ADB

Technical Assistance Report

Project Number: 47200-001
Capacity Development Technical Assistance (CDTA)
October 2014

Mongolia: Transparency and Efficiency in Public Financial Management
(Financed by the Japan Fund for Poverty Reduction)

Asian Development Bank

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

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CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

1.	**Basic Data**			**Project Number:** 47200-001
	Project Name	Transparency and Efficiency in Public Financial Management	**Department /Division**	EARD/EAPF
	Country	Mongolia	**Executing Agency**	Ministry of Finance
	Borrower	MOF		

2.	**Sector**	**Subsector(s)**	**Financing ($ million)**
✔	Public sector management	Public administration	0.80
		Public expenditure and fiscal management	0.30
		Total	**1.10**

3.	**Strategic Agenda**	**Subcomponents**	**Climate Change Information**	
	Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low

4.	**Drivers of Change**	**Components**	**Gender Equity and Mainstreaming**	
	Governance and capacity development (GCD)	Public financial governance	No gender elements (NGE)	✔
	Partnerships (PAR)	Bilateral institutions (not client government)		
		Official cofinancing		

5.	**Poverty Targeting**		**Location Impact**
	Project directly targets poverty	No	Not Applicable

6.	**TA Category:**	B

7.	**Safeguard Categorization**	Not Applicable

8. Financing

Modality and Sources	Amount ($ million)
ADB	**0.00**
None	0.00
Cofinancing	**1.10**
Japan Fund for Poverty Reduction	1.10
Counterpart	**0.00**
None	0.00
Total	**1.10**

9. Effective Development Cooperation

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

I. INTRODUCTION

1.   The Government of Mongolia requested the Asian Development Bank (ADB) to provide technical assistance (TA) to improve transparency and efficiency in public financial management.[1] A TA fact-finding mission from 28 March to 4 April 2014 reached an agreement with the government on the impact, outcome, outputs, implementation arrangements, cost estimate and financing plan, and terms of reference for the TA consulting services. The design and monitoring framework is in Appendix 1.[2]

II. ISSUES

2.   Transparency in public financial management is necessary to make the government more accountable, and to build trust with the citizens of Mongolia, while efficiency in public financial management is necessary to use limited public resources effectively. The keys to transparent and efficient public financial management are budget planning and execution. Investment budget planning should meet short-term local needs and support a country's medium- to long-term development. It is also important to clearly define the process of investment budget execution, and to make the related information publicly available. Moreover, a stable and efficient taxation system is a fundamental element of public financial management, and needed to support national economic development. Taxation systems include various elements such as taxpayer registration, tax and debt collection, verification, and accounting management. Therefore, tax agencies seeking to establish an efficient taxation system must manage administrative costs and make the system user friendly and enforceable. Transparency in taxation is also critical to strengthening taxpayer compliance and trust.

3.   The Government of Mongolia has made substantial efforts to improve transparency and efficiency in public financial management. To further support the government's initiative, key challenges are to improve transparency and efficiency in (i) public investment budget planning and execution, and (ii) the taxation system.

A. Improve Transparency and Efficiency in Public Investment

4.   The Budget Law, enacted in 2002, has defined and regulated budget planning and its execution in Mongolia. It was further amended in 2011 to improve the efficiency and predictability of public resource allocation, and increase transparency in public financial management. The following areas are included in its key regulations: (i) investment planning, financing, and monitoring; (ii) transparency in budgeting and accountability; and (iii) citizens participation in budgeting. As a step to implementing the amended Budget Law, the Ministry of Finance (MOF) initiated establishment of a public investment information management and monitoring platform to enhance transparency and efficiency in public investment through the use of information and communication technology (ICT).[3]

5.   This platform is intended to make relevant information and data publicly available, and manage and supervise public investment. The platform will therefore include both a public monitoring portal for public investment (PMPPI) and a public investment management

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[1] The TA is included in ADB's country operations business plan. ADB. 2014. *County Operations Business Plan: Mongolia, 2014–2016*. Manila.
[2] The TA first appeared in the business opportunities section of ADB's website on 15 October 2014.
[3] The public investment covers all investment budgets managed by the MOF, including the Local Development Fund.

information system (PIMIS). The PMPPI will provide relevant data and information to the public, and is expected to enable citizens to monitor public investment planning and execution.[4] The PIMIS is an ICT system designed to manage and supervise public investment.[5]

6.   The MOF is preparing physical facilities to establish the platform (e.g., constructing the necessary ICT facilities). However, no assessment has been made of PMPPI and PIMIS quality or their readiness for full implementation. Moreover, MOF is critically behind in developing integrated system management to support PMPPI and PIMIS functions and the linkages between them. Quality integrated system management is critical to ensure the functions and security of the platform.

B.   Electronic Taxation System

7.   Improving tax administration has been a challenge for the General Department of Taxation (GDT) in Mongolia. Electronic taxation (e-taxation) is a promising approach to improve efficiency and transparency in tax administration through appropriate ICT adoption. Successful electronic tax administration is expected to increase taxation efficiency by reducing administrative costs, enhancing taxpayer convenience, and increasing tax compliance. Electronic administration also strengthens transparency by standardizing taxation processes and procedures. An e-taxation system will address the administrative needs of the tax agency and the tax compliance requirements of taxpayers. Therefore, an e-taxation system needs to incorporate various taxation functions—for taxpayer registration, return filing, and tax payment— and be an interactive system that supports various users (e.g., taxpayers, tax agency staff, and statutory auditors). Hence, establishing an e-taxation system will require substantial investment in ICT infrastructure, networks, and business process standardization.

8.   The GDT began transitioning to an electronic system in the early 2000s. It has been working to establish a tax information system to automate registration of taxpayers and tax types, tax accounting, tax payment, and the tax refund process. As of 2012, the e-taxation returns accounted for about 77% of the total collected value-added tax, 20% of the income tax, and 15% of the withholding tax.[6] The GDT has also been establishing an online data exchange system to link the taxation system with other government agencies.[7] The GDT has made a significant effort to develop these major functions, but this is not sufficient to establish a functional e-taxation system, given such a system's complex nature. In particular, the quality of and linkages between the following four elements are essential for a functional system: (i) business process and procedures; (ii) database management; (iii) ICT application software; and (iv) ICT infrastructure.

9.   Business processes and procedures related to tax administration (business architecture) are very complex, and the lack of a standard process is one of the most serious obstacles a tax agency faces when it adopts ICT to its taxation system. Therefore, business process standardization is the most fundamental element of an e-taxation system. Database management (data architecture) involves the design of a data structure to ensure consistency in and manage redundancy of all related data in the system. The database covers various taxation-related data, including taxpayer records, tax returns, tax accounting, appeals and

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[4]   This portal will not be interactive (citizens will not enter data or information).
[5]   This system will be interactive, and provide both information and transaction services for its main users— companies that are implementing projects, ministries (implementing agencies), and the MOF (supervisor).
[6]   ADB. 2014. *Promoting ICT in Mongolia: ADB Assistance Options*. Manila.
[7]   Tax Related Information Program Assistance, funded by the World Bank, helped the GDT establish the necessary ICT system for data collection, taxpayer registration, and tax collection records.

objections, and audit trails; it also holds the data that must be exchanged with other agencies such as banks and relevant ministries. Therefore, effective database management is essential for a functional and efficient e-taxation system. ICT application software (application architecture) seeks to streamline taxation and compliance processes and ensure adequate internal controls, and thus must identify specific software to support standardized business procedures and database management, and ensure the major taxation system functions are linked. Furthermore, ICT infrastructure (technology architecture) is the base of the e-taxation system, which hosts the application software, and must identify specific ICT technology that will support the needed network, programming language, and risk management functions. To establish a functional e-taxation system, the GDT needs to assess the quality and readiness of these core elements, with integrated management that ensures those functions, the linkages between them, and secured operations.

10.   The Mongolia Interim Country Partnership Strategy, 2014–2016 identified good governance as a thematic driver of change to support the effective use of public resources in Mongolia.[8] The Midterm Review of Strategy 2020 emphasizes the importance of governance and institutional capacity in sustaining growth momentum and ensuring inclusive development.[9] Transparency and efficiency in public financial management are underlying factors for good governance that have been critically lacking in Mongolia. Previous ADB support was provided to improve public financial management in Mongolia through strengthening of accounting systems, relevant regulations, and public auditing.[10]

11.   The proposed TA is a continuation of ADB support for strengthening public financial management in Mongolia. It will provide further assistance to the government to improve transparency and efficiency in public investment and taxation by using ICT. Specifically, it will support the MOF to establish a public investment information management and monitoring platform, including the PMPPI and PIMIS, by focusing on their quality and readiness for full implementation and an integrated system management analysis to ensure the platform is both functional and secure. The proposed TA will also support the GDT to establish an e-taxation system, with particular attention to the four major elements of a functional e-taxation system: business processes and procedures, database management, ICT application software, and ICT infrastructure.

III.   THE CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE

A.   Impact and Outcome

12.   The impact will be improved transparency and efficiency in public investment and taxation. The achievement will be measured by enhanced utilization of a public investment information management and monitoring platform, and an e-taxation system. The outcome will be improved functionality and system integration of the public investment information management and monitoring platform, and the e-taxation system.

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[8]   ADB. 2014. *Interim Country Partnership Strategy: Mongolia, 2014–2016*. Manila.
[9]   ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and the Pacific*. Manila.
[10] ADB. 1995 and 1997. *Technical Assistance to Mongolia for Improving Accounting and Auditing Systems*. Manila; ADB. 2002. *Technical Assistance to Mongolia for Capacity Building for Accounting and Auditing Professionals*. Manila; ADB. 2003. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Mongolia for Second Phase of the Governance Reform Program*. Manila; ADB. 2013. *Technical Assistance to Mongolia for Development of State Audit Capacity*. Manila.

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B. Methodology and Key Activities

13. The proposed TA will deliver six major outputs in the following components: (i) transparency and efficiency in public investment and (ii) an e-taxation system.

14. The following outputs will be delivered to support transparency and efficiency in public investment:
(i) A policy recommendation (knowledge product) on ensuring the respective functions of the PMPPI and PIMIS, and establishing integrated system management.
(ii) Capacity development for (a) relevant government officials and companies that implement public investment projects in the proper operation and use of the PIMIS, and (b) MOF ICT personnel in the platform's maintenance and secured operation.
(iii) Enhanced public awareness and understanding of the issue of public investment transparency and the function of the PMPPI, with development of a general users' guide.

15. The policy recommendation will be produced based on an analysis of integrated system management that supports the respective functions of the PMPPI and PIMIS, and the linkage between those functions. The TA will also assess the quality and readiness of the PMPPI and PIMIS for full implementation, and produce a system management manual to ensure the platform's sustainable operation. Trial platform testing will be also supported, and an assessment of the platform's functionality with an action plan for full implementation will be included in the policy recommendation.

16. The following outputs will be delivered to support an e-taxation system:
(i) Policy recommendation (a knowledge product) for technology upgrading and system integration for an e-taxation system.
(ii) Risk management system support for operation of tax administration.
(iii) Capacity development for relevant GDT officials and ICT personnel to sustain secured operation of the e-taxation system with development of training materials, and increased public awareness of the e-taxation system.

17. The policy recommendation will be produced based on a diagnostic assessment of the current ICT system for electronic tax administration with particular attention to (i) business processes (business architecture), (ii) database management (data architecture), (iii) ICT application and software (application architecture), and (iv) ICT infrastructure (technology architecture). The diagnostic assessment will focus on the quality and readiness of those four core elements, and the linkage of those elements for technology upgrading and system integration for a functional e-taxation system. Based on the diagnostic assessment, an investment and action plan for full implementation of e-taxation system will be produced and included in the policy recommendation.

18. To support the risk management system, taxation workflow management will be analyzed, and associated risks and mitigation measures identified for secure tax administration.

C. Cost and Financing

19. The TA is estimated to cost $1,155,000, of which $1,100,000 will be financed on a grant basis by the Japan Fund for Poverty Reduction and administered by ADB. The government will

provide counterpart support in the form of office space, counterpart staff, assistance in arranging meetings with relevant agencies, and other in-kind contributions.

D.   Implementation Arrangements

20.   The TA will be implemented over 24 months, from November 2014 to November 2016. The Fiscal Policy and Planning Department of the MOF is the executing agency. The Local Development Fund Division is the implementing agency for component 1, and the GDT is for component 2.

21.   The TA will cover remuneration, travel, and per diem of consultants, as well as the costs of workshops, seminars, and miscellaneous expenses. Disbursements under the TA will be in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). Two data servers will be procured under component 1. Procurement will be in accordance with ADB's Procurement Guidelines (2013, as amended from time to time).

22.   A firm will be recruited for both components respectively; a firm will provide two international consultants and three national consultants for component 1, and another firm will provide three international consultants and five national consultants for component 2. The preferred selection method is quality- and cost-based selection with a quality–cost ratio of 80:20, using a simplified technical proposal. One individual consultant will be required to address components 1 and 2. All consultants will be engaged by ADB in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time). Outline terms of reference for consultants with deliverables linked to the design and monitoring framework are in Appendix 3. The respective team leaders will develop a detailed work plan with the executing agency and the implementing agencies at the outset of the TA, and will be responsible for coordinating with other consultants working on their respective components. The consultants will maintain close working relations with the executing agency, the implementing agencies and ADB, and will regularly discuss project progress.

23.   The executing agency and the implementing agencies will supervise the consultants' day-to-day work. The project outputs, including knowledge products, will be disseminated at workshops and seminars. Workshops and seminars will be attended by government officials, private sector representatives, civil society members and specialists to ensure the inclusion of diverse views and the wide dissemination of project outputs. The project-specific indicators and targets in the design and monitoring framework, including outcome evaluation, will be monitored by the executing agency and the implementing agencies with ADB support. Policy dialogue will be maintained with the relevant government agencies, and project-specific issues will be taken up with government counterparts during review missions. Technical milestones will be monitored by reports to be prepared by the consultants and reviewed by the executing agency, the implementing agencies, and the ADB project officer. Milestones related to TA implementation will be monitored by the team leader.

IV.   THE PRESIDENT'S DECISION

24.   The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of $1,100,000 to be financed on a grant basis by the Japan Fund for Poverty Reduction for Transparency and Efficiency in Public Financial Management, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Improved transparency and efficiency in public investment and taxation	By 2023, 50,000 instances of public access to PMPPI (measured by the number of visits to a website), with at least 50% of public investment projects managed through the PIMIS (Baseline 2014: 0) By 2023, at least 50% of tax payers filed their tax payment through the e-taxation system (Baseline 2012: 20%)	Relevant official documents Operation of the platform, including the PIMIS and PMPPI Operation of e-taxation system	**Assumption** The government will continue to support improving transparency and efficiency in public financial management. **Risks** Needed equipment will not be available for citizens to access PMPPI and file their tax payment through the e-taxation system. Tax payers will not have necessary skills to file their tax payment through the e-taxation system.
Outcome Improved functionality and system integration of the public investment information management and monitoring platform, and the e-taxation system	By 2017, integration of PMPPI and PIMIS completed (Baseline 2014: N/A) By 2017, integration of each module under e-taxation system completed (Baseline 2014: N/A)	Relevant official documents TA completion report	**Assumption** Necessary ICT experts are available to be hired in the labor market. **Risk** Existing modules of e-taxation system are incompatible.
Outputs 1. Policy recommendation (knowledge product) on ensuring the respective functions of the PMPPI and PIMIS, and establishing integrated system management 2. Capacity development of relevant officials and relevant companies in proper operation and use of PIMIS, and MOF ICT personnel in the platform's maintenance and secure operation	Integrated system management, quality and readiness of PMPPI and PIMIS assessed by August 2015 Pilot testing support completed by October 2015 System management manual and policy recommendation completed by January 2016 At least 20 officials and ICT personnel have increased knowledge and skills by June 2016 General users guideline developed by March 2016	TA progress reports Technical reports TA final report	**Assumption** Public is interested in being involved in the PMPPI and e-taxation system.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
3. Public awareness and understanding of the issue of public investment transparency and the function of PMPPI	At least 50 participants in workshop with increased knowledge of PMPPI by June 2016		
4. Policy recommendation (knowledge product) for technology upgrading and system integration for an e-taxation system	Diagnostic assessment completed by September 2015 An investment and action plan, and policy recommendation completed by January 2016		
5. Risk management system support for operation of tax administration in place	Workflow for taxation assessed, and associated risks and mitigation measures identified November 2015 Report on the risks and mitigation measures prepared by January 2016		
6. Capacity development for relevant GDT officials and ICT personnel to sustain secured operation of the e-taxation system, and increased public awareness of the e-taxation system	At least 20 officials and ICT personnel have increased knowledge and skills of e-taxation system operation by July 2016 At least 50 participants have increased knowledge of e-taxation system by July 2016		

Activities with Milestones	Inputs
1.1 Analyze integrated system management and the quality and readiness of PMPPI and PIMIS, by August 2015 1.2 Pilot test support and assess the platform's functionality, by October 2015 1.3 Develop a system management manual and complete the policy recommendation (knowledge product), by January 2016 2.1 Develop a general users' guideline, by March 2016 2.2 Implement capacity development training, by June 2016 3.1 Hold workshops and seminars for public awareness and understanding, by September 2016 4.1 Complete diagnostic assessment, by September 2015 4.2 Develop an investment and action plan for full implementation of an e-taxation system, by January 2016 4.3 Complete policy recommendation (knowledge product), by January 2016 5.1 Analyze workflow management for taxation, by November 2015 5.2 Identify associated risks and mitigation measures, by November 2015	**Japan Fund for Poverty Reduction: $1,100,000** Note: The government will provide counterpart support in the form of local office accommodation, data, documents for consultants, counterpart staff, and other in-kind contributions.

5.3 Complete report on risks and mitigation measures, by January 2016 6.1 Develop training materials, by March 2016 6.2 Offer training for relevant officials and ICT personnel, by August 2016 6.3 Hold workshop for public awareness, by September 2016	

GDT = General Department of Taxation, ICT = information and communication technology, MOF = Ministry of Finance, N/A = not applicable, PIMIS = public investment management information system, PMPPI = public monitoring portal for public investment, TA = technical assistance.
Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
($'000)

Item	Component 1	Component 2	Total Cost
Japan Fund for Poverty Reduction [a]			
1. Consultants			
a. Remuneration and per diem			
i. International consultants	285.00	282.00	567.00
ii. National consultants	76.00	80.00	156.00
b. International and local travel	45.00	45.00	90.00
c. Reports and communications [b]	4.00	4.00	8.00
2. Equipment [c]	100.00	0.00	100.00
3. Workshops, training, seminars [d]	43.00	38.00	81.00
4. Miscellaneous administration and support costs [e]	5.00	11.00	16.00
5. Contingencies	42.00	40.00	82.00
Total	600.00	500.00	**1,100.00**

Note: The technical assistance (TA) is estimated to cost $1,155,000, 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 local office accommodation, data, documents for consultants, counterpart staff, and other in-kind contributions. The value of government contribution is estimated to account for 5% of the total TA cost.

[a] Administered by the Asian Development Bank (ADB).

[b] Includes cost of written translation of documents.

[c] Two data servers will be procured, and the equipment will be turned over to the implementing agency of component 1 upon completion of the TA activities. Maintenance costs, including future maintenance costs, will not be included.

[d] Includes venue rental, participants' travel and accommodation, interpretation, translation and other logistics for conferences, seminars, workshops, training, research networking, and other high-level meetings. Any workshops, training, and seminars must occur in ADB eligible member countries.

[e] Includes editing and translation of reports, and other logistics and administration costs.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1.   The international consultants should preferably have a postgraduate degree or equivalent with about 12 years of international experience in their respective field of expertise. The national consultants should preferably have a master's degree or equivalent and about 8 years of professional experience in their respective field of expertise. A firm will be recruited respectively for components 1 and 2. The preferred selection method is quality- and cost-based selection using a quality–cost ratio of 80:20. One individual consultant will be required to address components 1 and 2. All consultants will be recruited in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time) of the Asian Development Bank (ADB). The respective consulting teams will be responsible for the timely submission of technical assistance (TA) deliverables and implementing all TA activities, and conducting training, workshops and seminars, including logistics and administration. All reports are to be of high quality and produced in English with copies in Mongolian. Precise work timelines and deliverables with dates will be defined at inception, documented in the inception report, and agreed upon with the executing agency, the implementing agencies, and ADB.

A.   Consulting Firm (Component 1: Transparency and Efficiency in Public Investment)

2.   **International management information system specialist and team leader** (7.5 person-months)**.** The international expert should have professional expertise in management information systems (MISs) and a portal site in the area of public investment. He or she must have knowledge of active server pages (ASPs), Procedural Languages/Structured Query Languages (PL/SQL), and be preferably certified as a Cisco Certified Network Associate (CCNA) and/or Cisco Certified Network Professional (CCNP). The expert will
    (i)   work closely with other consultants and the implementing agency for component 1, and be responsible for overall management of TA implementation, including guiding, supervising and coordinating the work of all team members, and consolidating and submitting all reports;
    (ii)   assess the quality and readiness for full implementation of the public investment management information system (PIMIS) and the public monitoring portal for public investment (PMPPI), and provide technical advice to the implementing agency to support full PIMIS and PMPPI implementation;
    (iii)   analyze integrated system management to support the respective functions of the PIMIS and PMPPI, and the linkage of their functions, and provide technical advice to the implementing agency to ensure functional integrated system management;
    (iv)   prepare a knowledge product (technical note) documenting (a) the above-mentioned assessment and analysis, with policy recommendations for full PIMIS and PMPPI implementation and (b) an analysis of quality integrated management system to ensure the functions and security of the public investment information management and monitoring platform including PIMIS and PMPPI; and submit the knowledge product to the implementing agency and ADB;
    (v)   prepare a system management manual to ensure sustainable operation of the platform and submit it to the implementing agency and ADB;
    (vi)   specify targets and training courses and conduct training for (a) relevant government officials, and companies that implement public investment projects in proper operation of PIMIS; and (b) ICT personnel in maintaining the secure operation of the platform; and prepare a technical report summarizing training courses, achievements and further capacity development needs, and submit it to the implementing agency and ADB;

(vii)   lead discussions with the implementing agency to specify key issues to be covered during workshops and/or seminars for enhancement of public awareness and understanding of the issue of public investment transparency and the function of the PMPPI, and deliver sessions at the workshops and seminars;

(viii)   prepare general user guidelines for PMPPI; and assist national consultants in developing training materials; and

(ix)   draft an inception report and a final report, and submit the completed inception and final reports to the implementing agency and ADB.

3.   **International management information system and information and communication technology specialist** (4.5 person-months). The international expert should have professional experience with MISs and ICT systems in the area of public investment, and must be familiar with pilot testing of MISs and a portal site. Specifically, he or she must preferably have knowledge of ASP, PL/SQL, CCNA, and CCNP. The expert will

(i)   be responsible for providing technical advice to support the implementing agency in conducting pilot testing of the platform including PIMIS and PMPPI; and assess the pilot testing, develop an action plan for full implementation of the platform, and submit to the implementing agency and ADB;

(ii)   assist the team leader in specifying training targets, detailed training courses, and key issues to be covered at the workshops and/or seminars; and conduct training and deliver sessions at the workshops and seminars;

(iii)   support the national consultants in developing training materials; and

(iv)   assist the team leader in completing all reports and conducting all TA activities.

4.   **National information and communication technology specialist (programming)** (8.5 person-months)**.** The national expert should have professional experience with ICT systems, and particularly MISs and related programming. He or she must be familiar with ICT infrastructure development in Mongolia. Knowledge of the MOF ICT system in Mongolia is preferred. The expert will

(i)   with a focus on programming, assist the team leader in assessing the quality and readiness of the PIMIS and PMPPI, and analyzing the integrated system management that supports and links their respective functions;

(ii)   with a focus on programming, assist the international MIS and ICT specialist in supporting pilot testing and performance assessment;

(iii)   assist international consultants in conducting all TA activities; and

(iv)   conduct training for (a) relevant government officials, and companies that implement public investment projects, in the proper operation and use of the PIMIS; and (b) ICT personnel in maintaining the secure operation of the platform; and develop training materials; and deliver sessions at workshops and seminars.

5.   **National information and communication technology specialist (network)** (8.5 person-months). The national expert should have professional experience with ICT systems, particularly MISs and related networks. He or she must be familiar with ICT infrastructure development in Mongolia. Knowledge of the MOF ICT system in Mongolia is preferred. The expert will

(i)   with a focus on networks, assist the team leader in assessing the quality and readiness of the PIMIS and PMPPI, and analyzing integrated system management that supports the respective functions of the PIMIS and PMPPI, and the linkage of their functions;

(ii)   with a focus on networks, assist the international MIS and ICT specialist in supporting pilot testing with performance assessment; and

(iii)   perform the same tasks as the national ICT specialist (programming), i.e., para. 4, (iii)–(iv).

6.   **National information and communication technology translation specialist** (4 person-months). The experts should have professional experience in ICT-related translation, and be familiar with ICT and MIS technical terminologies in both English and Mongolian. The experts will translate all reports, training materials and background documents between English and Mongolian, and submitting them to the implementing agency, other consultants, and ADB.

B.   Consulting Firm (Component 2: E-Taxation System)

7.   **International information and communication technology and e-taxation specialist and team leader** (8 person-months). The international expert should have professional experience in ICT for a tax administration information system (TAIS), and should preferably hold the open group architecture framework (TOGAF) certification or equivalent. The expert will
(i)   work closely with other consultants and the implementing agency for component 2, and be responsible for overall management of TA implementation, including guiding, supervising and coordinating the work of all team members, and consolidating and submitting all reports;
(ii)   conduct a diagnostic assessment of the TAIS with particular attention to (a) business processes and procedures (business architecture), (b) database management (data architecture), (c) ICT application and software (application architecture), and (d) ICT infrastructure (technology architecture), and provide technical advice to the implementing agency to improve these four core elements. The diagnostic assessment will assess quality and readiness of respective TAIS subsystems and the linkage of those subsystems to establish a functional TAIS;
(iii)   (a) based on the diagnostic assessment, prepare an investment and action plan to fully implement a functional TAIS in Mongolia; and (b) prepare technical report 1 documenting the diagnostic assessment, the recommendations and investment and action plan, and submit it to the implementing agency and ADB;
(iv)   assist the international ICT and e-taxation specialist in specifying targets and courses of training for relevant officials and ICT personnel to sustain secured operation of the e-taxation system, and in developing training materials; and deliver training sessions;
(v)   assist the international ICT and e-taxation specialist in specifying key issues to be covered by a final workshop, and deliver sessions at the workshop; and
(vi)   draft inception and final reports; and submit completed inception and final reports to the implementing agency and ADB.

8.   **International information and communication technology and e-taxation specialist** (4 person-months). The international expert should have professional experience in ICT for a TAIS. He or she should preferably hold TOGAF certification or equivalent. Knowledge of Mongolian ICT infrastructure development and the current e-taxation-related ICT system is preferred. The expert will:
(i)   work closely with the international tax administration specialist and review workflow management of tax administration and the current TAIS; analyze improved workflow management to effectively control tax administration and an entire TAIS, and manage data and information risks; provide technical advice for the implementing agency to improve the workflow management; prepare technical report 2, documenting the review, analysis and recommendations; and submit the technical report to the implementing agency and ADB;

(ii)   specify targets and courses of training for relevant officials and ICT personnel to sustain secured operation of the TAIS; develop training materials; conduct training; and prepare technical report 3, summarizing training courses, achievement and further needs for capacity development and submit it to the implementing agency and ADB;

(iii)   lead discussions with the implementing agency to identify key issues to be covered by a final workshop; deliver sessions at the final workshop; and

(iv)   assist the team leader in completing all reports and conducting all TA activities.

9.   **International tax administration specialist** (1 person-month). The international expert should have professional experience in the tax business process. He or she must be familiar with the standardization of tax business processes under TAIS. The expert will:

(i)   work closely with the international ICT and e-taxation specialist and review tax administration and related business processes in Mongolia; produce policy recommendations on reengineering the tax business process to be appropriately adopted in the TAIS;

(ii)   prepare technical report 4 based on the review, and including policy recommendations, and submit it to the implementing agency and ADB; and

(iii)   deliver sessions at a final workshop with appropriate presentation materials.

10.   **National information and communication technology specialist (software)** (4 person-months). The national expert should have professional experience with ICT systems, and in particular software relating to TAIS. He or she must be familiar with TAIS-related ICT system development in Mongolia. TOGAF certification is preferred. The expert will:

(i)   with a focus on application software, assist the team leader in conducting a diagnostic assessment of the current TAIS, and in preparing an investment and action plan to fully implement a functional TAIS;

(ii)   with a focus on application software, assist the international ICT and e-taxation specialist in reviewing and analyzing workflow management of tax administration and the current TAIS, and preparing a technical report;

(iii)   assist the international ICT and e-taxation specialist in specifying targets and detailed courses of training and developing training materials, and deliver sessions at training; and

(iv)   assist international specialists in conducting all TA activities and deliverables; and deliver sessions at the final workshop.

11.   **National information and communication technology specialist (information and communication technology infrastructure)** (5 person-months). The national expert should have professional experience with ICT systems, particularly ICT infrastructure relating to TAIS. He or she must be familiar with TAIS-related ICT system development in Mongolia. TOGAF certification is preferred. The expert will:

(i)   with a focus on ICT infrastructure, assist the team leader in conducting a diagnostic assessment of the current TAIS, and preparing an investment and action plan to fully implement a functional TAIS;

(ii)   with a focus on ICT infrastructure, assist the international ICT and e-taxation specialist in reviewing and analyzing workflow management of tax administration and the current TAIS, and in preparing a technical report; and

(iii)   perform the same tasks as the national ICT specialist (software), i.e., para. 10, (iii) –(iv).

12.   **National information and communication technology specialist (database management)** (4 person-months). The national expert should have professional experience with ICT systems, particularly database management relating to TAIS. He or she must be familiar with TAIS-related ICT system development in Mongolia. TOGAF certification is preferred. The expert will:

(i)   with a focus on database management, assist the team leader in conducting a diagnostic assessment of the current TAIS, and preparing an investment and action plan to fully implement a functional e-taxation system;

(ii)   with a focus on database management, assist the international ICT and e-taxation specialist in reviewing and analyzing workflow management of tax administration and the current TAIS and in preparing a technical report; and

(iii)   perform the same tasks as the national ICT specialist (software), i.e., para. 10, (iii)–(iv).

13.   **National information and communication technology specialist (business processes and procedures)** (5 person-months). The national expert should have professional experience with ICT systems, particularly, business processes and procedures relating to TAIS. He or she must be familiar with TAIS-related ICT system development in Mongolia. TOGAF certification is preferred. The expert will:

(i)   with a focus on business processes and procedures, assist the team leader in conducting a diagnostic assessment of the current TAIS, and preparing an investment and action plan to fully implement a functional e-taxation system;

(ii)   with a focus on business processes and procedures, assist the international ICT and e-taxation specialist in reviewing and analyzing workflow management of tax administration and the current TAIS and in preparing a technical report; and

(iii)   perform the same tasks as the national ICT specialist (software), i.e., para. 10, (iii)– (iv).

14.   **National information and communication technology translation specialist** (2 person-months). The experts should have professional experience in ICT-related translation. He or she must be familiar with ICT and TAIS technical terminology in both English and Mongolian. The experts will translate all reports, training materials and background documents between English and Mongolian, and submit them to the implementing agency and ADB.

C.   Individual Consultant

15.   **International information and communication technology specialist** (2 person-months). The international expert should have professional expertise with a public investment portal site, MISs and e-government, including electronic taxation. Certification of ASP, PL/SQL, CCNA, CCNP, and TOGAF is preferred. The expert will

(i)   work closely with the executing and implementing agencies of components 1 and 2, ADB, and the other consultants to ensure the coordination of all activities under the TA;

(ii)   provide technical support to the implementing agencies in conducting ICT-related technical verification of each activity under the TA;

(iii)   advise the implementing agencies, in close consultation with ADB, in reviewing project deliverables, including all project reports, and provide technical support to the implementing agencies in refining the deliverables to ensure the quality of project outputs; and

(iv)   assist the implementing agencies in monitoring and supervising day-to-day project implementation as required, and liaising with ADB.