiring; (viii) Fire and Security alarm systems; (ix) Site plan and exterior civil site work, including parking, landscaping, signage, etc. (x) Other drawings necessary to describe the work to be done; (xi) Requirements for construction works; (xii) equipment and furniture delivery schedule; and (xiii) Permissions from the environmental, sanitary, and fire controlling authorities;
- (e) The designs shall be at the necessary level of detail to finalize the bidding documents for the relevant construction works, which shall be reviewed and approved by the Client, comprising of the following, but not limited to: (i) A site plan at 1/500 scale and 1/1000 scale; (ii) Plans for each level on a scale of 1/100, with details at 1/50 and 1/20; (iii) Sections and elevations on a scale of 1/100, with details at 1/50 and 1/20; (iv) Structural details (columns, beams, slabs, etc.); (v) Foundation details; (vi) Site plan and engineering utilities, including parking, landscaping, signage, etc. (vii) Equipment Specification, (viii) BOQ; (ix) Cost estimate; (x) Other documents, as needed; The original design assignment will be provided in Mongolian with its English translation for the service purpose;
- (f) All the drawings, reports and manuals, to be furnished in both soft and hard copies, duly attested. The Consultant shall be fully responsible for accuracy of all the data, rate analyses for items of work used in the preparation, cost estimates and design irrespective of the fact whether the same has been examined and approved by the PIU or not.
- (g) The design shall be prepared in close consultation with, and to meet the requirements of the PIU/IA/EA and will be incorporated into a detailed engineering design report to be submitted for approval of respective professional expertise institutions as per the Law on Construction. Therefore, the consultant may cooperate with the certified companies to obtain such approval, and the fees involved for review and approval of the detailed design drawings by the state expertise should be budgeted by the Consultant.
- (h) The design of green areas should comply with traffic engineering design and road safety issues.

- (i) Carry out all engineering surveys and investigations such as geodetic and topographical surveys, geotechnical and soil survey, etc., required for the development of RANCC and Khovd tourist street. All surveys and investigations shall be accurate and submitted for review or approval of the PIU/IA/EA, endorsing professional institutions; Consultant shall budget all survey expenses in its financial proposal.
- (ii) The Consultant will develop detailed engineering design for access road, car parking of Rock Art and Nomadic Culture Center and Khovd Tourist street as below but not limited to:
  - (a) Design (i) road structure, (ii) provide production of design drawings showing plan in 1:500 scale, Longitudinal profile in 500H to 100V scale, cross-sections, if any, at 20 m interval in 1:100 scale, (f) design of footpaths, bus stops, roadside parking facilities as appropriate.
  - (b) Use the data collected during the hydrological survey and determine the following: (i) type of the cross drainage structure if any; (ii) structural design of slab and box culverts; (iii) size and location of roadside drainage and cross drainage structures (appropriate side drains and cross drainages such as pipe culverts); (iv) design of the water conduit/rain water inlets/manholes to take storm water safely to the nearby natural stream.
  - (c) The traffic engineering and traffic management plan in detailed engineering design includes: (i) traffic engineering, ii) pedestrian paths and car parking and crossings, iii) bus station areas, and iv) intersection design including turning movement lane allocations, traffic signal phasing and times if any.
  - (d) Produce traffic management measures during the construction period, and
  - (e) Any other road tasks required for the successful project implementation by the IA/PIU.
- (iii) The Consultant will develop an Operational and Management Plan for the Rock Art and Nomadic Culture Center and Khovd Tourist street as below but no limited to:
  - (a) The Operational and Management Plan will detail implementation strategies within the Regional Tourism Master Plan and Khovd *Aimag* Tourism Plan, and will compose the detailed institutional structure and operational and management procedure for the Tourism Facilities
  - (b) Develop Institutional arrangements for management of the RANCC and Khovd tourist street through a local-owned enterprise (LOE). The LOE will function as a dedicated management unit with highly qualified staff and operational independence that oversees operating contracts for the RANCC and Khovd tourist street. High-priority operating entities will be the tourism business entities, young and women-led business, the businesses supported Credit revolving funds.
  - (c) Prepare detailed staffing and financial plans for the LOE. The Consultant also will describe the division of responsibilities between the LOE, other government departments, and private sector participants in operations and ownership. The plan should include a time line for set-up of the LOE.
- (iv) The consultant shall prepare quantity estimates, rate analysis, detailed cost estimates and bidding documents but not limited to:
  - (a) Ensure market rate for basic materials.
  - (b) Prepare BOQ based on the various items of work in line with the detailed drawings.

- (c) A Confidential Detailed Cost Estimate shall be developed, based on the BOQ for each work item and work category. Prices shall be broken down into direct costs (labor, materials, transportation and equipment), indirect costs (mobilization, on site and general overheads, contractor's contingencies and profit) and taxes; A detailed cost estimate is subject to review by the Client and if necessary by an independent estimator.
  - (d) Government approved norms wherever applicable; and where the government approved norms are poor or not available, improve, develop and get necessary approval on norms with PIU's support.
  - (e) There should not be any lump sum items for work related items in the BOQ. For items not covered under schedule of rates, market rates to be assessed. (Necessary documents on quotations received should be made for assessment of market rates. This will be subject to scrutiny and approval of PIU); and
  - (f) Finalize Bidding Documents (The Procurement Document for Prequalification of Bidders, if required) using master bidding documents and specific qualification requirements of each project component, with due consideration to Open competitive bidding for international advertising and National advertising.
  - (g) Provide advice and inputs on the EA's procurement submissions which will include bidding documents, bid evaluation reports and contract administration queries. The timeframe and format in which Consultant's advice and assistance to be provided shall be strictly in line with project implementation schedule for 202x-202x approved by the Project Steering Committee.
  - (h) Prepare compliance checklists of Evaluation and Qualification Criteria of the issued bidding documents, based on the submitted bids.
- (ix) **EDGE rating.** The Consultant will ensure the detailed engineering designs are compliant with, and meet, the minimum EDGE certification rating: "EDGE Certified /20%". This rating level is to ensure the designs achieve 20% reduction in energy consumption, water consumption and building materials. Note: the preliminary engineering designs prepared for the tourist street and tourism complex during project preparation already meet this EDGE rating target and may exceed it
- (x) Specific tasks and responsibilities of the detailed engineering design and construction supervision company (DED/CSC) for DEIA will include the following.
- n. Ensure familiarity of the design engineers with the EBA, General EIA Letter, IEE, and EMP.
  - o. Ensure that all required environment management, monitoring, and reporting measures are included in the site tasks of the DED/CSC's personnel.
  - p. Subcontract, and work closely with, the firm that will prepare the Detailed EIA (DEIA) to: (i) provide all needed support, and (ii) ensure that the design engineers incorporate the DEIA findings to avoid impacts and mitigate remaining risks.
  - q. Assign at least one qualified environment, health, and safety (EHS) specialist to oversee all onsite activities. Ensure that on site meetings are made with the contractor, local government, and PIU before any works are initiated. Clarify and confirm pre-works readiness for all safeguard measures.
  - r. Prepare the detailed site EMP, based on the project EMP and findings of the DEIA.
  - s. Confirm the conditions and details provided by the Contractor for work clearance (the work go-ahead – that it is correct and appropriate).
  - t. Identify appropriate locations and perspectives at each work site to support time-series photography at regular intervals ("same-frame" photographs),

- immediately before, during, and immediately after construction works. Implement this photo-monitoring program.
- u. Undertake regular site visits and review the environmental monitoring reports provided by the Contractor, for EMP compliance, correctness/rigor, design and implementation effectiveness of corrective actions; recommend work stoppages, if needed.
  - v. Undertake environmental compliance monitoring (independent of the contractor) according to the environmental monitoring parameters, location, and frequency noted in the IEE and EMP (to allow comparisons with contractor monitoring data).
  - w. Maintain regular communication with the Contractor and PIU environment safeguard specialist.
  - x. Confirm the site conditions (at completion of construction works) for hand-over to the local authorities.
  - y. Document and report on EMP implementation and environmental monitoring activities, as required in the overall contract.
  - z. TOR for Domestic DEIA is attached to this TOR as Appendix C.
- (v) The Consultant will carry out following tasks for project management, construction supervision and quality assurance but not limited to:
- (a) Develop detailed work plan, implementation schedule. The detailed work plan will be approved by the project director and will serve as basis for contract monitoring.
  - (b) Prepare narrative and photographic progress reports every month and at the end of every three months showing the current situation of works on site to ensure effective monitoring and timely project outputs, and regularly update to PIU/IA/EA.
  - (c) Prepare project completion report including submission of approved as-built drawings prepared by contractor wherever necessary, on the completion of works.
  - (d) Prepare Quality Assurance and Quality Control (QA & QC) Plans, Risk Assessment and Safety Manuals to be followed on the respective construction sites so as to enforce adequate QA and QC, and safety of construction workers, engineers and citizens.
  - (e) Assist the IA/EA in preparing guidelines for contract administration for the use of PIU, for their day-to-day contract administration requirements such as measurement of works; approval of variation, contract extension and contractor's claim, issue of completion certificate, financial closure of contract, management during the Defects Liability Period (DLP).
  - (f) Prepare the standard construction management system to be followed by contractors at construction sites comprising important components such as planning of activities (work plan), procurement of construction material and equipment; construction methodology: deployment of construction machinery, deployment of workers, disbursement of funds, etc.; and implement the same.
  - (g) Provide services as necessary during the Defects Liability Period, issue a Defects Liability Certificate and certify any final payment that is due to the contractor.
  - (h) Provide all necessary support to the PIU and the IA/EA regarding on communication and reporting to all relevant authorities such as the Asian Development Bank (ADB), line ministries and government bodies, and all other stakeholders as and when needed.
  - (i) Consultant shall comply indicated baseline of the Gender Action Plan of the Project in every surveys and design stages.

- (j) The consultant may be called upon to deliver customized training on specific topics such as FIDIC contracts and issues related to subject matter.
- (k) During the Detailed Engineering Design of the Project, the Consultant shall closely work with the PIU/IA/EA and perform additional works which are not specified in TOR when necessary.
- (vi) Each staff of the Consultant shall provide the training to PIU/IA/EA staff on their expertise according to agreed schedule with PIU/IA/E but not limited to as follows:
  - (a) Ensure implementation of the Gender Action Plan during the preparation of curriculum of each training/workshop/seminar.
  - (b) Consider the technology transfer as an important aspect in design and supervision stages of the service. The Consultant shall provide the opportunity to the PIU/IA/EA officers and staffs to be involved in the working team of consultants during the design, contract administration and supervision works for their capacity development wherever possible. If requested by the PIU, the Consultant shall brief and demonstrate the survey and design procedure, the construction supervision and contract management process and procedures. The consultant shall assist the PIU and its staff to build their capacity as a part of on-the-job training under this project.

#### **D. Expected Design Deliverables**

10.

1. Project Management
2. Site Survey and Geological report
3. Architectural Design
4. Structural Design
5. Interior Design
6. Mechanical, Electrical and Plumbing design
7. Internet, Telecommunication, Automation and Fire safety
8. Construction and Supervision contract administration

**Table 2: Project Management**

<b>Project Management</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents</b>	<b>Bidding documents</b>
Program of Requirements	Document/Narrative Text	✓		
Project Initiation Document	Document/Narrative Text	✓		
Project Organization Structure	Diagram//Schematic	✓		
Communication Strategy	Document/Narrative Text	✓		
Issues Log & Risk Register	MS Excel Table	✓	Revision/Record	
Design Deviations & Derogations List	MS Excel Table	✓	Revision/Record	
Program Timetable	MS Project Table	✓		
Responsibility Matrix	MS Excel Table	✓		
Interface Agreements	Narrative Text	✓		
Project Communication Portal	SharePoint website	✓		

Project Management	Document Type/Scale	Design development	Construction documents	Bidding documents
Licensing & Contracting Issues	Government Approvals & Certification	✓		
Commissioning procedures	Document/Narrative Text	✓		

**Table 3: Site Survey**

Site Survey	Document Type/Scale	Design development	Construction documents	Bidding documents
Geotechnical soil survey including drainage, water courses	Narrative Text, Diagrams/Table	To be done before detailed design begins.	Record	✓
Site hazardous material/substances investigation	Narrative Text, Diagrams/Table		Record	✓
Topography map and analysis of city utility services available to site	Narrative Text, Diagrams/Table CAD version	To be done before detailed design begins.	Revision	✓
Master Plan	Document Type/Scale	Phase 1 Design development	Phase 2 Construction documents (scale)	Phase 3 Bidding documents
Master plan	Detailed drawing	1:500	Revision	✓
Access road/Pedestrian path/Parking design	Detailed drawing	1:500	Revision	✓
Grading/cartogram	Detailed drawing		1:500	✓
Landscape design	Detailed drawing	1:100/200	Revision	✓
Distance Plan	Detailed drawing		1:300/500	
Urban planning & Integration	Narrative Text, Diagrams/Table	✓	Revision	✓

**Table 4. Architectural Design**

11. The architectural design comprises all documents for approvals and permits from the appropriate local authorities. Following drawing list are minimum requirements, but is not limited to the following documents.

Architectural Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Building engineering physics report	Narrative Text, Diagrams/Table	✓	Revision	✓
Design Description and technical data	Narrative Text, Diagrams/Table	✓	Revision	
Layouts of basement, ground, and upper floor levels	Detailed drawing	1:50/100	Revision	✓
Section/Cross section	Detailed drawing	1:50/100	Revision	✓
Elevations	Detailed drawing	1:50/100	Revision	✓
Reflected ceiling plan	Detailed drawing	1:50/100	Revision	✓



Furniture Plans	Detailed drawing		1:50/100	✓
Entrance and canopy details	Detailed drawing		1:10/25	✓
Façade details	Detailed drawing		1:10/25	✓
Ramp details	Detailed drawing		1:10/25	✓
Toilet Plans/Section/Elevations	Detailed drawing		1:25/50	✓
Floor finish plan	Detailed drawing		1:25/50	✓
Floor details				✓
Roof finish details	Detailed drawing		1:10/25	✓
Door and window schedules	Detailed drawing		1:10/25	✓
Door head, jamb and sill	Detailed drawing		1:10/25	✓
Door handle details	Detailed drawing		1:10/25	✓
Handrail details	Detailed drawing		1:10/25	✓
Tactile Paving details	Detailed drawing		1:10/25	✓
Universally accessible equipment details	Detailed drawing		1:10/25	✓
Architectural Specifications	Narrative Text, Diagrams/Table	✓		✓
Bill of Quantities	MS Excel Table	✓		✓

**Table 5: Structural Design**

12. The structural Design comprises all documents for approvals and permits from the appropriate local authorities. This comprises, but is not limited to the following documents.

Structural Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Drawing list, explanation note	Narrative Text, Diagrams/Table	✓		✓
Foundation settling drawing	Detailed drawing		1:100	✓
Foundation layout	Detailed drawing		1:50/100	✓
Foundation section, details, quantity estimation	Detailed drawing		1:10/20/25/50	✓
Plan of trenches in foundation, section and details	Detailed drawing		1:20/25/50/100	✓
Layout, section, reinforcement, quantity estimation of 1st floor slab, outside ramp	Detailed drawing		1:20/25/50/100	✓
Internal ramp, plan, section, detail and quantity estimation	Detailed drawing		1:10/20/25/50	✓
RC frame layout and quantity estimation	Detailed drawing		1:20/25/50/100	✓
RC column reinforcement plan, section, detail, quantity	Detailed drawing		1:10/20/25/50	✓

RC beam reinforcement plan, section, detail, quantity	Detailed drawing		1:10/20/25/50	✓
RC slab layout, reinforcement, section and quantity estimation	Detailed drawing		1:20/25/50/100	✓
Masonry wall mesh and fixing layout, details and quantity estimation	Detailed drawing		1:20/25/50/100	✓
RC lintel layout, section, quantity estimation	Detailed drawing		1:20/25/50/100	✓
Steel frame layout, section, details and quantity estimation	Detailed drawing		1:20/25/50/100	✓

NOTE: \*The seismic and soil condition differ to each site. Additional drawings are required for structural designs.

**Table 6: Interior Design**

Interior Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Interior Design Colors, Finishes, Materials & Specifications	Narrative Text, Diagrams/Table	✓	Revision	✓
Reception counters/desk and fixed cabinetry	Drawing/Schematic	1:50/100 / 1:5	Revision	✓
Interior Design Bill of Quantities	MS Excel Table	✓	Revision	✓
Interior Design Sample Boards	Color, Finishes & Material Samples	✓	Revision	✓
Special Sanitary Equipment	Color, Finishes & Material Samples	✓	Revision	✓
Children Sanitary Equipment	Color, Finishes & Material Samples	✓	Revision	✓

**Table 7: Heating, Ventilation and Air-conditioning design**

Heating, Ventilation and Air-conditioning design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Room Environmental Design Calculations	Narrative Text, Diagrams/Table	✓	✓	✓
HVAC System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
HVAC Control System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
HVAC Duct Riser Diagrams	Drawing/Schematic	1:100/200	1:50/100	✓
Specialist Air Handling & Ventilation Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Main Ducts/Pipe Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓
Schedules of Equipment	Narrative Text, Diagrams/Table	✓	✓	✓
Mechanical Systems Specifications	Narrative Text, Diagrams/Table	✓	✓	✓

Heating, Ventilation and Air-conditioning design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Mechanical Systems Bill of Quantities	MS Excel Table	✓	✓	✓

**Table 8: Electrical Design**

Electrical Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Room to Room Electrical Service Requirements	Narrative Text, Diagrams/Table	✓	✓	✓
Main Electrical Power Distribution Systems 3Ø, LV & ELV	Drawing/Schematic	1:100/200	1:50/100	✓
Earthing Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Essential Electrical Services	Drawing/Schematic	1:100/200	1:50/100	✓
Non-essential Electrical Services	Drawing/Schematic	1:100/200	1:50/100	✓
Emergency Power Supply Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Distribution Board/Panel Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Motor Control Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Main Cable Ducts/Trays Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Lighting Systems & Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Catering & Laundry Systems Schematics	Drawing/Schematic	1:100/201	1:50/100	✓
Lightning Protection Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Electrical Systems Specifications	Narrative Text, Diagrams/Table	✓	✓	✓
Electrical Systems Bill of Quantities	MS Excel Table	✓	✓	✓

**Table 9: Water Supply and Plumbing design**

Water Supply and Plumbing design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Chilled Water Riser Diagrams	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Strategy & Safety Systems Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Service Dry Riser Diagram	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Sewage Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Drainage System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Hot & Cold Water Distribution System Schematic	Drawing/Schematic	1:100/200	1:50/100	✓
Treated Water Supply & Distribution System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓

Water Supply and Plumbing design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Plant Room Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Main Ducts/Pipe Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓
Schedules of Equipment	Narrative Text, Diagrams/Table	✓	✓	✓
Specifications	Narrative Text, Diagrams/Table	✓	✓	✓
Bill of Quantities	MS Excel Table	✓	✓	✓

**Table 10: Internet and Telecommunication, Automation and Fire safety**

Mechanical Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
IT and security	Narrative Text, Diagrams/Table/Schematic drawing	✓	✓	✓
BMS	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Strategy & Safety Systems & Layouts	Drawing/Schematic	1:100/200	1:50/100	✓

**Table 11: External Mechanical, Electrical and Plumbing engineering work**

Mechanical Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Permission for connection to power grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to Sewage grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to Water grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to heating grid	Narrative Text, Diagrams/Table		1:50/100	✓
External electrical design and details	Detailed drawing		1:50/100	✓
External water supply and sewage system, connection details	Detailed drawing		1:50/100	✓
External heating design	Detailed drawing		1:50/100	✓
External telecommunication design and details	Detailed drawing		1:50/100	✓
Technical specification for MEP works	Narrative Text, Diagrams/Table			✓
Bill of quantities	Narrative Text, Diagrams/Table			✓
Estimating for External MEP Construction work	Narrative Text, Diagrams/Table			✓

NOTE: \*The grading of the building differs to each site. The connectivity of external MEP differs to the distance of the sources. Additional and design adjustments are required.

**Table 12: Construction and Supervision Contract Administration**

<b>Construction contract administration</b>	<b>Document Type/Scale</b>
Construction Inspection and Review	<i>Narrative Text, Diagrams/Table</i>
Progress Reports/Evaluation	<i>Narrative Text, Diagrams/Table</i>
Process Certificates for Payment	<i>Certificates</i>
Review of Shop Drawing Product Data/Sample	<i>Narrative Text, Diagrams/Table</i>
Change Orders	<i>Change Orders</i>
Substantial Performance Report and Certification	<i>Narrative Text, Diagrams/Table</i>
Client Consultation	<i>Narrative Text, Diagrams/Table</i>
Interior Construction Inspection	<i>Narrative Text, Diagrams/Table</i>
Full time Project Representation	<i>Narrative Text, Diagrams/Table</i>
Administration of Separate Contracts	<i>Narrative Text, Diagrams/Table</i>
Structural Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Mechanical Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Electrical Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Record Drawings	<i>Recordings</i>
Pre-installation F&E Inspection	<i>Narrative Text, Diagrams/Table</i>
Civil Construction Inspection	<i>Narrative Text, Diagrams/Table</i>
Landscape Inspection	<i>Narrative Text, Diagrams/Table</i>
Detailed Cost Accounting	<i>Narrative Text, Diagrams/Table</i>
Commissioning procedures	<i>Narrative Text, Diagrams/Table</i>

### **E. Team Composition and Qualification Requirements for key experts**

13. General requirements for the Consultant are below. These shall apply for the sub-consultants' qualifications.

- (i) The Consultant could be either a single firm or a joint venture of companies that have at least 10 years of extensive experience in respective fields.
- (ii) At least 7 years of proven experience in detailed architectural and engineering designs and supervision of contracts with the contracts of similar size and nature.
- (iii) Available personnel qualified in architecture, engineering, cost estimating/ BOQ, equipment specification and reporting software programs (CAD applications) to produce deliverables and supervise construction works.
- (iv) The consultant should provide the reference letters from previous three (3) Clients specifically to the similar projects to prove that the Consultant had had successfully completed with the relevant projects.
- (v) In the financial proposal, prove the experts are the consultant's full time staff by providing at least 3 years of the payment records of the social insurance to claim overhead costs for the proposed experts.

14. Subcontractors shall be approved by the MET and ADB based on complying to the below minimum requirements:

- (i) At least 10 years of extensive experience in required fields. Must be a licensed company for in the required fields if required by Mongolian Law and Standards and Norms.

- (ii) Must prove financially sound status.
- (iii) Available personnel qualified to do required works.
- (iv) Experts must have at least 7 years' professional experience.
- (v) Must provide the CV of the experts for the MET review and approval.

15. The total person-months estimated for detailed engineering design team are 132 person-months (for international experts – 4 PMs and for national experts – 128 PMs). The person-months (PM) estimation is given in the Table 13.

**Table 13: Estimated Person-Months for key experts**

No	Key Experts	Number of Experts	Person-month input		Total
			Home	Field	
<b>I</b>	<b>International key experts</b>				
1	International Architect	4	3.00	1.00	4.00
<b>II</b>	<b>National key experts</b>				
2	Team Leader/National Architect	1	8.00	2.00	10.00
3	Deputy Team Leader/Structural Engineer	1	2.00	2.00	4.00
4	CAD Drafters (at least 4 persons)	4	12.00	2.00	14.00
5	Heating, Ventilation, and Air-Conditioning (HVAC) Engineer	1	8.00	2.00	10.00
6	Water Supply and Wastewater Engineer	1	8.00	2.00	10.00
7	Electrical Engineer	1	8.00	2.00	10.00
8	Automatic and Communication Engineer	1	8.00	2.00	10.00
9	Quantity Surveyor/Budget Estimator	1	4.00	0.00	4.00
10	Green Design Specialist	1	3.00	2.00	3.00
11	Road Engineer	1	6.00	2.00	8.00
12	Resident Engineers (2 persons for construction supervision)	1	0.00	42.00	42.00
13	Procurement specialist	1	1.00	0.00	1.00
<b>TOTAL</b>		<b>17</b>	<b>71.00</b>	<b>61.00</b>	<b>132.00</b>

16. The Consultant may propose other supporting staff required to accomplish the tasks outlined in the TOR. It is the Consultant's responsibility to select the optimum team and to propose the professionals, which he or she believes best meets the needs of the IA/EA.

17. The qualifications and experience required for key team members are below:

18. **Team Leader/National Architect** (national, 10 person-months). National architect should have (i) graduate degree and/or higher in architecture, (ii) 10 years of professional experiences in the field of architectural design, preferably completed the design of 5 public buildings, (ii) at least 7 years team leadership experience, including demonstrated ability to lead a large team, prepare reports, and work with the government and private sector, communities, and CSOs; (iii) excellent facilitation skills for meetings and negotiations for a wide range of stakeholders, especially governments, private sector, and communities; (iv) Excellent computer skills, including CAD applications (AutoCAD, Photoshop etc.); (v) Proven knowledge in construction law, construction processes, and preparing and reviewing cost estimates; (vi) Previous experience of working with IFI's is an important asset; and (vi) a good command of English;

19. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Lead preparation of detailed and architectural design for the Khovd Tourism Facilities.
- (ii) Identification, assessment and finalization of the various project requirements and parameters on the basis of the required functions of tourism facilities design in consultation with the client
- (iii) For these facilities, apply international best practice and standards, ensuring that environmental risks are avoided or minimized, and that designs are culturally appropriate and sensitive to landscape and aesthetic values
- (iv) Design and coordinate domestic studies as needed to support preparation of the detailed designs
- (v) Ensure that the detailed designs are prepared to a level of detail that will enable finalization of the architectural designs and preparation of the detailed engineering designs during project implementation
- (vi) Make amendments to the design as required
- (vii) Undertake detailed design work on projects as required, and fully check and ensure designs are properly validated as per the approved design process
- (viii) Undertake site visits as required
- (ix) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members as directed by International project Architect
- (x) Ensure that all drawings are reviewed and checked by International Project Architect to external issue
- (xi) Produce architectural design briefs, documents, reports and specifications as required
- (xii) Produce architectural drawings utilizing Revit and/or AutoCAD as appropriate for the project
- (xiii) **EDGE rating and certification.** Confirm the detailed engineering designs meet – at minimum – the “EDGE Certified/20%” rating achieved for the preliminary engineering design during project preparation. Assess the cost / benefit tradeoff between aiming for a higher EDGE rating versus the increased cost to do so – for both construction and operation of the facilities – and the available project budget. Follow up with EDGE team to coordinate and achieve an updated EDGE assessment and certification for the project facility.
- (xiv) Ensure timely achievement of outputs and smooth implementation of contract activities in close coordination with the Deputy Team leader, and Residents Engineers
- (xv) Conduct visits to the sites and supervise progress and the quality of construction works; identify design and construction defects and recommend corrective actions.
- (xvi) Any other tasks reasonably requested by the IA/PIU to successfully complete the project.

20. **Deputy Team Leader/Structural Engineer** (national, 4 person-months). Structural Engineer should have (i) Graduate degree qualified in Structural or Civil Engineering, (ii) Be a licensed Structural Engineer or Civil Engineering, (iii) Professional experience in engineering design and construction supervision, particularly in preparation of structural drawings, structural calculations according to Mongolian and international standards and legislation, quality assurance and quality control, building and site layout surveys, on site material testing, concrete mix design, planning and scheduling, safety engineering, and cost engineering and budgeting (iv) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy, (v) Advanced knowledge of Structural Engineering Analysis & Design software packages (preferably SAP 2000) as well as CAD and general office software packages, (vi) Intermediate knowledge of International Building Codes and Design standards, (vii) Intermediate leadership skills with the ability to manage teams with a strong results-orientation, (viii) Intermediate written and spoken

communication skills with a minimum basic understanding of English, and (ix) Previous experience within design teams and on Author's Supervision duties.

21. Specific tasks and responsibilities will include, but are not limited to the following:
  - (i) Co-lead the consultant team with the national architect and lead the engineering staff to ensure the infrastructure and engineering components are complied with international and domestic law and requirements
  - (ii) Careful consideration of seismic and geological conditions for each location
  - (iii) Undertake structural calculations and analysis and produce economic and efficient buildable designs
  - (iv) Oversee the building and site layout surveys, on site material testing, concrete mix design, planning and scheduling, safety engineering, cost engineering and budgeting in consideration of the earthquake and seismic resistant requirements.
  - (v) Liaise with the project architects, other engineering disciplines, sub-consultants and clients are required.
  - (vi) Undertake site visits as required.
  - (vii) Carry out detailed structural design and preparation work for foundation.
  - (viii) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members as directed by Team Leader.
  - (ix) Coordination of the works of structural design engineers for timely completion of the structural design.
  - (x) Ensure that all drawings are reviewed and checked by Team Leader prior to external issue.
  - (xi) Produce structural design briefs, documents, reports and material specifications as required for civil construction.
  - (xii) Supervise all civil construction works.
  - (xiii) Assist Resident Engineer during the design, construction and post construction phases.
  - (xiv) Monitor post construction activities as and when required.
  - (xv) Prepare and update construction supervision plan and quality check tools.
  - (xvi) Supervise the implementation and reporting of environmental, health and safety management plans by works contractors; and
  - (xvii) Review works contractors' reports, claims, proposed changes and variations, and recommend approval, revision, or rejection to IA/ADB, and
  - (xviii) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

22. **International Architect** (international, 4 person-months). International Architect should have (i) a graduate or post-graduate degree in architecture, engineering and design, or related area., (ii) at least 10 years of experience in architectural and engineering design, relevant international architectural certifications, and (iii) a track record in innovative designs tailored to local culture and landscapes, (iv) Professional experience in preparation of community-based facilities, multi-purpose use space such as well as office building design and drawings.

23. Specific tasks and responsibilities will include, but are not limited to the following:
  - (i) Identification, assessment and finalization of the various project requirements and parameters on the basis of the required functions of universal design in consultation with the client.
  - (ii) Leading the planning and design team in design of the physical facilities.
  - (iii) Advise and support the team leader/national architect to prepare detailed and



- architectural design for Khovd Tourism Facilities
- (iv) For these facilities, ensure applying international best practice and standards, ensuring that environmental risks are avoided or minimized, and that designs are culturally appropriate and sensitive to landscape and aesthetic values.
- (v) Advise to design and coordinate domestic studies as needed to support preparation of the detailed designs.
- (vi) Advise the team in preparation of architectural and engineering designs including space planning keeping in view the equipment and future layouts and other requirements of the client to achieve an efficient interrelationship of functions.
- (vii) Guide the architectural team in interior decoration and design of furniture.
- (viii) Guide the project team in identifying special equipment in discussion with the client.
- (ix) Guide management of supervision specially to ensure attainment of architectural aspects.
- (x) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

24. **CAD Drafters** (national, 4 experts, 14 person-months total). The consultant should have (i) a bachelor's degree or higher in architecture or engineering; (ii) At least 5 years of Professional experience in architectural presentations using the CAD and in the preparation of design of drawings., (iii) Professional experience in similar project or in development partner funded project would be an advantage, and (iv) Good command of English.

25. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Assist the Project Architect and Architect in the planning and designing facilities.
  - (ii) Assess space planning for different facilities and assist in maximizing space utilization.
  - (iii) Prepare architectural presentations using the CAD and oversee CAD production
  - (iv) Assist in the preparation of design and production of drawings
  - (v) Provide inspection during construction as necessary to assist the Team Leader in conducting quality audit and administration of QA plan

26. **Heating, Ventilation, and Air-Conditioning (HVAC) Engineer** (national, 10 person-months). The consultant should have (i) a graduate degree or higher in HVAC engineering or equivalent, (ii) Additional relevant post-graduate courses that complement/ supplement the main degree are a strong asset; (iii) At least 8 years demonstrated experience in developing detailed engineering designs and on site heating system; (iv) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy, (v) Advanced knowledge of design software in relation to MEP design including AutoCAD and MS office software such as Excel, Word, PowerPoint, MS Project, (vi) Site inspection or supervision experience on building construction projects, (vi) Intermediate knowledge of International Building Codes and Design Standards, (vii) Intermediate written and spoken communication skills with a minimum basic understanding of English, and (viii) Previous experience within design teams and on Author's Supervision duties.

27. The Heating, Ventilation, and Air-Conditioning (HVAC) Engineer shall take overall responsibility to support the successful implementation of the project in terms of water supply and wastewater related issues and provide all necessary support to MET/PIU to fully comply with the ADB requirements.

28. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Ensure all duties are undertaken within the required timeframe.
- (ii) Prepare detail design of HVAC drawings.
- (iii) Undertake all necessary design calculations and analysis along with schematic diagrams and select appropriate equipment size.
- (iv) Undertake quality assurance checking of drawings and calculations produced by self and that of another team members.
- (v) Undertake site visits as required.
- (vi) Undertake design of air-conditioning and mechanical ventilation system.
- (vii) Review shop drawings and material submission from contractor/construction manager.
- (viii) Liaise with contractors and undertake inspection of all mechanical works at site and attend to any revision of design, if required, during supervision.
- (ix) Undertake appropriate due diligence on the heating system design aspects of the detailed design, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design for tourism facilities in Khovd *Aimag*.
- (x) Liaise with local authorities and other institutions and apply for design permission.
- (xi) Prepare O&M plan.
- (xii) Ensure that all drawings are reviewed and checked before submission to approval of Expertise and Fire Safety.
- (xiii) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

29. **Water Supply/ Wastewater Engineer** (national, 10 person-months). The Consultant should have (i) a bachelor's or graduate degree in plumbing systems, (ii) 5 years of professional experience in sanitary systems including clean water, sewage systems, sanitary drainage and water treatment systems is an advantage, (iii) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy, (iv) Advanced knowledge of design software in relation to MEP design including AutoCAD and MS office software such as Excel, Word, PowerPoint, MS Project, (v) Site inspection or supervision experience on building construction projects, (vi) Intermediate knowledge of International Building Codes and Design Standards, (vii) Intermediate written and spoken communication skills with a minimum basic understanding of English, and (viii) Previous experience within design teams and on Author's Supervision duties.

30. The Water Supply and Wastewater Engineer shall take overall responsibility to support the successful implementation of the project in terms of water supply and wastewater related issues and provide all necessary support to MET/PIU to fully comply with the ADB requirements.

31. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Prepare designs, documentation, cost estimates and phasing of work in respect of water supply, plumbing, sanitary and drainage systems.
- (ii) Provide inspection of the works during construction.
- (iii) Assist the Team Leader and Resident Engineer in the efficient implementation of the project.
- (iv) Assist HVAC and Building Services Expert
- (v) Assess requirements for elevators, air-conditioning and ventilation, water supply and firefighting works, determine baselines and design parameters
- (vi) Undertake design of lifts, air-conditioning and mechanical ventilation system, water supply and fire detection/fighting system.
- (vii) Supervise preparation of mechanical design drawings

- (viii) Undertake supervision of all mechanical works at site and attend to any revision of design, if required, during supervision
- (ix) Undertake appropriate due diligence on the water supply and wastewater disposal system design aspects of the detailed design, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design for tourism facilities in Khovd *Aimag*.
- (x) In consultation with other engineers, reach mutually understanding and solution on detailed drawing and liaise with local authorities and other institutions and apply for design permission.
- (xi) Conduct the feasibility analysis of wastewater disposal system in tourism facilities.
- (xii) Prepare O&M plan.
- (xiii) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

32. **Electrical Engineer** (national, 10 person-months). The Consultant should have (i) a bachelor's or graduate degree in electrical engineering, (ii) a Minimum 5 years of professional experience in electrical engineering for building, building automation, process electrification and automation, programming and instrumentation design, (iii) Be a licensed Electrical Engineer or be eligible to become a licensed Electrical Engineer, (iv) Professional experience working within an Engineering consulting environment such that electrical engineering for building, building automation, process electrification and automation, programming and instrumentation design, (v) Experience in finding power source alternatives for saving electricity, emergency power supplies, fire detection systems, lighting, telephone and paging systems, elevator control etc. and (vi) Good command of English.

33. The Electric Engineer shall take overall responsibility to support the successful implementation of the project in terms of electrical supply and related issues and provide all necessary support to MET/PIU to fully comply with the ADB requirements.

34. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Ensure all duties are undertaken within the required timeframe.
- (ii) Assist the investigation teams during design services.
- (iii) Undertake planning and detail designs of internal and external electrical works including area lighting and emergency power supply system.
- (iv) Prepare detail design of electrical drawings in Auto CAD or Revit, ensuring that the design are undertaken in accordance with local codes and international standards.
- (v) Liaise with the project architects, other engineering disciplines, sub-consultants and clients as required.
- (vi) Undertake site visits as required.
- (vii) Produce design specifications, design reports and to finalize all designs calculations as required.
- (viii) Prepare the BOQ, cost estimates and specifications for electrical works.
- (ix) Review shop drawings and material submission from contractor/construction manager.
- (x) Liaise with contractors and undertake site inspection duties as required.
- (xi) Ensure quality control, cost control, measurement of works, testing of materials, Verification of measurement of records, certification of bills, monitoring of progress and recommending appropriate actions, supervising finalization of as-built

- drawings.
- (xii) Ensure that all drawings are reviewed and checked before submission to approval of Expertise and Fire Safety.
- (xiii) Undertake appropriate due diligence on the electricity supply design aspects of the detailed design, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design.
- (xiv) Examine all technical issues related to and arising during implementation of electrical works.
- (xv) Develop plans and systems maintenance and monitoring of power generators and their associated switchgears, controls, alarms and shutdown systems, protections and auxiliary equipment; and
- (xvi) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

35. **Automation and Communication Engineer** (national, 10 person-months). The consultant should have (i) a bachelor's or graduate degree in Communication or related fields, (ii) At least 5 years of experience in communication related design, (iii) Professional experience in similar project or in development partner funded project would be an advantage and (iv) Good command of English is also an advantage.

36. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Undertake communication related works such as internet network planning / fiber optic and wireless technology /, Television system / IP TV, CATV, Analogy and digital technology /, Radio communication and warning system planning / Shortest and short range radio communication /, Fire alarm and fire extinguishing system, Security alarm, camera / IP and wireless, analog system /, Automation system and paging system, telephone.
- (ii) Prepare detail design of automation and firefighting systems.
- (iii) Prepare cost estimate and planning on related task.
- (iv) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members.
- (v) Undertake site visits as required.
- (vi) Review shop drawings and material submission from contractor/construction manager.
- (vii) Liaise with contractors and undertake inspection of all mechanical works at site and attend to any revision of design, if required, during supervision.
- (viii) Assist in preparation of equipment and material quantity for cost estimates.
- (ix) Ensure that all drawings are reviewed and checked before submission to approval of Expertise and Fire Safety.
- (x) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

37. **Quantity Surveyor/Budget Estimator** (national, 4 person-months). The cost estimator/quantity surveyor should have (i) Master's degree or higher in engineering and design, or related area, (ii) Professional experience supervising all activities of the project including pre-construction activities, survey, soil investigations, specially to ensure attainment of all works, monitoring of post construction work, (iii) Experience in testing of materials and works at site or at suitable laboratories, and (iv) Knowledge in interpretation of drawing, specifications, conditions of contract to the contractors/suppliers.

38. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Guide the design and construction supervision team
  - (ii) Advise the project team in making appropriate assessment of field data and forecasting demands of users, facilities, services and equipment in respect of survey and soil investigations
  - (iii) Oversee and supervising all activities of the project including pre-construction activities, survey, soil investigations, supervision of construction including management and monitoring
  - (iv) Guide, supervising and coordinating activities of other project team members
  - (v) Guide management of supervision specially to ensure attainment of all civil works
  - (vi) Oversee progress monitoring, cost and quality control
  - (vii) Monitor of post construction work
  - (viii) Supervise all activities of the project including survey, soil investigation and construction work
  - (ix) Initiate testing of materials and works at site or at suitable laboratories
  - (x) Interpret drawing, specifications, conditions of contract to the contractors/suppliers
  - (xi) Verify records of measurements of works done
  - (xii) Scrutinize & certify contractor's/supplier's bills for payment
  - (xiii) Check and certify as-built drawings
  - (xiv) Supervise progress of works and recommend appropriate actions and will prepare weekly and monthly progress report
39. **Green Design Specialist** (national, 6 person-months). The consultant should have (i) bachelor's degree and/or higher in architectural design, (ii) 7 years of professional experiences in the field of architectural design, preferably completed the green design of 2 buildings, (iii) Excellent computer skills, including CAD applications (AutoCAD, Photoshop etc.); (iv) Proven knowledge in construction law, construction processes, and preparing and reviewing cost estimates; (v) Previous experience of working with IFI's is an important asset; and (vi) a good command of English;
40. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Support setting up green building design criteria and capacity development related to sustainable building.
  - (ii) Research on the locally sourced available materials that is appropriate for green building construction.
  - (iii) Set-up green building design criteria and provide green design analysis appropriate for Khovd *Aimag*.
  - (iv) Assist construction teams in implementation of the project to meet the green standard.
  - (v) Prepare training materials on the green building to contractors and occupants to meet the requirements of the green building standard.
  - (vi) Comply with requirements of green building impact toward productive areas such as agriculture and tourism.
  - (xx) Formulate the project document for EDGE certified green building. Within the cost estimates for O&M of the tourist street and tourism complex, include the cost for required EDGE assessment as needed to retain the EDGE rating.
  - (xiii) At the completion of works, coordinate, in collaboration with the Contractor and PIU, the formal EDGE rating process, leading to issuance of the EDGE certification by the EDGE assessors.
  - (vii) Monitor project during construction supervision.

- (viii) Articulate green building science principles, best practices on sustainability and green building program requirements to participants.
- (ix) Review prototype submissions for alignment with green building best practices and criteria.
- (x) Verify appropriate site implementation to align with green building implementation requirements.
- (xi) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

41. **Road Engineer** (national, 8 person-months). The Consultant should have (i) a Bachelor's or graduate degree in road engineering, (ii) At least 10 years of professional experience in transport sector projects preferably with projects that include roads, bridges and tunnels is required, (iii) Experience of supervising road works during construction period and testing of materials and works at site or at suitable laboratory building are preferable, (iv) Excellent knowledge of Mongolian construction standards, norms and regulations, (v) Excellent knowledge in interpretation of drawing, technical specifications, conditions of contract to the suppliers, (vi) experience in Project Management, Construction Supervision and Contract Administration, and (vii) Good command of English.

42. The Road Engineer shall take overall responsibility to support the successful implementation of the project in terms of water supply and wastewater related issues and provide all necessary support to MET/PIU to fully comply with the ADB requirements. Specific tasks include but are not limited to the following:

43. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Prepare detailed design for road facilities
  - (ii) For the detailed design of the roads including safety improvement works; assist the team leader with the administration and supervision of road construction works including coordination and liaison with the Employer.
  - (iii) Day-to-day construction supervision through the Resident Engineers and other site staff; review of daily reports prepared by site staff.
  - (iv) Prepare and maintain progress monitoring schedule; reviewing and approving shop drawings and preparation of as-built drawings.
  - (v) Identify potential access road connections between the proposed bypass and tourist complexes
  - (vi) Undertake appropriate due diligence on the road design aspects of the detailed design, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design
  - (vii) Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

44. **Resident Engineer** (2 experts, national, 21 person-months each). The Consultant should have (i) Bachelor's degree in Engineering or equivalent work experience (supervisor level), (ii) 5+ years of experience in construction/site environment including main contractor works, (iii) Intermediate time management skills with the ability to work under pressure and to tight timeframes on occasion, (iv) Basic written and verbal communication skills, with the ability to collate materials into a template report, (v) Basic working knowledge of software such as MS Word, Excel and AutoCAD, (vi) Team player and able to adapt to changes within the construction process and (vii) Fluency in written and spoken English is preferred.

45. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Review and comment on drawing specifications and any other documents that may be required for the project.
  - (ii) Review and inspect the contractor capability in term of personal, equipment and other conditions with regard to the contract/bid conditions and legal requirements
  - (iii) Where applicable provide suggestions or observations in respect to the element of the works.
  - (iv) Assist with the development of the inspection process for the C&S/Finishing works at site.
  - (v) Record accurate inspections carried out in line with the site documents.
  - (vi) Advise line manager and record where applicable any works not carried out in accordance with the drawings and specifications,
  - (vii) Check the work done by the contractor.
  - (viii) Assist with the H&S at site and advise line manager of any infringements.
  - (ix) Assist where required in the development of the commissioning procedures that are required for the project.
  - (x) Review and comment in respect to as-built drawings, and operations manuals.
  - (xi) Provide support for the functional area of the project within which they are allocated, or for the project team as a whole, as required by the structure of the project team.
  - (xii) Monitor and advise line manager of all of the works within their specific area of concern.
  - (xiii) Any other duties that may be assigned as part of the construction works. Any other tasks reasonably requested by the IA/PIU, Team Leader, Deputy Team Leader to successfully complete the project.

46. **Procurement Specialist** (national, 1 person-months). The consultant should have (i) a graduate degree in business administration, law, economy or other relevant fields, (ii) 7 years of experience as procurement specialist at ADB funded projects, (iii) at least 5 years' experience on Mongolian Procurement Law, ADB Procurement Guidelines, (iv) Good command of English.

47. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Finalize the bidding document in compliance with the ADB guidelines.
  - (ii) Include the ADB and the PIU comments and proposals in the bidding document and prepare the document again, and submit to the PIU and EA.
  - (iii) In accordance with the No-Objection from ADB, hand in the final version of the bidding document to the PIU.
  - (iv) During the tender evaluation or procurement processing, provide support to the EA.
  - (v) Monitor the procurement whether it is complying with all the requirements.

#### **F. Reporting Requirements and Time Schedule for Deliverables**

48. The Consultant will directly report to the PIU project coordinator who will monitor contract implementation and the quality of the deliverables with the support of PIU M&E specialist under close supervision of project director. The project implementation unit (PIU) and the MET will evaluate the consultant's performance based on the agreed deliverables and approve the invoices for the reviewed and accepted deliverables.

49. Within 10 working days of the commencement of the Contract, a detailed work plan in accordance with scope of the work will be delivered to the PIU and approved by MET. The plan will serve as the basis for measuring progress on desired outcomes and goals for the entire

consultancy service. Detailed work plan shall include Reporting Requirements and Time Schedule for Deliverables.

50. At a minimum, it should include the following:
- format, frequency, and contents of reports. Content will indicate what deliverables will be included in the report.
  - number of copies, and requirements to electronic submission if any (or on flash disk). Final reports shall be delivered in flash disk in addition to the specified number of hard copies.
  - dates of submission for each report.
  - persons (indicate names, titles, submission address) to receive them; etc.
51. Following reports will be provided or modified in consultation with the MET:
- Inception report after 1 month of consultant's mobilization
  - Monthly and quarterly reports reporting the progress of the outputs within the above scope of work.
  - Yearly report within 10 days of first month of the year.
  - Final report by end of the contract. The final report deliverables will include (i) a summary of lessons during implementation and measures or corrective actions taken to address challenges encountered, and (ii) recommendation on the potential for, and steps to, replicate or scale up relevant deliverables to other regions of Mongolia.
  - Any other deliverables reasonably requested by the PIU and MET.
  - One report after each field monitoring session, including analysis and results of field sampling; a draft final report; and, a final report.
52. The consultant is required to submit to the PIU the following reports:

No	Types of Reports	Date of Submission	Number of copies
1	Inception report	Within 1 month after commencement of supervision	4 copies
2	Weekly progress report	Each week after commencement supervision	3 copies
3	Monthly progress report	Each month	4 copies
4	Defect liability Period Report	Within 28 days of issue of certificate of completion	4 copies
5	Project Completion Report	End of the consultant's work	4 copies
6	Monitoring and Evaluation Reports	Three months after project completion report	4 copies
7	Project Performance Management Report	Before, during and end of project implementation	4 copies

53. The supervision progress report are as follows:
- Inception report will cover at a minimum an assessment of the project procurement status, implementation delays and recommended corrective actions (if any), the status of design development for the installations nominated as Provisional Sum in the construction contract.
  - Weekly progress report shall include details of the works carried out during the previous week, the problems encountered or anticipated, information on outstanding claims complete with summaries of both Contractor and Employer compliance with contract time notification periods. The report will document the status of design development for the installations nominated as Provisional Sum in the construction contract. The report will detail the steps taken or the recommendations given to



address the given circumstance, and the report shall capture financial and physical progress to date.

- 3) Monthly progress report shall comprehensively cover all project aspects: the overall project progress, updates on implementation arrangements or changes in project scope, contract awards and disbursement status, payments to the consultants and contractors, progress of works, status of training programs, difficulties and delays encountered or anticipated, and remedial actions taken or suggested, and summarize the compliance status related to the grant/loan covenants and social and environmental safeguard;
- 4) Progress reports will include an assessment on construction progress against program, an indication of key outstanding issues, and an updated development program (if relevant) for key project activities. Copies of each report will be submitted to PIU in English. The Consultant shall transmit an electronic version of the reports to ADB on issue of the reports to the Employer
- 5) Project completion report shall include a detailed description of all the work by items of technical and non-technical matters, as-built drawings, economic analysis, financial and disbursement data, analyses, difficulties and delays encountered and reasons, and remedial actions taken, the overall progress of the Project.

54. All reports will be reviewed upon submission by the MET. The Consultant shall respond in writing to the comments of the EA and IA or any of the reviewing bodies. The Consultant shall meet with these agencies, as necessary, to resolve any problems or concerns which may surface during the review. The Consultant shall have their own internal review system to review drawings prior to EA and IA's approval. The Consultant shall become familiar with local holidays and customs so that in setting submittal schedules, the project and EA and IAs can take full advantage of the time periods scheduled for reviews and approvals.

55. Drawings prepared and submitted by the Consultant shall be to the standard size of A0, A1, A2; and one-half size reductions as may be required by the MET. The scale of all drawings is to be determined by mutual consent of the EA, IAs and the Consultant prior to the commencement of each project phase, at which time the Consultant shall also identify the number of drawings to be produced. All drawings information should be clear and legible. The Consultant shall submit the final drawings in digital format approved and reviewed by the MET. State expertise approved final drawings (three hardcopies) will be submitted to MET in English and Mongolian version.

### **G. Clients Inputs and Counterpart Personnel**

56. The following staff will be assigned by the Client to support the Consultant's team: (i) MET DPAM and DTPC Counterpart Specialists, and (ii) all PIU staff.

57. Counterpart Contribution to be provided by the Client:
- Support to obtain necessary approvals regarding external utilities (power, heating, water and sewage, communication, IT etc.) from relevant authorities (as appropriate).
  - Support to arrange meetings with government organizations.
  - Support to obtain relevant information and negotiations with Clients.

58. The Client will provide the following documents and papers to facilitate preparation of the Proposals: Previous data, TA consultant's report

## **APPENDIX A to the TOR**

### **UNIVERSAL DESIGN PRINCIPLES**

1. The following design consideration for each types of disability must be reflected on building design development and detail design stages. The Consultant must follow the Synthesis of the standards ISO/IEC Guide 71:2014

#### **1) Sensory Abilities and Characteristics**

- (i) Multiple means of information presentation such as auditory or tactile to supplement or substitute for visual information.
- (ii) Appropriate size, contrast, form, luminance, lighting and viewing distance in relation to context of use.
- (iii) Avoidance of glare; redundant forms of coding to supplement or substitute for information conveyed with color coding, e.g. shape or texture coding.
- (iv) Appropriate physical construction and properties of fonts such as size, spacing, with or without serif, upright form or italics, and light, medium or bold appearance within a specific context of use.
- (v) Visual information and controls placed in a prominent position, or a positioning that is flexible, adjustable or duplicated.
- (vi) Avoidance of flicker rates with flashing or blinking text, objects or video screens, especially those that can trigger visually induced seizures.
- (vii) Distinctive form to facilitate identification of a product/environment and/or parts of a product/environment (including orientation, e.g. top/bottom, front/back, entrance/exit).
- (viii) Colored markings that draw attention to steps and potentially dangerous places.
- (ix) Tactile indicators that draw attention to stairs, platform edges and pedestrian crossings.
- (x) Traffic lights equipped with acoustic signals to indicate when pedestrians can cross streets safely.

#### **2) Hearing Consideration**

- (i) Multiple means of information presentation such as visual (text or pictures) or tactile to supplement or substitute for auditory information.
- (ii) Appropriate volume, pitch and frequency of spoken announcements, warnings and warning sounds in relation to context of use.
- (iii) Adjustable volume over a wide range and with multiple frequencies.
- (iv) Avoidance of sudden changes in volume of auditory signals.
- (v) Constant signal-to-noise ratio between the level of an announcement and that of the background noise.
- (vi) Group assistive listening devices or communication systems such as induction loops, infrared or radio systems.
- (vii) Emergency announcements that are visual with text, and where appropriate, in sign language, as well as of an appropriate volume and pitch decrease risk for persons with hearing impairment.
- (viii) A good acoustic environment, that reduces background sounds and promotes sound that is important to be heard.
- (ix) Accommodation for and compatibility with relevant assistive products, assistive technology and supports.

**3) Touch Functions**

- (i) Multiple means of information presentation such as visual or auditory information to supplement or substitute for tactile information or biometric controls.
- (ii) Multiple means of control such as eye and voice control, sensors and automatic or remote controls.
- (iii) Avoidance of sharp and uneven points/edges/surfaces.
- (iv) Avoidance of excessively hot or cold surfaces which can be touched (even inadvertently).
- (v) Distinctive form to facilitate identification of a product and its parts, which in turn can facilitate use/handling/assembly.

**4) Taste Functions And Smell Functions**

- (i) Multiple means of information presentation to supplement or substitute for information gained by taste and smell functions.
- (ii) information in labeling on ingredients, use by and expiration dates.
- (iii) Visual and auditory signals to alert people to the presence of smoke or dangerous chemicals.
- (iv) Information or labeling to warn about strong smell or taste.
- (v) Provision of minimal odors and taste, except where necessary (e.g. odors and taste are expected in foods).

**5) Immunological System Functions**

- (i) Avoidance of inclusion of allergens, sensitizing substances and chemicals known to cause hypersensitivities in products, foodstuffs and environments.
- (ii) Appropriate information and labeling of ingredients/contents (including allergens, sensitizing and chemical substances known to cause hypersensitivities) in accessible format, the provision of this information being mostly subject to national or international regulation and which can include
- (iii) A list of ingredients,
- (iv) A separate statement that declares any major allergens or sensitizing substances included, and warnings such as information regarding any change in composition of significance related to allergens and sensitizing substances.
- (v) Ventilation systems that filter out respiratory allergens.
- (vi) Prevention of mold growth, e.g. by controlling level of indoor humidity, and following appropriate cleaning routines.
- (vii) Avoidance of dust-collecting furnishings in public areas.
- (viii) Availability of "allergy-free" areas such as smoke-free and allergy-free rooms in hotels, and animal- free areas in public transportation.

**6) Physical Abilities And Characteristics**

- (i) Additional space in built environments.
- (ii) Space for clothing and personal protective equipment.
- (iii) Multiple size offerings and / or adjustability.
- (iv) Height clearance for tall persons.
- (v) Width clearance for large persons.
- (vi) Step heights and reach distances for small persons.
- (vii) Space for assistive products, assistive technology, service animals and accompanying persons.
- (viii) Load capacities of system components appropriate for larger mass (weight) requirements.

- (ix) Systems with a clear line of sight to important components for seated or standing users.
- (x) Systems with a comfortable reach to all components for seated or standing users.
- (xi) Grip sizes in systems components that accommodate variations in user sizes and shapes.

## 7) **Movement: Functions Of Upper Body Structures And Fine Hand Use Abilities**

- (i) Manufacturing materials of lighter weight or lower density to reduce the weight of products.
- (ii) Products shaped to facilitate easy grasping, lifting and carrying with either or both hands.
- (iii) Manual controls that allow a comfortable grip, avoid the need for twisting of the wrist, and offer minimal resistance.
- (iv) Controls that avoid the need to manipulate multiple controls at the same time.
- (v) Non-slippery surface that aids gripping and manipulating for people with limited dexterity.
- (vi) Textured surfaces, to increase friction, and facilitate the application of force.
- (vii) Design and spacing of controls that guard against inadvertent activation of a control other than the one intended.
- (viii) Containers that allow easy opening and closing with reasonably low attainable operating force.
- (ix) Simple and straightforward sequences for opening of packaging and assembling, installing or operating a product.
- (x) Avoidance of simultaneous double movements, e.g. pushing and twisting.
- (xi) Alternative controls for accommodation of upper body movement impairments.

## 8) **Movement: Functions Of Lower Body Structures**

- (i) Slip-resistant, threshold-free layout, e.g. in buildings and paved outdoor environments.
- (ii) Avoidance of sudden changes in surface level, obstacles, bumps or protrusions.
- (iii) Equipment, such as elevators and other lifting systems.
- (iv) Ramps with appropriate slopes and adequate space to allow for approach and maneuvering, and use of wheelchairs, walking frames, or walking aids.
- (v) Stairs with appropriate dimensions and banisters or hand grips alongside.
- (vi) Ample time for persons with mobility limitations to pass through automatic doors and to use pedestrian crossings.

## 9) **Muscle Power And Muscle Endurance**

- (i) Use of power grip (whole hand) which requires less effort than pinch grip (between thumb and index or middle finger).
- (ii) Appropriate handling characteristics (e.g. size and weight) for systems that involve lifting, holding, carrying or opening.
- (iii) Avoidance of long handling time and unnecessary repetition of operations.
- (iv) Avoidance of long service lines that cause people to stand unsupported for long periods of time.
- (v) Alternative means of control in vehicles to accommodate lower body movement.

## 10) **Voice And Speech**

- (i) Alternative forms of communication such as via text, facial expressions, hand movements or signs, body postures, and other forms of body language.
- (ii) Augmentative and alternative communication based on symbols, aids, techniques, and/or strategies.
- (iii) Support for the use of assistive products such as speech synthesizers and communication amplifier and video communication.
- (iv) Provision of alternative means to interact with interactive voice systems and intercom systems, such as real-time text.

## 11) **Cognitive Abilities**

- (i) Information about time and place.
- (ii) Schedules, structures, signals to indicate start and termination of activities.
- (iii) An overview that informs the user what to expect before providing any details.
- (iv) Appropriate feedback/cues/reminders that hold the user's attention and give support through a process.
- (v) Feedback that is adjustable to the needs and preferences of users.
- (vi) Environments and presentations that are stimulating but also avoid distractions.
- (vii) Systems and procedures that adapt to individual situations, abilities and preferences.
- (viii) Similar arrangement/layout and design of feedback and control logic on products of a similar type.
- (ix) Similar design of feedback and control logic on products of a similar type.
- (x) Error-tolerant operating sequences.
- (xi) Flexible time period for assimilation of information and response.
- (xii) Simple and straightforward sequences for opening of packaging and assembling, installing or operating a product.
- (xiii) Information provided in multiple formats, e.g. text is read out, diagrams are provided in addition to text.
- (xiv) Information and instructions that are easy to understand in the language of the user.
- (xv) Explicit information on expectations placed on the user.
- (xvi) Systems that can be used (as far as possible) without an instruction manual.
- (xvii) Procedures that facilitate learning (learning by doing is generally easier than memorizing instructions, repetitions).
- (xviii) Multiple means of information presentation (e.g. text is read out, widely recognized symbols).
- (xix) Emergency evacuation routes designed so that they are intuitive and easy to follow which clearly designate any alternative routes that accommodate for persons with disabilities.
- (xx) Accommodation for/compatibility with relevant supports and assistive products and assistive technology.

## **APPENDIX B to the TOR**

### **LOCAL BUILDING CODES, REGULATIONS AND STANDARDS**

1. The Consultant will comply with national standards and international best practice including but not limited to the following.

#### **1) Norms on Architectural Design**

- (i) BNbD: 30-01-04 /CCM 30-01-04/ Norm and Regulation for Urban Resettlement planning and building construction, Decree No.130 by the Ministry of infrastructure, 2004
- (ii) BD 31-101-04 /31-104-04/ Handbook for barrier-free construction planning for the handicapped, Decree No.17 by Director of Construction, Urban Development and Public Utilities Office, 2004
- (iii) BD 31-112-11 Building regulations of space planning for the requirements of handicapped people, Decree No.256 by the Ministry of Construction, Urban Development and Transportation.
- (iv) Other related norms and regulations

#### **2) Norms On Structural Design**

- (i) BNbD: 2.01.07.90 Load and effect
- (ii) BNbD: 22.01.01\*2006 Building cod of seismic regions
- (iii) BNbD: 2.02.01.94 Ground and Foundation code for building design work
- (iv) BNbD: 52.02.05 Cast in situ concrete and reinforced concrete
- (v) BNbD: 53.02.05 Steel Structure
- (vi) BNbD: 2.03.02.90 Masonry and reinforced masonry structure
- (vii) BNbD: 52.01.10 Concrete and *reinforced concrete structure*

#### **3) Norms On Electrical Design**

- (i) BD 43-101-03 The regulations of electrical installations
- (ii) BD 43-101-03\*12 The regulations of electrical installations
- (iii) BD 43-103-08 The instruction for design of the lighting protection of building and facilities
- (iv) BD 43-102-07 Design and installation of electrical equipment in residential and public buildings

#### **4) Norms On Fire Safety And Automation**

- (i) BNbD 21-01-02 Fire safety of buildings and facilities
- (ii) BNbD 21-02-02 Norm on fire safety for developing construction design drawings
- (iii) BNbD 21-04-05 Automatic fire extinguisher and alarm equipment of buildings and facilities
- (iv) BNbD 3.05.07-85 *Automation systems for building*

#### **5) Norms On HVAC Design**

- (i) BNbD 41-01-11 Heating, ventilation and air-conditioning
- (ii) BNbD 43-03-07 Boiler equipment
- (iii) BD 41-102-11 Design of independent heat supply sources
- (iv) BNbD 23-01-09 Climate and geophysical parameters for construction
- (v) BNbD 23-02-09 Building thermal performance
- (vi) BD 23-103-10 *Designing thermal performance for building*

**6) Norms On Water Supply, Plumbing Design**

- (i) BNbD 3.05.04-90 Water supply, sewerage, outdoor pipelines and facilities
- (ii) BNbD 3.05.01-88 Indoor plumbing system
- (iii) BNbD 40-05-98 Indoor water supply and sewerage pipelines
- (iv) BNbD 40-02-06 *Water supply, outdoor pipelines and facilities*

**7) Mongolian National Standards.**

- (i) MNS 6055:2009 – Space planning for building and environment with the requirements of handicapped people, 2009
- (ii) MNS 6056:2009 – Design manual for planning and designing accessibility for handicapped *people, 2009*

**8) International Standards**

- (i) EDGE standard

**APPENDIX C to the TOR: Domestic Detailed Environmental Impact Assessment for the proposed Rock Art and Nomadic Cultural Center, and Khovd Tourist Street, Khovd Aimag**

**A. Background**

1. The Sustainable Tourism Development Project (Phase 2) is being implemented by the Government of Mongolia through the Ministry of Environment and Tourism (MET), with funding support from the Asian Development Bank (ADB). The project includes the planned construction of two visitor centers, the Rock Art and Nomadic Cultural Center (RANCC) (Khovd *Aimag*) and Uvs Tourism Complex (UVTC) (Uvs *Aimag*), two tourist streets (one each in Khovd *Aimag* and Uvs *Aimag*), and about 35 small facilities – public campsites, public toilets, carparks, information centers, information points, public cooking cabins, trail upgrades, fee collection stations, ranger stations – in five sites: Altai Tavan Bogd National Park and the Petroglyphic Complexes of the Mongolian Altai (Bayan-Ulgii *Aimag*), Khar Us Nuur National Park and Tsenkher Cave (Khovd *Aimag*), and Khan Khukhii National Park and Uvs Nuur Special Protected Area (Uvs *Aimag*).
2. In 2020 and 2021 the following documents were prepared: (i) preliminary engineering designs and feasibility study report, (ii) a domestic environment baseline assessment (EBA), and (iii) an initial environmental examination (IEE) and environment management plan (EMP); as required by ADB's Safeguard Policy). In 2021, a General EIA Letter was issued by the MET, which requires the preparation of a Detailed EIA (DEIA) for the proposed facilities. The project will be implemented from December 2021 to December 2027. Implementation is coordinated through a project implementation unit (PIU), including an environment safeguard specialist.
3. The RANCC will be located about 3 km from the Khovd *Aimag* center. The tourist street will be located at the edge of the urban center, near the Khovd airport. A detailed engineering design and construction supervision company (DED/CSC) will be engaged to design these facilities and oversee their construction. The DED/CSC will subcontract a qualified domestic firm to prepare the DEIA. This terms of reference is for the preparation of the DEIA for the RANCC and Khovd tourist street.

**B. Objective of the Consulting Services**

4. The objective is to prepare a DEIA that fulfills domestic requirements. In fulfilling the consulting services, the firm will work closely with the DED/CSC, PIU environment safeguard specialist, MET, local government agencies, ADB project team, and other stakeholders as needed.

**C. Scope of the Consulting Services**

12. The DEIA firm will do the following.
  - (xii) Review and be familiar with the preliminary engineering design, environment baseline assessment, initial environment examination, and General EIA Letter.
  - (xiii) Review and be familiar with the draft detailed engineering designs.
  - (xiv) Conduct all required field surveys and site assessments to prepare the DEIA.
  - (xv) Prepare a separate DEIA report for each facility. The reports will be developed in accordance with the "Methodology on Environmental Impact Assessment" which was adopted with Environment Minister's Order No. A-117 on April 10, 2014.



- (xvi) Work closely with the DED/CSC to ensure that the DEIA findings help feed into, and improve, the detailed engineering designs, to avoid any risks and impacts as far as possible.
- (xvii) Identify and highlight any new or additional impacts which are not previously identified in the EBA or IEE.
- (xviii) Prepare a domestic EMP to address the identified risks and domestic monitoring and reporting requirements.
- (xix) Ensure there is alignment between the domestic environment management plan and the ADB funded IEE and EMP. If the domestic EMP proposes any measures or actions which conflict (or contradict) the ADB funded IEE and EMP, identify these. Seek discussion with the DED/CS firm and PIU environment safeguard specialist (who will discuss also with the ADB project environment specialist).
- (xx) Submit the draft DEIA to the DED/CS firm and PIU for review. After internal endorsement, submit the draft DEIA to MET for review.
- (xxi) Facilitate MET review of the draft DEIA.
- (xxii) Revise and finalize the draft DEIA based on the comments received.

#### D. Team Composition and Qualification Requirements for key experts

13. The firm will have: (i) all required domestic qualifications and certifications to prepare a DEIA, (ii) at least 10 years of relevant professional experience in related fields and projects, especially in the construction sector, (iii) have completed at least 3 DEIAs for projects funded by ADB or other international development agencies, (iv) all specialists as needed to conduct the environmental assessments required (physical, chemical, biological, ecological, and socioeconomic parameters), (v) ability to communicate and work effectively with local communities and government agencies, and (vi) ideally, proficiency in English. The firm will provide reference letters from a minimum of three previous clients for similar projects.

14. **Output-based Terms of Reference.** The assignment will be carried out by a consulting firm. Proposing entities will determine the number and the specific expertise along with their inputs of the specialists they will require to achieve the objectives of the contract, in accordance with their proposed approach and methodology. All proposals will include **a minimum of six key experts**, one of which will be expected to act as team leader (Table 1).

**Table 1: Key Expert Positions and Estimated Person-Months**

No.	Key Experts	Number of Experts	Person/month input		Total
			Home	Field	
1	Team leader/ Senior Technical specialist	1	3	1	4
2	Biologist/ecologist	1	1.5	1	2.5
3	Physical science specialist	1	1.5	1	2.5
4	Socioeconomic specialist	1	1.5	1	2.5
5	Cultural resource specialist	1	1.5	1	2.5
6	Field logistics assistant	1	1	1.5	2.5
<b>TOTAL</b>		<b>6</b>	<b>10</b>	<b>6.5</b>	<b>16.5</b>

15. **Team leader/Senior Technical Specialist** (national). The specialist will have: (i) a master's degree or equivalent in relevant field, (ii) at least 10 years professional experience in environmental impact assessment in Mongolia, including with construction or infrastructure projects, and experience with protected area concepts and management, (iii) ability to communicate and work effectively with local communities and government agencies, (iv) ability

to quickly undertake field observations, analyses, and consultations required for EIA, (v) strong analytical and report writing skills, and, (vi) ideally, proficiency in English. Specific tasks and responsibilities will include, but are not limited to, the following.

- (v) Lead the other technical specialists to ensure coverage of all environmental aspects affected by this project (physical, chemical, biological, and socioeconomic parameters).
- (vi) Maintain communication and coordination with the DED/CS firm, PIU, and MET.
- (vii) Set the template and schedule for proper completion of the EIA report.
- (viii) Lead overall preparation of the draft and final draft DEIA, and assume responsibility for overall quality control.

16. **Technical Specialists** (4 experts, national). The specialists will each have (i) a master's degree or equivalent in relevant field, (ii) at least 10 years professional experience in their respective fields, for environmental impact assessment in Mongolia, including with construction or infrastructure projects, and experience with protected area concepts and management, (iii) ability to communicate and work effectively with local communities and government agencies, (iv) ability to quickly undertake field observations, analyses, and consultations required for EIA; and, (v) ideally, proficiency in English. Specific tasks and responsibilities will include, but are not limited to, the following.

- (vii) Cover all environmental aspects affected by this project (physical, chemical, biological, and socioeconomic parameters), as follows.
- (viii) Gain familiarity with the four project sites and potential impacts and required mitigation measures through: (i) review of the current IEE and EMP; (ii) review of the latest detailed designs and specifications for the facilities at the four sites; (iii) meetings with the project agencies; and (iv) site visits.
- (ix) Verify the proposed project sites and undertake field observations and consultations to confirm the baseline environmental, PCR, and socioeconomic features at the four sites.
- (x) Re-configure and update the environmental baseline report for the four sites and adjust the impact matrix and mitigation measures accordingly, as well as the environmental monitoring plan.
- (xi) Undertake an initial review of findings with MET and the PIU; revise draft report as needed.
- (xii) Complete the detailed EIA for the four sites to meet domestic requirements.

17. **Field Logistics Assistant** (national). The position will have at least five years professional experience in coordinating field work and travel in Mongolia and handling related office duties and project documentation. Specific tasks and responsibilities will include, but are not limited to, the following.

- (vi) Gain familiarity with all the project requirements, the four sites, and the local government agencies and stakeholders who will be engaged with the project.
- (vii) Determine field visit requirements of each of the technical specialists.
- (viii) Work out schedules and coordination between the four specialists.
- (ix) Arrange travel, housing, and consultation requirements to ensure successful field visits.
- (x) Maintain project documentation for all field work and public consultation records/photo log, etc.

## **E. Deliverables and Work Schedule**

18. The following reports will be provided, in consultation with the DED/CS firm, MET and PIU.

- (vi) Inception report. Fourteen (14) days after consultant's mobilization. Format: Digital copy, in Mongolian language.
- (vii) Progress report. Two (2) months after consultant's mobilization. Format: Digital copy, in Mongolian language.
- (viii) Draft EIA reports, including EMPs, for the project sites. Three (3) months after consultant's mobilization. Format: digital copy and at least 5 hard copies. In Mongolian and English language.
- (ix) Final EIA reports, including EMPs. Four months after consultant's mobilization. Format: digital copy and at least 5 hard copies. In Mongolian and English language.
- (x) Any other deliverables as reasonably requested by the DED/CS firm, PIU, and MET.

#### **F. Client Inputs and Counterpart Personnel**

19. The following staff will be assigned by the Client to support the Consultant's team.
  - Focal points within the DED/CS firm, including at least one environment, health, and safety specialist, to ensure close coordination with the DED/CS specialists and integration of detailed designs and the DEIA findings.
  - MET personnel from the Department of Tourism Policy Coordination and Department of Protected Areas Management (to provide information and guidance as needed) and Department of Environment and Natural Resources (for review of the DEIA deliverables and issuance of review and endorsement letters).
  - PIU team, including the PIU coordinator, PIU environmental safeguards specialist, PIU Social, gender and civil society specialist.
20. Counterpart Contribution to be provided by the Client is as follows.
  - Support to arrange meetings with government organizations.
  - Support to obtain relevant information and negotiations with Clients.
  - Provision of all relevant existing project documents, including the preliminary engineering designs and feasibility study report, EBA, General EIA Letter, and IEE.

### **4. CS4: Detailed IT System Design and Establishment Supervision for Digital Museum**

#### **A. Background**

59. The project will support the development of tourism in three *aimags* (provinces) of western Mongolia, focused on inclusive benefits for communities, the protection of nature and cultural heritage, and post-COVID-19 recovery and resilience. The project will build the capacity of residents and a small but growing private sector for community-based tourism, especially women- and youth-led initiatives, establish two tourism complexes, two streets, and a Digital Museum to catalyze tourism and create jobs, improve sanitation at key visitor sites, and improve small visitor facilities at five globally important protected areas and heritage sites. The designs are based on post-COVID-19 tourism recovery projections, sanitation measures aligned with national health and border procedures, and standards for green and climate-resilient infrastructure.

60. **Digital Museum.** This will be located within the planned Rock Art and Nomadic Cultural Center (RANCC) in Khovd *Aimag* that will be constructed as part of the project. The key objectives of the Digital Museum are to (i) provide an innovative source of information, education and conservation of the archaeological values of western Mongolia, based on high-level technology, that will enhance the reach of tourism, (ii) improve efficiency of tourism operation by digital

enablement of tourism value chains, (iii) support the protection of a key cultural heritage site, Tsenkher Cave, as well as a heritage site in Khovd *Aimag* center (the Manchu fortress), (iv) support local job creation, and (v) support international collaboration. The Digital Museum will comprise hardware (allocated rooms within the RANCC; hard drives, cables) and software (database, management information system, online portal). It will be populated initially by MET's digital library of rock art images. A key feature will be a virtual 3D experience of the TSC, which will be established through advanced photogrammetric mapping (using drones) of the TSC. The tourism experience will be enhanced with digital signages, virtual reality stations and laser guided equipment to provide preview to visitors and researchers on the rich cultural heritage of western Mongolia.

61. The Digital Museum will also facilitate the digitalization of the tourism sector in western Mongolia, through its catalytic effect of including modules with few major attractions of the region and enable experiential destination tourism. Collaboration will be initiated with local learning centers, including Khovd University (which has an IT graduate course), and potentially an international university with an existing rock art website. IT graduates from Khovd University and other learning institutions of western Mongolia will be prioritized for jobs for O&M of the Digital Museum. Development and O&M of the Digital Museum will also be linked with a youth incubator (project output 1). Khovd University will be invited to design a program, led by its IT students, to be integrated with the Digital Museum and which will advertise additional services to visitors e.g., local transport and translation. The Digital Museum platform will integrate with other administrative systems such as billing and booking systems to provide one stop shop online services. The opportunity for advertising revenue to help support the costs of O&M will be assessed. The online platform of the Digital Museum will also be linked with the MET tourism portal and potentially also the tourism portal of the Central Asia Regional Economic Cooperation (CAREC) Program, providing greater promotion opportunity. Overall, the Digital Museum will become a platform that supports tourism, knowledge sharing, education, job creation, and the preservation of cultural heritage. For O&M, the Digital Museum will be maintained as part of the overall RANCC, which will be managed by a state-owned enterprise. Detailed O&M procedures will be developed during the detailed IT design. Potentially, two entry fee rates to the RANCC will be established: one with access to the Digital Museum and one without, to help finance O&M costs

## **B. Objective of Services**

62. Scope of the services is to develop Detailed IT System Design and Establishment Supervision for Digital Museum in the Rock Art and Nomadic Culture Center in Khovd *aimag*. The consultancy will address all objectives outlined in Section A of this terms of reference. This will include high-quality 2- and 3-dimensional virtual displays of the rock art of the Tsenkher Cave and other sites, establish a digital inventory for rock art, and an online platform to promote digital tourism for cultural heritage. It will support the educational requirements of researchers and help attract more tourism opportunities nationally and internationally. A room space of about 100 m<sup>2</sup> in the RANCC has been allocated for the Digital Museum.

63. Key objectives are to (i) provide an innovative source of information, education and conservation of the archaeological values of western Mongolia, based on high-level technology, that will enhance the reach of tourism, (ii) improve efficiency of tourism operation by digital enablement of tourism value chains, (iii) support the protection of a key cultural heritage site, TSC, as well as a heritage site in Khovd *Aimag* center, the Manchu fortress, (iv) support local job creation, and (v) support international collaboration. The Digital Museum will comprise hardware (allocated rooms within the RANCC; hard drives, cables) and software (database, management information system, online portal). It will be populated initially by MET's digital library of rock art

images. A key feature will be a virtual 3D experience of the Tsenkher Cave, which will be established through advanced photogrammetric mapping (using drones) of the TSC. The tourism experience will be enhanced with digital signages, virtual reality stations and laser guided equipment to provide preview to visitors and researchers on the rich cultural heritage of western Mongolia.

64. During project preparation, a concept design for the Digital Museum was prepared along with other documents for the project designs and due diligence, including, but not limited to: the Report and Recommendation of the President to the Board of Directors; Project Administration Manual; *Social Development Action Plan*; *Gender Action Plan*; *Initial Environmental Examination*; *Risk Assessment* and *Risk Management Plan*; *Feasibility Study Report*; and *Climate Risk and Vulnerability Assessment*. The firm shall ensure that their deliverables follow the approved project targets and preliminary designs prepared during the processing and described in these reports.

65. The consultant deliverables will reflect a holistic design approach that ensures synergy and integration, where relevant, with the other project components and deliverables prepared by other consulting teams. Examples include, but are not limited to: (i) ensuring that the revised *aimag* tourism plans integrate the project components and operation and maintenance (O&M) plans for the project facilities, (ii) poverty, gender, and livelihood targets will be integrated within the regional tourism master plan, revised *aimag* tourism plans, and improved tour camp standards, and (iii) O&M of the loan-funded tourism complexes will include promotion of the grant-supported community goods, services, and protected areas. The firm is therefore required to have a good understanding of the overall project design and targets in addition to the specific deliverables under the consultancy.

### C. Scope of Services, Tasks (Components) and Expected Deliverables

66. Detailed tasks include but are not limited to the following:

#### **Task 1: Complete set-up of RADM.**

- Hardware installment and implementation- to set-up VR technology room, configure projectors, kiosk machine, and to apply possible interior design for RADM.
- Hand-over technical usage of all equipment and VR technology room training for RADM tasks.

#### **Task 2: Complete program development of RADM**

- To develop Museum management system for RADM in RANCC – IT department control and monitoring system.
- To develop digital library system for RADM in RANCC – store information for website.
- To develop Library information system for RADM in RANCC - store information for kiosk machine and website.
- User manual of Museum management system, digital library system and Library information system for RADM tasks and O&M.
- Prepare training for RADM tasks and O&M.

#### **Task 3: To develop a RADM's website.**

- Fully functional dynamic website for RADM in RANCC. Develop a fully functional website for making payments and buying tickets. Also show stone age, heritage site, and other information related to other RADM programs such as digital library system and Library information system.
- User manual of website for RADM tasks and O&M.
- Prepare training for RADM tasks and O&M.

#### **Task 4: To develop a program (animation) for virtual cave.**

- Large-scale and high resolution 3-D cave mapping by terrestrial laser scanning for animation.
- To develop VR content of RADM in RANCC.
- User manual of VR room and content.

**Task 5: Data entry for RADM system**

- Obtain available digital data on rock of Khovd *Aimag* and other digital data as available from the MET. Digitize the available data and put into a RADM kiosk and website.

67. The quality- and cost-based selection method will be used to recruit the firm, with a quality-cost ratio of 90:10 and using simplified technical proposals. Output-based proposals will be requested from short-listed applicants. Under this approach, firms will select the types and number of international and national experts and skills required to achieve the consultancy deliverables, except for a minimum list of “key experts” which all applicants will be required to include in their proposals.

68. International and national inputs are required. The proposing entity will: (i) clearly describe the proposed business approach e.g. a joint venture between an international and national firm; and (ii) ensure that the entity has the required office space and equipment in Ulaanbaatar to conduct the consultancy. The firm will be recruited through the MET, and work under the coordination of the project implementation unit (PIU). The specialist will liaise with *aimag* and *soum* governments and other stakeholders as needed to develop and implement the program.

**Table 1: Key Expert Positions and Estimated Person-Months**

	Key expert	Number of Experts	Person-month input		Total
			Home	Field	
1	IT engineer (Team Leader)	1	2	1	3
2	Senior IT software designer / programmer	1	2	2	4
3	Digital Museum expert / Interior designer	1	2	2	4
4	Senior IT software engineer / programmer (Deputy team Leader)	1	6	6	12
5	Junior IT software engineer/System tester	1	4	6	10
6	Senior visual art designer	1	4	6	10
7	Database administrator	1	4	6	10
8	Web developer	1	2	3	5
<b>TOTAL</b>		<b>8</b>	<b>26</b>	<b>32</b>	<b>58</b>

69. Proposing firms will determine the number and the nature of experts they will require to achieve the consultancy deliverables, in accordance with their proposed approach and methodology. However, MET requires a minimum of four key experts in Table 3:

**Table 3: Required Qualifications, Roles, and Responsibilities**

Positions	Qualification*	Tasks / Responsibilities
<b>International Consultants*</b>		
IT engineer (Team Leader) 3 person- month and Intermittent	<ul style="list-style-type: none"> <li>• master's degree in computer sciences, database, software engineering or related discipline.</li> <li>• At least five years of system development experience – mainly</li> </ul>	<ul style="list-style-type: none"> <li>• Lead the technical design and delivery of the TA outputs</li> <li>• Lead the detailed design of the RADM, website and installation and compatibility of the TA-supported software and hardware</li> <li>• Directs, administers, and controls the day-to-day operations and activities of RADM system in an assigned area</li> </ul>

	development / deployment of system	<ul style="list-style-type: none"> <li>• Determines operational objectives by studying business functions; gathering information; evaluating output requirements and formats</li> <li>• Designs new computer programs by analyzing requirements; constructing workflow RADM charts and diagrams; studying system capabilities; writing specifications</li> <li>• Improves systems by studying current practices, designing modifications</li> <li>• Recommends controls by identifying problems, writing improved procedures</li> <li>• Defines project requirements by identifying project milestones, phases, and elements; forming project team; establishing project budget</li> <li>• Monitors project progress by tracking activity; resolving problems; publishing progress reports; recommending actions</li> <li>• Maintains system protocols by writing and updating procedures</li> <li>• Provides references for users by writing and maintaining user documentation; providing help desk support; training users</li> <li>• Maintains user confidence and protects operations by keeping information confidential</li> <li>• Prepares technical reports by collecting, analyzing, and summarizing information, and trends</li> <li>• To work closely with RANCC and its agencies and project implementation unit (PIU)</li> </ul>
Senior IT software designer / programmer 4 person/month and Intermittent	<ul style="list-style-type: none"> <li>• bachelor's degree in computer sciences, databases and software engineering</li> <li>• At least three years of professional IT development experience – mainly development / deployment of BIS</li> </ul> <p>Additional qualification:</p> <ul style="list-style-type: none"> <li>• Impeccable attention to detail</li> <li>• Experience with Linux and Windows Server environments</li> <li>• Extensive experience with database technologies (MySQL, MS SQL, PostgreSQL Oracle, MongoDB)</li> </ul>	<ul style="list-style-type: none"> <li>• Technical design and delivery of the TA outputs, focusing especially on the RADM and system application</li> <li>• Support the team leader for project coordination, preparation of project deliverables, quality control of team member deliverables, and communications with ADB for project administration, as needed</li> <li>• Develops information systems by designing, developing, and installing software solutions</li> <li>• Determines operational feasibility by evaluating analysis, problem definition, requirements, solution development, and proposed solutions</li> <li>• Develops software solutions by studying information needs, conferring with users, and studying systems flow, data usage, and work processes</li> <li>• Investigates problem areas</li> <li>• Follows the software development lifecycle</li> <li>• Documents and demonstrates solutions by developing documentation, flowcharts, layouts, diagrams, charts, code comments and clear code</li> <li>• Prepares and installs solutions by determining and designing system specifications, standards, and programming</li> <li>• Improves operations by conducting systems analysis and recommending changes in policies and procedures</li> </ul>

		<ul style="list-style-type: none"> <li>• Obtains and licenses software by obtaining required information from vendors, recommending purchases, and testing and approving products</li> <li>• Protects operations by keeping information confidential</li> <li>• Provides information by collecting, analyzing, and summarizing development and service issues</li> <li>• Accomplishes engineering and organization mission by completing related results as needed</li> </ul>
Digital Museum expert / Interior designer 4 person/month and Intermittent	<p>Bachelor's degree in computer sciences or MA/Diploma in museum studies</p> <p>At least three years of professional museum development experience – mainly development / deployment of Digital Museum</p> <p>Additional qualification:</p> <ul style="list-style-type: none"> <li>• Excellent written and verbal communication skills</li> </ul>	<ul style="list-style-type: none"> <li>• Plan programs of special and permanent exhibitions according to visitor needs, alongside the curator</li> <li>• Source exhibits, research artists and select work</li> <li>• Secure loans for exhibitions from chosen artists</li> <li>• Work with curators to plan a long-term strategy for exhibitions</li> <li>• Write draft proposals to attract new projects and assess tenders</li> <li>• Coordinate liaisons between subject specialists and designers</li> <li>• Create and monitor production and installation schedules for exhibitions</li> <li>• Assist with installation, including the packing, loading, hanging and framing of exhibits</li> <li>• Draw up and manage exhibition budgets and fundraise for projects</li> <li>• Negotiate and agree conditions of loans with lenders</li> <li>• Arrange transport, insurance and security for exhibitions</li> <li>• Work with other staff, such as lenders, conservators, archivists and technicians, on the promotion and interpretation of exhibitions</li> <li>• Write or comment on story boards and labels</li> <li>• Contribute to program of events that aim to encourage broader audiences, including educational events</li> <li>• Get involved in media work, such as talking to art critics</li> <li>• Assist with the production and launch of exhibition catalogues, publicity material and displays</li> <li>• Work with schools and local community groups</li> <li>• Contribute to museum/gallery development, especially in the area of visitor services</li> <li>• Liaise with internal and external staff and departments, including technical staff, artists, curators, contractors, conservators, departments such as education, finance, marketing and pr, and the museum shop.</li> </ul>
<b>National Consultants*</b>		
Senior IT software engineer / programmer (Deputy team Leader) 12 person/month and full time	<ul style="list-style-type: none"> <li>• bachelor's degree in computer sciences or databases</li> <li>• At least five years of professional IT development experience – mainly development / deployment of system</li> </ul> <p>Additional qualification:</p>	<ul style="list-style-type: none"> <li>• Technical design and delivery of the TA outputs, focusing especially on the RADM and system application</li> <li>• Support the team leader for project coordination, preparation of project deliverables, quality control of team member deliverables, and communications with ADB for project administration, as needed</li> <li>• Provides clients with information by designing methods to collect and retrieve data</li> <li>• Identifies client requirements by establishing personal rapport with potential and actual RANCC clients and other persons in a position to understand service requirements</li> </ul>



	<ul style="list-style-type: none"> <li>• Excellent written and verbal communication skills</li> <li>• Impeccable attention to detail</li> <li>• Experience with Linux and Windows Server environments</li> <li>• Extensive experience with database technologies (MySQL, MS SQL, PostgreSQL Oracle, MongoDB)</li> </ul>	<ul style="list-style-type: none"> <li>• Establishes and revises database by conferring with analysts and programmers to code and retrieve data</li> <li>• Maintains database by entering data</li> <li>• Design, implement, and continuously expand data pipelines by performing extraction, transformation, and loading activities</li> <li>• Gather requirements and business process knowledge to transform the data in a way that is geared toward the needs of end users</li> <li>• Ensure that the data architecture is scalable and maintainable</li> <li>• Work with the business in designing and delivering correct, high-quality program for RADM</li> <li>• Prepare documentation for further reference</li> <li>• Organizes information by studying, analyzing, interpreting, and classifying data</li> <li>• Resolves retrieval problems by altering design to meet requirements</li> <li>• Prepares reference for users by writing operating instructions</li> <li>• Maintains historical records by documenting system changes and revisions</li> <li>• To work closely with RANCC and its agencies and project implementation unit (PIU)</li> </ul>
Junior IT software engineer/System tester 12 person/month and full time	<ul style="list-style-type: none"> <li>• bachelor's degree in computer sciences or software engineering</li> <li>• At least three years of professional IT development experience – mainly development / deployment of system</li> <li>• Excellent written and verbal communication skills</li> </ul>	<ul style="list-style-type: none"> <li>• Technical design and delivery of the TA outputs, focusing especially on the RADM and system application</li> <li>• Support the team leader for project coordination, preparation of project deliverables, quality control of team member deliverables, and communications with ADB for project administration, as needed</li> <li>• Provides clients with information by designing methods to collect and retrieve data</li> <li>• Identifies client requirements by establishing personal rapport with potential and actual RANCC clients and other persons in a position to understand service requirements</li> <li>• Establishes and revises database by conferring with analysts and programmers to code and retrieve data</li> <li>• Maintains database by entering data</li> <li>• Design, implement, and continuously expand data pipelines by performing extraction, transformation, and loading activities</li> <li>• Gather requirements and business process knowledge to transform the data in a way that is geared toward the needs of end users</li> <li>• Ensure that the data architecture is scalable and maintainable</li> <li>• Work with the business in designing and delivering correct, high-quality program for RADM</li> <li>• Prepare documentation for further reference</li> <li>• Organizes information by studying, analyzing, interpreting, and classifying data</li> <li>• Resolves retrieval problems by altering design to meet requirements</li> </ul>

		<ul style="list-style-type: none"> <li>• Prepares reference for users by writing operating instructions</li> <li>• Maintains historical records by documenting system changes and revisions</li> <li>• To work closely with RANCC and its agencies and project implementation unit (PIU)</li> </ul>
Senior Visual art designer 10 person/month and full time	<p>Bachelor's degree in design, Visual Arts or relevant qualification</p> <ul style="list-style-type: none"> <li>• At least three years of professional experience – mainly development / deployment of system</li> </ul> <p>Additional qualification:</p> <ul style="list-style-type: none"> <li>• Excellent written and verbal communication skills</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborate with internal teams to define user interface requirements</li> <li>• Combine various colors, shapes and typography fonts to improve user experience</li> <li>• Paint by hand and use drawing applications to design original graphics</li> <li>• Use visual design software to refine illustrations</li> <li>• Apply sketching techniques, like gradients and contrasts to enhance digital images</li> <li>• Present rough drafts to product managers and/or key stakeholders to gain approval</li> <li>• Develop prototypes and models to use in various products to maximize aesthetic consistency</li> <li>• Brainstorm new ideas, layouts and graphics</li> <li>• Stay up-to-date with design application changes and industry developments</li> </ul>
Database administrator 10 person/month and full time	<p>Bachelor's degree in computer sciences or databases</p> <ul style="list-style-type: none"> <li>• At least three years of professional IT development experience – mainly development / deployment of system</li> <li>• Excellent written and verbal communication skills</li> </ul>	<ul style="list-style-type: none"> <li>• Maintains database by entering data</li> <li>• Design, implement, and continuously expand data pipelines by performing extraction, transformation, and loading activities</li> <li>• Gather requirements and business process knowledge to transform the data in a way that is geared toward the needs of end users</li> <li>• Ensure that the data architecture is scalable and maintainable</li> <li>• Work with the business in designing and delivering correct, high-quality data</li> <li>• Prepare documentation for further reference</li> <li>• Confirms project requirements by studying user requirements, conferring with others on project team</li> <li>• Ensures operation of equipment by completing preventive maintenance requirements; following manufacturer's instructions; troubleshooting malfunctions; calling for repairs; evaluating new equipment and techniques</li> <li>• Determines changes in physical database by studying project requirements, identifying database characteristics, such as location, amount of space, and access method</li> <li>• Protects database by developing access system, specifying user level of access</li> <li>• To work closely with RANCC and its agencies and project implementation unit (PIU)</li> </ul>
Web developer 5 person/month and Intermittent	<p>Bachelor's degree in computer sciences or engineering</p> <ul style="list-style-type: none"> <li>• At least three years of professional IT development experience – mainly</li> </ul>	<ul style="list-style-type: none"> <li>• The website has to be bi-lingual (Mongolian and English)</li> <li>• The website design must be user friendly and responsive</li> <li>• The website has to render appropriately on a wide variety of different browsers and mobile phones</li> <li>• Administrator should be capable to upload and download any file formats on the website. The design and solution</li> </ul>

	development / deployment of website  Additional qualification: <ul style="list-style-type: none"> <li>• Excellent written and verbal communication skills</li> </ul>	must be easy to use by authorized users for prompt upload to and update the website <ul style="list-style-type: none"> <li>• Including the ability to create, remove, edit published content</li> <li>• Contain appropriate fonts, colors, and other design elements</li> <li>• The website should integrate related social media accounts; and</li> <li>• Utilize the latest tools and technology for website development to ensure security.</li> </ul>
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70. Additional, “non-key” experts required to achieve the TA deliverables will be identified by proposing firms and included in their technical and financial proposals, personnel work plan, and schedule, in accordance with their proposed approach and methodology. The proposing firm must determine and indicate the number of person-months required for each key or non-key expert. All experts engaged under the contract, whether key or non-key experts, must be citizens of ADB member countries. Considering the scope of the TA deliverables, additional experts required might include, but not be limited to, international and/or national specialists in software programming, network engineering, museum expert and/or technical engineering, interior designer and geographic information systems.

71. If the proposing entity comprises a joint venture between (for example) an international and national firm, the proposal will clearly identify the roles and responsibilities of each venture partner and all persons to be mobilized for the consultancy.

#### **D. Deliverables**

72. Deliverables are listed in Table 2 and will be provided in English and Mongolian languages. The consultant deliverables will demonstrate the following:

- (i) Compliance with national technical standards, regulations, and laws; and ADB regulations and guidelines.
- (ii) Application of international best practice and principles to achieve the deliverables.
- (iii) Innovation, in the technical designs, design process, and/or training.
- (iv) Commitment to build counterpart capacity and facilitate knowledge transfer.
- (v) Coordination, alignment, and knowledge exchange with relevant stakeholders and/or projects and agencies that may help strengthen the deliverables and scale up their benefits e.g., Khovd University, MET’s tourism website, University of Oregon (website for archaeological heritage of Bayan-Ulgii), and ADB’s CAREC tourism web portal.

**Table 2: Summary of Consultant Deliverables**

<b>Deliverable</b>	<b>Content</b>	<b>Estimated Submission</b>	<b>Payment Milestone</b>
Inception Report (draft report, and final draft report)	A detailed work plan along with realistic timelines which prepared based on the expected assignments and tasks under the consulting services. Analysis and design of each system. Possible interior design, website, Database structure, User interface and design. Programming Report and log system. See additional details in main text of TOR.	5 weeks after mobilization (about 1 Jan 2024)	20% of total remuneration
Interim Report (draft)	IT Firm performances. Output 1: RADM progress. Hardware installment and implementation- to set-up		

Deliverable	Content	Estimated Submission	Payment Milestone
	VR technology room, configure projectors, kiosk machine and to apply possible interior design for RADM. Output 2, 3, 4: RADM progress. Development and Deployment of Museum management system, digital library system, library information system and website. Development of VR content progress. See additional details in main text of TOR.	12 weeks after mobilization (about 1 June 2024)	20% of total remuneration
Interim Report (final draft)	As above	1 July 2024	10% of total remuneration
<b>Digital Museum is operational;</b> progress report	IT Firm performances. Output 2, 3, 4, 5: RADM progress. Development and Deployment of system. Testing process of entire RADM's system life cycle	30 weeks after mobilization (about 1 Nov 2024)	10% of total remuneration
Final Report (draft)	IT Firm performances. Final RADM progress	50 weeks after mobilization (about 1 Dec 2024)	20% of total remuneration
Final Report (final draft)	IT Firm performances. Final RADM progress	1 Feb 2025	30% of total remuneration

73. **Deliverable: Inception Report (draft; and then approved final draft).** The report will include the following:

- (i) Best practice and principles to guide the design of the project.
- (ii) Software required to design and establish the RADM and website, including technical specifications and information technology standards, spatial recording and mapping of data (geographic information system), and to ensure full functionality for data entry, use, storage, and/or migration, access control, web-based access, backup, external storage, data recovery, use of artificial intelligence concepts (such as chatbots), pattern discovery, and other issues and key features deemed necessary.
- (iii) Hardware required to support and operate the RADM. This may include, but not be limited to, computers, servers, external storage devices, and global positioning systems; as well as the availability and capacity of existing utilities (e.g. communication and optic cables, and download speeds) at the RANCC.
- (iv) Preliminary longlist of commercially available software and hardware suitable for the TA; and, a short-list of recommended brands and/or models which are most suitable to achieve the TA outputs and outcome. The short-list will be based on clear selection criteria (e.g., functionality, user-friendliness, data security, compatibility with existing software and hardware systems in MET and other key stakeholders, extent of installation support and/or after-purchase service by the supplier, and cost) and tabulated ranking of the brands and models, in consideration of the specific design objectives. These recommendations will form the basis of the software and hardware to be purchased under the project, through the firm, to achieve the consultancy outputs and outcome.

74. **Deliverable: Interim report (draft; and then approved final draft).** The report will include the following content, which will also serve as key performance indicators for progress. Approval of the final draft interim report will be based on satisfactory confirmation of this content and performance indicators.

- (i) Progress toward achieving the deliverables, including methodology, functions, and key features.
- (ii) Progress toward achieving output 2. This will include the following:

- Progress with procurement and installation of the hardware. **Indicator:** hardware has been procured, installed, and is operating.
  - Description of work tasks required for O&M of the Digital Museum. **Indicator:** staff positions responsible for O&M and/or use of the MIS confirmed.
  - Progress with implementation of the training program. Including: summary of trainings conducted; topics, training materials, dates, and number of participants per training (with gender breakdown); and feedback evaluations from participants. **Indicator:** by submission of the draft interim report, the program is at least 70% completed.
  - Draft O&M manual for the software and hardware. Including: roles and responsibilities of key agencies and staff positions; procedures for O&M and data entry, use, and exchange; costs and funding sources for O&M of the MIS and hardware; and ongoing training needs and costs. **Indicator:** by submission of the draft interim report, it is expected that a comprehensive draft manual has been prepared; and that by submission of the final draft interim report, the manual is almost finalized.
- (iii) Progress toward achieving the consultancy objectives. Including: description of key challenges and issues faced; time based corrective actions to resolve these during the consultancy; and initial lessons learned, new opportunities, and other observations, as relevant.
- (iv) Updated work schedule for the remainder of the consultancy.

75. **Deliverable: A fully operational Digital Museum, including web platform, that has been handed over to MET and the Khovd Aimag Government and is demonstrated to be functioning.** The following performance indicators will be applied to confirm achievement of the deliverable: (i) Digital Museum designed, pilot-tested, installed, and handed over to MET and Khovd Aimag Government; (ii) the hardware necessary for operation has been procured, installed, and is operating; (iii) the training program has been completed; and (iv) the hardware and software are confirmed to be functioning, as indicated by: (a) real-time demonstration by the firm; (b) independent, real-time demonstration of use by MET; (c) independent, real-time demonstration of a 'test group' of non-technical tourists; and (d) confirmation of these indicators by the PIU.

76. **Deliverable: Final Report (draft; and then approved final draft).** By this stage, it is expected that all major deliverables have been completed. The Digital Museum will be operational; ongoing technical support and monitoring will have been provided by the firm *after* the Digital Museum is operational; and minor revisions to the software and/or O&M manual will have been made by the firm, if needed. The report will include: (i) final drafts of all deliverables reported in the inception and interim reports, (ii) final design of the Digital Museum and web platform, (iii) final draft of the O&M manual, and (iv) summary of lessons during implementation and measures or corrective actions taken to address challenges encountered, and (ii) recommendation on the potential for, and steps to, replicate or scale up relevant deliverables to other regions of Mongolia.

77. The expectation on the firm's performance and final deliverables is on the delivery of a fully functional RADM's system, website, User manual, training, and post-delivery technical support, during the project. The MET expect high-quality products that have been pilot-tested and are demonstrated to be functioning and operational. Quality, rather than length, is emphasized for the consultant's reports and knowledge product. The successful firm will combine international and national expertise with a hands-on approach to achieve the deliverables.

## **E. Reporting Requirements and Time Schedule for Deliverables:**

78. The consulting firm will report to the PIU. The PIU will act as liaison between the consulting firm and the implementing agency, executing agency, ADB and other relevant national and regional stakeholders for the project implementation. The PIU will facilitate the workflow and ensure that all relevant activities, all the reports, all the documents and relevant data as well as the entire assignment will be completed effectively and successfully by the consulting firm within the allocated time based on the agreed workplan. Validation/comments on deliverables will be provided within 7 days from receipt of the report. Reports shall be delivered in CD ROM in three copies.

79. MET and PIU support to the firm will include: (i) focal points from MET's Department of Tourism Policy Coordination and Department of Protected Areas Management and PIU, (ii) and help facilitate meetings and information exchange, and provide relevant project data.

## 5. CS5: External Environmental Monitoring Firm (National)

### A. Background

80. The Sustainable Tourism Development Project (Phase 2) is being implemented by the Government of Mongolia through the Ministry of Environment and Tourism (MET), with funding support from the Asian Development Bank (ADB). The project includes the planned construction of two visitor centers, the Rock Art and Nomadic Cultural Center (RANCC) (Khovd *Aimag*) and Uvs Tourism Complex (UVTC) (Uvs *Aimag*), two tourist streets (one each in Khovd *Aimag* and Uvs *Aimag*), and about 35 small facilities – public campsites, public toilets, carparks, information centers, information points, public cooking cabins, trail upgrades, fee collection stations, ranger stations – in five sites: Altai Tavan Bogd National Park and the Petroglyphic Complexes of the Mongolian Altai (Bayan-Ulgii *Aimag*), Khar Us Nuur National Park and Tsenkher Cave (Khovd *Aimag*), and Khan Khukhii National Park and Uvs Nuur Special Protected Area (Uvs *Aimag*).

81. In 2020 and 2021 the following documents were prepared: (i) preliminary engineering designs and feasibility study report, (ii) a domestic environment baseline assessment (EBA), and (iii) an initial environmental examination (IEE) and environment management plan (EMP); as required by ADB's Safeguard Policy). In 2021, a General EIA Letter was issued by the MET, which requires the preparation of a Detailed EIA (DEIA) for the proposed facilities. The project will be implemented from December 2021 to December 2027. Implementation is coordinated through a project implementation unit (PIU), including an environment safeguard specialist. The project safeguard requirements include monitoring by (i) self-monitoring by the contractors for the works, to comply with the EMP, (ii) the detailed engineering design and construction supervision firms (DED/CSCs) to supervise works of the contractors, and (iii) the PIU, to ensure compliance of all agencies with the project EMP.

82. This terms of reference is for an external environment monitoring firm, which will provide third-party, independent monitoring to ensure compliance of the project works with the EMP and domestic and ADB policies and regulations.

83. During loan processing stage, The TA consultant had developed the various reports which meets the technical, economic, financial, social, environmental, and other due diligence requirements of the Asian Development Bank (ADB) and the Government of Mongolia to design the Project. These reports include the following but not limited to: the Report and Recommendation of the President to the Board of Directors; Project Administration Manual; Social Development Action Plan; Gender Action Plan; Initial Environmental Examination; Risk Assessment and Risk Management Plan; Feasibility Study Report; and Climate Risk and Vulnerability Assessment. The firm shall ensure that their deliverables follow the approved project targets and preliminary designs prepared during the processing and described in these reports.

### B. Objective of the Consulting Services

84. This task is to be undertaken as a lumpsum contract for 3 months over six years (about once every two years, or as needed depending on the works progress and nature of issues). A national firm, reporting to the PIU and MET, will assess compliance of the project, the contractors, and associated partners with all elements of the EMP (and site-specific elements of the EMP). The objective is to determine to what extent and how compliance was achieved, and if there are residual issues or needs for corrective actions, to define those. In addition, the firm will document overall observations, conclusions, recommendations, and lessons learned, to help inform future

projects of this nature. Specific timing of the project site visits will be discussed with the PIU and MET and will consider actual work progress and operational status at each of the sites.

### **C. Scope of the Consulting Services and Expected Deliverables**

85. The Consultant will perform professionally and undertake activities necessary to achieve the objectives as defined above. The external environmental monitoring firm will have a detailed understanding of the project IEE, EMP, and supporting documents. The firm will have the following tasks.

- (i) Gain familiarity with all project sites and potential impacts and required mitigation measures through: (i) review of the current IEE and EMP; (ii) review of the latest detailed designs and specifications for the facilities at the project sites; (iii) meetings with the project agencies; and (iv) site visits (about 3 times over 6 years, or as needed pending the progress of works and nature of issues).
- (ii) The firm will verify the project actions and environmental conditions at each site, through field observations and consultations, and document these in comparison to predictions in the IEE and required mitigation measures in the EMP.
- (iii) Review findings after each visit (every second year) with the PIU and MET, and determine if corrective actions are necessary.
- (iv) Document observations (with photographic evidence) and conclusions, recommendations, and lessons learned.

### **D. Team Composition and Qualification Requirements for key experts**

86. The firm will have: (i) all required domestic qualifications and certifications to conduct environmental monitoring and auditing, (ii) at least 10 years of relevant professional experience in related fields and projects, especially in the construction sector, (iii) have completed environmental monitoring for at least three large construction projects, (iv) technical competency and required technical expertise and specialists as needed to conduct the environmental monitoring, including the necessary technical and sampling equipment and access to laboratory analysis as needed (physical, chemical, biological, ecological, and socioeconomic parameters), (v) ability to communicate and work effectively with local communities and government agencies, and (vi) proficiency in spoken and written English. The firm will provide reference letters from a minimum of three previous clients for similar projects.

87. This is a lumpsum contract, for the project duration (six years). The lumpsum will include all required technical specialists, equipment, analysis, travel costs, and reporting costs.

### **E. Deliverables and Work Schedule**

88. The following reports will be provided. The progress reports and final reports to the PIU, MET and ADB will be submitted at a frequency and schedule that will be tailored to fit the project construction progress and maximize the effectiveness of the site visits by the agency. The reporting frequency will be agreed with the PIU and described in the agency's inception report.

- (i) Inception report (brief). One month after mobilization. To describe initial preparation, activities, and updated work plan. Format: Digital copy, in Mongolian and English languages.



- (ii) At least three progress reports (one after each site visit). Format: Digital copy, in Mongolian and English languages.
- (iii) Draft final report. Format: Digital copy, in Mongolian and English languages.
- (iv) Final report. Format: Digital copy; and about three hard copies. In Mongolian and English language. The final report deliverables will include (i) a summary of lessons during implementation and measures or corrective actions taken to address challenges encountered, and (ii) recommendation on the potential for, and steps to, replicate or scale up relevant deliverables to other regions of Mongolia.
- (v) Any other deliverables as reasonably requested by the MET.

## 6. Terms of Reference for the Project Implementation Unit Positions

**Table 1: Staff Inputs**

No.	Position <sup>a</sup>	Anticipated Base Station	Person-Months
<b>A. Project Implementation Unit Staff</b>			
1	Project Coordinator	Ulaanbaatar	72.0
2	PIU Finance specialist	Ulaanbaatar	72.0
3	PIU Procurement and Contract Management specialist	Ulaanbaatar	30.0
4	PIU Deputy Team Leader and Monitoring and Evaluation specialist	Ulaanbaatar	60.0
5	Sustainable Tourism and Protected Areas specialist	Ulaanbaatar	50.0
6	PIU Civil Engineer	Ulaanbaatar	50.0
7	Environment Safeguards specialist	Ulaanbaatar	36.0
8	Social, Gender and Civil Society specialist	Ulaanbaatar	48.0
9	Uvs <i>Aimag</i> Supervision officer	Uvs <i>Aimag</i>	36.0
10	Khovd <i>Aimag</i> Supervision officer	Khovd <i>Aimag</i>	36.0
11	Bayan-Ulgii <i>Aimag</i> Supervision officer	Bayan-Ulgii <i>Aimag</i>	36.0
12	IT specialist	Ulaanbaatar	36.0

PIU = project implementation unit.

<sup>a</sup> All positions are national.

Source: Asian Development Bank.

89. **PROJECT COORDINATOR (ICS1)** (national; full time; PIU based with frequent field travel). The consultant will have: (i) a post-graduate degree related to general administration (e.g., economics, business administration, public administration) or technical aspects of the project (tourism, natural resource management, waste management); (ii) at least 10 years of relevant professional experience working for projects financed by Asian Development Bank (ADB) or other international organizations, of which the consultant worked in a managerial capacity for at least 7 years; (iii) demonstrated ability to manage a team, prepare reports, and work with the government and private sector, communities, and civil society organizations (CSOs); (iv) excellent facilitator of meetings and negotiations for a wide range of stakeholders, especially governments, private sector, and communities; (v) excellent command of English and Mongolian; and (vi) good computer skills. Previous experience with ADB projects is preferred.

90. The coordinator will lead the PIU and be responsible for preparation of annual work plans and budgets; communicating clearly to PIU staff the activities to be completed; ensuring that *Aimag* based staff complete agreed activities; monitoring progress according to agreed protocols; maintaining regular contacts with the project director to discuss progress and possible need for adjustments or modifications, periodically visiting field locations to have a first-hand knowledge of the situation; ensuring project activities are implemented in accordance with ADB policy and procedures related to project administration, procurement and disbursement, and safeguards;

and preparing reports for the executing agency, MOF and ADB. He/she will report directly to MET's project director. Specific duties include the following.

- (i) Work closely with PIU staff, the *Aimag* supervision officers, project consultants, provide the lead in project implementation, ensuring all outputs are delivered according to approved work plans and budgets.
- (ii) Ensure that the PIU staff have a clear understanding of the project design and components; and have read and understand the RRP and project administration manual, and other relevant reports and designs. Ensure that PIU staff work toward the project targets and indicators in the design and monitoring framework, gender action plan, social development action plan, consultation and participation plan, and stakeholder communication strategy: regardless of the specific skillsets and terms of reference for each PIU position, all need to work holistically to help achieve the project objectives.
- (iii) Supervise PIU project staff and contractors, ensuring that they follow the annual work plan and budget.
- (iv) Assist the project director in discussing terms of reference and expected outputs of PIU staff, providing coaching where required, and review performance of PIU staff.
- (v) Ensure communications among PIU staff and contractors on project work plans, project issues, and project performance.
- (vi) Conduct monthly PIU project management meetings to address the progress of the work plan and any impediments.
- (vii) Facilitate discussions with MET and the *aimag* governments to (a) develop state-owned and aimag-owned entities for operation and maintenance (O&M) of the tourism complexes and tourist streets, (b) ensure that these entities are established at least one year before the facilities are completed, and (c) facilitate training of the entities as needed.
- (viii) Coordinate the activities of the PIU and ensure that planned activities are carried out.
- (ix) Identify the need for any updates to the PAM to reflect any changes in project activities and responsibilities, and seek prior endorsement from MET and ADB.
- (x) Obtain necessary and timely approval of the project director on required activities.
- (xi) Ensure timely preparation of contracts with suppliers and contractors for various project activities according to ADB standards.
- (xii) Coordinate delivery of consultant work to be completed following the approved work plans.
- (xiii) Ensure financial activities are managed smoothly.
- (xiv) Monitor PIU activities on (a) a monthly basis against the annual work plan and budget, and report regularly to the project director on progress, (b) prepare semiannual reports for MET and ADB, and (c) prepare annual performance reviews of PIU activities and expenditures highlighting activities outstanding and those that need to be strengthened or modified.
- (xv) Participate in periodic field reviews of implementation activities, and project-funded inputs and services.
- (xvi) Propose possible revisions of project plans and corresponding reallocation of resources within budget limits.
- (xvii) Organize Project Steering Committee meetings in accordance with the work plan.
- (xviii) Ensure that PIU staff and consultants are aware of ADB and JFPR policies, including for social and environmental safeguards, gender, anticorruption, financial management, procurement and disbursement.
- (xix) Ensure that the ADB Safeguards Policy Statement is shared with all project implementing staff and consultants. Ensure all project activities are in line with project social and environmental safeguards. Make all *aimag* supervision officers aware of safeguard

requirements and due diligence to do when starting project activities to ensure compliance.

- (xx) Ensure that all relevant and international agencies are consulted for the project activities, including the UNESCO national office (for activities at theUvs Nuur Special Protected Area and Petroglyphic Complexes of the Mongolian Altai, which are both World Heritage Sites) and Ramsar national office (for activities at theUvs Nuur Special Protected Area and Khar Us Nuur National Park, which are both Ramsar Wetlands of International Importance).
- (xxi) Apply the JFPR Guidelines for the grant implementation, including for (i) coordination with the Embassy of Japan in Mongolia and Japan International Cooperation Agency, and (ii) requirements to maximize Japanese visibility. The guidelines are in Appendix 7 of the PAM. Ensure that all PIU staff and the executing and implementing agencies are aware of, and help achieve, the donor requirements.
- (xxii) Identify and seek opportunities to invite the participation of Japanese expertise in the project implementation, including but not limited to the agencies listed in the JFPR grant proposal (Appendix 11 of the *Report and Recommendation of the President to the Board of Directors*).
- (xxiii) Request the Mongolia Resident Mission (MRNM) of ADB for additional training on ADB policies and procedures when needed.

91. **FINANCE SPECIALIST (ICS2)** (national; fulltime; PIU based with occasional field travel). The specialist will have: (i) a bachelor's degree in accounting, finance or business administration; (ii) CPA certification; (iii) 7 years of proven experience in accounting in the public or private sector; (iv) at least 3 years of experience with donor-funded project(s) in the equivalent capacity; (v) demonstrated qualifications and/or training in financial management and procurement including experience in accounting systems used by the government; (vi) proficient command of Microsoft Word and Excel; and (vii) good command of written and spoken English. Previous experience with international financial institution (IFI) project(s), including ADB and/or World Bank, is preferred. Under the supervision of the project coordinator, the specialist will oversee all financial aspects of project implementation. will provide administrative support to project activities at the PMU, including (i) efficient disbursement operations; (ii) recruitment of consultants; (iii) monitoring and controlling of contracts; and (iv) ensuring that all of the above tasks are carried out following ADB's policies and guidelines and in accordance with government requirements. Specific duties include the following.

- (i) Assist the executing agency to maintain the advance accounts (established by MOF for the project) and to open and maintain the project local currency accounts, in accordance with ADB's Loan Disbursement Guidelines (2017, as amended from time to time).
- (ii) Prepare draft withdrawal applications for payment of project costs in coordination with the executing and implementing agencies and submit these to MOF for verification and signature by authorized signatories.
- (iii) Prepare documentation for withdrawal of project funds from the project advance accounts and local currency accounts, for co-signing by MET and the PIU coordinator.
- (iv) Establish and maintain an accounting management system for the PIU. In agreement with MET's Financial Division, identify and select financial management software to be used for the project, which is acceptable to ADB and the government, supported by maintenance of hard-copy ledgers and records. Excel may be used for daily work and management rather than for the final storing and security of the project accounts.
- (v) Establish and maintain a systematic filing system and asset management system at the PIU, for the future transfer of the files and assets to the executing agency.

- (vi) Maintain the project accounts.
- (vii) Liaise and coordinate with MET's Financial Division for their provision of financial oversight to the executing and implementing agencies.
- (viii) Provide information required for annual audits.
- (ix) Monitor contract awards, disbursement, and expenditures.
- (x) Monitor contractor performance to ensure timely completion of contracts.
- (xi) Document project activities related to procurement of goods and services and recruitment of consultants and file these in a systematic and timely manner, together with all other relevant documents, for auditing and translating of relevant documents as needed.
- (xii) Prepare statements of expenditure as required for domestic and ADB reporting and replenishment of the advance accounts.
- (xiii) Respond to reviews and/or requests for financial information by the government and ADB, as necessary, in the course of project operations.
- (xiv) Consolidate financial statements and requests for payment by contractors and service providers and assist the MET in the process of approval for payment release.
- (xv) Prepare annual budgets and disbursement projections during project implementation in coordination with the implementing agencies.
- (xvi) Compile and prepare project quarterly and annual financial progress reports as required by MET and ADB.
- (xvii) Prepare bank reconciliation statements on a monthly basis.
- (xviii) Prepare financial statements and financial reports.
- (xix) Maintain the project accounting ledgers and financial documents.
- (xx) Manage cash and accounts payable, including but not limited to requisitions for payments, payments to suppliers, and payment of income and other required taxes of PIU staff and contractors.
- (xxi) Prepare draft withdrawal applications for payment of project costs in coordination with the executing and implementing agencies and submit these to MOF for verification and signature by authorized signatories.
- (xxii) Prepare requests for replenishment to the advance accounts.
- (xxiii) Assist the project coordinator, government, and ADB, as necessary, in the facilitation of annual external audit assessments.
- (xxiv) Assist the PIU in organizing training and workshops.
- (xxv) Respond to queries from ADB with respect to financial aspects of the project.
- (xxvi) Prepare and maintain a fixed asset register.

92. **PROCUREMENT SPECIALIST (ICS3)** (national; intermittent; PIU based). The specialist will have: (i) a bachelor's degree in business administration, accounting, public administration; (ii) at least 3 years of experience as a procurement specialist with donor-funded projects, in equivalent capacity, preferably with ADB; (iii) demonstrated qualifications and/or training in procurement; (iv) familiarity with procurement systems of the Mongolian Government and the rules, regulations, and practices of procurement and contracting in general; (v) proficient command of Microsoft Word and Excel; and (v) good command of written and spoken English. Previous experience with multi-lateral donor projects, especially ADB and/or World Bank, is preferred. Under the supervision of the project coordinator, the consultant will: (i) implement the procurement of works, goods, and services based on ADB and MOF regulations; (ii) ensure the project procurement plan is completed in a timely and effective manner; (iii) report on the completion of procurement packages; and (iv) ensure that the above tasks are carried out following ADB's Procurement Regulations and in accordance with Government's requirements. The specialist will oversee all procurement aspects of project implementation. He/she will report directly to the PIU project coordinator. Specific duties include the following.

- (i) Assist the project coordinator and accountant to establish and maintain the project accounting management system and a systematic filing and asset management system, so that (a) recording the implementation of the project procurement plan is integrated into the management systems, and (b) files and assets can be handed over to the executing agency at project completion.
- (ii) Ensure all procurement of goods and works, and recruitment of consultants follow ADB relevant rules and procedures.
- (iii) Advise the PIU on best practices in procurement of works, goods and services based on the policies and guidelines for procurement of ADB and the Mongolian Government.
- (iv) For each package in the project procurement plan, (a) prepare draft bidding documents including technical specifications and Bills of Quantity (BOQ) for the works and goods required, contract conditions that each bidder must accept, and formats/templates for bidders to use in preparing their bids, (b) prepare Invitations for Bidders (IFB), Request for Expression of Interests (REOI), Draft Request for Proposals (RFP) for consulting services.
- (v) Supervise the advertisement of the requests for bids/proposals by the PIU and assist in bid/proposals opening as required.
- (vi) Prepare the list of qualified bids submitted in response to the request for bids.
- (vii) Support the bidding evaluation committee and/or construction supervision companies (BSC/CSC) on final evaluation of the bids/ proposals for technical compliance and financial criteria, and ranking.
- (viii) Prepare and submit final bid evaluation report for goods and works, Technical proposals and Financial proposals evaluation reports for consultancy services to the BEC/CSC for review and to ADB for approval after review, as necessary.
- (ix) Provide advice to the BEC/CSC on evaluation as required.
- (x) Assist the PIU/EA in finalizing a contract with the lowest evaluated bidder.
- (xi) Provide information to the Project Steering Committee, as required.
- (xii) Review and periodically revise the procurement plan as set out in the PAM and submit revisions through the PIU coordinator and provide justifications for the new packages with the technical inputs of technical staff to the implementing agency and ADB for approval.
- (xiii) Regularly monitor and monthly report the procurement progress to the PIU project coordinator and complete quarterly and annual procurement reports for the implementing agency and ADB; and
- (xiv) Advise the client on procurement issues that may impact the achievement of project outcomes (including issues of pre-award and post-award).

**93. DEPUTY TEAM LEADER AND MONITORING AND EVALUATION SPECIALIST (ICS4)** (national; full time; PIU based with frequent travel). The specialist will have: (i) a graduate degree in business administration, public administration, economics, natural resources management, and/or a related field; (ii) at least 5 years of experience with donor-funded projects with extensive field operations, in a similar capacity; (iii) excellent facilitator of meetings and negotiations for a wide range of stakeholders, especially local governments, private sector, and communities; and (iv) good command of spoken and written English. Under the supervision of the project coordinator, the consultant will be responsible for (i) ensuring project implementation toward the project targets specified in the DMF, (ii) ensuring project implementation in compliance with ADB social and environmental policies, and (iii) ensuring effective M&E of project activities. Specific duties include the following.

- (i) Establish the project performance monitoring system (PPMS) consistent with the project design and monitoring framework (DMF) that meets the requirements of the

- Government of Mongolia and ADB for monitoring of project implementation and achievement of project outputs, outcome and impact.
- (ii) Develop a monitoring plan for routine monitoring to be used by the PIU and ensure this is approved by the project director.
  - (iii) Complete an M&E baseline report for the project, including targets set out in the DMF, indicators, and data collected for the baseline including data required by the project's SDAP, GAP, IEE and other documents.
  - (iv) Ensure that all PIU members and other relevant stakeholders (especially the implementing agencies) are aware of and understand the PPMS, project targets in the DMF and SGAP, and compliance requirements and procedures in the PAM and loan agreements.
  - (v) Train PIU staff in generating data for regular monitoring reports, and compiling monitoring reports based on the project DMF and approved monitoring plan according to the approved monitoring plan
  - (vi) Ensure that all PIU members and other relevant stakeholders (especially the implementing agencies) regularly provide updated information and progress toward the project targets and requirements.
  - (vii) As part of the PPMS, maintain a project-specific, gender-disaggregated database.
  - (viii) Screen all proposed activities to ensure compliance with the project EMP, SGAP, DMF, and PAM and assist the PIU team as necessary for compliance with these documents.
  - (ix) Assist the project coordinator in preparing and updating the project implementation schedule.
  - (x) Assist the PIU team in preparing proposals for training, workshops, and publications in line with the project implementation schedule.
  - (xi) Assist the PIU team in leading and/or facilitating participatory stakeholder meetings, including taking a leading role in sensitive or complex negotiations as needed.
  - (xii) Oversee and lead implementation of the SCS, including ensuring that all PIU team members are aware of the strategy and their roles to support effective implementation.
  - (xiii) Lead the preparation of the project quarterly progress reports, including documentation of progress toward targets of the DMF and SGAP and compliance with the EMP, PAM, and loan assurances.
  - (xiv) Assist project coordinator in reviewing deliverables provided by consultants and contractors and in the evaluation of performance of consultants and PIU staff.
  - (xv) Produce semiannual, annual, midterm and a final M&E reports for inclusion in the project progress, midterm, and completion reports.
  - (xvi) Provide written or aural translations as required.

94. **SUSTAINABLE TOURISM AND PROTECTED AREAS SPECIALIST (ICS5)** (national; intermittent; PIU based with frequent field travel). The consultant will have: (i) a graduate degree and 10 years of relevant experience in tourism planning and development, environmental policy and management, biodiversity conservation, protected area management, or a related field; (ii) at least 5 years of experience in the technical area of tourism policy and planning, engagement of private sector in tourism, community-based tourism development, sustainability of tourism, designing protected areas and management plans and/or managing protected areas; (iii) strong participatory and facilitation skills, in leading stakeholder consultations and participatory planning; (iv) familiarity with relevant national laws and regulations and international policies and methods for tourism policy and protected area management; (v) good physical health and willingness to undertake extensive travel to the field sites as needed; and (vi) good command of written and spoken English. Previous experience with donor-funded project(s), are an advantage. Specific duties include the following.

- (i) Lead overall activities relevant to tourism policy and planning, protected areas management and conservancy.
- (ii) Supervise and monitor the project components and project consulting firms for preparation of the regional master plan, revision of the *aimag* tourism development sub-programs, establishment and piloting of the tourism concession manuals for the project protected areas, and the eco-certification program for tour camps. Assist in finalization and government and ADB endorsement of the draft documents, and, the implementation of the manuals and program. Once established, closely monitor and support the implementation of these components for the remainder of the project.
- (iii) Conduct a baseline evaluation of the management effectiveness status of the project protected areas, using the international *management effectiveness tracking tool*.
- (iv) Contribute to the development of standards and targets for community-based tourism, poverty alleviation, and tour operations in cultural heritage sites and protected areas (with the perspective of wildlife protection), including recommendations on tourist number limits at each site.
- (v) Develop the requirements for tour camp licenses and certifications as they relate to wildlife conservation and strict prohibition of wildlife capture, trade, or consumption.
- (vi) Together with the PIU social, gender, and civil society specialist, and working closely with the livelihoods and tourism business development consulting services (package CS6), co-lead and coordinate the establishment and training of the 13 CBOs that will be established and/or expanded to work with the project in the five protected areas and heritage sites. This will include (a) establishment of the CBOs and selection of members, through transparent, consultative, and community-led processes, (b) establishment of roles and responsibilities for each CBO, including O&M of the project-funded small public facilities, (c) implementing the *community participation in procurement package* (PAM Sections VI.B.3 and VI.C.6) to coordinate and lead additional community-led tourism activities in these sites and procure materials and mobilize labor as needed, and (d) mobilize and coordinate the communities to participate in the project trainings (to be provided by the PIU and livelihood consulting services) to achieve these tasks.
- (vii) Support preparation of the project water, sanitation, and hygiene (WASH) program.
- (viii) Plan and facilitate the official process to revise site management plans, to integrate all project subcomponents, including the management strategies for traffic, waste, tourism, and livelihoods, O&M of project facilities.
- (ix) Ensure the activities mentioned above (ii) are effectively and efficiently implemented within the planned duration.
- (x) Closely cooperate with the detailed engineering design and supervision consulting firms and contractors of tourism facilities and small facilities at the PAs under the Project.
- (xi) With the other PIU team members, design and implement on-the-job training for protected areas management department staff, focusing especially on protected area management related to tourism, livelihoods, traffic, and waste management.
- (xii) For all tasks: (a) apply the designs and lessons learned from the previous JFPR-funded projects, and (b) ensure that the JFPR Guidelines for project visibility and expertise are applied for all of the JFPR-funded components.
- (xiii) Establish and maintain effective working relationships with other development agencies and civil society organizations involved in conservation and tourism in western Mongolia, especially within and near the project locations. In particular, ensure close coordination and information exchange with (i) The Nature Conservancy, WWF, GIZ, and KfW, which are implementing similar activities within some of the project sites, and (ii) UNDP, which is implementing community-based tourism work elsewhere in

Mongolia. In particular, plan and implement the project activities in the protected areas in coordination with these other agencies, to ensure alignment and complementarity of outputs and deliverables.

- (xiv) Establish and maintain effective working relationships with relevant national and local government agencies for conservation, tourism, and cultural heritage protection in western Mongolia and especially the project sites; and ensure that agencies are informed of the project and their inputs and feedback are obtained when necessary.
- (xv) Develop lessons learned and policy recommendations for the effective and continued implementation of the tourism and conservation components, especially the institutional components, visitor facilities and information materials, project trainings, and integration of the tourism and conservation components within the *aimag* and *soum* development plans and site management plans.
- (xvi) Prepare semiannual progress reports to document the progress, including inputs to the project environmental monitoring reports for compliance with the EMP requirements for ecological monitoring. Submit the reports to the PIU project coordinator and MET for review and consolidation within the semiannual progress reports to be submitted by MET to ADB.

95. **PIU CIVIL ENGINEER (ICS6)** (national; intermittent; PIU based with frequent field travel). The Consultant will have (i) a Master's degree in engineering in a field relevant to the project civil works, (ii) at least 10 years of professional experience in building design and construction engineering and supervision, (iv) excellent knowledge of Mongolian construction standards, norms and regulations, (v) excellent knowledge in interpretation of drawing, technical specifications, conditions of contract to the suppliers, (vi) experience in project Management, construction supervision and contract administration, and (vii) good command of English. The engineer will coordinate the design and construction of project infrastructure packages. Specific duties include the following.

- (i) Support the PIU procurement specialist for preparation of the TORs for the consulting services packages for the detailed engineering design and construction supervision companies (DED/CSC) of the project works, preparation of bidding documents, and requirements for conforming tenders, including criteria for evaluation of bids based on price and performance; and bid evaluation against the established criteria.
- (ii) Facilitate, coordinate, and review the work of the DED/CSC firms and works contractors, to ensure the designs meet the TORs and that the construction supervision and works are conducted according to requirements.
- (iii) Guide in identifying the scope of, and assist the procurement of, site surveys as needed to prepare detailed road project designs.
- (iv) Review design standards and detailed cost estimates.
- (v) Review the draft DEDs and bills of quantities.
- (vi) Check all necessary approvals from provincial and local authorities have been obtained.
- (vii) Establish construction quality, environmental and audit procedures and ensure the contractor has met financial and insurance obligations as required by the bid document and terms of reference.
- (viii) Ensure construction procedures are followed, regular site visits and assessments are held, and view test results and quality audits.
- (ix) Supervise the development of O&M plans for the project facilities and related training for the operators of the facilities.
- (x) Work closely with the PIU environmental and social specialists to ensure compliance with the project EMP, CPP, SGAP, and SCS, as well as the relevant PAs management plans, laws on protected areas, waste management Strategy, and other relevant laws



- and regulations.
- (xi) Overview determination of 'Practical Completion,' establishment of 'Defects Liability Period' and issue of 'Final Certificate.'
- (xii) Prepare semiannual progress reports to document the progress. Submit the reports to the PIU project coordinator and MET for review and consolidation within the semiannual progress reports to be submitted by MET to ADB.

96. **PIU ENVIRONMENT SAFEGUARDS SPECIALIST (ICS7)** (national; intermittent; PIU based with frequent field travel). The consultant will have: (i) graduate degree in environmental management or related field; (ii) 10 years of relevant experience in environmental management, monitoring, and reporting for large construction projects; (iii) demonstrated experience in environmental impact assessment (EIA) and/or management for projects financed by ADB and/or other development organizations; (iii) strong participatory and facilitation skills, to work effectively with local stakeholders and facilitate consultations resulting in positive outcomes and dialogue; (iv) ability to analyze data and prepare technical reports; (v) willingness and health to regularly travel to all project construction sites and in different seasons; (vi) national certification for environmental assessment, management, and/or monitoring; and (vii) good command of spoken and written English. Under the supervision of the project coordinator, the specialist will work closely with the other PIU staff, protected area administrations, *soum* governments, communities, construction supervision companies, contractors, and other relevant stakeholders, to ensure effective implementation of the project EMP. Specific duties include the following.

- (i) Gain familiarity with the project sites and monitoring requirements through: (a) review of the potential impacts and monitoring requirements in the EMP, as well as the overall IEE and EMP and domestic environmental baseline assessment and General EIA prepared for the project; (b) meetings with the project agencies; and (c) site visits.
- (ii) Determine if revisions to the EMP are necessary and help define site-specific environmental management plans (SEMPs).
- (iii) Establish positive and effective working relationships with stakeholders and work closely with the MET environment and social officers, protected area authorities and *aimag* departments, contractors, construction supervision company, and all other relevant agencies to implement the EMP.
- (iv) Distribute the Mongolian language version of the EMP to all relevant agencies, including the *aimag* and *soum* agencies responsible for environment and social protection. This should occur at least 3 months before construction begins.
- (v) Conduct meetings with agencies as necessary to ensure they understand their specific responsibilities described in the EMP.
- (vi) Ensure that relevant mitigation, monitoring, and reporting measures in the EMP are included in the bidding documents, contracts, and relevant construction plans.
- (vii) Coordinate the preparation of the detailed EIAs and ensure these are prepared in close coordination with the detailed engineering designs (DED). Work closely with the engineering firms and MET to ensure timely finalization, review, and approval of the detailed EIAs.
- (viii) Identify whether the final approved DEDs are consistent with the preliminary designs approved during project preparation; and confirm whether the EMP requires updating. If updates to the EMP are required, discuss and submit the proposed changes to MET and ADB for review and endorsement. Work closely with the PIU, MET and contractors to ensure that no civil works proceed until the EMP is confirmed to be adequate, or any revisions are approved.
- (ix) Ensure that all relevant and international agencies are consulted for the project activities, including the UNESCO national office (for activities at the Uvs Nuur Special

Protected Area and Petroglyphic Complexes of the Mongolian Altai, which are both World Heritage Sites) and Ramsar national office (for activities at theUvs Nuur Special Protected Area and Khar Us Nuur National Park, which are both Ramsar Wetlands of International Importance).

- (x) Working with the DED/CSCs and works contractors, ensure that the following measures are included in the work plans of the contractors: (a) work teams include one qualified environment, health, and safety specialist, (b) detailed site assessment by the PIU specialist, DED/SCS, and contractor before any works, to assess site ecological and heritage values and to demarcate all off-limits areas for project staff and works, (c) update the site-specific EMPs as needed to reflect local site conditions, (d) regular on site monitoring for environmental and social safeguards and compliance with the project EMP and site-specific EMPs, (e) monthly reporting from the contractors to the DED/SCSs on safeguard implementation progress.
- (xi) Closely monitor the project designs and works to ensure that all EMP requirements are strictly complied with, especially maintaining the design scope and specific locations in the protected areas. Ensure there will be no damage to, or loss of, critical habitat or physical cultural resources.
- (xii) Supervise and monitor work site clean-up and hand-over to the local authorities.
- (xiii) Develop and maintain a photographic database of all project sites, with photo-monitoring points at consistent site locations, to monitor “before” and “after” progress.
- (xiv) Provide on-the-job training for the PIU, contractors, and other stakeholders as needed to ensure that all agencies are aware of their roles and responsibilities for implementation of the EMP, including the grievance redress mechanism (GRM).
- (xv) With the PIU Social, gender, and civil society specialist, MET environment and social officers, and other stakeholders, establish the project GRM. Plan and implement regular and meaningful stakeholder consultations throughout the project implementation, to ensure that (a) the GRM is well understood and known by all stakeholders, (b) any grievances are quickly reported and addressed, and (c) stakeholders, especially local communities and CSOs working in the project areas, are well informed of progress relating to environmental safeguards and management for the project
- (xvi) Ensure that contractors implement the EMP.
- (xvii) Ensure project compliance with all relevant environmental domestic laws, and international conventions that Mongolia is a signatory to, including the Core Labour Standards of the International Labour Organization.
- (xviii) Implement the monitoring and reporting requirements in the EMP, including timely submission of progress reports to the MET environment and social officers. The reporting will include project compliance with country labor laws, the Core Labour Standards of the International Labour Organization, the Mongolian National standards and targets in EMP Table for environmental parameters, and other relevant environmental laws and regulations as needed.
- (xix) Implement the monitoring and reporting requirements in the EMP, including timely submission of progress reports to the MET environment and social officers.
- (xx) Make regular inspections of construction sites to assess progress, meet with contractors and/or local communities, and assess compliance with the EMP.
- (xxi) Facilitate on site inspections by government agencies to ensure timely environmental certification and approvals of the completed civil works.
- (xxii) Maintain digital records of all progress and information.
- (xxiii) Prepare semiannual environmental monitoring reports to document progress for implementation of the project environmental safeguards. Submit the reports to the PIU

project coordinator and MET for review and consolidation with the semiannual progress reports to be submitted by MET to ADB.

- (xxiv) Support the PIU project coordinator in other tasks related to environment safeguards as needed.

**97. PIU SOCIAL, GENDER AND CIVIL SOCIETY SPECIALIST (ICS8)** (national; intermittent; PIU based with frequent field travel). The specialist will have: (i) a post-graduate degree in social science or relevant discipline such as development studies, gender or social work; (ii) at least 7 years of relevant professional experience in working as a social, gender, and civil society specialist; (iii) at least 5 years of experience working in equivalent capacity for international development agencies and donor projects on social issues, as well as with communities, CSOs, and other stakeholders; (iv) strong participatory and facilitation skills, to work effectively and sensitively with local communities and facilitate consultations resulting in positive outcomes and dialogue; (v) willingness to regularly travel to the project construction sites, sometimes staying on site to conduct local consultations; (vi) sound knowledge of gender mainstreaming and gender-sensitive reporting; and (vii) good command of spoken and written English. Under the supervision of the project coordinator, the consultant will coordinate and manage the implementation of the project social development action plan (SDAP), gender action plan (GAP), and consultation and participation plan (CPP), and closely support the deputy team leader and PIU team to also implement the stakeholder communication strategy (SCS). Specific duties include the following.

- 98. He/she will be responsible to provide social and gender aspect support for project implementation in compliance of ADB social policies and procedures, and covenants on social aspects.
  - (i) Develop a work plan for implementing and monitoring the poverty, social and gender dimensions of the project based on key socioeconomic indicators.
  - (ii) With the project implementation and M&E specialist, ensure the PPMS is structured to efficiently record gender-disaggregated project trainings and targets in the DMF, SGAP, and summary poverty reduction and social strategy (SPRSS). Ensure that all social and gender targets and sex-disaggregated data are well maintained in the database and stored in manner which enables quick retrieval and summarizing for the preparation of progress reports.
  - (iii) Provide practical advice and support to MET and the PIU team on the implementation of relevant plans following both ADB and domestic policy frameworks.
  - (iv) Closely monitor to ensure that the project does not have any involuntary resettlement impacts or indigenous peoples impacts within the meaning of the Safeguards Policy Statement.
  - (v) Carry out updating social safeguard screening and due diligence for each civil works during the detailed design.
  - (vi) Assist MET and the PIU in supervising contractors to ensure compliance with the relevant project covenant and ADB's Safeguard Policy Statement.
  - (vii) Closely monitor and verify to ensure that the necessary budgetary and human resources to fully implement the SDAP, CPP, and GAP are available.
  - (viii) Review the bidding documents to ensure all the provisions related to labor and health, and the measures set forth in the GAP, SDAP, CPP, and/or SCS have been incorporated into the bidding documents.
  - (ix) Together with the PIU sustainable tourism and protected areas specialist, and working closely with the livelihoods and tourism business development consulting services (package CS6), co-lead and coordinate the establishment and training of the 13 CBOs that will be established and/or expanded to work with the project in the five protected areas and heritage sites. This will include (a) establishment of the CBOs and selection of members, through transparent, consultative, and community-led processes, (b)

establishment of roles and responsibilities for each CBO, including O&M of the project-funded small public facilities, (c) implementing the *community participation in procurement package* (PAM Sections VI.B.3 and VI.C.6) to coordinate and lead additional community-led tourism activities in these sites and procure materials and mobilize labor as needed, and (d) mobilize and coordinate the communities to participate in the project trainings (to be provided by the PIU and livelihood consulting services) to achieve these tasks

- (x) Supervise the preparation and implementation of the project water, sanitation, and hygiene (WASH) program.
- (xi) Design and lead training for the project communities on the prevention and control of transmissible diseases and HIV/AIDS, and community disturbance to relevant officers at *aimag/soum* level, contractors and workers.
- (xii) Ensure that all project consultations and trainings for the project communities which are led by the specialist, other PIU staff, and the project consulting services, are designed and planned to (a) be *meaningful* i.e. are held in languages, times, locations, and formats tailored to local needs and culture, (b) ensure cultural respect, and (c) be as efficient as possible, to minimize time burden on communities.
- (xiii) Assist the executing agency and PIU to disclose information at *aimag/soum* levels on the project and its benefits.
- (xiv) With the PIU environment safeguards specialist, establish the project GRM. Plan and implement regular and meaningful stakeholder consultations throughout the project implementation, to ensure that (a) the GRM is well understood and known by all stakeholders, (b) any grievances are quickly reported and addressed, and (c) stakeholders, especially local communities and CSOs working in the project areas, are well informed of progress relating to social safeguards and management for the project.
- (xv) Provide on-the-job training for the PIU, MET, contractors, and other stakeholders as needed to ensure that all agencies are aware of their roles and responsibilities for implementation of the SDAP, GAP, CPP, and GRM.
- (xvi) Ensure that construction supervision companies and contractors comply with the SDAP, CPP, GAP, applicable laws and regulations, and ADB's social policies.
- (xvii) Facilitate and support all project stakeholders to implement and achieve the social and gender targets in the DMF, SGAP, CPP, SCS, and SPRSS.
- (xviii) Coordinate with the relevant social and gender focal points in MET, *aimag* and *soum* governments, communities, and other development agencies and civil society organizations, to ensure regular communication and information sharing for efficient and effective project implementation.
- (xix) Provide social and gender inputs to project progress reports, monitoring reports, midterm report, project completion report, and another project required documents.
- (xx) Provide inputs for the training and capacity development of MET/PIU and relevant officers at *aimag* and *soum* levels, coordinate with the team leader and other team specialists to carry out training program and provide support to the capacity development activities for implementation and monitoring and evaluation of the SDAP, CPP, GAP and other social measures, as necessary;
- (xxi) Ensure that the performance indicators set-up in the project DMF regarding gender and other social issues are met; and
- (xxii) Undertake any other necessary work assigned by the project coordinator and project director.

99. **UVS AIMAG SUPERVISION OFFICER (ICS9)** (national; intermittent; PIU based with frequent field travel). The officer will be a citizen of the project *aimag* and have: (i) bachelor's degree in business administration, tourism, economics, law, civil engineering, public management, or related discipline, (ii) at least 8 years of work experience on rural livelihood or similar projects, of which 3 years of experience in team management in tourism development is

preferable, (iii) ideally, experience in working on a large grant-funded or loan-funded project by an international development agency or civil society organization, (iv) familiarity with the project locations and communities, (v) strong communication and coordination skill, (vi) demonstrated ability to work effectively and respectfully with a wide range of stakeholders, especially local communities, government, tourists, civil society organizations, and works contractors, and (vii) ideally (but not essential), moderate spoken English.

100. The officer will report to the PIU project coordinator and will ensure the effective implementation of the project activities in Uvs *Aimag*. The officer will be responsible for: (i) project activities' daily management, coordination, implementation, and periodical monitoring and reporting; (ii) consolidation of project activities with *aimag* work plans; (iii) closely working with consultants contracted for the project and working in the *aimag*; (iv) maintaining regular communication with relevant *aimag* and *soum* departments; and (v) ensuring project activities are implemented in accordance with ADB policies. The officer will report to the PIU project coordinator and will ensure the effective implementation of the project activities in Uvs *Aimag*. Specific duties include the following.

- (i) Provide the liaison to *aimag* and *soum* staff involved in project implementation and organize the necessary training on behalf of the PIU and project consultants.
- (ii) Coordinate the overall project activities in the target *aimag* and *soums* in a timely manner in accordance with the approved work plan.
- (iii) Supervise design and supervision consultants and works contractors for timely completion of the contracts and daily monitor the process.
- (iv) Ensure proposed activities are screened in accordance with the requirements of the *aimag* Environmental Office.
- (v) Assist the PIU project coordinator in evaluation of performance of the consultants and contractors.
- (vi) Ensure smooth communications and collaboration with local governments and departments, contractors and consultants, and represent the PIU on a daily basis in the *aimag*.
- (vii) Participate in and help facilitate regular PIU meetings to monitor the progress of the work plan, and address deviations and delays.
- (viii) Monitor activities on a monthly basis against the annual work plan and budget, and report on the progress achieved to the PIU project coordinator.
- (ix) Ensure compliance with all ADB and JFPR policies and procedures on social and environmental safeguards, gender, anticorruption, financial management, procurement and disbursement.
- (x) Contribute to preparation of the project progress reports.
- (xi) Support the PIU project coordinator in other tasks as required.

101. **KHOVD AIMAG SUPERVISION OFFICER (ICS10).** As for ICS9.

102. **BAYAN-ULGII AIMAG SUPERVISION OFFICER (ICS11).** As for ICS9.

### APPENDIX 3: INDICATIVE TERMS OF REFERENCES FOR THE GRANT-FINANCED CONSULTING SERVICES

1. Two consulting services packages will be financed by the Japan Fund for Poverty Reduction (JFPR) Grant: (i) Livelihoods and Tourism Business Development and Capacity Building (CS6, national firm), and (ii) Detailed Engineering Design and Construction Supervision for small works at five protected areas (CS7, national firm). The Department of Protected Areas Management (DPAM) of the Ministry of Environment and Tourism (MET) is the implementing agency for the grant. The project implementation unit (PIU) will work on behalf of the DPAM to coordinate recruitment of the consulting services in accordance with ADB's Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The consulting firms will be selected by (i) full technical proposals; and (ii) using the quality- and cost-based selection method, with a quality-cost weighting ratio of 90:10. The estimated duration and cost of each package is in Table 1.

**Table 1: Summary of Consulting Services**

No	Package Name	Summary Details
CS6	Livelihoods and Tourism Business Development and Capacity Building (National)	Selected through ADB's QCBS (90:10) selection method. Expected duration: 58 person-months Estimated cost \$265,000
CS7	Detailed Engineering Design and Construction Supervision for Small Works at 5 Protected Areas and Heritage Sites (National)	National firm. Selected through ADB's QCBS (90:10) selection method Expected duration: 46 person-months Estimated cost \$169,700

Source: Asian Development Bank.

2. The scope and tasks of the consulting services financed by the grant are described below.

#### 1. CS6: Livelihoods and Tourism Business Development and Capacity Building

##### A. Overview

3. The Sustainable Tourism Development Project (Phase 2) will be implemented in western Mongolia over six years with an estimated cost of \$32.3 million, of which ADB is requested to finance \$30.0 million through a regular loan. A \$2.0 million grant will be implemented as part of the overall project, financed by the Japan Fund for Poverty Reduction of the Government of Japan. The Ministry of Environment and Tourism (MET) is the executing agency for the overall project, and MET's Department of Protected Areas Management (DPAM) is the implementing agency for the grant. The grant will have three components: (i) inclusive planning and capacity for community-based tourism enhanced, (ii) sanitation and waste management improved, and (iii) management of cultural heritage sites and protected areas strengthened.

##### B. The Grant Project

4. The grant will support three of the four outputs of the overall project: (i) inclusive planning and capacity for community-based tourism enhanced, (ii) sanitation and waste management improved, and (iii) management of cultural heritage sites and protected areas strengthened.

5. **Grant component 1: Inclusive planning and capacity for community-based tourism enhanced.** This component will establish the first pilot tourism development program for Mongolia. It will focus on strengthening technical capacity and access to low-interest finance for poor and vulnerable households, community-based organizations (CBOs), and MSME, to develop tourism goods and services. The program will comprise (i) vocational training, (ii) a community revolving fund (CRF), (iii) a youth incubator, and (iv) the establishment of nine women-led markets. The program will focus initially on rural communities at five protected areas and cultural heritage sites (para. 4) and will be planned and implemented in partnership with *aimag* youth employment centers, regional colleges, and tour camp operators. The CRF will apply a successful design piloted with previous JFPR support and will be the first such fund for community-based tourism in western Mongolia.<sup>1</sup> The youth incubator will comprise (i) two training venues for youth in the loan-funded tourism complexes, as safe learning spaces to foster innovation and entrepreneurship, and (ii) through the grant, provide tourism related training and match youth with local enterprises to develop tourism goods and services. About 2,449 poor and vulnerable residents will benefit from new or expanded community enterprises supported under the program.

6. **Grant component 2: Sanitation and waste management improved.** This component will (i) fund the installation of about 60 low-cost, gender-sensitive toilet systems at public campsites and project-funded car parks at five protected areas. The project will replicate previous successful JFPR-funded toilet designs and operation and maintenance (O&M) procedures, including the training of CBOs to manage the toilet facilities and litter collection, (ii) establish waste disposal procedures for the project facilities, including transport and treatment at rural wastewater treatment plants and landfills to be upgraded under the ADB funded ASDIP project (see Section I [para. 15] of the project administration manual), and (iii) implement a water, sanitation, and hygiene (WASH) program. This will establish the first sanitation standards and health and safety protocols for the tourism sector in western Mongolia. The program will be prepared with *aimag* health clinics and border agencies and will be aligned with guidelines of the World Health Organization for infection prevention and control.<sup>2</sup> The program will focus first on the rural communities, visitors, and tour camps of 13 *soums* around five protected areas, then scale up to at least nine additional surrounding *soums*. It will be incorporated into the loan-funded regional tourism master plan and revised *aimag* tourism plans, ensuring that the program becomes integrated within the institutional framework for the tourism sector. Collectively, these measures will help establish post coronavirus (COVID-19) resilience and safety for over 16,296 residents and 36,000 visitors per year to the project sites.

7. **Grant component 3: Management of cultural heritage sites and protected areas strengthened.** This component will (i) construct at least 35 small public facilities at five cultural heritage sites and protected areas, comprising public campsites, information centers, public cooking cabins, bird watching towers, ranger stations, and fee collection stations, and (ii) establish O&M procedures and training for the facilities. The facilities will be operated by about 13 CBOs

<sup>1</sup> A total of \$0.4 million (20.0%) of the grant proceeds will be allocated for the CRF, divided equally across the three project *aimags*. Procedures and conditions for loan application, repayment, and monitoring will apply the guidelines of a previous JFPR-funded CRF. Three CRF committees (one per *aimag*) of locally-elected residents will be established to coordinate CRF implementation. The CRF interest rates will be low and reviewed regularly. Interest repayments over the grant duration will replenish the funds. Loans will be limited to activities compatible with the grant objectives for poverty reduction, domestic regulations, and ADB policies. The project will provide financing expertise and training to establish and manage the CRF. The CRF will be held in a bank account of a qualified banking institution that will also manage an agricultural fund for another ADB-supported project in western Mongolia (ADB. 2017. *Technical Assistance to Mongolia for Preparing the Aimag and Soum Centers Regional Development Investment Program* [ASDIP]. Manila). The CRF financing will be issued in staged tranches, with the tranche amounts based on community demand, CRF performance, and the project monitoring.

<sup>2</sup> World Health Organization. 2020. [Infection prevention and control guidance \(COVID-19\)](#).

and generate about 176 jobs to be prioritized for the poor and vulnerable, and new revenue from visitor fees and sales. In particular, community management and guiding services for the TSC will be established, linked with O&M of a loan-funded tourism complex. This will be the first project in Mongolia for community-led protection of rock art heritage. Implementation will be planned with the National Cultural Heritage Center and will provide demonstration and lessons for the protection of other rock art sites in Mongolia.

8. The consultant deliverables need to reflect a holistic design approach that ensures synergy and integration, where relevant, with the other project components and deliverables prepared by other consulting teams. Examples include, but are not limited to: (i) ensuring that the revised *aimag* tourism plans integrate the project components and operation and maintenance (O&M) plans for the project facilities, (ii) poverty, gender, and livelihood targets will be integrated within the regional tourism master plan, revised *aimag* tourism plans, and improved tour camp standards, and (iii) O&M of the loan-funded tourism complexes will include promotion of the grant-supported community goods, services, and protected areas. The firm is therefore required to have a good understanding of the overall project design and targets in addition to the specific deliverables under the consultancy.

### **C. Objective of the Assignment**

9. The consultancy will lead the detailed design, preparation, and implementation of all non-structural components of the grant under components 1 to 3. The consultancy will focus on the rural communities of 13 *soums* within and around five protected areas: Altai Tavan Bogd National Park (ATBNP) including the UNESCO World Heritage Area Petroglyphic Complexes of the Mongolian Altai (PCMA) in Bayan-Ulgii *Aimag*, Tsenkher Cave (TSC) and Khar Us Nuur National Park (KUNNP) in Khovd *Aimag*, and Khan Khukhii National Park (KKNP) and Uvs Nuur Strictly Protected Area (UVSPA) in Uvs *Aimag*. The consultancy will be undertaken by a national firm.

10. The project processing phase included the preparation of the specific project targets and designs for all components, and reports which meet the technical, economic, financial, social, environmental, and other due diligence requirements of the Asian Development Bank (ADB) and the Government of Mongolia to design the project. These reports include but are not limited to: the Report and Recommendation of the President to the Board of Directors; JFPR Grant proposal; Project Administration Manual; Social Development Action Plan; Gender Action Plan; Initial Environmental Examination; Risk Assessment and Risk Management Plan; Feasibility Study Report; and Climate Risk and Vulnerability Assessment. The firm shall ensure that their deliverables follow the approved project targets and preliminary designs prepared during the processing and described in these reports. In particular, the firm will be familiar with the RRP, JFPR Grant, social development action plan, gender action plan, and consultation and participation plan, as these documents are highly relevant to the objectives of the consulting service.

### **D. Scope of Services, Tasks, and Deliverables**

11. The scope of the services will include the following. The consultant will work closely with the PIU and other key stakeholders as needed, including MET, the Ministry of Labor and Social Protection, Youth Development Centers (YDCs), protected area administrations of the project sites, local learning centers (including Khovd University and Ulaangom Polytechnic College), and *aimag* public-private dialogue councils.



### Component 1: Inclusive planning and capacity for community-based tourism enhanced

12. Lead the detailed design, preparation, and implementation of the pilot tourism business development program, including the following major components.

13. Quality jobs and livelihoods strategy. Key tasks:

- (i) Develop a brief strategy to ensure that all livelihood-focused activities under the project are linked i.e., the targets for livelihoods, jobs, and trainings under project outputs 1–4 of the loan and components 1–3 of the grant. This will reflect the designed synergy between the loan- and grant-funded components, and the targets in the design and monitoring framework, social and development action plan, and gender action plan.

14. Subcomponent: vocational training. Key tasks:

- (i) Assess key community training needs and demand, aligned with the project objectives to improve livelihoods through community-led tourism.
- (ii) Focus the training on demands and needs of especially: poor and vulnerable households, the project-supported CBOs, women's groups, and youth groups. This strategic focus should aim to maximize the training impacts by targeting key local groups, that will help mobilize and scale up community initiatives.
- (iii) Design the training program. Topics are anticipated to include, but not be limited to, home business management and administration, starting a business, customer relations, reasons for business failures, cost/ benefit analysis, marketing strategies, hygiene and sanitation practices, packaging, labeling, promotional strategies and competition in business guiding, trekking, home stay, ger camps, horse riding and rental, sightseeing services, and handicrafts. Ensure the program is designed for maximum livelihood benefit, practicality, relevance, and impact.
- (iv) In addition, develop and implement training specifically tailored to: (a) establishment and O&M of the CBOs, (ii) community-led O&M of the grant-funded small public facilities, including the women-led markets, and (iii) establishment and operation of the CRF.
- (v) Coordinate with local learning institutions, *aimag* youth employment centers, and other stakeholders as needed to achieve collaborative and participatory learning approaches.
- (vi) Ensure that the training materials, timing, and locations are tailored to local conditions i.e. are prepared in formats and language relevant to local ethnic groups, as needed; are held in locations that are accessible for the poor and vulnerable; and at times that are suitable for communities, considering seasonal patterns (e.g. of herding).
- (vii) Implement the training, in staged sessions over the project duration.
- (viii) Conduct before- and after- monitoring to assess the training results and benefits. For all trainees: assess skills capacity and income at the start of training. Then assess these parameters at the end of the project.
- (ix) Refine subsequent trainings based on lessons learned.
- (x) Record sex- and age-disaggregated data.

15. Subcomponent: community revolving fund (CRF). Key tasks:

- (i) Facilitate establishment of three CRF committees (one per *aimag*).
- (ii) Prepare the CRF operational manual including all procedures, forms, and requirements for loan application, review by the CRF committees, loan disbursement, interest rates, repayment schedules, penalties, activities prohibited for funding, monitoring, and reporting.
- (iii) Establish two CRF interest rates – both to be low: a lowest rate, for poor and vulnerable households, and a higher rate, for other community residents. Identify the rates based on

- market analysis and the need to recover CRF operational costs and to build the capital of the CRF, to achieve funding sustainability.
- (iv) With the MET and PIU, facilitate the establishment of the CRF account within a national banking institution.
  - (v) Arrange and facilitate all stakeholder consultants required to establish, implement, and monitor the CRF.
  - (vi) Apply the procedures, forms, manuals, and lessons learned for the CRF developed with JFPR financing under the Grant 9183 Integrated Livelihoods Improvement and Sustainable Tourism in Khuvsgul Lake National Park Project.
  - (vii) Facilitate and prepare tripartite contracts between the protected area administrations, local government, and CRF committees, for O&M of the CRF, including roles and responsibilities of all agencies.
  - (viii) Ensure that sustainability and transparency is established and maintained within the design and implementation of the CRF.
  - (ix) Advise the PIU on the amount and timing of CRF loan disbursements, through tranches, based on community demand and performance of the previous tranches.
  - (x) Target the hand-over of the CRF from the PIU to a selected national bank by year 4 of grant implementation, and then monitor post-hand-over performance for the remaining 2 years of project implementation. Identify challenges and facilitate resolutions.
16. Subcomponent: youth incubator. Key tasks:
- (i) Review and briefly summarize existing efforts in Mongolia by the government and development agencies to support youth development, especially previous training efforts, the role of the youth employment centers, and measures focused on tourism value chains.
  - (ii) Design the youth training program so that (a) it complements and build upon previous and existing efforts and institutional arrangements, (b) is well integrated as a subset within the overall project vocational training, (c) is linked with all the project livelihood components, including O&M of the CRF, CBOs, and WASH program, and (d) reflects the topics and skills that are most relevant and beneficial for youth employment in the context of the project and local tourism value chains. This should include, but not be limited to: management training, advisory services, access to capital sources, assistance to business operations for MSME.
  - (iii) Assess the person-capacity of the two learning rooms allocated at two loan-funded tourism complexes for the youth incubator. Identify the key equipment and designs needed for these spaces, to be safe learning environments that foster youth entrepreneurship and innovation.
  - (iv) Coordinate with the PIU for the ADB funded *Aimag and Soum Investment Development Program* (ASDIP) to incorporate up to five additional learning rooms for youth in the five planned ASDIP agribusiness training centers.
  - (v) Establish O&M procedures for the youth incubators within the two tourism complexes and (up to) five agribusiness centers, including the roles of (a) the staff of the complexes and centers to maintain the rooms, and (b) the integration of the incubators within the overall O&M and operational objectives of each facility.
  - (vi) Work with the project youth to help facilitate and match youth with relevant youth programs in western Mongolia and elsewhere in Mongolia.
  - (vii) Train youth to participate in the water, sanitation, and hygiene program (see below).
17. Subcomponent: establishment of CBOs. Key tasks:
- (i) Facilitate a participatory and community-led process, involving all relevant local stakeholders, to establish CBOs that will (a) represent and help mobilize the target communities under the grant, (b) be responsible for O&M of the grant-funded small public

facilities, and (c) lead the *community participation in procurement package* (described in Sections VI.B.3 and VI.C.6 of the project administration manual) to coordinate and lead additional community-led tourism activities in the project protected areas and heritage sites and procure materials and mobilize labor as needed. About 13 CBOs are anticipated to be established, reflecting the widely dispersed locations of the grant-funded facilities across five protected areas in three *aimags*.

- (ii) Facilitate and prepare the roles and responsibilities and O&M procedures for the CBOs; identify training needs; include these in the vocational training; and provide all related support to implement the training and foster the role of the CBOs. The training should especially include (a) roles and responsibilities of each CBO, (b) O&M of the CRF, so that the CBOs can support the CRF committees and communities, including assisting residents to prepare loan applications, (c) O&M of the grant-funded small public facilities, (d) O&M of the women-led markets, (e) water, sanitation and hygiene standards and scaling up of the WASH program (component 3).
- (iii) Prepare the draft tripartite contracts to be established between each CBO with local government and the protected area administrations, and facilitate the process of review and finalization of these contracts by all parties. The contracts will include description of the roles and responsibilities of each party; O&M procedures by the CBOs for the small public facilities to be financed by the project; CBO members and their roles; and, financing arrangements for the CBOs.

18. **Integrated design approach.** Ensure that the design of the pilot tourism development program achieves an integrated approach across the grant- and loan-funded activities. This will include, but not be limited to: (i) beneficiaries of the grant-supported vocational training will be prioritized for loans from the CRF, (ii) beneficiaries of the vocational training and CRF will be prioritized for vendor spaces at the loan-funded tourist streets, and (iii) CBO-led O&M of the small public facilities in the project protected areas will be linked with O&M of the loan-funded tourist streets and complexes, to maximize promotion of community goods and services.

## **Component 2: Sanitation and waste management improved**

19. Prepare and implement the first water, sanitation, and hygiene (WASH) program for for the local tourism sector in western Mongolia, focusing initially on 13 *soums* in Bayan-Ulgii, Khovd, and Uvs *aimags* which encompass five protected areas and heritage sites the project is focusing on. Key tasks:

- (i) Review the existing sanitation standards and procedures for the local tourism sector, including O&M of public hygiene facilities and by tour camps, CBOs, and MSME.
- (ii) Prepare situation analyses report, by analyzing the national and sub-national policy documents related to WASH and identification of needs for strengthening WASH program in the protected areas and tourism facilities in the Bayan-Ulgii, Khovd and Uvs *Aimags*.
- (iii) Identify and develop standards and procedures needed to strengthen sanitation and hygiene in the local tourism sector. Include links with national and health measures and border screening procedures. Focus especially on sanitation standards for the project communities, CBOs, and tour camp operators, to strengthen post-COVID-19 recovery and resilience to the project stakeholders and to reduce the risks of future infection to the project communities caused by disease spread including from tourists.
- (iv) Design the standards and procedures in consultation with *aimag* health centers, border agencies, and other relevant stakeholders.

- (v) Ensure the standards comply with the guidelines of the World Health Organization for infection prevention and control.<sup>3</sup>
  - (vi) Design the WASH program for protected areas and tourism facilities, including prevention measures for public health pandemics (e.g. COVID-19). The program should focus initially on the 13 target *soums*, then scale this up to at least 8 additional surrounding *soums*, to achieve a coverage of at least 22 *soums* in the three *aimags* of western Mongolia.
  - (vii) Train the CBOs and a core team of youth to help implement the WASH program. Design and employ a cascaded model to train the youth members as *youth ambassadors* who will then train other youth, to scale up the project impacts. Apply tested and successful approaches from other ADB projects e.g., the *Pilot And Demonstration Activity: Youth-Led Approaches To Sustainable Bagmati River Basin Management*.
  - (viii) Organize consultation meetings for finalization of the WASH program and submit the final version to PIU for the *Aimag* governments approval and endorsement by the MET.
20. Facilitate the adoption of improved toilet standards by tour camp operators and for hygiene procedures for the grant-funded public toilets. Key tasks:
- (i) Review the existing toilet designs utilized within tour camps of the project sites.
  - (ii) Identify designs and procedures that do not comply with Mongolia's Law on Hygiene and relevant national design standards.
  - (iii) Introduce, disseminate awareness of, and promote the toilet designs selected for the project protected areas (as described in the project feasibility study report), and which are based on proven designs tested under other ADB projects in similar cold-climate conditions.
  - (iv) Provide technical training to the CBOs for O&M of the grant-funded public toilet facilities.
21. To support the above tasks, design and implement a behavior change communication (BCC) strategy to address WASH practices. Key tasks:
- (i) Identify key communication channels that will maximize dissemination of the project WASH procedures to the target communities, tour operators, and visitors. The methods must be cost-effective, practical, take into consideration the remoteness of some sites, differing poverty and education levels, and the need for different languages – Mongolian and Kazakh for some project communities, and potentially Russian and Chinese languages for sites subject to frequent visitation from cross-border tourists.
  - (ii) Design and include a simple before- and after- questionnaire in the BCC, to measure the effectiveness of the WASH program, especially for the project communities and tour camp operators, as these stakeholders will be the 'front line' in maintaining WASH practices that help strengthen resilience to communities for COVID-19 and other diseases, especially due to exposure to visitors.
  - (iii) Work with the PIU Social, Gender, and Civil Society Specialist and other consulting services support as relevant to coordinate with related project trainings and communications (e.g. the information dissemination on HIV/AIDs and other sexually transmitted diseases under the project social development action plan and gender action plan) to avoid duplication of efforts and 'training fatigue' for project stakeholders.
  - (iv) Integrate the BCC strategy within the WASH program.

<sup>3</sup> World Health Organization. 2020. [Infection prevention and control guidance \(COVID-19\)](#).

### Component 3: Management of cultural heritage sites and protected areas strengthened

22. Site protection and public access. Key tasks: (i) coordinate with the firm that will design the grant-funded small public facilities, (ii) ensure that the designs are consistent with the site management plans for the protected areas, and (iii) help identify the training needs for O&M of the facilities.

23. Revision of site management plans. Key tasks:

- (i) Facilitate, lead, and prepare revisions for the management plans of three of the project protected areas – ATBNP and PCMA (Bayan-Ulgii *Aimag*) and TSC (Khovd *Aimag*). Include the following components in the revised plans: (a) the grant-supported pilot tourism development program, WASH program and toilet standards, (b) O&M procedures, costs, and financing for the grant-supported small public facilities, (c) the livelihood and gender targets developed with loan financing for the regional tourism master plan and revised *aimag* tourism master plans – ensuring consistency between these planning documents, (d) financing sources for grant-funded facilities, (e) a 4-year action plan and budget for each site, and (f) revision of internal site zoning (if needed).
- (ii) Prepare and establish a simple monitoring program within the site management plan, to monitor progress for (a) O&M of the project facilities, (b) visitor feedback for the facilities, and O&M of the facilities by the CBOs and protected area administrations, and (c) adaptive management by the protected area administrations and CBOs to respond to issues identified through lessons learned and visitor feedback.
- (iii) Facilitate consultation meetings with key civil society organizations and development agencies, including The Nature Conservancy and WWF, and GIZ and KfW, so that O&M procedures for the grant-funded facilities are also included in the site management plans for the KUNNP, KKNP, and UVSPA, whose revision will be led by KfW and other agencies.
- (iv) In all cases, revise, rewrite, and/or draft the specific materials needed for the various site management plans; and ensure that the project targets for livelihoods, gender, and sanitation are included in the plans.
- (v) Ensure that all of the firm's activities for all of the project protected areas and communities are planned and implemented in a participatory and collaborative manner with CSOs and development partners working on tourism and conservation projects, including, but not limited to, JICA, GIZ, KfW, UNDP, The Nature Conservancy, and WWF.
- (vi) Prepare and establish a simple monitoring program within the site management plan, to monitor progress for (a) O&M of the project facilities, (b) visitor feedback for the facilities, and O&M of the facilities by the CBOs and protected area administrations, and (c) adaptive management by the protected area administrations and CBOs to respond to issues identified through lessons learned and visitor feedback.

24. The revision of the site management plans shall ensure that the following measures are complied with: (i) Strict prohibition of sale or consumption of protected flora and fauna, and (ii) Inclusion of wildlife trade in the awareness materials and training for the beneficiaries, especially on the prohibition of selling protected flora and fauna and/or their products and parts, to tourists.

25. Capacity building for O&M of the grant-funded facilities. Develop and implement training for the CBOs, protected area administrations, tour camp operators, MSME, and local government agencies, for O&M of the grant-funded facilities in the project protected areas. Key tasks and topics:

- (i) Domestic regulations and requirements for protected area management and tourism and sanitation within protected areas.
- (ii) Collaboration and participatory approaches between communities and protected area administrations to support livelihoods, foster community aspirations, and protect natural resources.
- (iii) Social and environmental standards and conditions for tour camp operations.
- (iv) Implementation of the revised site management plans.
- (v) O&M of the grant-funded facilities, to maximize sustainability and durability.

## E. Team Composition & Qualification Requirements for the Key Experts

Consultants	Total		
	Total	H.O.	Field
1 Team Leader/Sustainable Livelihood specialist	12.00	2.00	10.00
2 MSME Business Development and Marketing specialist	9.00	2.00	7.00
3 Youth Incubator specialist	5.00	1.00	4.00
4 Financial Sector specialist	7.00	2.00	5.00
5 Handicraft specialist	5.00	0.00	5.00
6 Public Health specialist	5.00	1.00	4.00
7 Water Supply and Sanitation specialist	5.00	1.00	4.00
8 Waste management specialist	5.00	1.00	4.00
9 Resource persons	5.00	0.00	5.00
<b>Total</b>	<b>58.00</b>	<b>10.00</b>	<b>48.00</b>

26. The specialists will be recruited through the MET, and work under the coordination of the project implementation unit (PIU). The specialists will liaise with *aimag* and *soum* (district) governments and other stakeholders as needed to develop and implement the program.

27. Qualification requirements for the key experts are detailed below:

### (i) Team Leader / Sustainable Livelihoods Specialist (national, 12 months)

- Advanced degree in the area of biology, ecology, wildlife or forest conservation/management, or closely related field with appropriate background.
- At least 10 years of demonstrated experience in rural livelihoods linked with natural resources management, protected area management, and ecotourism.
- At least 7 years of experience as a team leader for other donor-funded projects involved in rural livelihoods and natural resources management.
- Understanding of the biodiversity conservation values and protected areas of western Mongolia, and the importance of carefully planned tourism that supports livelihoods but also protects the environment and biodiversity.
- Demonstrated experience in working with a wide range of stakeholders, including central, provincial, and *soum* government agencies, civil society organizations, communities, and donor agencies.
- Experience with GIS is a plus.
- Excellent written and oral communication in English and Mongolian.

### (ii) MSME Business Development and Marketing Specialist (national, 9 months)

- Bachelor's Degree in Business Development, Economics, Marketing, or similar.
- Master of Business Administration Degree (MBA) preferred.
- At least ten (10) years of experience in Business Management, tourism business development in national and regional destinations marketing, branding, or

promotion in national and regional destinations. Experience in protected areas is a plus.

- Demonstrated experience in working with communities and micro and small sized enterprises, to design local business plans, evaluate and help strengthen local business proposals, and provide basic training in business management. Work experience in cultural-based and nature-based products and ecotourism will be an asset.
- Excellent written and oral communication in English and Mongolian.

**(iii) Youth Incubator Specialist (national, 5 months)**

- A minimum of ten (10) years' experience in business and entrepreneurship promotion, working in the private sector or in support of private sector development, especially related to entrepreneurship or enterprise development activities.
- Strong working knowledge of business incubation approaches; prior experience working with an incubator is preferred.
- Experience working with youth entrepreneurs or in youth engagement.
- Experience in tourism industry or tourism/ecotourism sector is a plus.
- At least a BSc in Business Management, Economics, Agribusiness, or related discipline.
- Excellent communication and organization skills.
- Excellent written and oral communication in English and Mongolian.

**(iv) Financial sector Specialist (national, 7 months)**

- A minimum of ten (10) years' experience in financial sector institutions and regulatory frameworks with a specific focus on MSME access to finance.
- Strong knowledge of private sector development issues, one or more sectors, such investment climate, regulatory reform, industries including understanding of their investment and competitiveness policies, and global value chain integration would be a plus.
- A Master's or PhD degree in finance, economics, public policy, business administration or other relevant discipline.
- Excellent written and oral communication in English and Mongolian.

**(v) Handicraft Specialist (national, 8 months)**

- A minimum of ten (10) years' experience in the field of Mongolian handicraft.
- Strong interpersonal communication skills and capacity to involve different stakeholders.
- Basic command of English (writing/speaking) and fluency in Mongolian (writing/speaking).

**(vi) Public Health Specialist (national, 1 months)**

- Bachelor degree (in public health, behavior change communication and/or related field).
- Additional relevant post-graduate courses that complement/ supplement the main degree are a strong asset.
- At least 10 years demonstrated experience in the development policy documents and programs.
- To have an established professional network with key agencies in Mongolia that may be involved in the completion of the task.

- Experience in capacity building and training of other agencies and personnel.
- Basic command of English (writing/speaking) and fluency in Mongolian (writing/speaking).

Specific tasks include but are not limited to the following:

- Prepare situation analyses report, by analyzing the national and sub-national policy documents related to public health prevention measures (including COVID-19) and identification of needs for strengthening water, sanitation and hygiene (WASH) program in the protected areas and tourism facilities in the Bayan-Ulgii, Khovd and Uvs *Aimags*.
- Develop public health related contribution for development of the WASH program for protected areas and tourism facilities, including prevention measures for public health pandemics (e.g. COVID-19) in cooperation with related specialists (e.g., Water supply and Wastewater specialist, Sanitation specialist).
- Organize consultation meetings on public health issues for finalization of the WASH program and submit the final version to PIU for the *Aimag* governments approval and endorsement by the MET.
- Organize required public health related training for targeted protected areas and communities.
- Co-lead (with the Water Supply and Sanitation Specialist) the field implementation of the BCC strategy that is prepared by the BCC specialist (short-term resource person).

**(vii) Water Supply and Sanitation Specialist (national, 5 months)**

- Bachelor's degree in sanitary engineering, onsite sanitation, hygiene, health, and/or related field.
- Additional relevant trainings that complement/ supplement the main degree are a strong asset.
- At least 10 years demonstrated experience in water, sanitation and hygiene sector.
- To have an established professional network with key agencies in Mongolia that may be involved in the completion of the task.
- Experience in capacity building and training of other agencies and personnel.
- Basic command of English (writing/speaking) and fluency in Mongolian (writing/speaking).

Specific tasks include but are not limited to the following:

- Lead the preparation, coordination, and implementation of the listed tasks for the WASH program under Component 2: Sanitation and Waste Management Improved, in coordination with the Public Health Specialist.
- Co-lead (with the Public Health Specialist) the field implementation of the BCC strategy that is prepared by the BCC specialist (short-term resource person).

**(viii) Waste management Specialist (national, 5 months)**

- Advanced degree(s) (MSc or higher) in wastewater monitoring and treatment sanitary engineering, treatment, and/or related field.
- Additional relevant post-graduate courses that complement/ supplement the main degree are a strong asset.



- At least 10 years demonstrated experience in the development policy documents and programs in water supply and wastewater sector.
- To have an established professional network with key agencies in Mongolia that may be involved in the completion of the task.
- Experience in capacity building and training of other agencies and personnel.
- Basic command of English (writing/speaking) and fluency in Mongolian (writing/speaking).

Specific tasks include but are not limited to the following:

- Prepare situation analyses report, by analyzing the national and sub-national policy documents related to waste management and identification of needs for strengthening WASH program in the protected areas and tourism facilities in the Bayan-Ulgii, Khovd and Uvs *Aimags*.
- Develop waste management related contribution for development of three target *aimag* WASH program for protected areas and tourism facilities, including prevention measures for public health pandemics (e.g. COVID-19) in cooperation with related specialists (e.g., Public Health specialist, Water Supply and Sanitation specialist).
- Organize consultation meetings on waste management issues for finalization of the three *aimag* WASH program and submit the final version to PIU for the *Aimag* governments approval and endorsement by the MET.
- Organize required waste management related training for targeted protected areas and communities.

#### **(ix) Resource persons (including 1 Behavior Change Communication Specialist)**

- Short-term resource persons (national positions) will be mobilized as needed to provide additional trainings to the project communities. The training topics and specific content will be identified based on stakeholder consultations, community demand, and the assessment of existing community skills and tourism value chains.
- The resource persons will design short-term courses that provide maximum benefit. Trainings will include before- and after- monitoring of beneficiaries to assess the results.
- One national behavior change communication (BCC) specialist will be mobilized for 10 working days. Qualifications: Bachelor's degree in communications or related field; demonstrated experience in the design, preparation, and post-strategy measurement of BCCs; and, strong written and spoken English. Tasks: the specialist will prepare a BCC strategy, to be integrated within the project WASH program. The specialist will prepare the strategy based on information provided as needed by the other team specialists and PIU. Deliverables: a draft and final draft BCC strategy including communication campaign, cost-efficient methods tailored to the local project and site conditions, communication materials, and pre- and post- campaign monitoring.

## **F. Reporting and Deliverables**

28. The consulting firm will report to the PIU. The PIU will act as liaison between the consulting firm and the implementing agency, executing agency, ADB and other relevant national and

regional stakeholders for the project implementation. The PIU will facilitate the workflow and ensure that all relevant activities, all the reports, all the documents and relevant data as well as the entire assignment will be completed effectively and successfully by the consulting firm within the allocated time based on the agreed workplan. Validation/comments on deliverables will be provided within 7 days from receipt of the report.

29. **Overall reporting deliverables.**

- (vi) Inception report, within 1 month of mobilization.
- (vii) Semiannual progress reports.
- (viii) Draft final report; and final draft report.
- (ix) Draft and final draft of one knowledge product that summarizes the results, challenges, impacts, and lessons learned of the consultancy. The knowledge product will be of high-quality and focus on disseminating valuable lessons and opportunity for replication, innovation, and scaling up for other regions.

30. **Component-specific deliverables.**

- (x) **Component 1.** Pilot tourism development program. Draft and final draft versions of: (a) vocational training program, (b) CRF operational manual, (c) CRF tripartite contracts, (d) youth incubator.
- (xi) **Component 2.** Draft and final draft versions of: (a) WASH program, including the BCC strategy, (b) O&M manual for the public toilets, (c) adoption of improved toilet designs by tour camps.
- (xii) **Component 3.** Draft and final draft versions of: (a) revised site management plans for the ATBNP (including the PCMA) and TSC, (b) written inputs to the site management plans for the KUNNP, KKNP, and UVSPA, (c) results of training programs implemented.

31. **Note.** All materials will: (i) include maps and diagrams as needed, (ii) record and provide sex- and age-disaggregated data, to help monitor progress against the grant and loan project targets and indicators, especially for livelihoods.

32. **Performance indicators.** Confirmation and final endorsement of the reporting deliverables will be partly based on the demonstration of participatory and collaborative approaches; and field support by the firm to the communities, CBOs, CRF. The focus of the firm is to be on establishing the specified components and then supporting the communities to implement them, and, to address and resolve challenges and lessons learned. The baseline reports should focus on being informative, concise, and oriented to practical measures and designs.

33. All communications and reports will be submitted in English, using the standard report format required by the PIU. The Consultant shall submit three hard copies and one electronic copy of each deliverable. Besides, each deliverable will be accompanied with a summary in Power point format. Final reports shall be delivered in CD ROM in addition to the specified number of hard copies.

## **G. Clients Inputs and Counterpart Personnel**

34. The following staff will be assigned by the Client to support the Consultant's team: (i) MET DPAM and DTPC counterpart specialists, and (ii) the PIU,

35. Counterpart Contribution to be provided by the Client: (i) help facilitate project workshops, meetings, introductions with local government agencies, and provision of relevant information, (ii)

provide the project feasibility study report, social surveys and assessments, and all other relevant project documents preparing during the project processing.

## **2. CS7: Detailed Engineering Design and Construction Supervision for Small Works at Five Protected Areas**

### **A. Overview**

34. The Sustainable Tourism Development Project (Phase 2) will be implemented in western Mongolia over six years with an estimated cost of \$32.3 million, of which the Asian Development Bank (ADB) is requested to finance \$30.0 million through a regular loan. A \$2.0 million cofinanced grant will be implemented as part of the overall project, financed by the Japan Fund for Poverty Reduction of the Government of Japan. The Ministry of Environment and Tourism (MET) is the executing agency for the overall project, and MET's Department of Protected Areas Management (DPAM) is the implementing agency for the grant. The grant will have three components: (i) inclusive planning and capacity for community-based tourism enhanced, (ii) enabling infrastructure constructed, (iii) sanitation and waste management improved, and (iv) management of cultural heritage sites and protected areas strengthened.

35. The Project will be implemented at the following protected areas:

- (i) Altai Tavan Bogd National Park (ATBNP) including the UNESCO World Heritage Area Petroglyphic Complexes of the Mongolian Altai (PCMA) in Bayan-Ulgii *Aimag*.
- (ii) Tsenkher Cave (TSC) in Khovd *Aimag*.
- (iii) Khar Us Nuur National Park (KUNNP) in Khovd *Aimag*.
- (iv) Khan Khukhii National Park (KKNP) in Uvs *Aimag* and,
- (v) Uvs Nuur Strictly Protected Area (UVSPA) in Uvs *Aimag*.

36. The grant-funded small public facilities to be designed under this consultancy are listed in Appendix C of this terms of reference.

37. The consultancy will be undertaken by a national firm

### **B. Objectives of the Assignment**

38. The objectives of this assignment are to: (i) produce detailed engineering designs, including detailed cost estimates, for the facilities listed in Appendix C; (ii) provide construction supervision until the completion of the facilities; (iii) facilitate all domestic approvals as needed for finalization and state approval of the detailed designs; and (iv) support the PIU to prepare the bidding documents for the works package.

39. During project processing, reports were developed which meet the technical, economic, financial, social, environmental, and other due diligence requirements of the Asian Development Bank (ADB) and the Government of Mongolia to design the project. These reports include the following but not limited to: the Report and Recommendation of the President to the Board of Directors; Project Administration Manual; Social Development Action Plan; Gender Action Plan; Initial Environmental Examination; Risk Assessment and Risk Management Plan; Feasibility Study Report; and Climate Risk and Vulnerability Assessment. The firm shall ensure that their deliverables follow the approved project targets and preliminary designs prepared during the processing and described in these reports.

40. The following design characteristics should be reflected to all design activities.

- Rationale and proper capacity: Small facilities will be aimed to (i) enabling infrastructure for tourism, (ii) enhancing the capacity for tourism businesses, and (iii) promoting community-led tourism based on heritage, education. The proposed design should be prepared based on sound evidence-based data and an assessment of the relevant needs to the functionality of the tourism facility in Mongolia. The design must be generated to consider the future expansion.
- Model and accreditation: Small facilities will follow international best practices in sustainable design specifically complying with the EDGE standard. The design of Facilities will be used as a model to be inspired in other regions of Mongolia.
- Modernization: Investments will cover (i) modern infrastructure facilities and equipment which shall be in adequate capacity; (ii) integrated business and operational management; (iii) proper waste management; and (iv) quality management.
- Location of facilities. All works will be (i) restricted to the specific geographic locations specified in Appendix C, and (ii) comply with the site selection criteria specified in the project environment management plan, including (a) located only in pre-existing sites already subject to the same land use as the planned facility, (b) located >200 m from the nearest lake or river, (c) does not involve any clearance of natural vegetation.
- All works will be designed, supervised, and established (i) in full consideration of the site-specific environmental, ecological, and cultural and heritage values of each site and protected area, and (ii) in regular consultation with the PIU, protected area administrations, community-based organizations, civil society organizations working within or near the project location, and other stakeholders as needed. The PIU will assist the firm to plan and implement such stakeholder consultation.

41. The assignment is expected to commence in Q1 2023 and be completed within 4 years after contract signing. Construction works for the facilities is scheduled to start in Q2 2025.

**Table 1: Indicative Duration for the Assignment**

No	Tasks	2023				2024				2025				2026			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1	Design development including bid documents																
2	Bidding process																
3	Construction and supervision contract administration																

### C. SCOPE OF THE CONSULTING SERVICES AND EXPECTED DELIVERABLES

42. The overall consultancy will work on the following tasks:
- (i) To coordinate design, and contract administration activities and prepare construction documents in professional standards.
  - (ii) To carry out site survey and geotechnical survey
  - (iii) To develop final architectural detail design
  - (iv) To develop the structural design
  - (v) To develop mechanical, electric and plumbing design
  - (vi) To develop telecommunication and automation design if any
  - (vii) To provide for construction cost estimates

- (viii) To develop the bidding documents for construction of small facilities
- (ix) To provide technical support to the MET in evaluation of bidding documents and provide expert's comments and recommendation
- (x) To provide monitoring and reports on; structural inspection, mechanical inspection, electrical inspection, plumbing inspection including all external engineering works, landscape design, record drawings and certification of the progress
- (xi) To provide for a deficiency assessment, total inspection.

43. **Design principals for environmental protection, climate resilience, and green best practice.** The facilities to be designed and constructed under this consultancy are located in protected areas and cultural heritage sites. The consultant will ensure that all detailed designs will comply with the following.

- (i) Adhere to all requirements of the project EMP including site locations.
- (ii) Avoid impacts to permafrost: (a) ensure that site locations are not based on permafrost, (b) develop designs that minimize or avoid the need for soil excavation and foundations, (c) where possible, adopt elevated bases – e.g. for carparks and small structures – rather than excavation.
- (iii) Avoid clearance of vegetation and habitats. Avoid impacts to any existing sacred sites or physical cultural artifacts. Where this is not possible, clearly quantify the area of estimated clearance and seek endorsement and feedback from the PIU before proceeding with the designs.
- (iv) Prepare detailed designs which comply with EDGE standards for water and energy efficiency.
- (v) Design the facilities in consolidated footprints that group facilities together, to reduce wide dispersion of facilities and impacts across the sites.
- (vi) Select materials for durability and local availability.
- (vii) Design facilities for simple O&M.
- (viii) Regularly consult with the PIU to seek guidance on best practice for consultation with communities and other stakeholders, to ensure that a transparent and participatory approach is implemented.

44. **Expected design deliverables.** The design developments at the protected area will be consistent with the Client's Concept Designs and Architectural Specifications prepared and approved by MET and ADB during project preparation. The structural, mechanical, electrical and plumbing designs will be consistent with the Client's Outline of Construction and Engineering Specifications. Draft and final draft versions of the design will be submitted and approved by ADB and MET. Following is the work program and the deliverables.

- (i) Project Management
- (ii) Site Survey and Geological report
- (iii) Architectural Design
- (iv) Structural Design
- (v) Mechanical, Electrical and Plumbing design
- (vi) Internet, Telecommunication, Automation and Fire safety
- (vii) Construction and Supervision contract administration.

**Table 2: Project Management**

<b>Project Management</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents</b>	<b>Bidding documents</b>
Program of Requirements	Document/Narrative Text	✓		
Project Initiation Document	Document/Narrative Text	✓		
Project Organization Structure	Diagram//Schematic	✓		
Communication Strategy	Document/Narrative Text	✓		
Issues Log & Risk Register	MS Excel Table	✓	Revision/Record	
Design Deviations & Derogations List	MS Excel Table	✓	Revision/Record	
Program Timetable	MS Project Table	✓		
Responsibility Matrix	MS Excel Table	✓		
Interface Agreements	Narrative Text	✓		
Project Communication Portal	SharePoint website	✓		
Licensing & Contracting Issues	Government Approvals & Certification	✓		
Commissioning procedures	Document/Narrative Text	✓		

**Table 3: Site Survey**

<b>Site Survey</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents</b>	<b>Bidding documents</b>
Geotechnical soil survey including drainage, water courses	Narrative Text, Diagrams/Table	To be done before detailed design begins.	Record	✓
Site hazardous material/substances investigation	Narrative Text, Diagrams/Table		Record	✓
Topography map and analysis of city utility services available to site	Narrative Text, Diagrams/Table CAD version	To be done before detailed design begins.	Revision	✓
Master Plan	Document Type/Scale	Phase 1 Design development	Phase 2 Construction documents (scale)	Phase 3 Bidding documents
Master plan	Detailed drawing	1:500	Revision	✓
Access road/Pedestrian path/Parking design	Detailed drawing	1:500	Revision	✓
Grading/cartogram	Detailed drawing		1:500	✓
Landscape design	Detailed drawing	1:100/200	Revision	✓
Distance Plan	Detailed drawing		1:300/500	

Site Survey	Document Type/Scale	Design development	Construction documents	Bidding documents
Urban planning & Integration	Narrative Text, Diagrams/Table	✓	Revision	✓

45. The architectural design comprises all documents for approvals and permits from the appropriate local authorities. Following drawing list are minimum requirements, but is not limited to the following documents:

**Table 4: Architectural Design**

Architectural Design	Document Type/Scale	Design development	Construction documents (scale)	Bidding documents
Building engineering physics report	Narrative Text, Diagrams/Table	✓	Revision	✓
Design Description and technical data	Narrative Text, Diagrams/Table	✓	Revision	
Layouts of basement, ground, and upper floor levels	Detailed drawing	1:50/100	Revision	✓
Section/Cross section	Detailed drawing	1:50/100	Revision	✓
Elevations	Detailed drawing	1:50/100	Revision	✓
Reflected ceiling plan	Detailed drawing	1:50/100	Revision	✓
Furniture Plans	Detailed drawing		1:50/100	✓
Entrance and canopy details	Detailed drawing		1:10/25	✓
Façade details	Detailed drawing		1:10/25	✓
Ramp details	Detailed drawing		1:10/25	✓
Toilet Plans/Section/Elevations	Detailed drawing		1:25/50	✓
Floor finish plan	Detailed drawing		1:25/50	✓
Floor details				✓
Roof finish details	Detailed drawing		1:10/25	✓
Door and window schedules	Detailed drawing		1:10/25	✓
Door head, jamb, and sill	Detailed drawing		1:10/25	✓
Door handle details	Detailed drawing		1:10/25	✓
Handrail details	Detailed drawing		1:10/25	✓
Tactile Paving details	Detailed drawing		1:10/25	✓
Universally accessible equipment details	Detailed drawing		1:10/25	✓
Architectural Specifications	Narrative Text, Diagrams/Table	✓		✓
Bill of Quantities	MS Excel Table	✓		✓

46. The structural Design comprises all documents for approvals and permits from the appropriate local authorities. This comprises, but is not limited to the following documents.

**Table 5: Structural Design**

<b>Structural Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Drawing list, explanation note	Narrative Text, Diagrams/Table	✓		✓
Foundation settling drawing	Detailed drawing		1:100	✓
Foundation layout	Detailed drawing		1:50/100	✓
Foundation section, details, quantity estimation	Detailed drawing		1:10/20/25/50	✓
Plan of trenches in foundation, section, and details	Detailed drawing		1:20/25/50/100	✓
Layout, section, reinforcement, quantity estimation of 1st floor slab, outside ramp	Detailed drawing		1:20/25/50/100	✓
Internal ramp, plan, section, detail, and quantity estimation	Detailed drawing		1:10/20/25/50	✓
RC frame layout and quantity estimation	Detailed drawing		1:20/25/50/100	✓
RC column reinforcement plan, section, detail, quantity	Detailed drawing		1:10/20/25/50	✓
RC beam reinforcement plan, section, detail, quantity	Detailed drawing		1:10/20/25/50	✓
RC slab layout, reinforcement, section, and quantity estimation	Detailed drawing		1:20/25/50/100	✓
Masonry wall mesh and fixing layout, details, and quantity estimation	Detailed drawing		1:20/25/50/100	✓
RC lintel layout, section, quantity estimation	Detailed drawing		1:20/25/50/100	✓
Steel frame layout, section, details and quantity estimation	Detailed drawing		1:20/25/50/100	✓

NOTE: \*The seismic and soil condition differ to each site. Additional drawings are required for structural designs.

**Table 6: Heating, Ventilation and Air-conditioning design**

<b>Heating, Ventilation and Air-conditioning design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Room Environmental Design Calculations	Narrative Text, Diagrams/Table	✓	✓	✓
HVAC System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
HVAC Control System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
HVAC Duct Riser Diagrams	Drawing/Schematic	1:100/200	1:50/100	✓



<b>Heating, Ventilation and Air-conditioning design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Specialist Air Handling & Ventilation Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Main Ducts/Pipe Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓
Schedules of Equipment	Narrative Text, Diagrams/Table	✓	✓	✓
Mechanical Systems Specifications	Narrative Text, Diagrams/Table	✓	✓	✓
Mechanical Systems Bill of Quantities	MS Excel Table	✓	✓	✓

**Table 7: Electrical Design**

<b>Electrical Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Room to Room Electrical Service Requirements	Narrative Text, Diagrams/Table	✓	✓	✓
Main Electrical Power Distribution Systems 3Ø, LV & ELV	Drawing/Schematic	1:100/200	1:50/100	✓
Earthing Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Essential Electrical Services	Drawing/Schematic	1:100/200	1:50/100	✓
Non-essential Electrical Services	Drawing/Schematic	1:100/200	1:50/100	✓
Emergency Power Supply Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Distribution Board/Panel Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Motor Control Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Main Cable Ducts/Trays Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Lighting Systems & Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Catering & Laundry Systems Schematics	Drawing/Schematic	1:100/201	1:50/100	✓
Lightning Protection Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Electrical Systems Specifications	Narrative Text, Diagrams/Table	✓	✓	✓
Electrical Systems Bill of Quantities	MS Excel Table	✓	✓	✓

**Table 8: Water Supply and Plumbing design**

<b>Water Supply and Plumbing design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Chilled Water Riser Diagrams	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Strategy & Safety Systems Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Service Dry Riser Diagram	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Sewage Systems	Drawing/Schematic	1:100/200	1:50/100	✓
Internal Drainage System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Hot & Cold Water Distribution System Schematic	Drawing/Schematic	1:100/200	1:50/100	✓
Treated Water Supply & Distribution System Schematics	Drawing/Schematic	1:100/200	1:50/100	✓
Plant Room Layouts	Drawing/Schematic	1:100/200	1:50/100	✓
Main Ducts/Pipe Routing Schematics & Sleeved Penetration Drawings	Drawing/Schematic	1:100/200	1:50/100	✓
Schedules of Equipment	Narrative Text, Diagrams/Table	✓	✓	✓
Specifications	Narrative Text, Diagrams/Table	✓	✓	✓
Bill of Quantities	MS Excel Table	✓	✓	✓

**Table 9: Internet and Telecommunication, Automation and Fire safety**

<b>Mechanical Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
IT and security	Narrative Text, Diagrams/Table/Schematic drawing	✓	✓	✓
BMS	Drawing/Schematic	1:100/200	1:50/100	✓
Fire Strategy & Safety Systems & Layouts	Drawing/Schematic	1:100/200	1:50/100	✓

**Table 10: External Mechanical, Electrical and Plumbing engineering work**

<b>Mechanical Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
Permission for connection to power grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to Sewage grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to Water grid	Narrative Text, Diagrams/Table		1:50/100	✓
Permission for connection to heating grid	Narrative Text, Diagrams/Table		1:50/100	✓

<b>Mechanical Design</b>	<b>Document Type/Scale</b>	<b>Design development</b>	<b>Construction documents (scale)</b>	<b>Bidding documents</b>
External electrical design and details	Detailed drawing		1:50/100	✓
External water supply and sewage system, connection details	Detailed drawing		1:50/100	✓
External heating design	Detailed drawing		1:50/100	✓
External telecommunication design and details	Detailed drawing		1:50/100	✓
Technical specification for MEP works	Narrative Text, Diagrams/Table			✓
Bill of quantities	Narrative Text, Diagrams/Table			✓
Estimating for External MEP Construction work	Narrative Text, Diagrams/Table			✓

NOTE: \*The grading of the building differs to each site. The connectivity of external MEP differs to the distance of the sources. Additional and design adjustments are required.

**Table 11: Construction and Supervision contract administration**

<b>Construction contract administration</b>	<b>Document Type/Scale</b>
Construction Inspection and Review	<i>Narrative Text, Diagrams/Table</i>
Progress Reports/Evaluation	<i>Narrative Text, Diagrams/Table</i>
Process Certificates for Payment	<i>Certificates</i>
Review of Shop Drawing Product Data/Sample	<i>Narrative Text, Diagrams/Table</i>
Change Orders	<i>Change Orders</i>
Substantial Performance Report and Certification	<i>Narrative Text, Diagrams/Table</i>
Client Consultation	<i>Narrative Text, Diagrams/Table</i>
Interior Construction Inspection	<i>Narrative Text, Diagrams/Table</i>
Full time Project Representation	<i>Narrative Text, Diagrams/Table</i>
Administration of Separate Contracts	<i>Narrative Text, Diagrams/Table</i>
Structural Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Mechanical Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Electrical Inspection/Reports	<i>Narrative Text, Diagrams/Table</i>
Record Drawings	<i>Recordings</i>
Pre-installation F&E Inspection	<i>Narrative Text, Diagrams/Table</i>
Civil Construction Inspection	<i>Narrative Text, Diagrams/Table</i>
Landscape Inspection	<i>Narrative Text, Diagrams/Table</i>
Detailed Cost Accounting	<i>Narrative Text, Diagrams/Table</i>
Commissioning procedures	<i>Narrative Text, Diagrams/Table</i>

## Supplementary

47. Boiler house – if needed.
48. Rainwater tank, pump, and filter details.

## D. TEAM COMPOSITION & QUALIFICATION REQUIREMENTS FOR THE KEY EXPERTS

49. General requirements for the Consultant are below:

- (i) The firm must have a Mongolian Special Licenses of Building Drawing (License No: 1.2.2 or 1.2.3 and 1.2.8) from the Construction Development Centre by the Ministry of Construction and Urban Development.
- (ii) The Consultant shall assemble a team of professionals with appropriate qualifications and expertise in similar projects, to satisfy the requirements of the scope of work both in terms of skills and time allocations.

50. The Consultant may propose other supporting staff required to accomplish the tasks outlined in the TOR. It is the Consultant's responsibility to select the optimum team and to propose the professionals, which they assess to meet the consultancy needs.

51. The total person-months estimated for detailed engineering design team are 46 person-months. The person-months (PM) estimation is given in the Table 12.

**Table 12: Estimated Person-Months for Key Experts**

No	Key Experts	Number of Experts	Person/month input		Total
			Home	Field	
1	Team Leader/National Architect	1	4.00	1.00	5.0
2	CAD Drafter	1	3.00	1.00	4.0
3	Structural Engineer	1	3.00	1.00	4.0
4	Water Supply and Wastewater Engineer	1	3.00	1.00	4.0
5	Electrical Engineer	1	3.00	1.00	4.0
6	Quantity Surveyor/Budget Estimator	1	3.00	1.00	4.0
7	Road Engineer and traffic management specialist	1	2.00	1.00	3.0
8	Resident Engineers (3 persons for construction supervision)	3	0.00	18.00	18.0
<b>TOTAL</b>		<b>11</b>	<b>21.00</b>	<b>25.00</b>	<b>46.00</b>

52. The qualifications and experience required for key team members are indicated below.

53. **Team Leader/National Architect** (national, 5 months). The consultant will have (i) Master's degree or higher in engineering and design, or related area, (ii) Professional experience in preparation of social care, community-based facilities, multi-purpose use space such as well as office building design and drawings, Community, (iii) Advanced knowledge of Universal Design Principles in Space Planning, (iv) Experience in planning of architectural design, drawings of hospital building and rehabilitation center, access roads, and infrastructure, (v) 5 years' experience in project management, (vi) A knowledge or experience in architectural drawing in Mongolia would be advantageous, (vii) Proficiency in English language and effective communication and interpersonal communications skills are mandatory.

54. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Ensure implementation of the project within time and cost.
- (ii) Maintain liaison with MET, Contractor as and when required.
- (iii) Identification, assessment and finalization of the various project requirements and parameters on the basis of the required functions of universal design in consultation with the client.
- (iv) Lead the planning and design in design of the physical facilities.
- (v) Advising the project team in making appropriate assessment of information, data and forecasting demands of users, facilities, services and equipment in respect of architectural planning needs.
- (vi) Prepare of master plan on the basis of studies to be conducted on present and future space and master planning requirements.

- (vii) Prepare of architectural designs including space planning keeping in view the equipment and future layouts and other requirements of the client to achieve an efficient interrelationship of functions.
- (viii) Guide the project team in identifying special equipment in discussion with the client.
- (ix) Guide management of supervision specially to ensure attainment of architectural aspects.
- (x) Undertake architectural, schematic and concept design for assigned projects, with the ability to undertake design details (e.g., windows, doors) including preliminary design calculations, preliminary sketches/drawings, preliminary specifications and other required design information.
- (xi) Liaise with engineers and other disciplines to ensure coherent and correct, as well as aesthetically pleasing design.
- (xii) Make amendments to the design as required.
- (xiii) Undertake detailed design work on projects as required, and fully check and ensure designs are properly validated as per the approved design process.
- (xiv) Undertake site visits as required.
- (xv) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members as directed by International project Architect.
- (xvi) Ensure that all drawings are reviewed and checked by International Project Architect to external issue.
- (xvii) Produce architectural design briefs, documents, reports and specifications as required.
- (xviii) Produce architectural drawings utilizing Revit and/or AutoCAD as appropriate for the project.

55. **CAD Drafter** (national, 4 months). The consultant will have (i) Qualified degree in architecture or engineering, (ii) Professional experience in architectural presentations using the CAD and in the preparation of design of drawings.

56. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Assist the Project Architect and Architect in the planning and designing facilities.
  - (ii) Assess space planning for different facilities and assist in maximizing space utilization.
  - (iii) Prepare architectural presentations using the CAD and oversee CAD production
  - (iv) Assist in the preparation of design and production of drawings
  - (v) Provide inspection during construction as necessary to assist the Team Leader in conducting quality audit and administration of QA plan

57. **Structural Engineer** (national, 4 months). The consultant will have (i) Graduate degree qualified in Structural or Civil Engineering, (ii) Be a licensed Structural Engineer or Civil Engineering, (iii) Professional experience in engineering design and construction supervision, particularly in preparation of structural drawings, structural calculations according to Mongolian and international standards and legislation, quality assurance and quality control, building and site layout surveys, on site material testing, concrete mix design, planning and scheduling, safety engineering, and cost engineering and budgeting, (iv) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy, (v) Advanced knowledge of Structural Engineering Analysis & Design software packages (preferably SAP 2000) as well as CAD and general office software packages, (vi) Intermediate knowledge of International Building Codes

and Design standards, (vii) Intermediate leadership skills with the ability to manage teams with a strong results-orientation, (viii) Intermediate written and spoken communication skills with a minimum basic understanding of English, and (ix) Previous experience within design teams and on Author's Supervision duties.

58. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Careful consideration of seismic and geological conditions for each location.
  - (ii) Undertake structural calculations and analysis and produce economic and efficient buildable designs.
  - (iii) Liaise with the project architects, other engineering disciplines, sub-consultants and clients are required.
  - (iv) Undertake site visits as required.
  - (v) Carry out detailed structural design and preparation work for foundation.
  - (vi) Undertake quality assurance checking of drawings and calculations produced by self and that of other team members as directed by Team Leader.
  - (vii) Coordination of the works of structural design engineers for timely completion of the structural design.
  - (viii) Ensure that all drawings are reviewed and checked by Team Leader prior to external issue.
  - (ix) Produce structural design briefs, documents, reports and material specifications as required for civil construction.
  - (x) Supervise all civil construction works.
  - (xi) Assist Quantity Site Engineer during the design, construction and post construction phases.
  - (xii) Monitor post construction activities as and when required.

59. **Water Supply and Wastewater Engineer** (national, 4 months). The consultant will have (i) Graduate degree in Plumbing systems, (ii) Extensive experience in hospital and rehabilitation center sanitary systems including clean water, sewage systems, sanitary drainage and water treatment systems, (iii) Years of Experience: Minimum of 5 Years Post-Graduate Experience, (iv) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy, (v) Advanced knowledge of design software in relation to MEP design including AutoCAD and MS office software such as Excel, Word, PowerPoint, MS Project, (vi) Site inspection or supervision experience on building construction projects, (vii) Intermediate knowledge of International Building Codes and Design Standards, (viii) Intermediate written and spoken communication skills with a minimum basic understanding of English, (ix) Previous experience within design teams and on Author's Supervision duties.

60. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Prepare designs, documentation, cost estimates and phasing of work in respect of water supply, plumbing, sanitary and drainage systems
  - (ii) Provide inspection of the works during construction
  - (iii) Assist the Team Leader and Site Engineer in the efficient implementation of the project
  - (iv) Assist HVAC and Building Services Expert
  - (v) Assess requirements for elevators, air-conditioning and ventilation, water supply and firefighting works, determine baselines and design parameters
  - (vi) Undertake design of lifts, air-conditioning and mechanical ventilation system, water supply and fire detection/fighting system
  - (vii) Supervise preparation of mechanical design drawings

- (viii) Undertake supervision of all mechanical works at site and attend to any revision of design, if required, during supervision

61. **Electrical Engineer** (national, 4 months). The consultant will have (i) Graduate Degree in Electrical Engineering, (ii) Be a licensed Electrical Engineer or be eligible to become a licensed Electrical Engineer, (iii) Professional experience working within an Engineering consulting environment such that electrical engineering for building, building automation, process electrification and automation, programming and instrumentation design, (iv) Experience in finding power source alternatives for saving electricity, emergency power supplies, fire detection systems, lighting, telephone and paging systems, elevator control, (v) years of Experience: Minimum of 5 Years Post-Graduate Experience, (vi) Intermediate time management and organizational skills with the ability to self-manage billable hours and ability to undertake own work with a high degree of efficiency and accuracy, (vii) advanced knowledge of design software in relation to MEP design including AutoCAD and MS office software such as Excel, Word, PowerPoint, MS Project, (viii) site inspection or supervision experience on building construction projects, (ix) intermediate knowledge of International Building Codes and Design Standards, (x) intermediate written and spoken communication skills with a minimum basic understanding of English, and (xi) previous experience within design teams and on Author's Supervision duties.

62. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Ensure all duties are undertaken within the required timeframe.
- (ii) Assist the investigation teams during design services.
- (iii) Undertake planning and detail designs of internal and external electrical works including area lighting and emergency power supply system.
- (iv) Prepare concept, basic and detail design of electrical drawings in Auto CAD or Revit, ensuring that the design are undertaken in accordance with local codes and international standards.
- (v) Liaise with the project architects, other engineering disciplines, sub-consultants and clients as required.
- (vi) Undertake site visits as required.
- (vii) Produce design specifications, design reports and to finalize all designs calculations as required.
- (viii) Supervise preparation of BOQ, cost estimates and specifications for electrical works.
- (ix) Review shop drawings and material submission from contractor/construction manager.
- (x) Liaise with contractors and undertake site inspection duties as required.
- (xi) Ensure quality control, cost control, measurement of works, testing of materials, Verification of measurement of records, certification of bills, monitoring of progress and recommending appropriate actions, supervising finalization of as-built drawings.
- (xii) Ensure that all drawings are reviewed and checked before submission to approval of Expertise and Fire Safety.

63. **Quantity Surveyor/Budget Estimator** (national, 4 months). The consultant will have (i) Master's degree or higher in engineering and design, or related area; (ii) Professional experience supervising all activities of the project including pre-construction activities, survey, soil investigations, specially to ensure attainment of all works, monitoring of post construction work; (iii) Experience in testing of materials and works at site or at suitable laboratories; and (iv) Knowledge in interpretation of drawing, specifications, conditions of contract to the contractors/suppliers.

64. Specific tasks and responsibilities will include, but are not limited to the following:
- (i) Guiding the design and construction supervision team
  - (ii) Advising the project team in making appropriate assessment of field data and forecasting demands of users, facilities, services and equipment in respect of survey and soil investigations
  - (iii) Overseeing and supervising all activities of the project including pre-construction activities, survey, soil investigations, supervision of construction including management and monitoring
  - (iv) Guiding, supervising and coordinating activities of other project team members
  - (v) Guiding management of supervision specially to ensure attainment of all works
  - (vi) Overseeing progress monitoring, cost and quality control
  - (vii) Monitoring of post construction work
  - (viii) Supervising all activities of the project including survey, soil investigation and construction work
  - (ix) Initiate testing of materials and works at site or at suitable laboratories
  - (x) Interpret drawing, specifications, conditions of contract to the contractors/suppliers
  - (xi) Verify records of measurements of works done
  - (xii) Scrutinize & certify contractor's/supplier's bills for payment
  - (xiii) Check and certify as-built drawings
  - (xiv) Supervise progress of works and recommend appropriate actions and will prepare weekly and monthly progress report
65. **Road engineer and traffic management specialist** (national, 3 months). The Consultant should have (i) a Bachelor's or graduate degree in road engineering, (ii) At least 10 years of professional experience in transport sector projects preferably with projects that include roads, bridges and tunnels is required, (iii) Experience of supervising road works during construction period and testing of materials and works at site or at suitable laboratory building are preferable, (iv) Excellent knowledge of Mongolian construction standards, norms and regulations, (v) Excellent knowledge in interpretation of drawing, technical specifications, conditions of contract to the suppliers, (vi) experience in Project Management, Construction Supervision and Contract Administration, and (vii) Good command of English.
66. The Road engineer and traffic management specialist shall take overall responsibility to support the successful implementation of the project-funded carparks and traffic management in the project protected areas. Specific tasks include but are not limited to the following:
- (i) Prepare detailed designs for the car parks. Ensure that: (a) the sites are not based on permafrost, (b) the designs minimize impacts to the environment and climate, and maximize resilience to climate change. This will include, but not be limited to: selection of materials that are durable; designs which minimize soil excavation and instead consider elevation of the road base, to improve protection and insulation of the subsurface layer.
  - (ii) Identify and design small supporting facilities needed for each carpark to improve public safety and halt and reduce off-road impacts to habitats e.g., speed limit signs, information signs, speedhumps, barrier entry gates.
  - (iii) Prepare a brief traffic management plan for each project protected area. This will include: (a) map of the road network, (b) establishment of legal speed limits, considering needs tailored to the protected areas e.g. risk of collisions with wildlife, (c) clear demarcation of locations for public vehicle access and locations which are



restricted from public vehicle access, (d) travel times between the site and other project facilities.

- (iv) Costs for O&M of the carparks and small associated signs and facilities.
- (v) Day-to-day construction supervision through the Resident Engineers and other site staff; review of daily reports prepared by site staff.
- (vi) Prepare and maintain progress monitoring schedule.
- (vii) Undertake appropriate due diligence on the detailed designs, propose amendments where appropriate to reflect improved road safety and climate resilience, and ensure these amendments are incorporated into the final detailed design
- (viii) Any other tasks as reasonably requested by the Client, Team Leader, Deputy Team Leader to successfully complete the project.

67. **Resident Engineers** (3 experts, 18 months). The consultant should have (i) degree qualified in engineering or equivalent work experience (supervisor level), (ii) 5+ years of experience in construction/site environment including main contractor works, (iii) Intermediate time management skills with the ability to work under pressure and to tight timeframes on occasion, (iv) Basic written and verbal communication skills, with the ability to collate materials into a template report, (v) Basic working knowledge of software such as MS Word, Excel and AutoCAD, (vi) Team player and able to adapt to changes within the construction process, (vii) Fluency in written and spoken English is preferred.

68. Specific tasks and responsibilities will include, but are not limited to the following:

- (i) Review and comment on drawing specifications and any other documents that may be required for the project.
- (ii) Review and inspect the contractor capability in term of personal, equipment and other conditions with regard to the contract/bid conditions and legal requirements
- (iii) Where applicable provide suggestions or observations in respect to the element of the works.
- (iv) Assist with the development of the inspection process for the C&S/Finishing works at site.
- (v) Record accurate inspections carried out in line with the site documents.
- (vi) Advise line manager and record where applicable any works not carried out in accordance with the drawings and specifications,
- (vii) Check the work done by the contractor.
- (viii) Assist with the H&S at site and advise line manager of any infringements.
- (ix) Assist where required in the development of the commissioning procedures that are required for the project.
- (x) Review and comment in respect to as-built drawings, and operations manuals.
- (xi) Provide support for the functional area of the project within which they are allocated, or for the project team as a whole, as required by the structure of the project team.
- (xii) Monitor and advise line manager of all of the works within their specific area of concern.
- (xiii) Any other duties that may be assigned as part of the construction works.

## **E. REPORTING REQUIREMENTS AND TIME SCHEDULE FOR DELIVERABLES**

69. The Consultant will directly report to the PIU project coordinator who will monitor contract implementation and the quality of the deliverables with the support of PIU M&E specialist under close supervision of project director. The project implementation unit (PIU) and the MET will

evaluate the consultant's performance based on the agreed deliverables and approve the invoices for the reviewed and accepted deliverables.

70. Within 10 working days of the commencement of the Contract, a detailed work plan in accordance with scope of the work will be delivered to the PIU and approved by MET. The plan will serve as the basis for measuring progress on desired outcomes and goals for the entire consultancy service. Detailed work plan shall include Reporting Requirements and Time Schedule for Deliverables.

71. At a minimum, it should include the following:
- format, frequency, and contents of reports. Content will indicate what deliverables will be included in the report.
  - number of copies, and requirements to electronic submission if any (or on flash disk). Final reports shall be delivered in flash disk in addition to the specified number of hard copies.
  - dates of submission for each report.
  - persons (indicate names, titles, submission address) to receive them.
72. Following reports will be provided or modified in consultation with the MET:
- Inception report after 1 month of consultant's mobilization
  - Monthly and quarterly reports reporting the progress of the outputs within the above scope of work.
  - Yearly report within 10 days of first month of the year.
  - Final report by end of the contract.
  - Any other deliverables reasonably requested by the PIU and MET.

73. The consultant is required to PIU various reports/documents including among others:

No	Types of Reports	Date of Submission	Number of copies
1	Inception report	Within 1 month after commencement of supervision	2 copies
2	Weekly progress report	Each week after commencement supervision	2 copies
3	Monthly progress report	Each month	2 copies
4	Defect liability Period Report	Within 28 days of issue of certificate of completion	4 copies
5	Project Completion Report	End of the consultant's work	4 copies
6	Monitoring and Evaluation Reports	Three months after project completion report	4 copies
7	Project Performance Management Report	Before, during and end of project implementation	4 copies

74. The supervision progress report are as follows:
- Inception report will cover at a minimum an assessment of the project procurement status, implementation delays and recommended corrective actions (if any), the status of design development for the installations nominated as Provisional Sum in the construction contract.
  - Weekly progress report shall include details of the works carried out during the previous week, the problems encountered or anticipated, information on outstanding claims complete with summaries of both Contractor and Employer compliance with contract time notification periods. The report will document the status of design

development for the installations nominated as Provisional Sum in the construction contract. The report will detail the steps taken or the recommendations given to address the given circumstance, and the report shall capture financial and physical progress to date.

- 3) Monthly progress report shall comprehensively cover all project aspects: the overall project progress, updates on implementation arrangements or changes in project scope, contract awards and disbursement status, payments to the consultants and contractors, progress of works, status of training programs, difficulties and delays encountered or anticipated, and remedial actions taken or suggested, and summarize the compliance status related to the grant/loan covenants and social and environmental safeguard;
- 4) Progress reports will include an assessment on construction progress against program, an indication of key outstanding issues, and an updated development program (if relevant) for key project activities. Copies of each report will be submitted to PIU in English. The Consultant shall transmit an electronic version of the reports to ADB on issue of the reports to the Employer.
- 5) Project completion report shall include a detailed description of all the work by items of technical and non-technical matters, as-built drawings, economic analysis, financial and disbursement data, analyses, difficulties, and delays encountered and reasons, and remedial actions taken, the overall progress of the Project.

75. All reports will be reviewed by the MET. The Consultant shall respond in writing to the comments of the EA and IA or any of the reviewing bodies. The Consultant shall meet with these agencies, as necessary, to resolve any problems or concerns which may surface during the review. The Consultant shall have their own internal review system to review drawings prior to EA and IA's approval. The Consultant shall become familiar with local holidays and customs so that in setting submittal schedules, the project and EA and IAs can take full advantage of the time periods scheduled for reviews and approvals.

76. Drawings prepared and submitted by the Consultant shall be to the standard size of A0, A1, A2; and one-half size reductions as may be required by the MET. The scale of all drawings is to be determined by mutual consent of the EA, IAs and the Consultant prior to the commencement of each project phase, at which time the Consultant shall also identify the number of drawings to be produced. All drawings information should be clear and legible. The Consultant shall submit the final drawings in digital format approved and reviewed by the MET. State expertise approved final drawings (three hardcopies) will be submitted to the MET in English and Mongolian version.

## **F. CLIENTS INPUTS AND COUNTERPART PERSONNEL**

77. The following staff will be assigned by the Client to support the Consultant's team:
  - MET DPAM and DTPC Counterpart Specialists
  - All PIU staff
78. Counterpart Contribution to be provided by the Client:
  - Support to obtain necessary approvals regarding external utilities (power, heating, water and sewage, communication, IT) from relevant authorities (as appropriate).
  - Support to arrange meetings with government organizations.
  - Support to obtain relevant information and negotiations with Clients.
79. The Client will provide the following documents and papers to facilitate preparation of the proposals:

- Previous data, TA consultant's report

## **APPENDIX A to the TOR**

### **UNIVERSAL DESIGN PRINCIPLES**

1. The following design consideration for each types of disability must be reflected on building design development and detail design stages. The Consultant must follow the Synthesis of the standards ISO/IEC Guide 71:2014

#### **1) Sensory Abilities and Characteristics**

- (i) Multiple means of information presentation such as auditory or tactile to supplement or substitute for visual information.
- (ii) Appropriate size, contrast, form, luminance, lighting and viewing distance in relation to context of use.
- (iii) Avoidance of glare; redundant forms of coding to supplement or substitute for information conveyed with color coding, e.g. shape or texture coding.
- (iv) Appropriate physical construction and properties of fonts such as size, spacing, with or without serif, upright form or italics, and light, medium or bold appearance within a specific context of use.
- (v) Visual information and controls placed in a prominent position, or a positioning that is flexible, adjustable, or duplicated.
- (vi) Avoidance of flicker rates with flashing or blinking text, objects or video screens, especially those that can trigger visually induced seizures.
- (vii) Distinctive form to facilitate identification of a product/environment and/or parts of a product/environment (including orientation, e.g. top/bottom, front/back, entrance/exit).
- (viii) Colored markings that draw attention to steps and potentially dangerous places.
- (ix) Tactile indicators that draw attention to stairs, platform edges and pedestrian crossings.
- (x) Traffic lights equipped with acoustic signals to indicate when pedestrians can cross streets safely.

#### **2) Hearing Consideration**

- (i) Multiple means of information presentation such as visual (text or pictures) or tactile to supplement or substitute for auditory information.
- (ii) Appropriate volume, pitch and frequency of spoken announcements, warnings and warning sounds in relation to context of use.
- (iii) Adjustable volume over a wide range and with multiple frequencies.
- (iv) Avoidance of sudden changes in volume of auditory signals.
- (v) Constant signal-to-noise ratio between the level of an announcement and that of the background noise.
- (vi) Group assistive listening devices or communication systems such as induction loops, infrared or radio systems.
- (vii) Emergency announcements that are visual with text, and where appropriate, in sign language, as well as of an appropriate volume and pitch decrease risk for persons with hearing impairment.
- (viii) A good acoustic environment, that reduces background sounds and promotes sound that is important to be heard.

- (ix) Accommodation for and compatibility with relevant assistive products, assistive technology and supports.

### **3) Touch Functions**

- (i) Multiple means of information presentation such as visual or auditory information to supplement or substitute for tactile information or biometric controls.
- (ii) Multiple means of control such as eye and voice control, sensors and automatic or remote controls.
- (iii) Avoidance of sharp and uneven points/edges/surfaces.
- (iv) Avoidance of excessively hot or cold surfaces which can be touched (even inadvertently).
- (v) Distinctive form to facilitate identification of a product and its parts, which in turn can facilitate use/handling/assembly.

### **4) Taste Functions And Smell Functions**

- (i) Multiple means of information presentation to supplement or substitute for information gained by taste and smell functions.
- (ii) information in labeling on ingredients, use by and expiration dates.
- (iii) Visual and auditory signals to alert people to the presence of smoke or dangerous chemicals.
- (iv) Information or labeling to warn about strong smell or taste.
- (v) Provision of minimal odors and taste, except where necessary (e.g. odors and taste are expected in foods).

### **5) Immunological System Functions**

- (i) Avoidance of inclusion of allergens, sensitizing substances and chemicals known to cause hypersensitivities in products, foodstuffs and environments.
- (ii) Appropriate information and labeling of ingredients/contents (including allergens, sensitizing and chemical substances known to cause hypersensitivities) in accessible format, the provision of this information being mostly subject to national or international regulation and which can include
- (iii) A list of ingredients,
- (iv) A separate statement that declares any major allergens or sensitizing substances included, and warnings such as information regarding any change in composition of significance related to allergens and sensitizing substances.
- (v) Ventilation systems that filter out respiratory allergens.
- (vi) Prevention of mold growth, e.g. by controlling level of indoor humidity, and following appropriate cleaning routines.
- (vii) Avoidance of dust-collecting furnishings in public areas.
- (viii) Availability of “allergy-free” areas such as smoke-free and allergy-free rooms in hotels, and animal-free areas in public transportation.

### **6) Physical Abilities and Characteristics**

- (i) Additional space in built environments.
- (ii) Space for clothing and personal protective equipment.
- (iii) Multiple size offerings and / or adjustability.
- (iv) Height clearance for tall persons.
- (v) Width clearance for large persons.
- (vi) Step heights and reach distances for small persons.
- (vii) Space for assistive products, assistive technology, service animals and accompanying persons.

- (viii) Load capacities of system components appropriate for larger mass (weight) requirements.
- (ix) Systems with a clear line of sight to important components for seated or standing users.
- (x) Systems with a comfortable reach to all components for seated or standing users.
- (xi) Grip sizes in systems components that accommodate variations in user sizes and shapes.

## **7) Movement: Functions Of Upper Body Structures And Fine Hand Use Abilities**

- (i) Manufacturing materials of lighter weight or lower density to reduce the weight of products.
- (ii) Products shaped to facilitate easy grasping, lifting and carrying with either or both hands.
- (iii) Manual controls that allow a comfortable grip, avoid the need for twisting of the wrist, and offer minimal resistance.
- (iv) Controls that avoid the need to manipulate multiple controls at the same time.
- (v) Non-slippery surface that aids gripping and manipulating for people with limited dexterity.
- (vi) Textured surfaces, to increase friction, and facilitate the application of force.
- (vii) Design and spacing of controls that guard against inadvertent activation of a control other than the one intended.
- (viii) Containers that allow easy opening and closing with reasonably low attainable operating force.
- (ix) Simple and straightforward sequences for opening of packaging and assembling, installing or operating a product.
- (x) Avoidance of simultaneous double movements, e.g. pushing and twisting.
- (xi) Alternative controls for accommodation of upper body movement impairments.

## **8) Movement: Functions Of Lower Body Structures**

- (i) Slip-resistant, threshold-free layout, e.g. in buildings and paved outdoor environments.
- (ii) Avoidance of sudden changes in surface level, obstacles, bumps or protrusions.
- (iii) Equipment, such as elevators and other lifting systems.
- (iv) Ramps with appropriate slopes and adequate space to allow for approach and maneuvering, and use of wheelchairs, walking frames, or walking aids.
- (v) Stairs with appropriate dimensions and banisters or hand grips alongside.
- (vi) Ample time for persons with mobility limitations to pass through automatic doors and to use pedestrian crossings.

## **9) Muscle Power And Muscle Endurance**

- (i) Use of power grip (whole hand) which requires less effort than pinch grip (between thumb and index or middle finger).
- (ii) Appropriate handling characteristics (e.g. size and weight) for systems that involve lifting, holding, carrying or opening.
- (iii) Avoidance of long handling time and unnecessary repetition of operations.
- (iv) Avoidance of long service lines that cause people to stand unsupported for long periods of time.
- (v) Alternative means of control in vehicles to accommodate lower body movement.

## **10) Voice and Speech**

- (i) Alternative forms of communication such as via text, facial expressions, hand movements or signs, body postures, and other forms of body language.
- (ii) Augmentative and alternative communication based on symbols, aids, techniques, and/or strategies.
- (iii) Support for the use of assistive products such as speech synthesizers and communication amplifier and video communication.
- (iv) Provision of alternative means to interact with interactive voice systems and intercom systems, such as real-time text.

## 11) **Cognitive Abilities**

- (i) Information about time and place.
- (ii) Schedules, structures, signals to indicate start and termination of activities.
- (iii) An overview that informs the user what to expect before providing any details.
- (iv) Appropriate feedback/cues/reminders that hold the user's attention and give support through a process.
- (v) Feedback that is adjustable to the needs and preferences of users.
- (vi) Environments and presentations that are stimulating but also avoid distractions.
- (vii) Systems and procedures that adapt to individual situations, abilities and preferences.
- (viii) Similar arrangement/layout and design of feedback and control logic on products of a similar type.
- (ix) Similar design of feedback and control logic on products of a similar type.
- (x) Error-tolerant operating sequences.
- (xi) Flexible time period for assimilation of information and response.
- (xii) Simple and straightforward sequences for opening of packaging and assembling, installing or operating a product.
- (xiii) Information provided in multiple formats, e.g. text is read out, diagrams are provided in addition to text.
- (xiv) Information and instructions that are easy to understand in the language of the user.
- (xv) Explicit information on expectations placed on the user.
- (xvi) Systems that can be used (as far as possible) without an instruction manual.
- (xvii) Procedures that facilitate learning (learning by doing is generally easier than memorizing instructions, repetitions).
- (xviii) Multiple means of information presentation (e.g. text is read out, widely recognized symbols);
- (xix) Emergency evacuation routes designed so that they are intuitive and easy to follow which clearly designate any alternative routes that accommodate for persons with disabilities;
- (xx) Accommodation for/compatibility with relevant supports and assistive products and assistive technology.

## **APPENDIX B to the TOR**

### **LOCAL BUILDING CODES, REGULATIONS AND STANDARDS**

1. The Consultant will comply with all relevant domestic regulatory requirements and international standards, including but not limited to the following.

#### **1) Norms On Architectural Design**

- (i) BNbD: 30-01-04 /CCM 30-01-04/ Norm and Regulation for Urban Resettlement planning and building construction, Decree No.130 by the Ministry of infrastructure, 2004
- (ii) BD 31-101-04 /31-104-04/ Handbook for barrier-free construction planning for the handicapped, Decree No.17 by Director of Construction, Urban Development and Public Utilities Office, 2004
- (iii) BD 31-112-11 Building regulations of space planning for the requirements of handicapped people, Decree No.256 by the Ministry of Construction, Urban Development and Transportation.
- (iv) Other related norms and regulations

#### **2) Norms On Structural Design**

- (i) BNbD: 2.01.07.90 Load and effect
- (ii) BNbD: 22.01.01\*2006 Building code of seismic regions
- (iii) BNbD: 2.02.01.94 Ground and Foundation code for building design work
- (iv) BNbD: 52.02.05 Cast in situ concrete and reinforced concrete
- (v) BNbD: 53.02.05 Steel Structure
- (vi) BNbD: 2.03.02.90 Masonry and reinforced masonry structure
- (vii) BNbD: 52.01.10 Concrete and *reinforced concrete structure*

#### **3) Norms On Electrical Design**

- (i) BD 43-101-03 The regulations of electrical installations
- (ii) BD 43-101-03\*12 The regulations of electrical installations
- (iii) BD 43-103-08 The instruction for design of the lighting protection of building and facilities
- (iv) BD 43-102-07 Design and installation of electrical equipment in residential and public buildings

#### **4) Norms On Fire Safety And Automation**

- (i) BNbD 21-01-02 Fire safety of buildings and facilities
- (ii) BNbD 21-02-02 Norm on fire safety for developing construction design drawings
- (iii) BNbD 21-04-05 Automatic fire extinguisher and alarm equipment of buildings and facilities
- (iv) BNbD 3.05.07-85 *Automation systems for building*

#### **5) Norms On HVAC Design**

- (i) BNbD 41-01-11 Heating, ventilation and air-conditioning
- (ii) BNbD 43-03-07 Boiler equipment
- (iii) BD 41-102-11 Design of independent heat supply sources
- (iv) BNbD 23-01-09 Climate and geophysical parameters for construction
- (v) BNbD 23-02-09 Building thermal performance
- (vi) BD 23-103-10 *Designing thermal performance for building*



**6) Norms On Water Supply, Plumbing Design**

- (i) BNbD 3.05.04-90 Water supply, sewerage, outdoor pipelines and facilities
- (ii) BNbD 3.05.01-88 Indoor plumbing system
- (iii) BNbD 40-05-98 Indoor water supply and sewerage pipelines
- (iv) BNbD 40-02-06 *Water supply, outdoor pipelines and facilities*

**7) Mongolian National Standards**

- (i) MNS 6055:2009 – Space planning for building and environment with the requirements of handicapped people, 2009
- (ii) MNS 6056:2009 – Design manual for planning and designing accessibility for handicapped people, 2009

**8) International Standards**

- (i) EDGE standard

**APPENDIX C: List of the small facilities to be designed**

Refer to Table 2 of Appendix 1 in this project administration manual.

## **COMMUNITY PARTICIPATION IN PROCUREMENT**

1. This Appendix provides additional information for the implementation of the *Community Participation in Procurement* (CPP) method listed in the procurement plan (Section VI.C).

### **A. Planning Community Participation in Procurement**

2. Procurement planning means the process by which the efforts of all personnel responsible for procurement are coordinated and integrated through a comprehensive plan for fulfilling the need in a timely manner and at a reasonable cost. CPP Procurement planning consists of the following milestones and should allow appropriate time to implement the below: (i) approval of procurement plan by the Project Steering Committee and ADB, (ii) preparation of CPP Invitation to Quotation, (iii) advertise and solicit CPP Invitation to Quotation, (iv) opening and evaluation of quotations, (v) award of contract, (vi) contract signing, and (vii) contract implementation.

### **B. Subproject Criteria**

3. Subproject criteria for CPP will include but not be limited to the following.
- i) The proposed subproject should benefit the target beneficiaries.
  - ii) The community should demonstrate adequate capacity to execute or supervise the project. If not, acceptable arrangements should exist to appoint a capable qualified service provider.
  - iii) The community should indicate its willingness to participate with counterpart funds or in-kind, such as labor and should confirm such to ensure suitability of the facilities by organizing recurrent operation and maintenance (O&M) works, if required.
  - iv) The scope of work should be simple so that community implementation is the most practical solution.
  - v) The community should not have been declared ineligible by the government due to unsatisfactory performance or otherwise in earlier executed projects.
  - vi) The community group leader should be authorized legally to sign a contract for procurement purposes and should follow approved procurement procedures.

### **C. Organizing CPP Procurement**

4. For subproject financing, MET will establish a bid evaluation committee (BEC) consisting of no less than five representatives, including two members from civil society organizations (CSOs), of which one member must be project procurement specialist. The BEC is expected to (i) advertise Request for CPP Quotations through [www.tender.gov.mn](http://www.tender.gov.mn), [www.met.mn](http://www.met.mn) and meantime solicit Request for CPP Quotations from four to five prospective qualified community-based organizations (CBOs) to minimize the risk of obtaining only one or two quotations, (ii) evaluate all quotations and recommend contract award. The award decision should be made to the lowest evaluated CBOs. The responsible person of the MET signs the contract with the recommended CBOs.

### **D. Procurement Procedures and Ceiling**

5. All procurement for goods and works under CPP will follow National Community Participation in Procurement Guidelines and Sample Quotation Documents developed by Ministry of Finance. For the CPP method, the bidder shall be a group of citizens (community group) established on the basis of a cooperation agreement that meets the requirements of the Civil Law.

6. Works under CPP are labor intensive and do not require professional contractors, estimated to cost less than \$30,000 equivalent per assignment up to an aggregate amount of \$162,000, would be carried out using CPP method.

7. Under this arrangement, the communities will purchase materials from local markets and mobilize the labor required to undertake the works. CBOs will purchase the construction materials such as cement, wood, stone aggregate, and sand in bulk through shopping procedures by inviting at least three quotations, preferably from local suppliers if they are performing small works. Labor component of the subprojects can be extended by the members of the community, provided adequate expertise exists, who should be reimbursed adequately for the services rendered. It should be ensured that children are not employed for the subprojects. To the extent possible, members of the local community will be employed by the contractors as labor.

## **E. Contract Management**

8. The project implementation unit (PIU) will assume certain responsibilities of overseeing the contracts implemented through community participation, such as the following.

- i) Oversee the award of contract and signing of the contract agreement, if necessary, in certain situations, also countersigning the contracts.
- ii) Allocate funds for each CPP contracts.
- iii) Monitor progress and quality of works regularly.
- iv) Release funds to CBO leaders as per schedule or stage-wise completion.
- v) Certify quality of works done.
- vi) Provide regular progress reports on CPP contracts implementation status and fund utilization to MET and the PIU.
- vii) Prepare statements of expenditures, maintain proper accounts, and conduct selective audits.
- viii) Provide advice to CBOs concerned regarding ADB's policies and guidelines, especially on procurement, indigenous people, involuntary resettlement, and gender.

## **F. Subproject Implementation**

9. An implementation plan will be prepared and approved by all concerned parties. The *aimag* supervision officer and PIU coordinator will monitor the contract implementation with support of the PIU monitoring and evaluation specialist and report the progress to MET. The *aimag* supervision officer will submit a 6-monthly and annual report of all sub-agreements/subprojects being implemented in the *soum*, according to templates developed by the PIU.

10. The CBO leader will submit monthly progress status to the PIU *aimag* supervision officer. The PIU will handle the project finances and pay the contractors directly. The CBO leader should also apprise the community on the status of project implementation either by way of general meetings, posting on notice boards or both. On completion of the project, the CBO leader shall prepare a comprehensive completion report which will be submitted to the PIU for review and approval. Following the completion of Grant, the technical group established at *Aimag* level will conduct final inspection and certify completion to grant project. On final acceptance, final payments should be released with the approval of the PIU or EA to the CBO.

**G. Fund Flow**

11. Fund flow mechanisms will follow the project fund flow diagram in PAM Section IV. I. Supporting documents for payments and due diligence checks should be same as other contracts under different procurement methods.
12. Members of the communities who provide labor are eligible for payments.
13. MET's internal audit department or an externally appointed auditor will conduct selective audits of the subprojects under the loan which has community participation. This audit report should form a part of the overall audit of the Project and will be submitted to ADB in accordance with the project reporting requirements for financial management and auditing.

## CONSULTATION AND PARTICIPATION PLAN

Stakeholder Group	Objective of their Involvement	Participation Methods	Schedule	Budget	Responsible
<b>Output 1: Inclusive planning and capacity for community-based tourism enhanced</b>					
<b>1.1 Institutional framework</b>					
<ul style="list-style-type: none"> <li>- Local residents, youth, poor and vulnerable HHs, women</li> <li>- CSOs (women and, youth organizations)</li> <li>- Tourism organizations /CBOs</li> </ul>	<ul style="list-style-type: none"> <li>- Discussion on dissemination of information on project objectives and activities including: project sites (UVTC, RANCC, tourist streets, tourism facilities), CBOs, youth incubators, community revolving funds, training</li> </ul>	<ul style="list-style-type: none"> <li>- Workshops</li> <li>- Leaflets</li> </ul>	2022-2027	Included in project budget	PIU, MET
<ul style="list-style-type: none"> <li>- Local government organizations</li> <li>- CSOs (WWF, women organizations, youth organizations)</li> <li>- Private companies/tour operators</li> <li>- Tourism organizations /CBOs</li> <li>- Communities</li> </ul>	<ul style="list-style-type: none"> <li>- Discuss items to include in draft concession manuals in particular priority employment for local residents, women, youth, vulnerable, health protocol, universal accessibility; and tour camps licenses.</li> <li>- Finalize contents of draft concession manuals through participatory discussion with stakeholders.</li> <li>- Inform stakeholders on contents of final concession manuals and encourage their participation in its implementation</li> </ul>	<ul style="list-style-type: none"> <li>- Invitation letters and/or internet, mass media</li> <li>- Round-table and group discussions</li> <li>- Stakeholders consultations, public meetings, workshops</li> </ul>	2022-2027	Included in project budget	PIU, MET
<b>1.2 Destination management and promotion</b>					
<ul style="list-style-type: none"> <li>- <i>Aimag</i> and <i>soum</i> administration</li> <li>- Women and youth organizations</li> <li>- Communities residing around tourist streets</li> </ul>	<ul style="list-style-type: none"> <li>- Inform local authorities, communities and CBOs and encourage participation of youth and women;</li> <li>- Encourage women and youth leadership in CBOs;</li> <li>- Seek views of communities including women on the design and management of tourist streets;</li> </ul>	<ul style="list-style-type: none"> <li>- Public meetings / workshops</li> <li>- Newspaper advertisement / leaflets</li> <li>- Workshop on design of tourist streets</li> </ul>	2022-2027	Project budget, investment cost,	PIU Design firms for the tourist streets
<b>1.3 Pilot tourism development program – improve local competitiveness to benefit from tourism</b>					
<ul style="list-style-type: none"> <li>- Local government organizations</li> <li>- CSOs (women organizations, youth organizations)</li> <li>- Communities including youth and women</li> <li>- Youth employment centers in each <i>Aimag</i></li> <li>- Khovd, Uvs and Bayan-Ulgii Universities</li> <li>- Local entrepreneurship</li> <li>- Chamber of commerce</li> </ul>	<ul style="list-style-type: none"> <li>- Inform on community revolving fund functioning and application process; discuss on how to improve the revolving fund;</li> <li>- Inform on women-led market functioning; seek ideas to improve the women-led market;</li> <li>- Inform on incubator functioning; seek ideas to improve the youth incubator;</li> <li>- Discuss on training needs. Finalize training contents;</li> <li>- Discuss collaboration for training;</li> <li>- Training, capacity development and skills upgrading of local entrepreneurs.</li> </ul>	<ul style="list-style-type: none"> <li>- Public meetings and leaflet</li> <li>- Meeting with women/youth in pre-determined locations</li> <li>- Public meetings/workshops</li> <li>- Interview and discussions</li> <li>- Individual visit to entrepreneurs</li> </ul>	2022-2027	Project budget, investment cost,	PIU Design firms for the women-led markets
<b>Output 2: Enabling infrastructure constructed</b>					
<b>2.1 Tourism complex and supporting infrastructures</b>					
<ul style="list-style-type: none"> <li>- Local government organizations including <i>soum</i> health center</li> <li>- CSOs (women organizations, youth organizations)</li> <li>- Community representatives</li> <li>- Vulnerable people contact persons</li> <li>- Construction workers</li> </ul>	<ul style="list-style-type: none"> <li>- Seek views on detailed design of the UVTC</li> <li>- Participation of residents (including vulnerable ones) for skilled and unskilled construction works</li> <li>- Leasing out market space in tourism complex and car parks</li> <li>- Health and sanitation quality assurance</li> <li>- Conduct awareness raising for HIV/AIDS/STIs prevention and domestic violence</li> <li>- All construction workers under the project shall be received training on HIV/AIDS/STIs</li> </ul>	<ul style="list-style-type: none"> <li>- Public meetings organized jointly with CSOs and <i>Soum</i> Women/Youth Councils</li> <li>- Workshops</li> <li>- Specific training for workers</li> </ul>	Throughout construction duration	<ul style="list-style-type: none"> <li>- Project budget</li> <li>- Included in construction budget</li> </ul>	PIU, <i>Soum</i> administration  - <i>Soums</i> health center  - Contractor
<b>2.2 Traffic management and safety at key tourism site</b>					

Stakeholder Group	Objective of their Involvement	Participation Methods	Schedule	Budget	Responsible
<ul style="list-style-type: none"> <li>- Local government organizations</li> <li>- CSOs (women organizations, youth organizations)</li> <li>- Communities residing around the project areas</li> </ul>	<ul style="list-style-type: none"> <li>- Inform about roads and facilities built</li> <li>- Seek feedback on issues, impacts and solutions</li> <li>- Seek advice on workers recruitment including women</li> <li>- Conduct awareness raising for residents on safety issues during construction and operation</li> </ul>	<ul style="list-style-type: none"> <li>- Public meetings; print and electronic media; TV announcements</li> <li>- Group training</li> <li>- Meeting with women in pre-determined location</li> </ul>	2022-2027	- Project budget	- PIU, contractor, <i>soum</i> administration
<b>Output 3: Sanitation and waste management improved</b>					
<b>3.1 Sanitation and wastewater management</b>					
<ul style="list-style-type: none"> <li>- Government agencies</li> <li>- CBOs and communities</li> <li>- CSOs (women organizations, youth organizations)</li> <li>- Tour operators and other businesses; Tourists</li> </ul>	<ul style="list-style-type: none"> <li>- Seek inputs on design and installation of sanitation and wastewater management</li> <li>- Provide information on O&amp;M of the sanitation systems for the tour camps, campsites, and car parks</li> <li>- Inform tourists about use of the public sanitation systems and park codes of conduct and regulations</li> </ul>	<ul style="list-style-type: none"> <li>- Public meetings; Focused group discussions</li> <li>- Notices/leaflets published in newspaper or public places</li> <li>- Visits to tourist camps</li> </ul>	2020-2027	Project budget	PIU, contractor,
<b>Output 4: Management of cultural heritage sites and protected areas strengthened</b>					
<b>4.1 Rock art and nomadic culture center (RANCC)</b>					
<b>4.2 Rock art Digital Museum – to be housed at RANCC</b>					
<ul style="list-style-type: none"> <li>- Local government organizations including <i>soum</i> health center</li> <li>- CSOs (women organizations, youth organizations)</li> <li>- Community representatives</li> <li>- Vulnerable people contact persons</li> <li>- Construction workers</li> </ul>	<ul style="list-style-type: none"> <li>- Seek views on detailed designs</li> <li>- Participation of residents (including vulnerable ones) for skilled and unskilled construction works</li> <li>- Health and sanitation quality assurance</li> <li>- Conduct awareness raising for HIV/AIDS/STIs prevention and domestic violence</li> <li>- All construction workers under the project shall be received training on HIV/AIDS/STIs</li> </ul>	<ul style="list-style-type: none"> <li>- Public meetings organized jointly with CSOs and <i>Soum</i> Women/Youth Councils</li> <li>- Workshops</li> <li>- Specific training for workers</li> </ul>	Throughout construction duration	<ul style="list-style-type: none"> <li>- Project budget</li> <li>- Included in construction budget</li> </ul>	<ul style="list-style-type: none"> <li>- PIU, <i>Soum</i> administration</li> <li>- <i>Soums</i> health center</li> <li>- Contractor</li> </ul>
<b>4.3 Site protection and public access</b>					
<ul style="list-style-type: none"> <li>- CSOs (WWF, GIZ, TSC, Nature Conservancy)</li> <li>- Visitors</li> </ul>	<ul style="list-style-type: none"> <li>- Seek stakeholder inputs on site protection and public access</li> <li>- Inform visitors on access regulations and protection of natural value</li> </ul>	<ul style="list-style-type: none"> <li>- Workshops</li> <li>- Notices/leaflets available at each site</li> </ul>	2022-2027	Project budget	- PIU, MET, PAOs
<b>4.4 Site Management Plans</b>					
<ul style="list-style-type: none"> <li>- Park/Protected areas management</li> <li>- CSOs</li> <li>- Herder groups</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>- Seek stakeholder inputs on management plan revision for 2 sites, ATBNP (including PCMA) and TSC; and seek consultation with KfW to provide input to KfW-supported revision of management plans for KUNNP, KKNP, UVSPA</li> <li>- Inform stakeholders about contents</li> <li>- Raise awareness on stakeholder roles for the revised plans</li> <li>- Train CSO members on aspects of park management</li> </ul>	<ul style="list-style-type: none"> <li>- Public meetings</li> <li>- Information sessions</li> <li>- Group training</li> <li>- Workshops</li> </ul>	2024-2026	Project budget	<ul style="list-style-type: none"> <li>- PIU, MET, PAOs</li> <li>- DPAM</li> </ul>
<b>4.5 Capacity building</b>					
<ul style="list-style-type: none"> <li>- <i>Soum</i> government staff</li> <li>- CSOs</li> <li>- CBOs</li> <li>- Operators of project facilities</li> <li>- Park/Protected areas staff</li> </ul>	<ul style="list-style-type: none"> <li>- Seek views on training needs and finalize training contents</li> <li>- Train government personnel, operators of project facilities, management councils on innovative methods and best practices in management</li> <li>- Train facilities operators</li> </ul>	<ul style="list-style-type: none"> <li>- Group training</li> <li>- Group training</li> <li>- Undertaking field visits</li> </ul>	2024-2027		- PIU, MET, PAOs

ATBNP = Altai Tavan Bogd National Park, CBOs = community-based organizations, CSO = civil society organization, km = kilometer, HHs = households, KKNP = Khan Khukhii National Park, KUNNP = Khar Us Nuur National Park, MET = Ministry of Environment and Tourism, O&M = operation and maintenance, PCMA = Petroglyphic Complexes of the Mongolian Altai UNESCO World Heritage Area, PIU = project implementation unit, RANCC = rock art and nomadic culture center, TSC = Tsenkher Cave, UVSPA = Uvs Nuur Strictly Protected Area, UVTC = Uvs tourism complex, WWTP = wastewater treatment plant.

Source: Asian Development Bank.

## STAKEHOLDER COMMUNICATION STRATEGY

Objective	Risk	Audience	Desired Behavior	Information Needs	Channel Activity	Timing	Responsibility	Resources Needs	Expected Outcome
<b>OBJECTIVE 1: EFFECTIVE COMMUNICATION WITH PROJECT STAKEHOLDERS</b>									
<b>Output 1: Inclusive planning and capacity for community-based tourism enhanced</b>									
Effective communication with communities for informed and supportive engagement. As a result, beneficiaries will have better access to benefits and opportunities from the project	Limited engagement due to poorly informed communities  Communities expect the project to deliver benefits to them within unrealistically short timeframe	Residents in project areas (including poor and vulnerable), tour operators, tour camps owners, CSOs (including women and youth)	Well informed residents, CSOs and other stakeholders co-planning tourism initiative	Community awareness of existing and planned community-based and other tourism initiatives  Awareness on potential benefits and risks associated with increased tourism	Meeting venues in communities <i>soum</i> centers.  Designated information points in communities and <i>soum</i> centers  Posters and forms in Mongolian on meeting locations and times Local media e.g. TV, radio  Strengthening social network through the regular updates via social media	2022–2027	PIU	PIU staff time  Printed materials (posters, forms),  budget  Social website page	Co-planning by residents, CSOs, tour operators and other stakeholders for community based tourism initiatives
Capacity building for local communities to deliver reliable tourism related goods and services in the target protected areas and heritage sites	Communities not aware of capacity building opportunities and availability of community-based tourism support including Community revolving Fund (CRF)	Residents, CSOs, and owners of tour camps, Entrepreneurs and business persons engaged in the tourism value chain	Residents are skilled in targeted tourism products and services and can apply for tour camp jobs and/or develop or expand businesses	Awareness raising information on availability of training courses, CRF and capacity building support and community-based tourism support	Meeting venues in visitor information centers and local administration offices  Designated information points in protected areas  Community contact points (one per <i>soum</i> )  Direct visits by PIU team to remote communities and families Posters, forms in Mongolian on meeting locations and times  Local media e.g. TV, radio	2022–2027	PIU	PIU staff time  Printed materials (posters, forms),  budget  Social website page	Residents skilled in the provision of tourism related goods and services Local brand products are more diversified and of better quality Remote and poor households have more opportunity to engage in and benefit from the training and community-based tourism activities Household income and

Objective	Risk	Audience	Desired Behavior	Information Needs	Channel Activity	Timing	Responsibility	Resources Needs	Expected Outcome
					Dedicated project website (including online training and dissemination of good practices)				livelihoods improved and sustained
<b>Output 2: Enabling infrastructure constructed</b>									
Effective communication with communities and local traffic authorities about construction schedules, activities, and potential disturbances e.g. noise	Community complaints and/or lack of support due to limited consultation. Communities not aware of the GRM	Residents, owners of tour camps, CSOs	Well informed residents support construction and participate in scheduling of work	Stakeholder concerns and opinions  Awareness raising on project designs, and impacts  Information about temporary bypass routes and construction timetable	Community contact points to explain the anticipated infrastructure design and receive feedback on constraints to integrate  Regular consultation meetings during construction phase  PIU visits remote families  Posters in Mongolian on meeting locations, times  Local media e.g. TV, radio	2022–2027	PIU	PIU staff time  Printed materials (posters, forms),  budget  Social website page	Any concerns and suggestions raised by stakeholders are addressed; and measures implemented to address them will be duly documented in the project reports
<b>Output 3: Sanitation and waste management improved</b>									
Residents, tourists, tour operators, and other stakeholders comply with park regulations and codes of conduct for litter and sewage disposal.	Relevant authorities do not enforce campsite regulations  Visitors are not well informed of park/protected areas regulations	Residents, tour operators, tour camps, domestic and international tourists, CSOs	All stakeholders proactively contribute to sewage, waste management, sanitation and hygiene	Key polluting sources (tour camps) and key sites of uncollected litter  WASH program  Stakeholder concerns and opinions	Dissemination of parks/protected areas regulations and WASH content at fee collection stations, camp sites and visitor/info centers  Social website pages, in Mongolian, Russian, English Local media e.g. TV, radio Environmental assessment and	2022–2027	PIU	PIU staff time  Printed materials (posters, forms),  budget  Social website page	Improved stakeholder awareness of pollution threats Improved waste management Reduced pollution in parks and protected areas



Objective	Risk	Audience	Desired Behavior	Information Needs	Channel Activity	Timing	Responsibility	Resources Needs	Expected Outcome
					inspection reports will be included in the semiannual progress reports to ADB, which will be posted on ADB's website				
Water, sanitation and hygiene (WASH) program is implemented	Project sanitation activities and facilities not adopted by stakeholders, leading to inadequate risk management for COVID-19 and/or other diseases	Communities and tour camps of 13 project <i>soums</i> Bayan-Ulgii, Khovd, Uvs <i>aimags</i>  Visitors to the protected areas and heritage sites in the project <i>soums</i>	Stakeholders adopt the project WASH procedures	Clear WASH procedures for the project facilities  Sustained provision of training and awareness raising of the WASH procedures	Behavior change communication strategy – included in the WASH program and will be implemented under consulting services package CS6 (Appendix 2)	2023-2027	Consulting services (CS) package (PAM Appendix 2)	Consulting services time PIU time  Project budget for awareness materials, trainings  Youth ambassadors	Stakeholders adopt project WASH procedures  Risk management for COVID-19 and other diseases is strengthened
<b>Output 4: Management of cultural heritage sites and protected areas strengthened</b>									
All relevant stakeholders participate in review of park management plans	Remote or poor communities uninformed or unable to participate Poorly informed communities do not see value in park/protected areas management	Residents in parks and buffer zones (including herders), tour operators, CSOs	Stakeholders support and ownership to implement the revised management plans	Stakeholder concerns and opinions Scientific data on park management	Stakeholder meetings in the 22 <i>soums</i> of the project area, 3 <i>Aimag</i> centers, Ulaanbaatar  Visits by PIU team to remote communities and families  Focus group discussions and Key informant interviews			PIU staff time and travel costs  Map preparation	Park management plans reviewed and improved in consultation with stakeholders
<b>OBJECTIVE 2: PROJECT VISIBILITY, INFORMATION EXCHANGE, AND DISSEMINATION OF LESSONS LEARNED</b>									
National: Public and political awareness of and support for project	Incorrect or negative publicity of project due to inadequate information  Project experience does	Ministries, especially in transport, construction, sanitation sectors, general public, national media, CSO (including	Increased opportunity to apply the project lessons learned in other site	Technical and non-technical project data	Social website pages, in Mongolian, Russian, English Media releases; interviews with <i>Aimag</i> , <i>soum</i> , MET officials.  Briefings/consultation		PIU staff, MET, IAs, ADB project team	PIU staff time. Contact points, PIU manager, field coordinator, social, gender and civil	Protected area managers and tourism planners able to apply the project lessons learned to other sites

Objective	Risk	Audience	Desired Behavior	Information Needs	Channel Activity	Timing	Responsibility	Resources Needs	Expected Outcome
	not benefit other sites	women and youth)			meetings with politicians, committees, CSOs  Briefs, pamphlets, blogs, small technical publications			society specialist  Project website page	
International: Sharing of lessons learned; contribute to RCI	Missed opportunity to contribute to regional tourism planning	CAREC tourism agencies, CSOs, PA managers	Regional awareness of project lessons learned; contribution to RCI for tourism plans	CAREC agencies involved in regional planning for tourism, and, PA management; regional CSOs involved in tourism, conservation, livelihoods	Project website pages, in Mongolian, Russian, English  National and regional workshops and webinars on lessons learned  Presentations at the annual meetings of the CAREC tourism working group  Blogs; articles in DevelopmentAsia		MET, PIU staff, ADB project team	MET, PIU, and ADB staff time, resources for international travel and participation in regional meetings	Project lessons learned support Mongolia's participation

**OBJECTIVE 3: COORDINATION AND ALIGNMENT OF THE PROJECT ACTIVITIES WITH OTHER DONOR PROGRAMS**

Coordination and alignment of project activities with other donor programs in protected areas	Overlap of resources and/or missed opportunities for collaboration	Other donors for tourism sector and protected areas management including GIZ, JICA, KfW, TNC, UNDP, WWF	Open and regular information exchange, coordination, support	Timely and updated information on the project, and, other donor's projects	Meetings; emails; other direct forms of regular contact  Convene at least 1 meeting per year with relevant agencies to share information and maintain or expand collaboration		PIU, ADB project officer, IAs	PIU and ADB staff time Social website page	Donor programs coordinated and aligned
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ATBNP = Altai Tavan Bogd National Park, CAREC = Central Asia Regional Economic Cooperation, CSO = civil society organization, CBO = Community-Based Organization, GIZ = Deutsche Gesellschaft für Internationale Zusammenarbeit, HIV/AIDS/STI = Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome/ Sexually Transmitted Infections, IEC = Information, Education, and Communication, JICA = Japan International Cooperation Agency, KfW = Kreditanstalt für Wiederaufbau, KKNP = Khan Khukhii National Park, KUNNP = Khar Us Nuur National Park, CRF = Community Revolving Fund, MET = Ministry of Environment and Tourism, O&M = operation and maintenance, PCMA = Petroglyphic Complexes of the Mongolian Altai, PIU = project implementation unit, RANCC = rock art and nomadic culture center, SDG = Sustainable Development Goals, RCI = regional cooperation and integration, TNC = The Nature Conservancy, TSC = Tsenkher Cave, UNDP = United Nations Development Programme, UVSPA =Uvs Nuur Strictly Protected Area, UVTC = Uvs tourism complex, WWF = World Wide Fund for Nature.

Source: Asian Development Bank.

## **JAPAN FUND FOR POVERTY REDUCTION: GUIDANCE NOTES**

The executing agency, implementing agency, project implementation unit, and Asian Development Bank (ADB) project team will ensure that all project activities funded by the Japan Fund for Poverty Reduction (JFPR) will comply with the following JFPR Guidance Notes.

### **GUIDANCE NOTE ON COORDINATION WITH THE EMBASSY OF JAPAN AND JICA**

#### **I. INTRODUCTION**

1. The Final Report on the Review of Japanese Official Development Assistance<sup>1</sup> (ODA) underscores the need for strategic and effective aid. One way to ensure alignment of Japan Fund for Poverty Reduction (JFPR) projects and technical assistance (TA) with Government of Japan's (GOJ) bilateral assistance strategy for a particular developing member country (DMC) is by bringing on board the comments and suggestions of the Embassy of Japan (EOJ) and the Japan International Cooperation Agency (JICA).<sup>2</sup> Thus, the summary of consultations with EOJ and JICA (to include, date of consultation, name and position of staff met, and EOJ and JICA's response) should be included in the proposal submitted to SDPF.<sup>3</sup> This Guidance Note provides detailed instructions regarding coordination activities with EOJ and JICA.<sup>4</sup>

#### **II. EOJ AND JICA CONTACT PERSONS**

2. As soon as project officer informs SDPF of the intent to apply for JFPR funding,<sup>5</sup> SDPF will identify the appropriate contact persons in EOJ and JICA. The contact persons' information<sup>6</sup> will be provided by SDPF to the project officer to start consultation.

#### **III. CONSULTATION WITH EOJ AND JICA – PROPOSAL PREPARATION**

3. At concept stage, project officer should consult with EOJ and JICA<sup>7</sup> through e-mail the proposed project to, (i) seek if it is in line with Japan ODA priorities, (ii) ensure no duplication, and (iii) present the concept itself, with copy to SDPF.

4. Upon SDPF's confirmation to proceed with proposal preparation, the project officer may arrange the project design meeting with EOJ and JICA. This meeting intends to explain and discuss the actual project design. This is ideally conducted during the fact-finding mission.<sup>8</sup> The proposal,<sup>9</sup> should be provided to EOJ and JICA with copy to SDPF at least 5 working days before the meeting to give ample time for review and consideration. After the meeting, if needed, SDPF in coordination with the project officer, may follow up with EOJ and JICA, and respond to requests for clarification.

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<sup>1</sup> Ministry of Foreign Affairs of Japan. 2010. ODA Review - Summary of the Final Report. Tokyo.

<sup>2</sup> Incorporated administrative agency in charge of administering Japan's ODA.

<sup>3</sup> GOJ gives importance on the inputs provided EOJ and JICA during the internal approval process.

<sup>4</sup> A copy of the Guidance Note on Coordination with Embassy of Japan and JICA is appended to the Project Administration Manual as guide to the project team and the government, during project implementation

<sup>5</sup> Project name and brief outline of proposal should be provided to SDPF.

<sup>6</sup> Name, status, telephone number and e-mail address.

<sup>7</sup> Please refer to the contact persons provided by SDPF.

<sup>8</sup> If a meeting with EOJ and/or JICA is not possible, e-mail exchange, telephone discussion or any other form of communication may be used.

<sup>9</sup> Draft Grant assistance report (for project grants) and draft TA Summary and Report (for TAs).

5. In the case of regional TAs, the draft TA Summary and Report should be sent by e-mail to EOJ and JICA contact persons on no-objection basis.

#### **IV. ROLE OF THE RESIDENT MISSION AND SDPF**

6. Project officer's communications with EOJ and JICA should be done in coordination with the resident mission<sup>10</sup> with copy to SDPF. If needed, SDPF supports to identify the appropriate staff to be consulted.

7. Resident mission also arrange the Grant Agreement/TA letter signing event (section V) and in the overall coordination/relationship management with EOJ and JICA.

8. SDPF's role are as follows: (i) provide contact details of relevant staff from EOJ and JICA for project consultation; (ii) liaise any need for clarification by EOJ and JICA in coordination with the project officer, during project consultation; (iii) inform EOJ and JICA when there is withdrawal or cancellation of a project; and (iv) forward all completion reports to both agencies.

#### **V. COORDINATION WITH EOJ AND JICA – UPON APPROVAL OF THE PROPOSAL**

9. Project officer should inform EOJ and JICA about ADB's approval. Project officers are strongly encouraged to conduct signing or launching ceremonies with the attendance of EOJ officials.<sup>11</sup>

10. In coordination with the resident mission, the project officer should inform EOJ and SDPF of the signing ceremony– at least 10 working days in advance. SDPF then informs GOJ of this activity. The project officer should also draft news release in consultation with the Department of communications and coordinate arrangements with the resident mission. Local and international press are invited to these ceremonies.

#### **VI. COORDINATION WITH EOJ AND JICA – DURING PROJECT IMPLEMENTATION AND UPON PROJECT COMPLETION**

11. Throughout implementation, the project officer should inform EOJ about project progress, milestones, and outcomes, and discuss when major changes in scope and objectives are required. Progress and outcomes of JFPR projects are also requested to be shared with JICA. From time to time, EOJ and JICA may also wish to join completion review missions to see project results and to interact first-hand with project recipients. Lessons from the JFPR projects are also requested to be shared to enable both sides to explore and seek potential collaboration. Completion reports are required to be submitted by the project officer to SDPF for forwarding to EOJ and JICA.<sup>12</sup>

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<sup>10</sup> Please inquire respective resident missions on their protocols or coordination arrangements with EOJ and JICA.

<sup>11</sup> Please refer to the Guidance Note on Japanese Visibility for details on visibility requirements under JFPR.

<sup>12</sup> Links to the completion reports will suffice.

## **GUIDANCE NOTE ON JAPANESE VISIBILITY**

### **I. Introduction**

1. The Revised Operating Framework for the Japan Fund for Poverty Reduction (JFPR) was approved on 6 October 2009, combining Japan's project grant and technical assistance support under one umbrella, and paving the way for a more comprehensive approach to the use of these funds toward addressing poverty, building up human resources, and empowering institutions and communities in the region. Japan has been making generous contributions for technical assistance activities through the Japan Special Fund, and for poverty reduction projects through JFPR, since they were established in 1988 and 2000, respectively. It is but fitting and proper that said contributions are acknowledged and the recipients and general public are informed of the source of the funding assistance both at the Fund level and at the level of the individual TA and project grants. The purpose of this note is to provide guidance on measures to ensure that the contribution of Japan in supporting JFPR is widely recognized.<sup>13</sup>

### **II. Statement on Japanese Visibility**

2. Project teams are required to help promote the visibility and local awareness of JFPR in recipient countries through the following:

(a) All press releases issued by ADB with respect to JFPR should refer to the financial contribution from the Government of Japan (GOJ);<sup>14</sup>

(b) Signing ceremonies and other publicity events should be encouraged, inviting Japan embassy officials, JICA staff, local and international press;<sup>15</sup>

(c) Civil works, project billboards/signages, vehicles, and equipment must carry the JFPR and Japan ODA logos (see below). Likewise, all publications and training programs must bear the said logos, including all collaterals used (i.e. training materials, banners, posters, flyers, etc.) that are financed by JFPR; these logos are available in the SDPF-JFPR website;<sup>16</sup>



Japan  
Fund for  
Poverty  
Reduction



**From  
the People of Japan**

(d) Publications, reports, training programs, seminars and workshops financed by JFPR should acknowledge receipt of funding from GOJ;

(e) Recipients should be encouraged to ensure that JFPR-financed activities are well covered by local print and electronic media, and that all related publicity materials, and official notices

<sup>13</sup> A copy of the Guidance Note on Japanese Visibility is appended to the Project Administration Manual as guide to the project team and the government, during project implementation

<sup>14</sup> Staff may coordinate with the Department of Communications.

<sup>15</sup> Coordination with resident missions are necessary.

<sup>16</sup> <https://lnadbg1.adb.org/oco0006p.nsf/0/EEE594E105EAC26A482576C7002240AB/?OpenDocument>

explicitly acknowledge funding from GOJ. Below is the suggested standard text to be used by those who prepare publicity materials: *"The grant fund for (project name/activity) was received from the Japan Fund for Poverty Reduction financed by the Government of Japan through the Asian Development Bank."*

### **III. Participation of Japanese Entities in Implementation**

3. It is also important to generate visibility of the project within Japan. Involvement or cooperation with Japanese experts, financial resources and technologies are encouraged; occasional information sessions on JFPR for Japanese organizations may also be conducted. It is also highly recommended that ADB involve and cooperate with Japanese organizations including NGOs, civil society organizations, aid agencies in particular JICA and JBIC, the private sector enterprises or academic institutions.

### **IV. Reporting**

4. At the end of the project, the completion report submitted by the project team should include evidences of Japanese visibility such as photos (preferably high resolution), press releases, articles or write-ups, and testimonials from project recipients and/or implementers. Sample products generated from the project grant are requested to be made available to SDPF for inclusion in future exhibits. Copies of publications<sup>17</sup> that are outputs of the project should also be provided to SDPF.

### **V. Visibility Support by ADB**

5. SDPF promotes visibility of JFPR by: (i) informing Office and Department Heads of the importance of achieving high visibility to garner support for JFPR from Japanese officials and taxpayers; (ii) informing Country Directors of the importance of signing ceremonies to Japanese officials and the public to ensure recognition and support for JFPR funding; and (iii) continuing widespread distribution of the JFPR Annual Report, inclusion of JFPR information in relevant ADB documents, and occasional information sessions for Japanese organizations.

6. Resident Mission staff are requested to forward copies of all visibility materials, such as press releases, newspaper and magazine articles, and photographs (including descriptive captions) to SDPF's assigned focal staff for JFPR or e-mail to (jfpr@adb.org).

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<sup>17</sup> This particularly applies to knowledge and support TAs. Links to publication available online may be provided in lieu of print copy.