Technical Assistance Report

Project Number: 48061-002
Capacity Development Technical Assistance (CDTA)
December 2014

Mongolia: Sustainable Forest Management to Improve Livelihood of Local Communities

(Financed by the Japan Fund for Poverty Reduction)

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 3 December 2014)

Currency unit	–	togrog (MNT)
MNT1.00	=	$0.00053
$1.00	=	MNT1,878.00

ABBREVIATIONS

ADB	–	Asian Development Bank
FAO	–	Food and Agriculture Organization of the United Nations
FUG	–	forest user group
GIZ	–	Deutsche Gesellschaft für Internationale Zusammenarbeit
ha	–	hectare
MEGD	–	Ministry of Environment and Green Development
NDS	–	National Development Strategy
NGO	–	nongovernment organization
SFM	–	sustainable forest management
TA	–	technical assistance

NOTE

In this report, "$" refers to US dollars.

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CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data — **Project Number:** 48061-002

Project Name	Sustainable Forest Management to Improve Livelihood of Local Communities	**Department /Division**	EARD/EAER
Country	Mongolia	**Executing Agency**	Ministry of Environment and Green Development
Borrower	Not applicable		

	2. Sector	**Subsector(s)**	**Financing ($ million)**
✓	Agriculture, natural resources and rural development	Forestry	2.00
		Total	**2.00**

3. Strategic Agenda	**Subcomponents**	**Climate Change Information**	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Medium
Environmentally sustainable growth (ESG)	Eco-efficiency Natural resources conservation		

4. Drivers of Change	**Components**	**Gender Equity and Mainstreaming**	
Governance and capacity development (GCD)	Civil society participation Institutional development	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas		
Partnerships (PAR)	Civil society organizations Implementation		

5. Poverty Targeting		**Location Impact**
Project directly targets poverty	Yes	Not Applicable
Geographic targeting (TI-G)	Yes	

6. TA Category: B

7. Safeguard Categorization Not Applicable

8. Financing

Modality and Sources	**Amount ($ million)**
ADB	**0.00**
None	0.00
Cofinancing	**2.00**
Japan Fund for Poverty Reduction	2.00
Counterpart	**0.00**
None	0.00
Total	**2.00**

9. Effective Development Cooperation

Use of country procurement systems	No
Use of country public financial management systems	No

I. INTRODUCTION

1. The proposed technical assistance (TA) was requested by the Government of Mongolia during the country programming mission in February 2014 and through a letter from the Ministry of Economic Development to the Asian Development Bank (ADB) dated 4 April 2014.[1] A reconnaissance mission was conducted 10–14 March 2014 that held discussions with officials of the Ministry of Environment and Green Development (MEGD), the Embassy of Japan, the Japan International Cooperation Agency, German development cooperation (GIZ), and other stakeholders.[2] This was followed up with a consultation mission on 2–4 June 2014 that held consultations with local forest user groups (FUGs). A fact-finding mission was conducted 10–12 September 2014 for further discussions with MEGD and other stakeholders.[3] The government has concurred with the TA impact, outcome, outputs, implementation arrangements, cost, financing arrangements, and outline terms of reference for consultants. The design and monitoring framework is in Appendix 1.

II. ISSUES

2. Mongolia is one of the world's coldest countries. In the Daurian forest steppe ecoregion in northeastern Mongolia, night temperatures drop to –40° Celsius, and families heat their houses over 250 days per year. Mongolia has about 10.8 million hectares (ha) of forest cover, with approximately 60,000 ha of loss per year, driven mostly by logging and fires. The forest has a natural monoculture of larch, birch, and poplar. The project area is in Mongolia's northeastern region, where most of the remaining forest cover is located.[4]

3. The livelihood opportunities for local communities are limited by the short growing season and low yields for agricultural products.[5] Rural communities are highly dependent on agricultural products and pastoralism. Those communities consist mostly of herders with little access to non-herding income. Poverty in those areas is generally high—for 2012, according to World Bank assessments, more than 35% of the rural population was considered poor following national standards.[6] In the project area, annual household income is as low as MNT1,000,000, and average annual household income is between MNT2,200,000 and MNT3,500,000, depending on location.

4. Mongolia is already seeing impacts of climate change, with average mean temperature increases of over 2° Celsius and annual precipitation of about 220 millimeters in the North.[7] The main climate change impact is decreasing forest cover, mostly due to natural forest fires. Projected temperature increases raise risks of forest fires. Forests are key for sequestering carbon, maintaining soil stability, and providing habitat for a variety of endemic biodiversity.

5. The forest currently contains large amounts of deadwood, including deadfalls, debris, and slash. Such high fuel loads further increase fire risks and may lead to devastating fires. MEGD estimates that, nationwide, about 16 million cubic meters of deadwood need to be cleared from the forest to reduce fuel loads, at a sustainable annual extraction rate of about 1.3

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[1] Ministry of Economic Development and the Ministry of Finance were merged in December 2014.
[2] MEGD was restructured and renamed as Ministry of Environment and Tourism.
[3] The TA first appeared in the business opportunities section of ADB's website on 23 October 2014.
[4] Statistics Division, Food and Agriculture Organization of the United Nations (FAO) estimates, 2011.
[5] The growing season is only 4–5 months per year.
[6] World Bank Group in Mongolia. 2013. *2013: Mongolia Economic Update*. Ulaanbaatar (November).
[7] Government of Mongolia, Ministry of Nature, Environment and Tourism. 2010. *Mongolia Second National Communication*. Ulaanbaatar.

million cubic meters. Deadwood poses a challenge for forest management, and forest fires have high climate change impact. Moreover, communities can use deadwood as a livelihood source—as raw material for furniture production or an alternative fuel to decrease coal use. The forest line agencies are "top-heavy," with more attention paid to managerial positions, while lacking technical staff to sustainably manage the forest areas and risks to the forest areas. Almost a third of forest ranger positions are unfilled.

6. The 2006 Forest By-Laws, enacted in 2009, allow local communities to form community-based FUGs to manage forest areas based on forest management plans approved by regional governments. To date, 1,180 FUGs with about 26,000 members have been established, managing over 3 million ha of forest. Less than 50% of FUGs have prepared forest management plans, and less than 25% have prepared forest inventories. Most FUGs lack (i) knowledge to establish forest inventories and management plans, (ii) knowledge on efficiently cleaning deadwood and sustainably maintaining the forest, (iii) access to technology and technical skills to use forest-extracted wood, and (iv) business skills and marketing knowledge to derive livelihoods from forest-extracted wood. FUGs have been successful in sustainable forest management (SFM) in tropical and subtropical countries, but these efforts have not yet been transplanted to Mongolia. The TA will support local communities, organized into about 100 FUGs. Other local stakeholders will include forest units under MEGD and forest enterprises.

7. **Government policy and ADB's country strategy**. The TA will support the government's forest policies, particularly MEGD's Forest Cleaning Program, and strengthen government initiatives to develop FUG and private enterprise engagement in forest management. It will support one of six National Development Strategy (NDS) priorities: halting imbalances in the ecosystem and implementing protective measures.[8] The NDS contains environment-related directions for 2007–2021 to alleviate ecosystem and environmental degradation and pollution through conservation and sustainable use of forest reserves. The TA will support low-income households in rural areas by building capacity, supporting business creation, and creating employment, thereby contributing to NDS priorities of increasing employment and improving human development.

8. The TA is in line with ADB's interim country partnership strategy for Mongolia, 2014–2016 to support the government's overarching strategic goal of inclusive and environmentally sustainable growth, and to help Mongolia adapt to climate change impacts by supporting efficient use and sustainable management of natural resources.[9] It will contribute to ADB's Strategy 2020's drivers of change, private sector development, gender equity, and partnerships, including cooperation with civil society.[10] It is in line with ADB's Midterm Review of Strategy 2020's recommendation of promoting natural resources management through protection and maintenance of forests,[11] and with the draft operational plan for agriculture and natural resources key priorities, such as enhanced renewable natural resources management.[12] The TA is in the country operations business plan for Mongolia, 2014–2016.[13]

[8] Government of Mongolia. 2007. *Millennium Development Goals-Based Comprehensive National Development Strategy of Mongolia.* Ulaanbaatar.
[9] ADB. 2014. *Interim Country Partnership Strategy: Mongolia, 2014–2016*. Manila.
[10] ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020.* Manila.
[11] ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific.* Manila.
[12] ADB. Forthcoming. *Operational Plan for Agriculture and Natural Resources: Promoting Sustainable Food Security in Asia and the Pacific,* 2014–2020. Manila.
[13] ADB. 2014. *Country Operations Business Plan: Mongolia, 2014–2016*. Manila.

9. The TA will build on experiences in community-based livelihood gained under the Poverty Reduction through Community-Based Natural Resource Management (financed by the Japan Fund for Poverty Reduction),[14] focusing further on SFM planning, and will explore synergies with a proposed loan for Skills for Employment (45010), which is, among others, striving to achieve better matches between sector needs and technical training programs. The Food and Agriculture Organization of the United Nations (FAO), the Global Environment Facility, the United Nations Development Programme, SNV Netherlands Development Organisation, GIZ, nongovernment organizations (NGO) such as WWF, and other donors provide support to FUGs, forest inventory, and the forestry sector. The TA will benefit from exchanging lessons learned with those programs.

10. There are no foreseen sensitive aspects or potential risks to the TA. Climate change poses a significant risk to long-term forest sustainability, although unlikely during the TA lifetime. The TA will strengthen climate resilience by reducing the likelihood and impact of forest fires, and will test the replacement of fossil fuels with deadwood. The TA will help manage environmental risks and concerns following good international practices. Issues that will need to be addressed during TA implementation include (i) sustainable yields of deadwood, and (ii) existence of and access to markets. There will be no negative environmental or social impacts or restrictions as per ADB's Safeguard Policy Statement (2009).

III. THE PROPOSED CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE

A. Impact and Outcome

11. The TA impact will be sustainable livelihood and increased resilience of forest ecosystems. The outcome will be SFM practices developed and implemented in five northeastern rural *soums* (districts) selected in *aimags* (provinces) with high levels of coverage by boreal forests and functioning FUGs.[15]

12. The TA is expected to improve local communities' livelihood through SFM. It will demonstrate implementation of sound approaches following internationally accepted standards in geographically and socially comparable environments. It will improve the capacity of forestry line agencies to protect and develop project area forests through joint planning and management with local stakeholders to reduce hazards to forests. It will directly involve about 2,300 people and prioritize inclusion of low-income households and women. It will strengthen FUGs established prior to the TA, technical and business management capacity, and employment opportunities. The TA will build the forestry sector's capacity in adapting to climate change impacts by managing climate risks such as forest fires and improving value chains, leading to more resilience of ecosystems and improved and stable livelihood.

B. Methodology and Key Activities

13. The TA outputs will be (i) capacity of forest management line agencies in SFM strengthened, (ii) forest product value chains and FUG capacity improved, and (ii) technology for wood processing systems demonstrated.

[14] ADB. 2008. *Proposed Grant Assistance to Mongolia for Poverty Reduction through Community-Based Natural Resource Management.* Manila (Grant 9125-MON).

[15] Sustainable livelihoods are defined here as sustainable and comprehensive social, economic, and environmental development for local communities in the project area, including increased human, financial, and social capital. Sustainable forest management is defined here as environmentally sustainable planned management of forest.

14. **Output 1: Capacity of forest management line agencies in sustainable forest management strengthened.** Output 1 will undertake review and establish a knowledge base, including on gender issues, of available studies and research on SFM in similar geographical conditions and household fuel efficiency. The output will also liaise with GIZ, FAO, and other international and national stakeholders active in SFM in Mongolia to collect international good practice models available in Mongolia. The knowledge base will establish needs and capacity of forest management line agencies on (i) establishment of SFM plans and capacity of line agencies, including forest units at *aimag* and *soum* levels; (ii) models for replacing coal fuel, and exploration of international experiences; (iii) establishment of future operations qualifying for funding under the joint crediting mechanism between MEGD and the Government of Japan;[16] and (iv) awareness-raising on alternative fuel for heating and SFM for the general public. All awareness-raising activities will be conducted in a gender-sensitive manner and contain gender elements, and gender sensitivity in the line agencies will be improved through organizational training. Ten FUGs from all *aimags* covered by boreal forests will be selected for capacity building. Capacity building support may be extended to more forest units across Mongolia's forest *aimags*. The output will also establish baselines for TA implementation.

15. **Output 2: Forest product value-chains and forest user group capacity improved.** Output 2 will provide capacity building to FUGs for (i) development of technical and business skills and value chain for deadwood processing, branding, and marketing, and for relations with the private sector; (ii) development of marketing plans for deadwood; and (iii) improvement of SFM, including (a) implementation of forest management plans, (b) collection of deadwood, (c) community-based forest management planning for FUGs, including deadwood extraction limits, and management of collected wood, including FUG umbrella organizations' strengthening, and (d) survey of volume and types of deadwood and non-timber forest products. The output will coordinate with government and donor programs to train forest workers and FUG members on skills needed to assist FUGs in implementing SFM. The output will determine volume of deadwood for each FUG, as well as the sustainable levels of deadwood available for processing. Selection criteria will be established for FUGs to further participate, dependent on their business management and technical capacities. Men and women in FUGs will participate equally in SFM plan development. Women will be consulted, and their views reflected, in formulating SFM plans. Women will also be trained for FUG leadership positions under the TA.

16. **Output 3: Technology for wood processing systems demonstrated.** Output 3 will explore and pilot technologies for processing extracted deadwood, and seek options for increasing fuel efficiency by testing (i) technology to process deadwood for furniture production; (ii) technology to process deadwood as fuel for heating; and (iii) technology for improved fuel efficiency and building insulation. Output 3 will also pursue cooperation with the private sector and other stakeholders on technology implementation. FUGs and business entities will participate provided they consent to ensure management, operation and maintenance, and processing of agreed quantities of deadwood at established quality standards.

C. Cost and Financing

17. The TA is estimated to cost $2.1 million, of which $2.0 million will be financed on a grant basis by the Japan Fund for Poverty Reduction and administered by ADB. The government will

[16] The mechanism aims to facilitate the diffusion of advanced low-carbon technologies, products, systems, services, and infrastructure that advance mitigation action in developing countries.

provide counterpart support in the form of office space, staff time and allowances and/or salaries, logistical support, and other in-kind contributions.

D. Implementation Arrangements

18. The TA will be implemented over 28 months, tentatively from 1 May 2015 to 31 August 2017. The MEGD, represented by its Policy Coordination Department, will be the executing agency. The Forest Research and Development Center under the executing agency will be the implementing agency. The project will be implemented in three phases, following outputs 1 to 3, and will include (i) needs and capacity assessments and capacity building for Forest Research and Development Center and local forest units in selected *aimags*, and the development of selection criteria for project *soum*; (ii) needs and capacity assessments and capacity building for FUGs in selected *soums*, in particular for business and marketing, and the development of technical and vocational training-selection criteria for FUGs to participate in the demonstration phase; and (iii) demonstration and trial of technology to process deadwood in selected FUGs. The implementing agency will establish a project implementation unit to ensure day-to-day TA implementation and management. MEGD will form a project steering committee, with relevant government agencies represented, to guide TA implementation. The committee will meet at TA inception, interim, and final stages of implementation, and as necessary.

20. ADB will engage a consulting firm or NGO following ADB's Guidelines on the Use of Consultants (2013, as amended from time to time), using a quality- and cost-based selection method with a quality–cost ratio of 90:10.[17] The resource persons will be engaged using single-source selection. The successful consulting firm will have prior experience working with capacity building for government agencies in Mongolia, in the forest sector, and with community-based forest management and community-based livelihood improvement projects. Experience working in Mongolia is highly preferred. The consulting firm will be responsible for procuring the TA equipment under the supervision of the executing agency and in accordance with ADB's Procurement Guidelines (2013, as amended from time to time). The executing agency will retain the equipment upon TA completion. The TA proceeds will be disbursed in line with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

21. Under the supervision of ADB and the executing and implementing agencies, the consulting firm will (i) lead TA implementation, (ii) assemble and support the consultant team, (iii) facilitate and promote the involvement of civil society organizations, (iv) support active involvement of international resource persons, and (v) use the firm's pool of national and/or international expertise, as necessary, to achieve the TA outputs. The outline terms of reference for consultants are in Appendix 3. ADB will undertake intensive review and supervision by fielding missions at critical stages of TA implementation—particularly at inception, midterm, and final stages—and by extending regular support from ADB headquarters.

IV. THE PRESIDENT'S RECOMMENDATION

22. The President recommends that the Board approve ADB administering technical assistance not exceeding the equivalent of $2,000,000 to the Government of Mongolia to be financed on a grant basis by the Japan Fund for Poverty Reduction for Sustainable Forest Management to Improve Livelihood of Local Communities.

[17] When a nongovernment organization submits an expression of interest during the selection process, and the nongovernment organization is included among the shortlisted entities, the consultant selection method will be changed to quality-based selection.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Sustainable livelihood and increased resilience of forest ecosystems	By 2019: Poverty rate among households in FUG reduced to 30% (2014 baseline 2014: 46%) Forest species diversity and basal area maintained (2014 baseline 2014: 100%)	*Soum* (district) government reports FUG self-assessment MEGD and/or forest bureau reports	**Assumption** The government maintains commitment to the development of the forest sector **Risk** External shocks, such as snowstorms, hit the forest ecosystems
Outcome SFM practices developed and implemented in five northeastern rural *soums* selected in *aimags* (provinces) with high levels of coverage by boreal forests and having functioning FUGs	By 2017: At least 50% of 150,000 hectares in project area managed, following SFM plans	*Aimag* and *soum* government reports FUG self-assessment MEGD and/or forest bureau reports	**Assumption** Forest administration supports FUGs in planning **Risk** FUG members increase other economic activities
Outputs 1. Capacity of forest management line agencies in SFM strengthened	By 2017: 25 forest management FUGs implement SFM plans (2014 baseline: 0) At least two activities undertaken in project area and nationally raise awareness of general public on fuel-saving technologies (2014 baseline: 0) Women and men in FUGs participate equally (50%–50%) in the formulation of sustainable management plans. (2014 baseline: 30%–70% women–men)	*Soum* government reports FUG self-assessment	**Assumptions** Forest management line agencies setup is maintained Community buy-in across *soums* is secure and remains intact through the project life Technology is readily available and imported on time **Risks** Relevant line agencies lack incentive to participate Market for forest products breaks down
2. Forest product value-chains and FUG capacity improved	By 2017: 150 FUG members (50% female; 30% poor) trained in FUG management, technical skills, and operation and	*Soum* government reports FUG self-assessment	

Design Summary	Performance Targets and Indicators with baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	maintenance (2014 baseline: 0 beneficiaries) Deadwood collection and processing maintained by 70% of FUGs (2014 baseline: 0 FUG) 30 (50% female) technically trained FUG members employed by FUGs and forest enterprises (2014 baseline: 0)		
3. Technology for wood processing systems demonstrated	By 2017: 25 project FUGs have at least one member trained as forest worker with focus on wood processing (2014 baseline: 0 FUGs) Actionable market demand and supply analysis for alternative fuel production and use implemented in each of the five project *soums* (2014 baseline: 0 project soums) One public building insulated and equipped with fuel-efficient burner in project area (2014 baseline: 0 buildings)	*Soum* government reports FUG self-assessment	
Activities with Milestones			**Inputs**
1. Capacity of forest management line agencies in sustainable forest management strengthened 1.1 Establish a database of studies on SFM and community-based forest management planning by 2016. 1.2 Establish a database of available technology for processing deadwood by 2016. 1.3 Formulate a data repository for models of efficient fuel use and conservation by 2016. 1.4 Establish SFM plans for FUGs by 2016. 1.5 Explore cooperation with joint crediting mechanism and Shimogawa town, Hokkaido, Japan by 2016.			**Japan Fund for Poverty Reduction: $2.0 million** Note: The government will provide counterpart support in the form of office space, staff time and allowances and/or salaries, logistical support, and other in-

Activities with Milestones	Inputs
2. Forest product value-chains and forest user group capacity improved 2.1 Conduct training programs for strengthening organizational capacity of FUGs in project soums by 2016. 2.2 Promote improved SFM, including capacity building for preparation of forest management plans, for FUGs in project soums by 2016. 2.3 Facilitate business skills training for FUGs in project soums by 2016. 2.4 Develop a business and marketing plan on deadwood products by 2016. 2.5 Build capacity of FUGs for improving value chains in project soums by 2016. 2.6 Manage and implement collection of deadwood by FUGs by 2016. **3. Technology for wood processing systems demonstrated** 3.1 Pilot-test technologies to process deadwood for furniture production by 2016. 3.2 Pilot-test improved heating efficiency technology for use of deadwood as heating fuel by 2016. 3.3 Demonstrate use of improved fuel efficiency technology, including burners for public and residential buildings and insulation for buildings, by 2016.	kind contributions.

FUG = forest user group, MEGD = Ministry of Environment and Green Development, SFM = sustainable forest management.
Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN

($'000)

Item	Amount
Japan Fund for Poverty Reduction[a]	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	440.0
ii. National consultants	557.0
b. International and local travel	225.0
c. Reports and communications	70.0
2. Equipment[b]	161.0
3. Workshops, local training, seminars, and conferences	114.0
4. Miscellaneous administration and support costs[c]	233.0
5. Contingencies	200.0
Total	**2,000.0**

Notes: The technical assistance (TA) is estimated to cost $2,100,000, of which contributions from the Japan Fund for Poverty Reduction are presented in the table above. The government will provide counterpart support in the form of office space, staff time and allowances and/or salaries, logistical support, and other in-kind contributions. The value of the government's contribution is estimated to account for 4.8% of the total TA cost.

[a] Administered by the Asian Development Bank.

[b] Includes computers, printers, photocopier, fax machine, camera, and other small office equipment, and processing equipment for deadwood to be piloted under output 3. Upon TA completion, office equipment will be handed over to the executing agency; equipment used for pilot will be handed over to the participating forest user groups.

[c] Includes translation, office supplies, local transport, support to capacity building facilitation, and administration and logistics costs.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Implementation Arrangements

1. ADB will engage a consulting entity on an intermittent basis for the technical assistance (TA) following the Guidelines on the Use of Consultants (2013, as amended from time to time) of the Asian Development Bank (ADB), using the quality- and cost-based selection method with a quality–cost ratio of 90:10.[1]

2. The successful consulting entity will have prior experience and demonstrated expertise working with capacity building for government agencies in Mongolia, in the forest sector, and with community-based forest management and community-based livelihood improvement projects. Experience working in Mongolia is highly preferred. Under the supervision of ADB, the Policy Coordination Department of the Ministry of Environment and Green Development (MEGD), and the Forest Research and Development Center, the entity will (i) lead TA implementation; (ii) assemble and support the consultant team; (iii) facilitate and promote the involvement of civil society organizations; (iv) support active involvement of international resource persons, including in workshops; (v) prepare and conduct workshops and conferences, and facilitate training and field activities; (vi) manage procurement of equipment; and (vii) use the entity's pool of national and/or international expertise, as necessary, to achieve the TA outputs. The consulting entity will coordinate with ongoing programs by other donors, such as the Food and Agriculture Organization of the United Nations, the Global Environment Facility, and German development cooperation through Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), to realize synergies and avoid redundancies.

3. International consultants must have a master's degree or qualifications in a relevant field and at least 4 years' relevant international experience, except the team leader who must have at least 8 years' relevant international experience.[2] International consultants must be fluent in spoken and written English. National consultants (except local facilitators) must have a university degree (preferably a master's degree) in a relevant field, and at least 4 years of relevant experience. English language knowledge will be a distinct advantage. It is estimated that the TA will require 26 person-months of international and 210 person-months of national consulting services, and two international resource persons.[3] The deployment will be in Ulaanbaatar, with field activities in up to five northern *aimags* (provinces). Disbursements under the TA will be done following ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

B. Terms of Reference

4. **Community forest and green development specialist** (team leader, international, 12 person-months). The team leader will have overall substantive and administrative responsibility for the effective and timely implementation of the TA. The team leader will guide the team; foster close coordination between team members (including coordination of inputs, quality control of reports, financial management, and technical guidance); and coordinate with the executing

[1] When a nongovernment organization submits an expression of interest during the selection process, and the nongovernment organization is included among the shortlisted entities, the consultant selection method will be changed to quality-based selection.

[2] Except for the team leader, a bachelor's degree in a relevant field with specialized experience in international organizations may be considered in lieu of a master's degree.

[3] Two resource persons will be hired for specific expertise and separately from the consulting entity for 10 days each. The resource persons will not be part of the larger or long-term consultant team, but will work closely with the team to provide additional expertise and support that is not available within the team.

agency, other related government agencies, ADB, and international organizations undertaking related work in partnership with ADB. As a community development expert, the team leader will: (i) review strategies and policies of the Government of Mongolia and MEGD on forest management and forest user groups (FUGs); (ii) review studies, research, and collect other available material on community-based forest management in comparable ecosystems, Mongolia, and the project area; (iii) conduct poverty, gender, and social analysis, and establish baseline data for indicators and targets; (iv) prepare and conduct participatory needs assessment activities and workshops with line agencies, private sector operators in forest management, community-based organizations, and FUGs to assess organizational capacity and needs for community-based sustainable forest management (SFM); (v) assess constraints, opportunities, and potentials regarding SFM implementation, and develop plans to implement, trial, and roll out nationwide FUG-based SFM; (vi) prepare training and capacity building for MEGD personnel, forest line agencies, private-sector entities as required, and FUGs on preparation and implementation of SFM plans; and (vii) accompany and advise on trial activities. The team leader will, together with other consultants, (i) prepare reports on needs assessment for forest management line agencies (forest units) and FUGs; (ii) prepare manuals to conduct capacity building for forest units and FUGs; (iii) oversee and prepare report on training activities; and (iv) prepare and conduct TA implementation workshops (interim and final), and invite international resource persons to the workshops.

5. **Community forest and green development specialist** (national, 24 person-months). The specialist will (i) review (local, Mongolian) studies, research, and collect other available material on community-based forest management in comparable ecosystems, Mongolia, and the project area; (ii) conduct field assessment of existing forest and inventories; (iii) propose baseline data for indicators and targets; (iv) prepare and conduct needs assessment activities and workshops with line agencies and private sector operators in forest management to assess organizational capacity and needs for community-based SFM; and (v) assess constraints, opportunities, and potentials regarding the implementation of community-based SFM. The specialist will (i) together with MEGD, develop plans to implement, trial, and roll out nationwide FUG-based SFM; (ii) provide training to MEGD personnel, forest line agencies, private-sector entities as required, and FUGs on preparation and implementation of SFM plans; and (iii) accompany and advise on trial activities.

6. **Livelihood and gender specialist** (international, 4 person-months). The specialist will prepare, based on needs assessments and baseline data, livelihood plans for the FUG communities. The specialist will analyze the livelihood base of local communities, and guide participatory assessment of opportunities for, and threats to, the livelihood. The specialist will (i) provide international knowledge on community-based forest management in comparable ecosystems; (ii) prepare and guide poverty, gender, and social analysis, and establish baseline data for indicators and targets; (iii) prepare and oversee participatory needs assessment activities and workshops with line agencies, private sector operators in forest management, community-based organizations, and FUGs to assess opportunities and needs for forest-based community livelihood management; and (iv) evaluate, together with other technical specialists, the potential and viability, and conditions to be in place, for conducting livelihood improvement activities based on deadwood and community-based SFM.[4]

[4] The specialist, in coordination with other specialists, will prepare (i) plans to apply the requirements to implement community-based, gender-inclusive livelihood improvement activities, including, but not limited to, templates for operations, and marketing plans for forest user groups (FUGs); (ii) training plans for the Ministry of Environment and Green Development personnel, forest line agencies, private sector entities as required, and FUGs on improving forest-based livelihood locally; and (iii) templates for FUGs' self-assessment.

7. **Livelihood specialist** (national, 24 person-months). The specialist will analyze the livelihood base of local communities, and conduct a participatory needs assessment for livelihood improvements. The specialist will (i) review studies, research, and collect other available material on community-based forest management in Mongolia and the project area, for example by liaising with the Food and Agriculture Organization of the United Nations, the Global Environment Facility, and GIZ's ongoing projects in the sector; (ii) conduct poverty, gender, and social analysis, and propose baseline data for indicators and targets; (iii) prepare and conduct participatory needs assessment activities and workshops with line agencies, private sector operators in forest management, community-based organizations, and FUGs to assess opportunities and needs for forest-based community livelihood management; (iv) evaluate, together with other technical specialists, the potential and viability, and conditions to be in place, for conducting livelihood improvement activities based on deadwood and community-based SFM; (v) prepare, in conjunction with other specialists, plans to apply the requirements to implement community-based, gender-inclusive livelihood improvement activities, including, but not limited to, templates for operations, and marketing plans for FUGs; (vi) provide training to MEGD personnel, forest line agencies, private sector entities as required, and FUGs on improving forest-based livelihood locally; (vii) prepare templates for FUGs' self-assessment; and (viii) accompany and advise on trial activities.

8. **Marketing and branding specialist** (international, 6 person-months). The specialist will (i) oversee and guide the national marketing and branding specialist's activities, and review plans and curricula prepared; (ii) brief national specialists and other actors on international best practices regarding support to community-based livelihood and marketing; (iii) assess available forest products and their marketing, branding, and market potentials, and prepare requirements and plans, including branding, to improve marketability of FUG products; and (iv) oversee preparation of templates for FUG marketing plans, based on technical input by other team members on availability of supply and technical feasibility. The specialist will prepare a report on available and potential forest products, and potentials and projections for FUG-marketed products, including plans for improving FUG capacity.

9. **Marketing and branding specialist** (national, 18 person-months). The specialist will (i) prepare and conduct gender-inclusive participatory needs assessment activities and workshops with private sector operators in forest management, community-based organizations, and FUGs to assess (a) capacity at all levels to conduct business operations, and (b) needs for support and capacity building; (ii) assess available and potential products, and marketing channels, constraints, opportunities, and potentials; (iii) prepare requirements and plans, including branding, to improve marketability of FUG products; and (iv) consult with and brief MEGD and other programs on results. The specialist will prepare (i) templates for FUG marketing plans, based on technical input by other team members about availability of supply and technical feasibility; and (ii) training modules and curricula, and provide training to private-sector entities as required and FUGs on marketing, branding, and preparation of business plans.

10. **Community forest specialist** (national, 24 person-months). The specialist will (i) collect, review, and revise forest management plans on national, *aimag*, *soum* (district), and village level, and of FUGs; (ii) review studies, research, and collect other available material on community forest management in the project area and similar geographical areas, including on income-generating potentials such as deadwood and non-timber forest product collection; and (iii) assess capacity of MEGD and local stakeholders to conduct community-based forest management. The specialist will prepare (i) overall plans for sustainable resourcing and supply of salvaged deadwood in Mongolia and the project area; (ii) templates for improved SFM plans on all levels, including budget, implementation mechanisms, monitoring, and reporting; and (iii)

provide capacity building, including curricula and manuals, on community-based forest management planning and implementation to MEGD personnel, forest line agencies, and FUGs.

11. **Wood processing specialist** (international, 4 person-months). The specialist will (i) prepare and participate in an assessment of deadwood availability, sustainable extraction levels, and quality on all forest management levels (national, provincial, district, including sample field assessments in FUG areas); (ii) guide long-term planning for sustainable resourcing and supply of salvaged deadwood in Mongolia and the project area; (iii) review studies, research, and collect other available material on deadwood processing in the project area and similar geographical areas, including proposed technologies and products (for example, briquettes, plywood, charcoal); and (iv) oversee capacity assessment and selection of forest units and FUGs to manage and conduct deadwood salvaging and processing operations. The specialist will (i) prepare plans for capacity building, sustainable extraction of deadwood—including templates for assessment, monitoring, and reporting by local stakeholders—and trial operations; (ii) oversee and plan training for MEGD personnel, forest line agencies, and FUGs; and (iii) plan and oversee wood extraction and processing trials, and installation of fuel-saving technology.

12. **Wood processing specialist** (national, 12 person-months). The specialist will (i) prepare and participate in an assessment of deadwood availability, sustainable extraction levels, and quality on all forest management levels (national, provincial, district, including sample field assessments in FUG areas); (ii) provide long-term planning for sustainable resourcing and supply of salvaged deadwood in Mongolia and the project area; and (iii) assess capacity of MEGD and local stakeholders to conduct deadwood salvaging and processing operations. The specialist will (i) prepare selection criteria for FUGs to participate in trial activities and further capacity building; (ii) prepare plans for capacity building, sustainable extraction of deadwood—including templates for assessment, monitoring, and reporting by local stakeholders—and trial operations; (iii) plan and provide training to MEGD personnel, forest line agencies, and FUGs; and (iv) set up and supervise FUGs in trialing deadwood processing technologies.

13. **Forestry specialist** (national, 18 person-months). The specialist will (i) prepare and participate in assessment of existing and potential skills at FUG and business-entity levels, including sample field assessments in FUG areas; (ii) provide medium- and long-term planning for skills enhancement and capacity building to FUGs, and establish selection criteria for FUGs and FUG members for forest worker training; (iii) liaise with capacity building and training institutions for forest workers, establish working relationships, and facilitate fielding of FUG members in training programs; and (iv) plan and provide briefings to MEGD personnel, forest line agencies, and FUGs on existing training options and required technical skills.

14. **Local community facilitators** (national, 5 facilitators, 18 person-months each). The community facilitators will have a secondary school education (initial tertiary education or college level preferred) and 4 years of working experience in lower management positions, or similar experience. The facilitators will be willing to receive training in mediation, SFM, and marketing and business skills. The facilitators will preferably have local knowledge about the socioeconomic environment, gender roles, community-based organizations, and FUGs. The facilitators will work closely with the forest unit in the *soum* center. The facilitators will (i) participate in workshops and capacity building for line agencies; (ii) organize and facilitate workshops and capacity building activities for FUGs and other local stakeholders; (iii) facilitate coordination between FUGs, line agencies, private sector operators, and other stakeholders; (iv) provide capacity building to FUG members as required; and (v) organize, facilitate, and accompany field trial and pilot activities by FUGs. At least three of the five facilitators recruited will be female.

15. **Resource person on sustainable forest management in boreal steppe forest or comparable ecosystems** (international, 10 person-days). The resource person will hold a position in institutions or environments relevant to sustainable forest management, such as in a forestry research institution, consulting entity, or government agency. The resource person will prepare workshop interventions and participate in a workshop for MEGD personnel and other stakeholders. The resource person will provide insight into international good practices and lessons learned on SFM as applicable to the Mongolian context.

16. **Resource person on household fuel saving technology in cold climate rural areas** (international, 10 person-days). The resource person will hold a position in institutions or environments relevant to the subject, such as in a research institution, consulting entity, or government agency working on replacing inefficient burners and improvement of buildings with fuel-efficient technology. The resource person will have knowledge on the joint crediting mechanism proposed by the Government of Japan. The resource person will prepare workshop interventions and participate in a workshop for MEGD personnel and other stakeholders. The resource person will provide insight into international good practices and lessons learned on household fuel efficiency and the joint crediting mechanism as applicable to the Mongolian context.