

Project Administration Manual

Project Number: 50278
Grant Numbers: G9192; GXXXX
January 2020

Mongolia: Community Vegetable Farming for Livelihood Improvement Project

ABBREVIATIONS

ADB	—	Asian Development Bank
CGG	—	community grower group
CGAP	—	community group action plan
CPDPCD	—	Crop Production Development Policy and Coordination Department
CSO	—	civil society organization
DMF	—	design and monitoring framework
EOJ	—	Embassy of Japan
FMA	—	financial management assessment
GAP	—	gender action plan
GOM	—	Government of Mongolia
HLT	—	high-level technology
JFPR	—	Japan Fund for Poverty Reduction
MOF	—	Ministry of Finance
MOFALI	—	Ministry of Food, Agriculture, and Light Industry
NCB	—	national competitive bidding
NGO	—	nongovernment organization
O&M	—	operation and maintenance
PAM	—	project administration manual
PIU	—	project implementation unit
PPD	—	Policy Planning Department of MOFALI
PPMS	—	project performance monitoring system
SOE	—	statement of expenditure
SPS	—	Safeguard Policy Statement

GLOSSARY

<i>aimag</i>	—	province
<i>soum</i>	—	district
<i>bagh</i>	—	sub-district

CONTENTS

I.	PROJECT DESCRIPTION	1
A.	Project Rationale	1
II.	IMPLEMENTATION PLANS	6
A.	Project Readiness Activities	6
B.	Overall Project Implementation Plan	7
III.	PROJECT MANAGEMENT ARRANGEMENTS	19
A.	Project Implementation Organizations – Roles and Responsibilities	19
B.	Key Persons Involved in Implementation	21
C.	Project Organization Structure	22
D.	Grant Management	23
IV.	COSTS AND FINANCING	24
A.	Cost Estimates and Financing Plan	24
B.	Allocation and Withdrawal of Grant Proceeds	26
C.	Detailed Cost Estimates by Financier	27
D.	Detailed Cost Estimates by Output	28
E.	Estimated Disbursement Schedule by Year	28
F.	Contract and Disbursement S-curve	30
G.	Funds Flow Diagram	31
V.	FINANCIAL MANAGEMENT	32
A.	Financial Management Assessment	32
B.	Disbursement	35
C.	Accounting	36
D.	Auditing and Public Disclosure	37
VI.	PROCUREMENT AND CONSULTING SERVICES	38
A.	Advance Contracting and Retroactive Financing	38
B.	Procurement of Goods, Works and Consulting Services	38
C.	Procurement Plan	39
D.	Consultant's Terms of Reference	46
VII.	SAFEGUARDS	52
VIII.	GENDER AND SOCIAL DIMENSIONS	52
IX.	PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION	56
A.	Project Design and Monitoring Framework	56
B.	Monitoring	60
C.	Evaluation	61
D.	Reporting	62
E.	Stakeholder Communication Strategy	63
X.	ANTICORRUPTION POLICY	64
XI.	ACCOUNTABILITY MECHANISM	64
XII.	RECORD OF PAM CHANGES	64
APPENDICES:		
JAPAN FUND FOR POVERTY REDUCTION – GUIDANCE NOTE ON VISIBILITY OF JAPAN		65
JAPAN FUND FOR POVERTY REDUCTION – GUIDANCE NOTE ON COORDINATION WITH THE EMBASSY OF JAPAN AND JICA		68
STAKEHOLDER COMMUNICATIONS STRATEGY		70
NOTES FOR IMPLEMENTING THE PROJECT		72

ENVIRONMENTAL MANAGEMENT SUMMARY	86
PROJECT IMPLEMENTATION UNIT STAFFING REQUIREMENT	85
PROJECT IMPLEMENTATION SUPPORT FIRM/NGO STAFFING REQUIREMENT	91
SOU M PROFILES	102
REQUEST FOR FUNDING SUPPORT FROM RETA 9057	114

Project Administration Manual Purpose and Process

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

The Ministry of Food, Agriculture and Light Industry (MOFALI) is wholly responsible for the implementation of the project, as agreed jointly between the grant recipient and ADB, and in accordance with the government's and ADB's policies and procedures. ADB staff is tasked with supporting the implementation including compliance by MOFALI with ADB's policies and procedures.

MOFALI and ADB shall agree to PAM (this document) and ensure its consistency with the grant agreements. In the event of any discrepancy or contradiction between the two, the provisions of the grant agreements shall prevail.

After ADB approval of the project's Grant Assistance Report (GAR) and Additional Financing Report, changes in implementation arrangements are subject to agreement and approval based on relevant government and ADB administrative procedures (including ADB's Project Administration Instructions) and upon such approval they will be incorporated in PAM.

I. PROJECT DESCRIPTION

A. Project Rationale

1. Unlike livestock herding with its centuries-old traditions, vegetable farming remains an underdeveloped sector in Mongolia despite good potential for cropping, particularly in the country's central growing region, spanning Darkhan-Uul, Selenge, and Tuv *aimags*. In line with the Government of Mongolia's policy to diversify the economy and lessen the disproportionate dependence on livestock and (especially) mining characteristic of recent years, agriculture—including smallholder vegetable farming—has become a priority. Within agriculture more broadly conceived, investments in vegetable farming, processing, and marketing are considered particularly promising in improving the well-being of Mongolia's local communities.
2. Gradually creating alternatives to collectivized agriculture of the socialist period, Mongolia has made strides to become self-sufficient in cereal and potato production; but until now, vegetable farming has received less attention and remains undeveloped and inefficient. This perpetuates low income for vegetable farmers and high reliance on imported products, both threatening national food security. On average, only about half of the country's annual vegetable demand was met by domestic production from 2008 to 2016. No more than three items (cabbage, carrot, and turnip) account for close to 70% of overall area planted to vegetables.¹ The demand for good quality locally grown fresh produce is on the rise as urbanization increases and better-informed citizenry becomes more concerned about traditional reliance on meat as a diet staple and aware of the need to have a more balanced diet for better health.²
3. **Limited access to market and foregone income-generating opportunities.** It is difficult for farmers to access markets with good terms, and they are often compromised at the hands of middlemen. In addition, severe climatic conditions and short Mongolian summers limit the cropping season and add to the challenges faced by the sector as they result in marked seasonal variability of supply and prices. In the absence of adequate post-harvest and storage facilities, local producers cannot benefit from the higher off-season prices and a large share of domestic demand is filled by imports. The same lack of storage and post-harvest processing leads to significant waste of seasonal production surpluses. With more commercial experience and know-how on post-harvesting value-added opportunities and marketing, smallholder farmers will have better access to markets, more negotiation power, and more secured income.
4. **Inefficient agricultural practices and low capacity to respond to harsh climate.** Mongolia has not traditionally seen much crop farming. Farmers lack technical expertise on sustainable farming practices as well as relevant tools and technologies for expanding and sustaining growing patterns and are considerably unprepared for climate change. Additionally, about 80% of vegetable production is estimated to be performed manually—in a country that is not labor-abundant, this has severe implications. Lack of mechanization together with inefficient water use and archaic irrigation practices often make farming financially marginal and uncompetitive with imports. Currently in project areas, the average farming household produces a small 7 tons of vegetables annually. With access to more consistent and good quality inputs, introduction of appropriate tools, and increased technical knowledge of sustainable climate-resilient cropping practices, smallholder farmers will be able to increase yields and income.

¹ Other main vegetables produced in Mongolia include beetroot, cucumber, garlic, onion, and tomato.

² Mongolia has one of the world's highest incidence of cardiovascular disease, which is also the country's leading cause of death. Its high incidence has been linked to lifestyle and (also) diet. This offers a convenient example of one of the project's potential indirect benefits.

5. **Small fragmented holdings and weak capacity.** There are about 300 cooperatives and 35,000 households across the country growing vegetables on plots of up to 100 hectares (ha), totaling an area of about 7,200 ha. Typical, however, are fragmented smallholdings of up to 5 ha characterized by limited work force, low levels, and quality of inputs (agrochemicals, seeds, water, and others), and scant financial resources. Smallholder farming income is low; and opportunities are curtailed, not only because of continuous application of poor agricultural practices and inconsistent supply and quality of farming inputs; but also because of lack of collaboration among farming households. Opportunities for better managed collective areas for farming, increased livelihood security, and economies of scale can be achieved with more collaboration, organization, and shared capacity among the farmers.

6. The project aims to overcome some of the handicaps the sector currently faces and improve livelihoods for households involved in smallholder vegetable production. This will be achieved by implementing a community farming model anchored in a more efficient use of growers' own resources, expanded access to agricultural inputs, support infrastructure and know-how, and improvement of farm-to-market linkages. It will create 30 farming and seed-producing groups (community grower groups [CGGs]) organized into inclusive agriculture value chains in Bornuur, Orkhon, Ulaangom, and Yeruu soums. The sites have been selected based on suitability of areas for vegetable production, scope for applying a pro-poor participatory approach, existence of enabling policy environment, and proximity to main transport networks.³

7. **Strategic fit.** On the back of its Sustainable Development Vision 2030, Program of Action 2016–2020, State Policy on Food and Agriculture and Crop Production Law, Mongolia is committed to improving vegetable production.⁴ The State Policy stresses the need to improve agricultural productivity through a value chain approach, climate change adaptation, and capacity building for farmers. Smallholder farming is to be one of the priorities. Local vegetable production is to meet 70% of domestic demand by 2020 and its totality by 2025 through, among other things, on-farm mechanization, greater use of protection culture (greenhouses and plasticulture) and introduction of water-saving irrigation techniques. The project is consistent with the Asian Development Bank's (ADB) country partnership strategy for Mongolia, 2017–2020 and the Ministry of Food, Agriculture and Light Industry's (MOFALI) sector priorities.⁵ It converges with ADB's Operational Plan for Agriculture and Natural Resources, 2015–2020 with its emphasis on sustainable natural resources management and climate resilience.⁶ The project will serve as a pilot for scaling up under a climate-smart agriculture loan programmed for 2019. It is proposed as a grant in ADB's country operations business plan for Mongolia, 2017–2019.⁷

8. **Sector context.** In recent years, Mongolian agriculture has seen its fortunes fluctuate. Its herding component shored up household income and the country's exports and became a stabilizing force during periods of economic stagnation that typically saw a return to herding of some of urban in-migrants. The livestock subsector itself has been exposed to significant risks, climate-related (such as *dzuds*) and others (disease, lack of quality certification standards, and difficulties of re-establishing viable management systems). Cropping, too, has struggled with

³ Ulaangom soum was chosen for seed production given the specialization in seed production by Ulaangom town's branch of the National Plant Science and Agricultural Research Institute.

⁴ Vision 2030 aims to increase the area of land served by new and efficient irrigation technologies to 65,000 hectares (ha) by 2020 (100,000 ha by 2025 and 120,000 ha by 2030), increase farmland fertility, and decrease soil degradation.

⁵ ADB. 2017. *Country Partnership Strategy: Mongolia, 2017–2020*. Manila.

⁶ ADB. 2015. *The Operational Plan for Agriculture and Natural Resources: Promoting Sustainable Food Security in Asia and the Pacific in 2015–2020*. Manila.

⁷ ADB. 2017. *Country Operations Business Plan: Mongolia, 2017–2019*. Manila.

creating viable successors to former state farms but, aided by development partners, succeeded in increasing the country's self-sufficiency in crops considered to be of strategic importance (potato and wheat). The viability of more specialized forms of farming has also been demonstrated. The boom in mineral export revenues up to 2013 temporarily removed the urgency to build on these advances and diversify the economy. In the aftermath of the commodity price collapse (post 2013) the potential of agriculture and its smallholder component to act both as an income-enhancing and risk reduction tool was finally given formal recognition.

9. Lessons. The project draws on lessons from agriculture sector initiatives undertaken in Mongolia. First, while the need to reap economies of scale and benefits of shared learning are well understood, there is reluctance among target households to re-create formal collectivized structures in vegetable production. This stems from past experience of socialist collectives which were top-down, imposed on all and very large scale. Simpler, more pragmatic groupings of producers are preferred. Second, opportunities to increase farmers' income can be found at both ends of the value chain, not only on farm (through bigger or more valuable crops) but along the way to final consumption (through improved availability, more convenient packaging etc.). Third, to fully benefit from the value chain opportunities, producers need to be exposed to both technological and commercial innovation. Fourth, women in rural Mongolia have often been in the forefront of income diversification activities including vegetable production and female-headed households can be recruited for new initiatives in the subsector. Fifth, climate change increases the need to introduce innovations into the vegetable subsector. Best practices from previous ADB and donor projects in community-based natural resource management will be applied to ensure better outcomes of the approach being implemented under the pilot project.⁸

10. Additional Financing: The proposed additional financing from the High-Level Technology Fund (HLTF) is requested for the design, testing, and rolling out of one high-level technology (HLT) winter greenhouse, particularly envisioned to be utilized for (i) consulting advisory for (a) a rapid assessment and technical viability study for a winter greenhouse model suitable for the weather in Mongolia; (b) design and implementation of a winter greenhouse; and (c) a brief feasibility study for future scale-up and investment and project development; (ii) provision of required equipment and systems needed for piloting the winter greenhouse, including the HLT systems for irrigation, heating, ventilation, and waste management; and (iii) conduct of required consultation workshops and training for technology and approaches being introduced and piloted within the project.⁹ Use of the HLTF for the subject grant presents a strong demonstration opportunity for replication in the country and region, in places with similar climate and has opportunities for scale-up (footnote 11).

B. Impact and Outcome

11. The impacts will be (i) rural livelihood for smallholder vegetable farmers improved; and (ii) resilience and adaptation to climate change improved. The outcome will be model for community vegetable farming demonstrated. The project has three outputs.

C. Outputs and Key Activities

12. **Output 1: Community grower groups established.** The project aims to capture potential economies of scale in smallholder farming that exist in areas such as irrigation, equipment use,

⁸ ADB. 2008. *Proposed Grant Assistance to Mongolia for Poverty Reduction through Community-Based Natural Resource Management*. Manila; ADB. 2010. *Proposed Grant Assistance to Mongolia for Establishment of Climate-Resilient Rural Livelihoods*. Manila.

⁹ Financing partner: the Government of Japan.

or knowledge-sharing by facilitating collaboration among farming households. In principle, this will increase areas effectively managed and more quickly to introduce innovations. Under this output, (i) training will be conducted for farmers in target areas on how best to organize effective groups and manage collaboration. Criteria for selection of beneficiary farming households will be specified; (ii) about 30 CGG will be formed¹⁰ in the four project sites, bringing together an average of six farmer households per group;¹¹ (iii) an inventory and ownership of existing resources—ranging from labor availability, machinery, equipment, know-how, storage, greenhouses, among others—will be established and rules for use, maintenance, and cost-sharing drawn up and agreed; and (iv) a community growers' scheme will be established.¹²

13. Community growers' scheme. The project will support the creation and initial facilitation of a community growers' scheme which will help CGGs with operations and maintenance (O&M) and expansion by covering cost for an amount specified in the budget. Contribution towards the scheme from the project will be phased during the four years of the project. The amount of project to community share and details on phasing out will be discussed by the project implementation unit (PIU) in consultation with communities and local government and be determined during project implementation; for example, the project funds will contribute 100% to cover O&M and expansion in year 1, 50% in year 2 (with remaining 50% contribution from CGG member households), 25% in year 3 (with remaining 75% contribution from CGG member households), and 0% in year 4 (community will contribute 100%). Each CGG will submit a request on a case by case basis to the PIU for O&M and expansion needs—the PIU will determine its necessity and extend support accordingly. CGGs will receive partial support from the project and will provide partial financing themselves (as indicated above and to be detailed during project implementation). Each CGG member (household level) will be required to contribute towards its own O&M and expansion requirements. The contribution per household level will be determined during early project implementation stages with consultations with the community, project beneficiaries and local government. The project will help communities to draft rules and regulations for the scheme, including withdrawal and disbursement procedures and amount of contribution by each member. The objective of the scheme is to support operation and maintenance of facilities and equipment provided by the project and to create seed capital for sustainable farming for project farmers by replacing and/or expanding the shared resources. After the end of the project, the scheme is expected to be maintained by the CGGs that remain intact post project implementation. The scheme is being proposed as a long-term sustainability measure for project activities and the social mechanism of CGGs to continue beyond the project life.

14. Output 2: Sustainable climate-resilient vegetable farming technology and practices applied. The collaboration-based model introduced under output 1 will be put into practice. The project will provide a defined share of farm inputs including seeds, fertilizer and agrochemicals. On-farm greenhouses of proven design and new models will be set up to widen the range of produce grown and extend the growing season. Appropriate technology for “winter” greenhouses will be piloted. Efficient water-saving methods will be introduced, and existing irrigation will be improved in

¹⁰ Criteria for the formation of community growers groups are: (i) minimum of five households; (ii) women to account for at least 50% of group membership; (iii) commitment to share—under specified and understood conditions—farming assets and resources; and (iv) all households are considered vulnerable and poor with limited agriculture land resources, having 1 ha or less of land.

¹¹ Eight groups per vegetable growing *soum*, and six seed growers' groups in Ulaangom. The average of six households per group is based on extensive community consultations with farming households.

¹² The scheme will be partly subsidized through grant funds for the first couple of years. Funds will be used for O&M, and for the establishment of more greenhouses or procurement of farms tools as required by CGGs. During withdrawal processing, disbursement and fiduciary arrangements for the scheme will be agreed upon. For the time being, the money for this activity has been earmarked under contingencies. Once all arrangements are in place and acceptable to ADB, a variation will be requested to move the funds for the establishment of the scheme.

the Ulaangom project site through setting up greenhouse drip irrigation, small-scale on-farm water tanks and supply equipment. CGGs will be trained on best practices in sustainable vegetable farming with a focus on water allocation and use, soil cultivation, planting, intercropping, organic fertilizer, plant health, and pest control. Training on greenhouse farming techniques will be conducted; gender-targeted skills training will be given to facilitate increased greenhouse farming amongst female members. Through this output, the project aims to improve efficiency and increase value for farmers along the value chain, focusing on production and harvesting.

15. The additional financing will contribute for the effective achievement of the project's impacts. Direct beneficiaries will include around 24 CGGs (mostly female-headed), covering over 500 farmers. Indirect benefit will accrue to the wider community with a total population of 45,000 or more. The proposed technologies are expected to:

- (i) **Improve productivity and quality.** The proposed precision winter greenhouse will help maximize the crop yields by applying optimal levels of water and fertilizer; and enable the production of higher value and quality vegetable production in the controlled environment. In comparison to traditional greenhouses, the technologies will substantially improve energy and water use efficiency, using renewable energy source and precisely control water and energy based on real time monitoring system.
- (ii) **Address climate change adaptation, and resilience to disaster risks.** By enabling crop diversification into higher value cash crops and climate-resilient varieties with varied maturities, the proposed HLT activities and systems induce opportunities for climate change adaptation and higher and more stable income for poor farmers. It is also expected to build resilience to harsh winters that limit the growing season by extending the growing season from 3 months to 8 months.
- (iii) **Introduce innovation in processes, methods, techniques, and the use of new improved equipment and materials in construction, and operations and maintenance.** Training on the HLT winter greenhouse operation best practices and climate-resilient farming will be provided to develop a sustainable cultivation and distribution system for greenhouse vegetable value chains.

16. **Output 3: Farmers' access to markets improved.** This output will strengthen vegetable sector logistics, promote local enterprise development and farm-to-market linkages for smallholder farmers. Specifically, (i) a market and value chain study will be conducted; (ii) shared storage facilities will be set up; (iii) a food processing workshop will be set up in Orkhon to create livelihood opportunities for women CGG members, and gender-targeted training in food processing, packaging, and marketing will be given;¹³ (iv) vegetable quality assessment, grading, and waste disposal information will be disseminated; (v) small selling-points will be set up in Ulaanbaatar, *aimag* centers and on the Tuv-Ulaanbaatar road; (vi) a marketing brand will be established; and (vii) business agreements between farmer groups and buyers will be piloted (including private sector). Through this output, the project will aim to improve efficiencies and value for farmers along the value chain, focusing on post-harvesting and marketing.

17. The project's value-chain activities—socially-inclusive, environmentally-friendly, and

¹³ Supported through piggy-back support from the Sustainable Development and Climate Change Department Knowledge and Support Technical Assistance REG (50042): Strengthening Women's Resilience to Climate Change and Disaster Risk in Asia and the Pacific. The KSTA will fund sub-component under Output 3 for establishing the vegetable processing workshop, equipping the workshop with relevant tools and small-scale machinery and equipment, providing relevant skills training for women and a social and gender specialist. More details on piggy-back funding support from KSTA REG (50042) are in Appendix 9.

financially-viable—are expected to add value for farmers along all stages of the vegetable farming cycle. Lessons from ADB's agriculture and rural development project on agricultural value chains and inclusive business will be applied.¹⁴

18. Project management. MOFALI will manage the project. In spite of a good experience in implementing ADB-funded or ADB-administered activities, MOFALI lacks adequate resources to fully implement the project. The grant proceeds will be used to: (i) establish the administrative framework (PIU); and (ii) finance required grant implementation consultants and operational costs.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	2017		2018				2019				2020		Responsible Agency(s)
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q1	Q1	
Japan Fund for Poverty Reduction													ADB, MOF, MOFALI
Grant negotiations													MOFALI, MOF
Establish project implementation arrangements													ADB
ADB approval													ADB, MOF
Grant signing													MOF
Government legal opinion provided													ADB
Grant effectiveness													
High-Level Technology Fund													ADB, MOF, MOFALI
Grant negotiations													ADB
ADB approval													ADB, MOF
Grant signing													MOF
Government legal opinion provided													ADB
Grant effectiveness													

ADB = Asian Development Bank, MOF = Ministry of Finance, MOFALI = Ministry of Food, Agriculture, and Light Industry.

Source: Asian Development Bank

¹⁴ ADB. 2008. *Report and Recommendation of the President to the Board of Directors: Proposed Asian Development Bank Fund Grant and Technical Assistance Grant to Mongolia for the Agriculture and Rural Development Project*. Manila.

B. Overall Project Implementation Plan

Source: Asian Development Bank.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Executing agency: MOFALI	<ul style="list-style-type: none"> • Assumes overall responsibility and accountability for project planning, management, and implementation, appointing project director for this purpose • Ensures timely and effective execution of the grant agreement • Acts through a PIU • Co-signs (with MOF) applications for withdrawals from project advance account • Inputs relevant project documents in MOF's ODA-MIS system • Submits progress reports to ADB and MOF • Facilitates project activities such as meetings and trainings with <i>soum</i> government and communities • Facilitates auditing of project accounts • Review PIU progress reports • Establishes and chairs the PSC • Provides overall guidance to the PIU • Provides policy support
Oversight body: PSC	<ul style="list-style-type: none"> • Comprises five members: State Secretary of MOFALI (Chair), a representative of MOF, one representative of MOFALI's PPD and two members of MOFALI's CPDPCD (including project director) and observers from the four project <i>soum</i> administration (one representative from each), the Embassy of Japan, ADB and SDC^a • Reviews and assesses project plans and implementation progress • Provides advice on policy matters related to the project • Meets at least semi-annually
PIU^b	<ul style="list-style-type: none"> • Includes PIU staff, international consultants, and resource persons (national and international) • Assumes direct oversight, responsibility and accountability for implementation of project outputs 1–3 • Responsible for daily project coordination, planning, implementation, financial management, procurement and reporting to MOFALI management • Monitors project progress, including periodic site inspections and compliance with PAM, GAP, and other project documents • Inputs relevant project documents in MOF's ODA-MIS system • Submits semi-annual progress reports to MOFALI executing agency, MOF and ADB • Coordinates the preparation and delivery of any domestic environmental or social safeguard requirements • Facilitates project stakeholder activities e.g., meetings and trainings with <i>soum</i> government, communities
Implementing firm/NGO/Entity	<ul style="list-style-type: none"> • Assumes direct oversight, responsibility and accountability for implementation of project outputs 1–3 • Implements all project technical outputs • Provides support to PIU and regular updates • Carries out daily project activities, planning, implementation, financial management, procurement and reporting to PIU • Prepares project progress, including periodic site inspections and compliance with PAM, GAP, and other project documents

	<ul style="list-style-type: none"> Manages preparation and delivery of any domestic environmental or social safeguard requirements Conducts project stakeholder activities e.g., meetings and trainings with <i>soum</i> government, communities
ADB	<ul style="list-style-type: none"> Oversees project administration and timely execution of the grant agreement by the executing agency Disburses grant proceeds Reviews and, as needed and required, approves procurement, consultant recruitment, progress reports, and audit reports Reviews project compliance and targets against the DMF, GAP and PAM Monitors project progress and conducts review missions Disclose monitoring reports on ADB public website Acts as observer on the project steering committee Undertakes coordination with EOJ in Mongolia, JICA, and ADB's SDPF-Japan team. Specifically Invites EOJ, JICA, and SDPF-Japan team to project events and missions (for SDPF, inform up to 4 months ahead) Provides information on project progress and supplies key reports and materials Discusses potential changes in scope Responds to inquiries information requests for information Supports donor visibility for dissemination of outcomes and lessons
Other participating agencies	
MOF	<ul style="list-style-type: none"> Represents GOM in grant negotiations Signs grant agreement and project approval on behalf of GOM Co-signs (with MOFALI) applications for withdrawal from project advance account Administers the advance accounts Reviews project progress and/or audit reports, as needed
Participating <i>soum</i> governments	<ul style="list-style-type: none"> Make at least one technical counterpart (with agriculture, environment or forestry background) available for project-related deliberations and liaison Participate in project planning and training Facilitate collaboration between <i>soum</i> project, communities and the project
CSOs and other donors (e.g. SDC, USAID, selected CSOs)	<ul style="list-style-type: none"> Potentially share lessons from own similar activities with the project

ADB = Asian Development Bank, CPDPCD = Crop Production Development Policy and Coordination Department, CSO = civil society organization, DMF = design and monitoring framework, EOJ = Embassy of Japan, GAP = gender action plan, GOM = Government of Mongolia, JICA = Japan International Cooperation Agency, MOF = Ministry of Finance, MOFALI = Ministry of Food, Agriculture and Light Industry, NGO = nongovernment organization, SDPF = Partner Funds Division, ODA-MIS = Official Donor Assistance – Management Information System, PAM = project administration manual, PIU = project implementation unit, PPD = Policy Planning Department, PSC = project steering committee, SDC = Swiss Development Cooperation.

^a Swiss Development Cooperation has been proposed as an observer on the steering committee as they have implemented similar projects in Mongolia and the project will benefit from their experience and lessons learned.

^b The staffing requirements for project implementation unit are in Appendix 6.

Source: Asian Development Bank.

B. Key Persons Involved in Implementation**Ministry of Finance**

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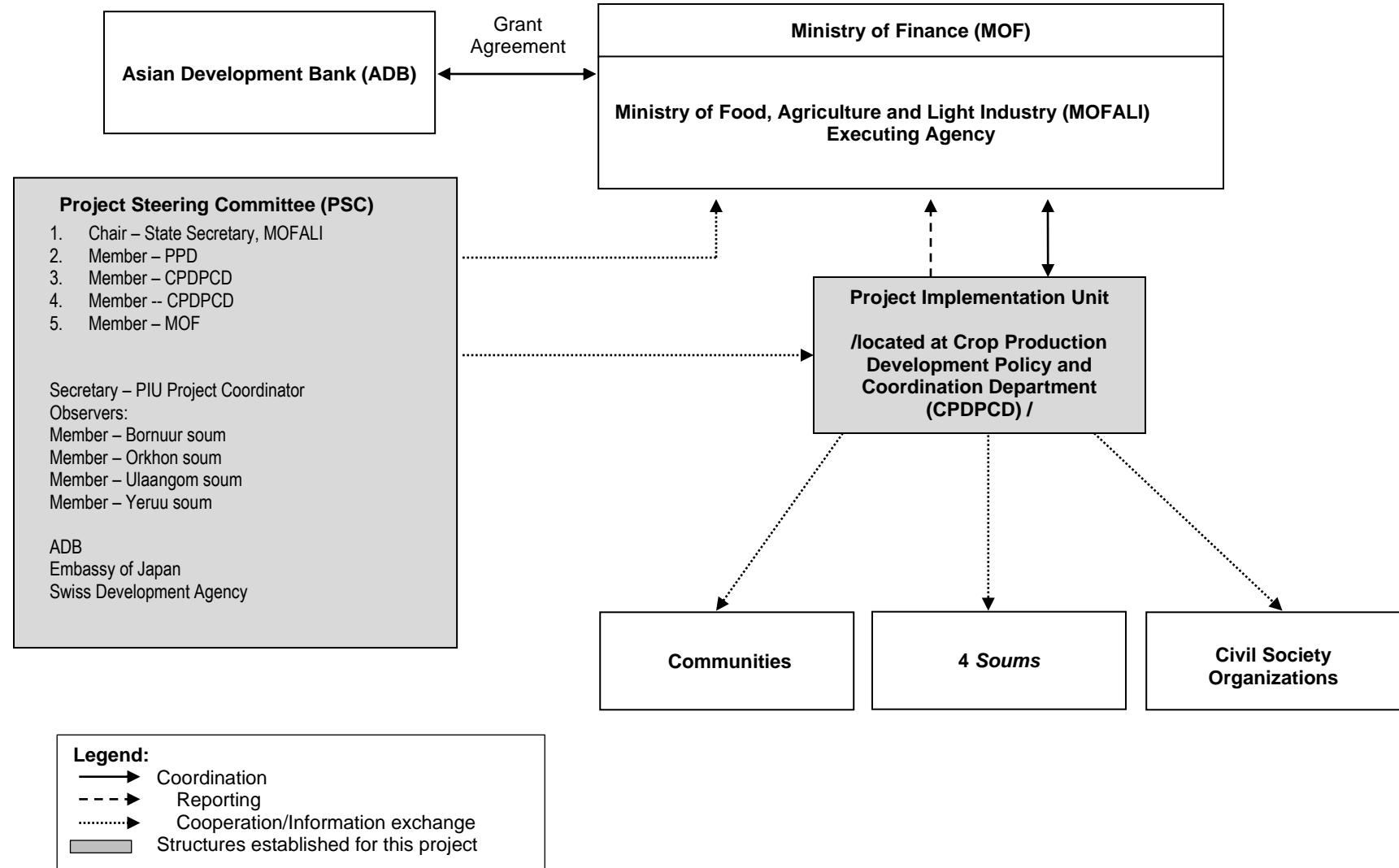
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C. Project Organization Structure



D. Grant Management

19. The project will be implemented over a period of 4 years from January 2018 to December 2021. MOFALI will be the executing agency. It will establish a PIU at its Crop Production Development Policy and Coordination Department (CPDPCD). The PIU, comprising a team of full-time staff, part-time consultants and a supporting firm/nongovernment organization (NGO)/entity, will support the executing agency in implementing the project. *Soum* governor office capacity will be supplemented for implementation at *soum* level.

20. **PIU.** The PIU will be responsible for daily administration of the project. The PIU will comprise a team of full-time staff and part-time consultants recruited for the project, directly and through a supporting firm/NGO/entity (refer to Chapter VI.D. Consultant's Terms of Reference). The PIU will lead the coordination, planning, implementation and administration of the project as well as being responsible for monitoring and reporting. The PIU team will be based at in Ulaanbaatar at premises provided by MOFALI as part of Government of Mongolia's in-kind contribution.

21. **PIU staff.** To implement the grant, the MOFALI will establish the PIU and recruit project coordinator, finance specialist, procurement specialist, monitoring and evaluation (M&E) specialist, and office manager. The MOFALI will establish a PIU staff selection committee and select the PIU staff following the competitive selection procedures acceptable to ADB. The PIU staff will be recruited in line with the MOF regulation no. 196. The PIU staff will support daily operations and work closely with the firm/NGO/entity on project implementation activities. The appointments and dismissal of the PIU staff will be subject to ADB prior approval. Terms of reference for the PIU staff are in Appendix 6.

22. **Project implementation support firm/NGO/entity.** The firm/NGO/entity engaged to support project implementation and provide 15 consultants (short term and long term) for up to 341 person-months inputs. The firm/NGO/entity will be recruited through quality- and cost-based selection. Short technical proposals will be required. Procurement and recruitment of consultants will be conducted in accordance with ADB's Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Terms of reference for the PIU consultants are in Appendix 7.

23. **Project steering committee.** A project steering committee will be established for the duration of the project. It will meet at least semi-annually to review and monitor project implementation and its plans and advise on project-related policy matters. It will be chaired by the State Secretary (MOFALI) and include representatives of the Ministry of Finance (MOF), MOFALI's Policy Planning Department and CPDPCD (including project director). The PIU project coordinator may be an ex-officio member (with no voting rights). The four project *soum* governors (or their representatives), Embassy of Japan (EOJ), ADB and relevant development partners will be invited to participate as observers.

IV. COSTS AND FINANCING

A. Cost Estimates and Financing Plan

24. The project is estimated to cost \$3.7 million (Table 1).¹⁵ The Japan Fund for Poverty Reduction (JFPR) will provide a grant equivalent to \$3.0 million; and the HLTF will provide a grant equivalent to \$0.5 million, both to be administered by ADB (footnote 9). The executing agency will provide the balance through in-kind counterpart support in the form of office space, workshop and training venues, and staff time for project implementation; at the *soum* level, staff time and desk space will also be made available. In-kind counterpart support will also include exemption of value-added tax.

Table 1: Cost Estimates

Item	Current Amount ^a (\$)	Additional Financing ^b (\$)	Total (\$)
A. Base Cost			
1. Community grower groups organized	369,500	0	369,500
2. Sustainable climate-resilient vegetable farming practices applied	711,600	379,000	1,090,600
3. Farmers' access to markets improved	785,200	15,000	800,200
Project management	628,729	57,000	685,729
Subtotal (A)	2,495,029	451,000	2,946,029
B. Contingencies^c	504,971	49,000	553,971
Total (A+B)	3,000,000	500,000	3,500,000

^a Value-added tax exemption granted by the Government of Mongolia will be provided as part of counterpart contribution.

^b In 2019 prices as of 17 June 2019. Includes purchase of one vehicle and four motorcycles.

^c Maximum of 17% of the total in-cash project cost. Price contingencies have been included in all costs based on cost escalation factors of 8% for 2019–2021 for local currency costs; 1.5% for 2019–2020, 1.6% for 2021 for foreign currency costs; and 10% for 2019, 20% for 2020–2021 for national consultant fee rates, and 0% for international consultant fee rates. Physical contingencies amounting to \$67,866 are included. Contingencies also include an earmarked amount of \$195,815 for the community growers' scheme to cover operations and maintenance and expansion activities.

Source: Asian Development Bank estimates.

25. Cost categories are given in Table 2 below.

Table 2: Description of Cost Categories

Category	Description
Civil Works	(i) Small community level water well in Gashuuunii gol, Ulaangom <i>soum</i> ; (ii) small-scale irrigation works and provision in Chandmani, Ulaangom <i>soum</i> ; (iii) greenhouses for CGGs; (iv) shared storage facilities in Orkhon, Yeruu and Ulaangom <i>soums</i> ; and (v) vegetable processing and packaging workshop in Orkhon <i>soum</i> .
Goods and Services	(i) Tractors, equipment and hand tools for CGGs; (ii) personal protective clothes for CGGs; (iii) agrochemicals for CGGs; (iv) soil test kits to establish soil quality baseline; (v) mother seed, and seed to all groups; (vi) transport of seed from Ulaangom to other

¹⁵ The Government of Mongolia has granted a one-off exceptional waiver of value added tax under the project as part of its in-kind counterpart contribution given: (i) it is a Japan Fund for Poverty Reduction grant; (ii) project grant amount of \$3 million with a large number of activities to be conducted over multiple project sites; and (iii) pro-poor project for improving livelihood of smallholder farming communities. The project will pay for duties on imported goods where required. All project implementation unit staff and national consultant salaries are inclusive of personal income taxes; they are responsible for fulfilling their Mongolian tax obligations. Salaries for international consultants and resource persons who are required to pay tax on their income earned in Mongolia are inclusive of relevant taxes, i.e. the project will pay the relevant tax; the treaties for the avoidance of double taxation will need to be checked to determine whether income taxes need to be paid by the international consultants or not.

Category	Description
	project soums; (vii) participation of CGGs in national vegetable trade fairs; (viii) web and mobile based market information system; and (ix); motorcycles for <i>soum</i> coordinators.
Training	(i) Training for CGGs; (ii) training on sustainable farming, (growing in greenhouses, irrigation, crop rotation, seed selection and best practices); (iii) training on vegetable grading and quality, waste disposal, business acumen in processing; and (iv) training for MOFALI, and <i>soum</i> administrations on project management functions for an ADB project.
Consulting Services	(i) Fees of national individual consultants (18 consultants and 2 resource persons for a total of 505 person-months); (ii) fees of international individual consultants (1 consultant and 2 resource persons for a total of 7 person-months); (iii) annual financial audit; (iv) per diems for consultants; and (v) fees and expense reimbursement to collaborating firm/NGO/entity.
Project Management	(i) Project planning and team meetings; (ii) stakeholder communications; (iii) knowledge products; (iv) outreach program (site visits); (v) local travel for <i>soum</i> administrations for steering committee meetings; (vi) project office operations; (vii) project vehicle and motorcycles and their running costs; ^a and (viii) in-kind contributions from central government.
Unallocated	Physical and price contingencies.

^a As pre-approved on exceptional one-of basis by the Japan Fund for Poverty Reduction.

Source: Asian Development Bank.

26. Exceptional one-off approval from the Government of Japan for project vehicle and motorbikes. Cost estimates include the purchase of one car and four motorbikes for project use. There is strong justification for purchase of vehicles: (i) there are four project sites across four different *aimags*; (ii) the project is employing a participatory community-based approach and most of the activities will be conducted in the *soums* directly with the farming communities and will require supervision by PIU staff and consultants who will need easy and frequent access to the field; (iii) within the remote and physically logistically challenging topography of Mongolia, and a poor, and in many cases, underdeveloped road infrastructure, there is limited public transportation and hence a project vehicle will be necessary; and (iv) vehicle rental over 4 years will be more expensive than purchase. Upon project completion in accordance with ADB guidelines, the project car will be handed over to MOFALI or one of the *soum* offices and the motorbikes to each of the four *soum* governors' offices. Specific details will be determined at project completion along with adequate justification for ADB / JFPR.¹⁶

Table 3: Distances to Project Soums from Ulaanbaatar City

Project Soums	Distance from Ulaanbaatar City (km)
Ulaangom, Uvs	1,456
Bornuur, Tuv	105
Yeruu, Selenge	320
Orkhon, Darkhan-Uul	270

27. Administrative budget support. Administrative budget support of 3% of the total grant amount (\$90,000), exclusive from the project grant, will be provided given the wide spread of the project (covering the full end to end value chain for an underexplored sector in Mongolia in four *soums*) which warrants additional resources beyond those provided by the regular administration budget. This budget will be financed from the JFPR administrative budget, not from the project grant. The administrative budget support will be used to (i) hire a staff consultant to provide overall

¹⁶ This has been approved by the ADB's Partner Funds Division and the Government of Japan.

support to ADB as well as the government's executing agency in project implementation, if and when needed and deemed necessary, by the implementing project officer, to (a) monitor and evaluate activities and project progress beyond the regular progress checks conducted by the ADB staff team and resources, (b) evaluate status and progress of the community grower groups' farming action plans, (c) monitor the project's outreach to the intended beneficiaries, (d) conduct periodical community level consultations; and (e) review performances of the project executing agency, PIU, and consultants to ensure intended outputs are delivered on time; (ii) knowledge product development and dissemination, including a written impact report, multi-media story (video or pictorial), and organization of the final project completion symposium for showcasing success and sharing lessons learned; and (iii) facilitate community participation or civil society organization collaboration in consultations, field activities, or the final project completion symposium planned. Final details will be confirmed during inception phase once project implementation starts.

28. The special administrative budget support will be administered by ADB. The processing and implementing project officer will manage and track the utilization of the administration budget support and will provide the Partner Funds Division (SDPF) on a periodic basis (annual) an update of its utilization. Any deviation from the proposed expenditures should be consulted with and endorsed by SDPF.

B. Allocation and Withdrawal of Grant Proceeds

Table 4.1: Allocation and Withdrawal of Grant Proceeds (Current Financing)

Number	Item	Total Amount Allocated for JFPR Financing ^a (\$) Category	Basis for Withdrawal from the Grant Amount
1	Works, Goods, Training, Consulting Services and Project Management	3,000,000	100% of total expenditure claimed ^b
	Total	3,000,000	

JFPR = Japan Fund for Poverty Reduction.

^a Administered by the Asian Development Bank.

^b Exclusive of taxes and duties within the territory of the Recipient.

Source: Asian Development Bank.

Table 4.2: Allocation and Withdrawal of Grant Proceeds (Additional Financing)

Number	Item	Total Amount Allocated for HLTF ^a (\$) Category	Basis for Withdrawal from the Grant Amount
1	Works, Goods, Training, Consulting Services and Project Management	500,000	100% of total expenditure claimed ^b
	Total	500,000	

HLTF = High-Level Technology Fund.

^a Financing partner: the Government of Japan. Administered by the Asian Development Bank.

^b Exclusive of taxes and duties within the territory of the Recipient.

Source: Asian Development Bank.

C. Detailed Cost Estimates by Financier

Table 5: Detailed Cost Estimates by Financier

Item	CURRENT FINANCING				ADDITIONAL FINANCING ^a				TOTAL ^b	
	ADB	Government	ADB	Government	Amount	%	Amount	%	Amount	%
A. Base Costs^c										
1 Civil Works	702,400	67.4			340,000	32.6			1,042,400	27.9
2 Goods and Services										
2a Vehicles	42,200	100.0							42,200	1.1
2b Equipment	256,493	100.0							256,493	6.9
2c Other Goods and Services	262,700	98.1			5,000	1.9			267,700	7.2
Subtotal Goods and Services	561,393				5,000				566,393	
3 Training	105,150	75.0			35,000	25.0			140,150	3.8
4 Consulting Services										
4a National	764,856	93.2			56,000	6.8			820,856	22.0
4b International	167,000	100.0							167,000	4.5
Subtotal Consulting Services	931,856				56,000				987,856	
5 Project Operation										
5a ADB financing	194,230	92.8			15,000	7.2			209,230	5.6
5b Government financing ^d			196,587	83.1			39,990	16.9	236,577	6.3
Subtotal Project Operation	194,230		196,587		15,000		39,990		445,807	
Subtotal A	2,495,029	78.4	196,587	6.2	451,000	14.2	39,990	1.3	3,182,606	85.2
B. Contingencies^e										
Physical	68,104	77.0			20,400	23.0			88,504	2.4
Price	241,053	89.4			28,600	10.6			269,653	7.2
Community Growers' Scheme	195,815	100.0							195,815	5.2
Subtotal B	504,971	91.2			49,000				553,971	14.8
Total Project Cost (A+B)	3,000,000	80.3	196,587	5.3	500,000	13.4	39,990	1.1	3,736,577	100.0

^a Additional financing is financing expenditures in parallel to the current financing.

^b Value-added tax exemption granted by the Government of Mongolia will be provided as part of counterpart contribution.

^c In 2019 prices as of 17 June 2019. Includes purchase of one vehicle and four motorcycles.

^d In the form of in-kind contribution.

^e Maximum of 17% of the total in-cash project cost. Price contingencies have been included in all costs based on cost escalation factors of 8% for 2019–2021 for local currency costs; 1.5% for 2018–2020, 1.6% for 2021 for foreign currency costs; and 10% for 2019, 20% for 2020–2021 for national consultant fee rates, and 0% for international consultant fee rates. Physical contingencies amounting to \$67,866 are included. Contingencies also include an earmarked amount of \$195,815 for the community growers' scheme to cover operations and maintenance and expansion activities.

Source: Asian Development Bank estimates.

D. Detailed Cost Estimates by Output

Item		1. Community grower groups organized	2. Sustainable climate-resilient vegetable farming practices applied	3. Farmers' access to markets improved	Project management	Total ^a
A. Base Costs^b						
1 Civil Works			554,600	487,800		1,042,400
2 Goods and Services						
2a Vehicles					42,200	42,200
2b Equipment			226,000		30,493	256,493
2c Other Goods and Services			145,600	103,600	18,500	267,700
Subtotal Goods and Services			371,600	103,600	91,193	566,393
3 Training		34,400	53,000	51,000	1,750	140,150
4 Consulting Services						
4a National		180,900	100,400	54,300	485,256	820,856
4b International		145,000	11,000	11,000		167,000
Subtotal Consulting Services		325,900	111,400	65,300	485,256	987,856
5 Project Operation						
5a ADB financing		9,200		92,500	107,530	209,230
5b Government financing ^c					236,577	236,577
Subtotal Project Operation		9,200		92,500	344,107	445,807
Subtotal A		369,500	1,090,600	800,200	922,306	3,182,606
B. Contingencies^d						
Physical			43,006	34,448	11,050	88,504
Price		24,320	44,736	100,591	100,006	269,653
Community Growers' Scheme			195,815			195,815
Subtotal B		24,320	283,557	135,039	111,056	553,971
C. Total (A+B)		393,820	1,374,156	935,239	1,033,362	3,736,577

^a Value-added tax exemption granted by the Government of Mongolia will be provided as part of counterpart contribution.

^b In 2019 prices as of 17 June 2017. Includes purchase of one vehicle and four motorcycles.

^c In the form of in-kind contribution.

^d Maximum of 17% of the total in-cash project cost. Price contingencies have been included in all costs based on cost escalation factors of 8% for 2019–2021 for local currency costs; 1.5% for 2018–2020, 1.6% for 2021 for foreign currency costs; and 10% for 2019, 20% for 2020–2021 for national consultant fee rates, and 0% for international consultant fee rates. Physical contingencies amounting to \$67,866 are included. Contingencies also include an earmarked amount of \$195,815 for the community growers' scheme to cover operations and maintenance and expansion activities.

Source: Asian Development Bank estimates.

E. Estimated Disbursement Schedule by Year

Table 6: Estimated Disbursement Schedule by Year

Item	2018	2019	2020	2021	Total ^a
A. Base Costs^b					
1 Civil Works	204,600	456,000	362,000	19,800	1,042,400
2 Goods and Services					
2a Vehicles	42,200				42,200
2b Equipment	256,493				256,493
2c Other Goods and Services	158,300	66,200	20,160	23,040	267,700
Subtotal Goods and Services	456,993	66,200	20,160	23,040	566,393
3 Training	57,150	21,000	39,000	23,000	140,150
4 Consulting Services					
4a National	234,864	227,322	193,424	165,246	820,856
4b International	54,500	69,000	43,500		167,000
Subtotal Consulting Services	289,364	296,322	236,924	165,246	987,856
5 Project Operation					
5a ADB financing	53,450	55,740	50,740	49,300	209,230
5b Government financing ^c	84,512	75,769	56,672	19,623	236,577
Subtotal Project Operation	137,962	131,509	107,412	68,923	445,807
Subtotal A	1,146,069	971,031	765,496	300,009	3,182,606
B. Contingencies^d					
1 Physical	33,016	30,625	22,620	2,243	88,504
2 Price	25,696	100,152	78,377	65,428	269,653
3 Community Growers' Scheme	81,821	66,275	47,718		195,815
Subtotal B	140,533	197,052	148,715	67,671	553,971
C. Total Project Cost (A+B)	1,286,602	1,168,083	914,211	367,680	3,736,577

^a Value-added tax exemption granted by the Government of Mongolia will be provided as part of counterpart contribution.

^b In 2019 prices as of 17 June 2019. Includes purchase of one vehicle and four motorcycles.

^c In the form of in-kind contribution.

^d Maximum of 17% of the total in-cash project cost. Price contingencies have been included in all costs based on cost escalation factors of 8% for 2019–2021 for local currency costs; 1.5% for 2018–2020, 1.6% for 2021 for foreign currency costs; and 10% for 2019, 20% for 2020–2021 for national consultant fee rates, and 0% for international consultant fee rates. Physical contingencies amounting to \$67,866 are included. Contingencies also include an earmarked amount of \$195,815 for the community growers' scheme to cover operations and maintenance and expansion activities.

Source: Asian Development Bank estimates.

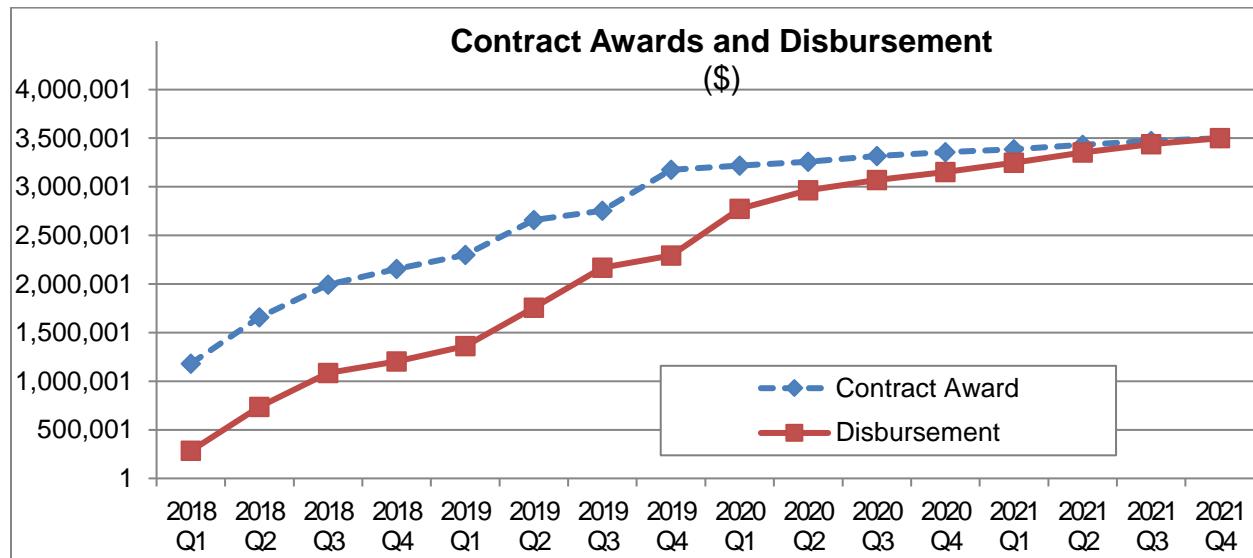
F. Contract and Disbursement S-curve

29. The projected contract awards and disbursements under the grants and the corresponding S-curves are presented below.

Table 7: Schedule of Disbursement and Contract Awards

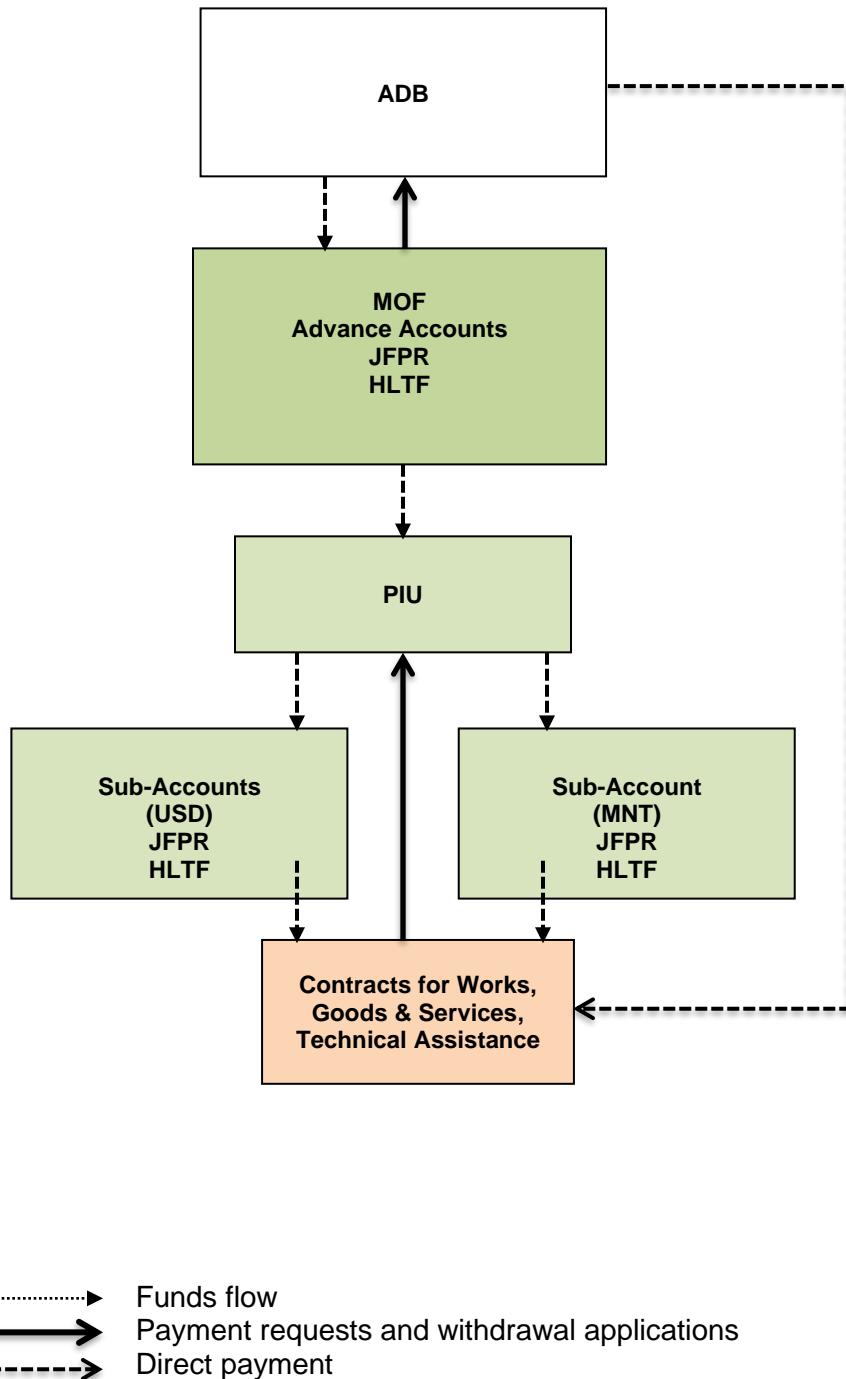
Years	Contract Awards (\$ million)					Disbursement (\$ million)				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2018	0.0000	0.0000	0.0000	0.0777	0.0777	0.0000	0.0000	0.0000	0.2000	0.2000
2019	0.4833	0.0000	0.0000	0.1270	0.6103	0.0000	0.0000	0.0000	0.0900	0.0900
2020	0.0830	0.0000	0.2790	0.3640	0.7260	0.2370	0.0000	0.1950	0.2730	0.7050
2021	0.4940	0.1130	0.4140	0.3410	1.3620	0.4680	0.2800	0.3700	0.2490	1.3670
2022	0.7240	0.0000	0.0000	0.0000	0.7240	0.3590	0.3120	0.4670	0.0000	1.1380
Total					3.5000					3.5000

Figure 1: S-Curve



G. Fund Flow Diagram

Figure 2. Flow of Funds



ADB = Asian Development Bank, HLTF = High-Level Technology Fund, JFPR = Japan Fund for Poverty Reduction, MOFALI = Ministry of Food Agriculture and Light Industry, PIU = project implementation unit.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

30. As part of the project due diligence, a financial management assessment (FMA) was carried out in accordance with the ADB's Guidelines for the Financial Management and Analysis of Projects,¹⁷ Financial Due Diligence: A Methodology Note,¹⁸ and Technical Guidance Note: Financial Management Assessment. MOFALI will be the executing agency.

31. The initial FMA was conducted through working discussions held at the MOFALI office in Ulaanbaatar in February 2016, attended by staff of MOFALI's Finance Division. ADB's FMA questionnaire was used as the basis for discussions. The FMA was updated during processing of additional financing in November 2019. The scope of the FMA was to assess the financial management capacity of the executing agency. The assessment included a review of fund-flow arrangements, staffing, accounting policies and procedures, internal and external auditing arrangements, reporting and monitoring, and financial information systems.

32. The overall pre-mitigation financial management risk of the executing agency was rated as "moderate" (defined as "likely to occur, will have low impact if occurs"). The executing agency's capacity to administer advance fund and statement of expenditures (SOE) procedures was also specifically concluded as *moderate*. This conclusion was based on the following: (i) the executing agency has moderate in-house financial capacity; and its Finance Division comprises five staff, three of whom are qualified in accounting or financial management; (ii) the Finance Division staff have experience in implementing donor-financed projects, including ADB projects; (ii) the PIU will contract a qualified finance specialist with ADB project experience on a full-time basis for the duration of the project; and (iv) given the small size and budget of the project, any errors could be quickly identified and corrected, with limited impact to project operations and viability.

33. A ranking of "moderate" risk requires the preparation of an action plan for risk mitigation. The project will implement the following mitigation measures: (i) a qualified finance specialist and a procurement officer will remain recruited in the PIU to manage accounts and procurement; (ii) the PIU keeps using a computerized, professionally designed accounting software acceptable to ADB as the principal software used to keep project records, supported by maintenance of hard-copy ledgers and records; (iii) an action plan for risk mitigation has been prepared and is described in Table 8. During project implementation, this will be regularly reviewed and updated to ensure the project responds dynamically to risks; (iv) The Finance Division will provide financial guidance to the executing agency, working also with the project finance specialist; (v) ADB will provide training on ADB disbursement to relevant project staff; and (vi) ADB will provide intermittent financial training, and mentorship to the executing agency as needed. Measures [ii] and [iii] are included in the terms of reference for the project finance specialist.

¹⁷ ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

¹⁸ ADB. 2009. *Financial Due Diligence A Methodology Note*. Manila.

Table 8: Financial Management Action Plan

	Risk Description	Risk	Action Item	Period	Responsibility
1	<u>Planning and budgeting:</u> MOFALI annual planning and budgeting process, applying a bottom-up approach based on the previous year's budget rather than a budget ceiling, could undermine the strategic allocations of the GOM and MOF that the budget should reflect.	Low	Prepare and implement an improved annual planning and budgeting process for the project.	2019 onwards	MOFALI, MOF
2	<u>Funds flow:</u> Understanding of and adherence to ADB disbursement requirements and procedures.	Moderate to High	<p>Training will be conducted to ensure PIU staff acquire requisite knowledge.</p> <p>PIU to liaise regularly with ADB to ensure that ADB guidelines are followed.</p> <p>Provide regular training on ADB's disbursement policies.</p> <p>A separate account will be maintained for activities financed by ADB and the Government, and will be audited by the external auditor.</p>	2019 Onwards	MOFALI
3	<u>Staffing:</u> MOFALI's Finance Division has limited experience in finance management of ADB funded projects.	Moderate	<p>Staff at the executing agency, implementing agency have received training on current ADB policy, operational and procedural requirements.</p> <p>Suitable PIU have been contracted and have received training on ADB disbursement procedures.</p> <p>Key specialists, financial management and procurement at ADB MNRM allocate time to support the PIU preparing the withdrawal application and the bidding documents especially during the first two quarters of project implementation.</p> <p>ADB project officer shall report anomalies in recruitment of PIU staff to the Office of</p>	2019 Onwards	MOFALI ADB PIU

	Risk Description	Risk	Action Item	Period	Responsibility
			Anticorruption and Integrity at the earliest opportunity.		
4	<u>Accounting:</u> Accounting policies and procedures for the project are adequate. Account and bank reconciliations are performed in a timely manner.	Moderate	Training will be conducted before grant effectiveness to ensure PIU staff acquire requisite knowledge.	2019	ADB PIU
5	<u>Internal audit:</u> Sufficient capacity in the internal audit department	Low	Government and external auditors should assess and control weakness.	2020 Onwards	MOFALI PIU
6	<u>External Audit:</u> External audit is considered well-functioning at both EA level and for the project. MOFALI is audited by the Mongolian National Audit Office (MNAO) on annual basis. The project will be audited by independent audit firm, using TOR acceptable to ADB.	Low	TOR for the audit firm will be reviewed and approved by ADB.	2019 onwards	PIU ADB
7	<u>Reporting:</u> Regular financial reports are produced that are suitable for user needs.	Moderate	EA to make comprehensive progress reports (including financial progress) to ADB on a quarterly basis. Financial project reporting must comply with ADB and Mongolia MOF requirements. Grant implementation consultants will assist the PIU to design quarterly and annual reports.	2019 onwards	PIU
8	<u>Information systems:</u> Information system is secure and back up of financial data is done on a regular and timely basis.	Low	PIU will use accounting software that fully meets the Government and ADB requirements to produce financial records and statements. The accounting files will be backed up on a regular basis to a server located outside the PIU office and NEMA.	2019 onwards	PIU

ADB = Asian Development Bank, FMA = financial management assessment, GOM = Government of Mongolia, MIAD = Monitoring and Internal Audit Department, MOF = Ministry of Finance, MOFALI=Ministry of Food Agriculture and Light Industry, PIU = project implementation unit, TOR = terms of reference.

Source: Asian Development Bank.

B. Disbursement

1. Disbursement Arrangements for ADB

34. The JFPR and HLTF grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) and detailed arrangements agreed upon between the Government and ADB.¹⁹

35. **Project advance account and procedures.** After grant effectiveness, MOF will establish two advance accounts, one for the current JFPR funded project and one for the additional financing from HLTF. The currency of the advance accounts will be US dollars. The advance accounts will be used exclusively for ADB's share of eligible expenditures (i.e., the JFPR and the HLTF grants) and according to the financing arrangements described in this document. The advance accounts will be established at a commercial bank endorsed by MOF. MOF is accountable and responsible for proper use of advances to the advance accounts, including advances to any sub-accounts.

36. Requests by the executing agency for initial advance and subsequent replenishments of the advance accounts will be supported by withdrawal applications to ADB and will be based on the executing agency's estimate of ADB's share of eligible project expenditures for up to, and not exceeding, the next 6 months, supported by a 6-month activity plan and Estimate of Expenditure Sheet.²⁰ Subsequent applications for account replenishment will be accompanied by a SOEs; or if full documentation is required, a Summary Sheet,²¹ as well as the advance account reconciliation statement.²²

37. The withdrawal application for the advance accounts will be prepared in the currency of the advance account i.e., US dollars. Withdrawal applications will be co-signed by the project director and MOF. The initial advance will be prepared by the project director.

38. The minimum value per withdrawal application is set stipulated in ADB's *Loan Disbursement Handbook*. Individual payments below the amount should be paid (i) by the executing agency and subsequently claimed to ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for Disbursements (CPD) system is encouraged for submission of withdrawal applications to ADB.²³

39. **Project sub-accounts.** Two sub-accounts for JFPR and two sub-accounts for HLTF will be established for daily project administration and maintained by the PIU on behalf of the executing agency (CPDPCD: one in USD and one in Mongolian togrog). The spread of grant proceeds in two currencies will help hedge against foreign exchange risks. The subaccounts will be used exclusively for ADB's share of eligible expenditures of the project. Daily management of the subaccounts will be performed by the PIU to facilitate local project expenditures. Withdrawal requests from the sub-accounts will be prepared by the PIU finance specialist and require co-

¹⁹ The handbook is available electronically from the ADB website (<http://www.adb.org/documents/loan-disbursement-handbook>)

²⁰ Form available in Appendix 8A of ADB Loan Disbursement Handbook (2017, as amended from time to time).

²¹ Form available in Appendix 7B of ADB Loan Disbursement Handbook (2017, as amended from time to time).

²² Form available in Appendix 8B of ADB Loan Disbursement Handbook (2017, as amended from time to time).

²³ The CPD facilitates online submission of WA to ADB, resulting in faster disbursement. The forms to be completed by the Borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

signing by the CPDPCD Director and PIU project coordinator.

40. **Statement of expenditure procedure.**²⁴ The SOE procedure will be used for liquidation of advances to the advance account and reimbursement of eligible expenditures. It will also apply for individual payments not exceeding \$10,000 to ensure speedy project implementation. Payments more than the SOE ceiling will be liquidated or replenished based on full supporting documentation of eligible expenditures when submitting the withdrawal application to ADB. During project implementation, ADB will assess the executing agency's accounting and administrative capacity and feasibility to remove the ceiling for the SOE procedure and review and update the FMA, as needed.

41. **Signing authority.** Before the submission of the first withdrawal applications, MOF 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.

42. **Interest.** Interest earned on the JFPR advance and/or sub-accounts, net of bank charges, can be used for the project, subject to ADB's approval and within the approved total amount of the grant account. Any unused interest should be returned to the grant account maintained at ADB upon project completion and before closing of the grant account.

43. **Training for project staff.** Online training for project staff on disbursement policies and procedures is available at: http://wpqr4.adb.org/disbursement_elearning. Relevant government officials of the executing agency and PIU staff are encouraged to make use of this training to help ensure efficient disbursement and fiduciary control. The schematic fund flow for the project is in the PAM section IV.G.

44. **Financial documentation and records.** All supporting documents and records (including receipts for expenditures) for liquidating or replenishing the advance account, and transactions from the subaccounts, will be submitted to ADB or retained by the executing agency, in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time). Documents and records will be made readily available for review upon request by ADB e.g., on a sampling basis, and for independent audit. The PIU will retain, file, and manage all documentation, and provide duplicate copies of all financial statements and audit records to MOFALI and MOF.

2. Disbursement Arrangements for Counterpart Fund

45. The Government of Mongolia (GOM), including the executing agency, will provide in-kind support in the form of value added tax exemption and office space for the PIU. These costs will be included in the annual budgets of MOFALI and relevant GOM agencies.

C. Accounting

46. MOFALI will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project by adopting the International Public Sector Accounting Standard for accrual-based accounting. The PIU, on behalf of the executing agency, will prepare consolidated project financial statements in accordance with GOM's accounting laws

²⁴ SOE forms are available in Appendix 7B, or 10B of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

47. MOFALI will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing by an independent auditor acceptable to ADB. MOFALI will submit audited project financial statements together with the auditors' opinion will be submitted in the English language to ADB within six months of the end of the fiscal year.

48. The annual audit report for the project accounts and/or financial statements will include an audit 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/or framework; (ii) whether the grant proceeds were used only for the purposes of the project or not; and (iii) whether the borrower or executing agency was in compliance with each financial covenant contained in the legal agreements for the grant project. Expenditure categorization and analysis should be representative of project activities and includes classification based on the categories in Table 5.

49. 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.

50. MOFALI, the executing agency, has been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.²⁵ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the grant recipient), 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.

51. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Access to Information Policy (2018).²⁶ After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 14 calendar days of the date of their acceptance by posting them on ADB's website. The audit management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.

²⁵ 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 grant 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 grant.

²⁶ Access to Information Policy: <https://www.adb.org/documents/access-information-policy>

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

52. The executing agency has requested advance contracting for services to enable early commencement of recruitment of consultants and PIU staff. All advance contracting will be undertaken in conformity with ADB's Procurement Guidelines (2015, as amended from time to time). The advertisement, shortlisting, evaluation, and consultant selection committee recommendations under advance contracting will be subject to ADB prior approval. The government and the executing agency have been advised that approval of advance contracting does not commit ADB to financing the project. Retroactive financing will not be utilized under the project, unless GOM laws and procedures allow.

B. Procurement of Goods, Works and Consulting Services

53. The PIU, on behalf of the executing agency, will be responsible for procurement. All procurement financed by the JFPR and the HLTF grants will be carried out in accordance with ADB's Procurement Guidelines (2015, as amended from time to time) and Consulting Guidelines (2013, as amended from time to time). The selection and engagement of contractors for works, goods, and/or consulting services to be financed by the grant will be subject to ADB approval.

54. National competitive bidding (NCB) procedures will be used for civil works contracts estimated to cost over \$100,000 equivalent and less than \$5.0 million equivalent, and for goods and services supply contracts valued at over \$100,000 equivalent and less than \$2.0 million equivalent. Shopping will be used for procurement of works and equipment estimated to cost less than \$100,000 equivalent.

55. Recruitment of consultants will be done through individual consultant selection, quality-cost based selection and least-cost selection. The relevant sections of ADB's Anticorruption Policy (1998, as amended to date) will be included in all procurement documents and contracts.

56. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and NCB guidelines is in Section VI.C. The plan describes the thresholds and review procedures, and contract packages for goods, works, and consulting services. Any necessary modifications or clarifications to the recipient procurement procedures will be documented in the procurement plan.

C. Procurement Plan

Procurement Plan Basic Data

Project Name: Community Vegetable Farming for Livelihood Improvement	
Project Number: 50278	Approval Number: 9192; xxxx
Country: Mongolia	Executing Agency: MOFALI
Project Procurement Classification: B	Implementing Agency: n/a
Procurement Risk: Average	
Project Financing Amount: \$3.5 million JFPR Financing: \$3.0 million HLTF Financing: \$0.5 million	Project Completion Date: 30 June 2022
Date of First Procurement Plan: 4 December 2017	Date of This Procurement Plan: 18 December 2019

(A) Methods, Thresholds, Review and 18-Month Procurement Plan

1. Procurement and Consulting Methods and Thresholds

57. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works: (i) shopping for goods (threshold: \$100,000), and (ii) direct contracting (threshold: \$10,000).

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	\$5,000,000 and above	None.
International Competitive Bidding (ICB) for Goods	\$2,000,000 and above	None.
National Competitive Bidding (NCB) for Works	Over \$100,000, and below \$5,000,000	All NCBs for Works is subject to prior review.
National Competitive Bidding (NCB) for Goods	Over \$100,000, and below \$2,000,000	All NCBs for Goods is subject to prior review.
Shopping for Works	\$100,000 or below	First shopping for works is subject to prior review.
Shopping for Goods	\$100,000 or below	First shopping for goods is subject to prior review.
Community Participation for Goods and Services ("Community")	\$100,000 or below	None.
Direct Contracting	\$10,000 or below	

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	Prior review (C01)
Quality Based Selection (QBS)	None.
Consultants' Qualifications Selection (CQS)	None.
Least-Cost Selection (LCS)	Prior review. (C05)
Individual Consultants Selection (ICS)	Prior review. (C02)
Single source	Prior review. (C03-C04)

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

58. There are no contracts for this project estimated to cost \$1 million or more.

3. Consulting Services Contracts Estimated to Cost \$100,000 or More

59. The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
C01	Implementation support Firm/NGO/Entity	\$472,763	QCBS	Prior	Q3 2018		Firm/NGO/Entity engaged for project implementation
C02	Agronomist and agri-business specialist (international)	\$145,000	ICS	Prior	Q2 2019		

ICS = individual consultant selection, NGO = nongovernment organization, QCBS = quality-cost based selection;

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

60. The following table groups smaller-value goods works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

1. Goods and Works

Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
G01	Agricultural farm inputs	\$321,194	3	NCB	Prior	1S1E	Q3 2019	Procurement of goods. This is the first NCB for goods. 3 lots: 1. Tractors, equipment and hand tools for all four soums 2. Agrochemicals (pesticides and fertilizers) for each group 3. Personal protective gear

Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CW01	Green houses	\$227,861	2	NCB	Prior	1S1E	Q3 2019	Procurement of works. This is the first NCB for works. 2 Lots: 1. Construct seasonal greenhouses for vegetable growing and seed testing and improving 2. Construct and pilot winter greenhouse in 1 select soum
G02	Soil test to establish baseline for soil quality	\$9,861	1	Direct contracting	Post		Q2 2019	Procurement of services. Test at a certified lab.
CW02	Water tank and connection for seed farmers in Ulaangom	\$43,638	1	Shopping	Prior	1S1E	Q1 2020	Procurement of works. This is the first shopping for works. Drill water well, tank and install pipeline and water tanks to improve seed farmers' access to water in Gashuuunii gol, Chandmani and Negdel Dundiin Uildver
G03	Provide mother seed, and seed to all groups	\$13,161	1	Direct contracting	Post	1S1E	Q2 2019	Procurement of goods. 1 contract for the Seed Institute in Ulaangom
CW03	Shared community-storage and processing workshop	\$421,064	2	NCB	Prior	1S1E	Q1 2020	Procurement of works. 2 lots: 1. Set up shared storage facilities in Orkhon, Yeruu and Ulaangom soums 2. Establish vegetable processing and packaging

Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
								facility in Orkhon (excluding \$100,000 to be financed from RETA funding)
G04	Vegetable farmer market information system	\$17,455	1	Direct contracting	Post		Q1 2020	Procurement of services. To engage the same entity that has developed design specs during grant preparation. Develop and launch web and mobile based vegetable farmer market information system
G05	Shared storage facility in Ulaanbaatar	\$81,899	1	Shopping	Post		Q2 2020	Procurement of services. Rent a shared storage facility in Ulaanbaatar for selling project produce
CW04	Vegetable sale points	\$66,080	2	Shopping	Post	1S1E	Q2 2020	Procurement of works. 2 lots: 1. Set up kiosks in Ulaanbaatar city 2. sale point(s) along main roads going to the East from Ulaanbaatar for selling vegetables
CW05	HLT winter greenhouse	\$377,900	1	NCB	Prior	1S1E	Q2 2020	HLT winter greenhouse pilot near Ulaanbaatar (financed by HLT fund)
G06	Promotional display, bag and packaging	\$32,729	2	Shopping	Post	1S1E	Q2 2019	Procurement of goods. 1 contract for printing

Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
								promotional bag & packaging, and 1 contract for displays
G07	Project transportation	\$61,500	2	Shopping	Post		Q2 2019	Procurement of goods. 2 lots: 1 Project car for PIU 4 Motorcycles for <i>soum</i> coordinators
G08	PIU equipment and furniture	\$32,575	1	Shopping	Prior		Q4 2018	Procurement of goods. This is first shopping for goods. 1. Computers, copiers, printers, GPS for the PIU and <i>soum</i> coordinators 2. Office furniture and equipment

2. Consulting Services

No.	General Description	Estimated Value	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)
C03	Resource person for greenhouse (international)	\$11,000	Single source	Prior	Q4 2019
C04	Resource person for packaging and processing workshop (international)	\$11,000	Single source	Prior	Q4 2019
C06	Specialist for HLT winter greenhouse technology (national)	\$48,400	ICS	Prior	Q1 2020 (to be financed by HLT Fund)
C07	Resource person for contract with HLT winter greenhouse (national)	\$4,400	ICS	Post	Q1 2020 (to be financed by HLT Fund)

CQS = consultant qualification selection, HLT = high-level technology, ICS = individual consultant selection; LCS = least cost selection, SSS = single-source selection.

(E) National Competitive Bidding

A. Regulation and Reference Documents

61. The procedures to be followed for NCB shall be those set forth in the Public Procurement Law of Mongolia of 1 December 2005, effective 1 February 2006, as amended in February 2007; July 2009; and February, June and December 2011, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB's Procurement Guidelines (2015, as amended from time to time).

B. Procurement Procedures

1. Eligibility [Recommended standard provision]

62. The eligibility of bidders shall be as defined under the Procurement Guidelines; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in section I of the Guidelines, as amended from time to time.

63. Government-owned enterprises in Mongolia shall be eligible for projects only if they can establish that they: (i) are legally and financially autonomous; (ii) operate under the principles of commercial law; and (iii) are not dependent agencies of the Borrower, Beneficiary, Recipient Executing Agency.

2. Participation of Foreign Bidders

64. International bidders from eligible countries of ADB shall be allowed to participate in national procurement and may not be denied participation due to nationality.

3. Preferences

65. No domestic preference shall be given for domestic bidders and for domestically manufactured goods.

4. Prequalification and Registration

66. Prequalification is discouraged for procurement contracts using NCB. When used, particularly for works contracts, an individual prequalification exercise is acceptable for each contract as is the use of a registration system (or approved standing list) of contractors based on criteria such as experience, financial capacity, and technical capacity. Foreign bidders from eligible countries must, however, be allowed to register and to bid without unreasonable cost or additional requirements.

5. Rejection of All Bids and Rebidding

67. All bids shall not be rejected, or new bids invited without ADB's prior written concurrence.

68. No bid shall be rejected merely on the basis of a comparison with the estimated cost or budget ceiling without ADB's prior written concurrence (with specific reference to Article 30 of the Public Procurement Law of Mongolia).

C. Bidding Documents

6. Use of Bidding Documents

69. National Standard Bidding Documents Goods and Works that have been approved for procurement in ADB-financed projects shall be used.

7. Language

70. Bidding documents may be prepared in other languages, but a copy of the bidding documents must be made available in English and submitted to ADB for review.

8. Bid Validity

71. Bidders shall be requested to extend the validity of their bids only under exceptional circumstances and the executing agency, as the case may be, shall communicate such request for extension to all bidders before the date of expiry of their bids. When the procurement is subject to ADB's prior review, the executing agency, as the case may be, shall obtain in a timely manner the prior written concurrence of ADB for the extension of the bid validity period.

9. Bid Evaluation

72. Evaluation and qualification criteria, and submission requirements, to be used in each bidding activity shall be clearly specified in the bidding documents. The evaluation of bids shall be done in strict adherence to the criteria specified in the bidding documents.

73. Negotiations with bidders shall not be undertaken before award of contract, except as provided in Paragraph 2.63 of ADB's Procurement Guidelines. A bidder shall not be required, as a condition for award, to undertake obligations not specified in the bidding documents or otherwise to modify its bid as originally submitted.

74. At the same time that notification on award of contract is given to the successful bidder, the results of the bid evaluation shall be posted on a well-known freely accessible website (namely Mongolia's Ministry of Finance e-procurement website: <https://www.tender.gov.mn>) identifying the bid and lot numbers and providing information on the: (i) name of each bidder that submitted a bid; (ii) bid prices as read out at bid opening; (iii) names of bidders whose bids were rejected and the reasons for their rejection; and (iv) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. The Executing Agency, as the case may be, shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids were not selected.

10. ADB Policy Clauses

75. A provision shall be included in all NCB works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

76. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that the Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent,

collusive, coercive or obstructive practices in competing for the contract in question.

77. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or any integrity violation in competing for, or in executing, ADB-financed contract.

D. Consultant's Terms of Reference

D.1 Project Implementation Support Firm/NGO/Entity

The Firm/NGO/Entity shall have demonstrated experience in implementing community-based rural development projects in Mongolia or in conditions similar to those of Mongolia. Experience of ADB or World Bank projects would be a plus. Linkages to participants in the vegetable market chain, and knowledge of and contacts with those involved in organized wholesale and retail trade in fruits and vegetables would also be an advantage. Knowledge of ADB's guidelines on use consultants, familiarly with the consultant management system would be a plus. Key personnel of the group responsible for representing it in communications with ADB/MOFALI must have a good command of English (spoken and written).

Duration of contract: 4 years, 341 person-months.

Post location: Ulaanbaatar and Yeruu *soum* in Selenge *aimag*, Bornuur *soum* in Tuv *aimag*, Orkhon *soum* in Darkhan-Uul *aimag* and Ulaangom *soum* in Uvs *aimag*.

Expected timing: Starting in March 2018.

The firm/NGO/entity must be registered with ADB as a consultant and will be recruited in accordance with ADB's Procurement Guidelines (2015, as amended from time to time).

Scope of work: The firm/NGO/entity will (i) implement project activities in the field; (ii) support project activities by providing consultants specified in Appendix 7, (iii) help link project farmers groups to potential markets, including wholesale and retail trade, and established businesses in food processing industry, (iv) support project activities in the *soums* by introducing experiences and best practices from similar donor projects.

Expected Outputs - Tasks and Activities

Output 1: Support project marketing and branding activities.

- (i) Support linking project farmer groups to potential buyers such as wholesale stores, retail chains and established food processing businesses.
- (ii) Support linking the project to appropriate media outlets for advertising project activities and help designing promotional displays.

Output 2: Support project activities in the field.

- (i) Conduct research on best practices from similar donor projects in Mongolia and other countries.
- (ii) Share the best practices with the project team and farmer groups, and support various training activities by the project.

Fifteen national individual consultants for a total of 330 person-months (pm) will be engaged through the Implementation Support firm/NGO/entity. Input months and TORs for the consultants are detailed in Appendix 7.

D.2 Individual Consultant (International) Recruitment

1. Agronomist and Agri-business Specialist - International (5 person-months, intermittent)

Expertise: The candidate must have tertiary qualifications in agronomy or related fields with at least 10 years of experience in vegetable and fruit farming, especially protection culture, in climatic conditions approximating those of Mongolia. Strong preference will be given to candidates having prior experience of working directly with farming communities, participating in the design of community-based initiatives and working on ADB or World Bank projects.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 5 person-months, intermittent.

Post location: Ulaanbaatar, project soums.

Expected timing: Starting in May 2018.

Scope of Work: The expert will (i) consolidate relevant international and local knowledge on vegetable varieties, cultivation techniques, technologies, and practices best suited to the climate and soil conditions of Mongolia's central region, (ii) based on (i), make recommendations to the project on the choice of varieties, technologies, and practices to be used by local CGGs, (iii) develop, in consultation with the national agronomist, a training program for project farmers on the use of existing and introduction of new vegetables varieties, technologies, and practices, (iv) based on (iii), train project national agronomist and agribusiness specialist and other team members in delivering corresponding training programs to project farmers, and (v) maintain regular communications with the project team and update and revise, as necessary, the recommendations on the choice of vegetable varieties, protection culture technologies and techniques, best horticulture practices and corresponding training program.

Expected Outputs - Tasks and Activities

Output 1: Make recommendations on the choice of crops, technologies, and practices.

- (i) In collaboration with the national agronomist, consolidate local and international knowledge and experience of growing vegetables in the climatic conditions similar to those of Mongolia's central region.
- (ii) Make recommendation on the choice of vegetable breeds and varieties most suitable for the Mongolia central region, and for a community farming model.
- (iii) In collaboration with the national agronomist and consolidate local and international experience on best farm practices of protected horticulture (especially the use of greenhouses and tunnels) applicable to the central region of Mongolia and suitable for adoption by CGGs.
- (iv) Conduct field visits to project soums to validate the initial analysis and make recommendations on the technologies and techniques of protected horticulture best suited to the needs of the project.
- (v) Maintain regular communications with the project team and revise and update as necessary

the recommendations concerning vegetable breeds, best farm practices, and protected horticulture technologies and operating procedures.

Output 2: Develop training program for project farmers and support delivery of the training program.

- (i) In collaboration with national agronomist, develop training program for project farmers on introduction of new vegetables and application of best practices in farming.
- (ii) Train national agronomist and other project team members in delivering in-field training of project farmers in improved vegetable production and post-harvest practices.
- (iii) Maintain regular communications with the project national team and revise and update the training program, as necessary.

Output 3: Consolidate the analysis and recommendations made in a report that could serve as a learning resource for the project communities and others beyond the confines of the project.

2. Resource Person for Packaging and Processing Workshop - International (1 person-month)

Expertise: The candidate shall have an advanced degree in food processing or technology, or other discipline relevant to packaging and processing of vegetables. He/she will preferably have at least 5 to 10 years of experience in the design and operation of small to medium scale vegetable packaging and processing facilities in rural environment in developing countries.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 1 person-month.

Post location: Ulaanbaatar.

Expected timing: May 2019.

Expected Outputs - Tasks and Activities

The specialist will:

- (i) Conduct field visits to the project *soums* where small-scale vegetable packaging and processing facilities are to be established to gain understanding of current conditions and requirements.
- (ii) Create a preliminary blueprint for a vegetable packaging and processing unit best suited to local conditions and CGG management including the choice of materials and equipment to be used.
- (iii) Recommend operational procedures for the facility including required number and profile of employees, training needs and operational guidelines.

3. Resource person for greenhouse - International (1 person-month)

Expertise: The candidate shall have a technical diploma in engineering, horticulture or other subjects relevant to protected horticulture, or proven track record of successfully using greenhouses to grow non-conventional vegetables in countries similar to Mongolia in climate conditions.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 1 person-month.

Post location: Ulaanbaatar.

Expected timing: May 2018.

Expected Outputs - Tasks and Activities

The specialist will:

- (i) Visit project *soums* and work closely with national agronomist and agribusiness expert, national resource person for greenhouse technology to determine farmer communities' needs and scope for greenhouses.
- (ii) Share with the project lessons learned from building and operating greenhouses in other countries.
- (iii) Recommend the types of greenhouses of several sizes, best suited to project conditions under CGG management.
- (iv) Assist the community development expert, national agronomist, and *soum* coordinators in selecting sites appropriate for constructing greenhouses.
- (v) Create preliminary technical drawings for greenhouses in cooperation with the national resource person for greenhouse technology.

4. Resource person for packaging and processing workshop - International (1 person-month)

Expertise:

The candidate shall have an advanced degree in food processing or technology, or other discipline relevant to packaging and processing of vegetables. He/she will preferably have at least 5 to 10 years of experience in the design and operation of small to medium scale vegetable packaging and processing facilities in rural environment in developing countries.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 1 person-month.

Post location: Ulaanbaatar.

Expected timing: May 2019.

Expected Outputs - Tasks and Activities

The specialist will:

- (i) Conduct field visits to the project *soums* where small-scale vegetable packaging and processing facilities are to be established to gain understanding of current conditions and requirements.
- (ii) Create a preliminary blueprint for a vegetable packaging and processing unit best suited to local conditions and CGG management including the choice of materials and equipment to be used.
- (iii) Recommend operational procedures for the facility including required number and profile of employees, training needs and operational guidelines.

5. Specialist for the HLT winter greenhouse technology - National (18 person-months)

Expertise: The candidate shall have a technical diploma in engineering, horticulture or other subjects relevant to protected horticulture, or proven track record of successfully using the HLT winter greenhouses to grow non-conventional vegetables in Mongolia.

Reporting: The position will report to the PIU project coordinator

Duration of contract: 18 person-months.

Post Location: Ulaanbaatar.

Expected timing: January 2020

Expected Outputs - Tasks and Activities

- (i) Visit project Ulaanbaatar (Visit 61 garam) and work closely with international and national agronomist and greenhouse experts to determine for scope for high level technology greenhouse.
- (ii) Share with the project lessons learned from building and operating the HLT winter greenhouses in other locations in Mongolia.
- (iii) Recommend the types of the HLT winter greenhouses of several sizes and types of technology, best suited to project conditions under MOFALI.
- (iv) Assist the national agronomist, and international greenhouses experts in selecting sites appropriate for constructing greenhouses.
- (v) Create preliminary technical drawings for greenhouses in cooperation with the international resource person for greenhouse technology, and taking into account the climate and harsh seasonal weather conditions, based on a wide variety of weather data.
- (vi) Develop training materials and train the project team and MOFALI selection of crops to be grown in the HLT winter greenhouses, operating practices, maintenance, and operating cost.
- (vii) Recommend the engineering design for the contracts to be procurement.
- (viii) Work closely with national agronomist resource person for 1a prepare the detailed engineering design and environment safeguards due diligence.
- (ix) Work closely with the PIU staff, MOFALI, and the HLT winter greenhouses' implementing company to manage and arrange inspections of goods, works, and services being procured, as well as of their delivery and distribution to the final destination to ensure timely availability and proper reception, installation, testing, and user training.

6. Resource person for the HLT winter greenhouse technology - National (1 person-month)

Expertise: The candidate shall have a bachelor's degree in business administration or agronomy related subjects with at least 3 years of experience in agricultural and greenhouse development. The candidate shall have experience with procurement systems of the Mongolian government, ADB and the rules, regulations, and practices of procurement and contracting in general, procurement in an ADB project and have a good command of spoken and written English.

Reporting: The position will report to the PIU project coordinator

Duration of contract: 1 person-month.

Post Location: Ulaanbaatar

Expected timing: March 2020

Expected Outputs - Tasks and Activities

- (i) Visit project Ulaanbaatar (Visit 61 garam) and work closely with international and national agronomist and greenhouse experts to determine BID for high level technology greenhouse.
- (ii) Work closely with PIU procurement specialist to plan and manage procurement activity including the preparation of FSR and bid documents and cost estimates, invitation for bids, bidders' inquiries, bid evaluation, preparation of bid evaluation minutes and reports, preparation of contract negotiations with selected bidders, and submissions for ADB's review in accordance with the project procurement plan and ADB's guidelines and procedures.
- (iii) Work closely with PIU procurement specialist to prepare and translate procurement documents such as bidding documents including technical specifications for goods, works and services to be procured through national competitive bidding (NCB) and shopping, bid evaluation minutes and reports, contracts, and other submission documents for ADB's review.
- (iv) Together with the other PIU staffs and in coordination with the MoFALI arrange inspections of goods, works and services being procured, as well as inspections of their delivery, storage, and distribution to the final destination to ensure timely availability and proper reception, installation, testing, and user training; ensure that the quality of the procured goods are verified against the specifications before signing acceptance documents for the goods.
- (v) Work closely with PIU procurement specialist/Financial Management specialists, ensure that all the procured goods are properly labeled and entered into the project financial management/accounting system.

VII. SAFEGUARDS

78. **Environment (category C).** The project is categorized as C for environmental safeguards. Under ADB's Safeguard Policy Statement (SPS, 2009), only activities likely to have minimal or no adverse environmental impacts will be implemented under the project. No environmental assessment report is required for category C projects, although environmental aspects will be considered as part of the standard preparatory activities for each project component. An environmental management checklist will be developed to monitor and mitigate impacts from the civil works and facilities operations.

79. **Involuntary resettlement and indigenous peoples (category C).** No involuntary resettlement or land acquisition is envisaged, as the farming activities will be conducted on existing farmlands owned by beneficiary households. There are no communities of distinct and vulnerable indigenous peoples as defined under ADB SPS living in the project *soums*, as confirmed by due diligence and national census data. The additional financing will construct one greenhouse (about 30 meters by 30 meters); and it will be on unencumbered vacant state-owned land in the current project area. The exact location will be determined during project implementation. The project will not finance any activities that would trigger IR impacts. The current project and the additional financing does not trigger the SPS requirements on involuntary resettlement and indigenous peoples.

80. **Prohibited activities.** Pursuant to ADB's SPS (2009), use of the 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.²⁷ All project activities will comply with applicable national laws and regulations.

VIII. GENDER AND SOCIAL DIMENSIONS

81. **Poverty and social impacts.** A summary poverty reduction and social strategy has been prepared for the project. The project is designed for livelihood improvement and poverty reduction and categorized as gender equity under ADB's project gender classification system. The project will strengthen the capacity of CGGs comprising 400 smallholder farmers and seed producers from 180 households, including at least of 50% group members being women and 100% from poor and vulnerable households.²⁸ 180 households will gain access to vegetable storage facilities and engage in greenhouse production. 36 households of seed producers will have better access to water for irrigation. 144 farmers' households will receive specialized training related to vegetable production, including its processing, packaging, and marketing aspects. Through improved availability of affordable produce, knock-on learning and multiplier effects, the project will indirectly benefit the wider community in target *soums*, with a population of 45,000, of which approximately 50% are female.

82. The formulation of the project was preceded and accompanied by extensive consultations with local populations. These consultations provided a better understanding of the target *soums'* poverty and gender profiles. They revealed that women actively participate in farming, from cultivating soil to harvesting and sorting produce, but the degree of this participation varies considerably from *soum* to *soum*. A gender action plan (GAP) has been prepared and is attached to this document. It comprises 14 actions with 26 indicators, of which 18 have quantitative indicators, with targets for enabling mainstreaming of women in agricultural value-chains and increasing

²⁷ Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

²⁸ Poor households in the project are defined as farming households with 1 hectare or less of land.

livelihood opportunities for women in non-traditional sectors. The formation of farming groups under output 1 will ensure a 100% representation of households classified as poor and at least 50% female.

83. Participatory approach. Project design is rooted in strong participation of local households. Opportunities to promote participation in project activities were identified during consultations with the communities and local governments in the target project sites. The project's phased approach allows for a comprehensive and inclusive consultation early in implementation. This bottom-up approach minimizes possible sense of exclusion by some in the community and motivates the target households. The creation and functioning of CGGs puts the groups and households themselves in charge of decision-making while providing for a degree of shared oversight as some decisions are taken on behalf of the entire CGGs rather than individual households.

84. Gender. The project is classified "gender equity" under ADB's project gender classification system. A GAP was prepared. Project activities are designed to be participatory and inclusive and will support the involvement of poor and women-headed households. Women already play an important role in vegetable production and sales and the success of some project activities will depend on strong support from women in the target *soums*. The GAP sets targets for project participation, empowerment, and capacity building for women.

85. The GAP (see Table 10 below) comprises 14 actions with 26 indicators, of which 18 have quantitative targets (see table below), with targets for enabling mainstreaming of women in agricultural value-chains and increasing livelihood opportunities for women in non-traditional sectors. The formation of farming groups under output 1 will ensure 50% female representation.

Table 10: Gender Action Plan

Activity	Targets / Indicators	Responsibility	Timeframe
Output 1: Community grower groups established			
1a. Conduct community consultations and integrate findings in design and action plans of 30 CGGs on: (i) ways and degree of collaboration in farming activities; (ii) areas support is most required; (iii) prioritization of actions; and (iv) implementation of actions.	<ol style="list-style-type: none"> 1. Tailored outreach and at least one women-only consultation is held in each target <i>sum</i>. 2. At least 50% of CCGs consulted on ways and degree of collaboration and priority actions are women. 	Conducted by PIU staff, <i>soum</i> <td>Year 1</td>	Year 1
1b. Encourage women's active participation and inclusion of female-headed households in CGGs.	<ol style="list-style-type: none"> 3. At least 50% of the members of the 30 CGGs created are women 4. 30 CGGs registered with <i>soum</i> 	Conducted by PIU staff, <i>soum</i> <td>Year 1</td>	Year 1
1c. Ensure women's participation in project awareness activities and trainings on best farming practices, vegetable business and management of CGGs.	<ol style="list-style-type: none"> 5. At least 45% of participants in all awareness sessions and trainings for target <i>soums</i> are women. 6. Gender-specific needs and priorities are assessed and addressed (including training venues and timing). 	Conducted by PIU staff, <i>soum</i> <td>Year 1–2</td>	Year 1–2

Activity	Targets / Indicators	Responsibility	Timeframe
Output 2: Sustainable climate-resilient vegetable farming practices applied			
2a. Ensure women are consulted on: (i) type and location of greenhouses; (ii) crops to be grown; and (iii) prioritization of production inputs and technologies, as relevant.	7. Consensus on type and location of greenhouses, and selected production inputs is signed off in each action plan by both spouses from each beneficiary household.	Conducted by PIU staff, <i>soum</i> <td>Year 1–2</td>	Year 1–2
2b. Increase women's access to farming resources to improve livelihood of female CGGs members in all four <i>soums</i> .	8. At least 40% of project pilot greenhouses are owned by women. 9. By 2021, at least 100 farming households are accessing improved farming infrastructure and equipment (of which at least 10% are female-headed households). 10. At least 50 women benefit from pilot green jobs of the workshop livelihood activities.	Conducted by PIU staff and <i>soum</i> <td>Year 2–3</td>	Year 2–3
2c. Ensure women are consulted on decisions concerning shared ownership of assets, responsibilities and tasks of group members and community growers' scheme.	11. At least 45% of all CGG members consulted on farming assets, shared responsibilities and roles of groups, and community growers' scheme aspects in each of the 4 project <i>soums</i> are women.	Conducted by PIU staff, <i>soum</i> <td>Year 1–2</td>	Year 1–2
2d. Improve knowledge of women CGG members and female-headed households on the use of new types of crops, farm equipment, inputs and facilities.	12. At least 45% of women in the 30 CGGs participate in project trainings for climate preparedness, water saving technologies, best farming practices. 13. Training reports with sex-disaggregated data	Conducted by PIU staff, <i>soum</i> <td>Year 2</td>	Year 2
Output 3: Farmers' access to markets improved			
3a. Ensure the market study and value chain analysis contains a gender section on livelihood activities and access to resources and markets	14. Market study and value chain analysis includes a gender analysis to assess gender-differential needs and challenges in access to market.	Conducted by PIU staff and <i>soum</i> <td>Year 1</td>	Year 1
3b. Increase women's access to economic resources to improve livelihood of female CGGs members in Orkhon <i>soum</i>	15. At least 45% of the processing workshop title in Orkhon <i>soum</i> is owned by female CGG members. 16. 24 CGGs linked with markets and buyers, of which 20% are led by women.	Conducted by PIU staff and <i>soum</i> <td>Year 2–3</td>	Year 2–3
3c. Ensure active participation of female members of CGGs in Orkhon <i>soum</i> on vegetable value-addition and processing techniques.	17. At least 75% of female CGG members in Orkhon <i>soum</i> are trained in vegetable processing techniques (pickling, preserves, sauces, frozen vegetables, juicing). 18. 100% of female CGG members involved in the vegetable processing and storage facility in Orkhon are trained on how to use the facility, including hygiene and safety standards.	Conducted by PIU staff, international specialist; Monitored by PIU	Year 2–3

Activity	Targets / Indicators	Responsibility	Timeframe
	19. At least one women-led CGG is empowered to lead the Orkhon <i>soum</i> vegetable processing and storage facilities.		
3d. Ensure female members of CGGs actively participate in trainings on value-added agricultural processing, packaging, selling, marketing and essentials of business.	20. At least 75% of all 30 CGG female members are trained in vegetable grading and quality, waste disposal, food processing techniques (pickling, preserves, sauces, frozen vegetables, juicing), packaging of produce, marketing in the 3 farming <i>soums</i> 21. At least 144 farming households and 36 seed producer households trained in processing, essentials of vegetable business and marketing (of which at least 50% are women).	Conducted by PIU staff and <i>soum</i> coordinators; Monitored by PIU	Year 2–3
3e. Actively support participation of female-headed CGGs in multiple sales and marketing channels piloted under the project.	22. All interested women-led CGGs are supported by the project to participate in the national vegetable fairs. 23. Successful and appropriately qualified women-led CGGs will be given preference for the sales agreements made between farmer groups and buyers (agro-industries, commercial farms, supermarkets, public sector buyers, individuals) under the project.	Conducted by PIU staff and <i>soum</i> coordinators; Monitored by PIU	Year 2–3
3f. Ensure that beneficiary women provide feedback on project results and share the lessons learned.	24. At least 45% of participants at the project completion workshop are women.	Conducted by PIU staff, international specialist; Monitored by PIU	Year 3
3g. Appoint a social and gender specialist at PIU.	25. A social and gender specialist is engaged for 6 months per year at PIU. 26. All PIU staff trained by gender specialist on gender-specific needs and priorities, and sex-disaggregated data collection and reporting.	Engaged by executing agency; Trained by international specialist; Monitored by PIU and executing agency	Intermittent throughout project lifetime

CGG = community grower group, PIU = project implementation unit.

Source: Asian Development Bank.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

REVISED DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned with			
Current project			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Current project Model for community vegetable farming demonstrated	Current project By 2022: Project community farming model taken up and endorsed by MOFALI to scaling up and replicating (Baseline 2017: 0) Farming income for project beneficiary smallholders increased by 30% (for female-headed households increased by 35%) (Baseline 2016: \$2,400 annually per farming household)	Quarterly progress/ implementation reports produced by PIU <i>Soum</i> statistics MOFALI website data system as project M&E tool	Changes in local or national political leadership disrupting implementation of vegetable farming actions Major hazard event in project or surrounding area
Overall project Unchanged.	Overall project Unchanged.		
Outputs Output 1 Current project 1. Community growers groups established	Current project By 2019: 1a. 30 CGGs registered with <i>soum</i> governor (of which at least 30% have female leaders) (Baseline 2017: 0) 1b. All CGGs have at least 50% female membership (Baseline 2017: 0%) 1c. At least 20 CGGs have signed community farming plans and by laws (Baseline 2017: 0)	1a–1c. Quarterly progress/ implementation reports produced by PIU 1a–1c. ADB review mission reports	Communities' limited ability to participate in project activities due to time constraints. Limited uptake in local sector/ development plans due to low levels of buy-in from local leadership. Turnover of <i>bagh</i> or <i>soum</i> administration
Overall project Unchanged.	Overall project 1a–1c. Unchanged.		

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Output 2 Current project 2. Sustainable climate-resilient vegetable farming technology and practices applied Overall project Unchanged.	Current project By 2021: 2a. Farming produce of project beneficiary smallholders increased by 15% (Baseline 2016: 7 tons per farming household on average) 2b. At least 40% of project pilot greenhouses are owned by women (Baseline 2017: 0) 2c. At least 180 farming households are accessing improved farming infrastructure and equipment (of which at least 10% are female-headed households) (Baseline 2017: 0) 2d. Seed production in UVs increased by at least 50% from current production (Baseline 2017: 10 tons) Overall project 2a–2d. Unchanged. 2e. 24 CGGs will have practical knowledge on establishing and maintaining, and using high-level technology winter greenhouses (of which at least 20% are women-led) (Baseline 2017: 0) (Added)	2a–2e. Quarterly progress/ implementation reports produced by PIU 2a–2e. ADB review mission reports	trained under the project. Out-migration of farmers from project areas. Storage structures or greenhouses used for unintended purposes. Severe weather conditions limiting implementation of project activities or damaging project infrastructure. Lack of know-how and experience among farmers to operate new technologies and applying efforts.
Output 3 Current project 3. Farmers' access to markets improved	Current project By 2021: 3a. 24 CGGs linked with markets and buyers (of which 20% are women-led) (Baseline 2017: 0) 3b. Wastage of farm produce in project soums reduced by 5% over the last 5 years average (Baseline 2017: 10%)	3a–3g. Final project completion report 3a–3g. Report from final review symposium	Resistance by vested interests to increased participation of community groups in marketing their produce Uneven talent and capacity to master the business

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Overall project Unchanged.	3c. At least 45% ownership of the Orkhon vegetable processing workshop lies with female CGG members (Baseline 2017: 0) 3d. At least 144 farming households and 36 seed producer households trained in processing and marketing (of which at least 50% are women) (Baselines 2017: 0, 0%) 3e. At least two sales MOUs signed between grower groups and buyers (Baseline 2017: 0) 3f. At least one farming enterprise or association formed in each of the 4 <i>soums</i> at the end of the project (Baseline 2017: 0) Overall project 3a–3c. Unchanged. 3d. At least 144 farming households trained in processing and marketing (of which at least 50% are women) (Baseline 2017: 0) (Unchanged, split from current indicator 3d) 3e. At least 36 seed producers' households trained in processing and marketing (of which at least 50% are women) (Baseline 2017: 0) (Unchanged, split from current indicator 3d) 3f. At least two sales MOUs signed between grower groups and buyers (Baseline 2017: 0) (Unchanged, formerly 3e) 3g. At least one farming enterprise or association formed in each of the four <i>soums</i> at the end of the project (Baseline 2017: 0) (Unchanged, formerly 3f)		aspects of vegetable production and sales
Key Activities with Milestones			

Output 1: Community growers groups established

- 1.1. Conduct training (including gender sensitive training) for local communities on best ways to establish effective CGGs and engage in collaborative farming (Q2 2019) (unchanged).
- 1.2. Form vegetable CGGs, bringing together around five to eight farmer households per group and eight groups in each vegetable production site and six groups in seed production site (Q2–Q4, 2019) (unchanged).
- 1.3. Conduct the stocktaking exercise and map out all farming households in the CGGs, including plot location, area, vegetables grown, and farming assets (equipment, machinery, etc.) (Q2 2019) (unchanged).
- 1.4. Describe the pool of resources (existing and new) available to each group and establish the rules for the use of this pool, its maintenance, ownership, cost-sharing, and governance (Q2–Q3, 2019) (unchanged).
- 1.5. Formulate community growers action plans (Q4 2019) (unchanged).
- 1.6. Establish the community growers scheme (Q4 2019) (unchanged).

Output 2: Sustainable climate-resilient vegetable farming technology and practices applied

- 2.1. Provide (where needed) farm equipment and other tools to CGGs to improve the efficiency of vegetable production (planting, weed control, harvesting) (Q1 2020) (unchanged).
- 2.2. Set up greenhouses for diversification of the vegetables grown, transition to higher-value produce, extending growing season, and for testing improved seed varieties (in Ulaangom) (Q2–Q3, 2020) (unchanged except for item (v) below).
 - (i) At least 72 greenhouses in three vegetable growing soums (Bornuur, Orkhon, Yeruu) (unchanged);
 - (ii) At least one greenhouse in Uvs for testing seed and propagating (unchanged);
 - (iii) Pilot one winter greenhouse in one soum (unchanged);
 - (iv) Training for best practices in greenhouse operations, including the use of water and energy (unchanged); and
 - (v) Pilot one HLT winter greenhouse (added).
- 2.3. Improve water access and usage of existing irrigation sources for seed CGGs in Ulaangom (Q1 2019) (unchanged).
- 2.4. Train the CGGs in best practices in sustainable climate-resilient farming; (in climate preparedness, crop rotation, introduction of new vegetables and varieties, use of organic fertilizer and pesticide, best practices in water saving) (Q2–Q4 2020) (unchanged).
- 2.5. Train the CGGs on the HLT winter greenhouse operation's best practices and climate-resilient farming (Q2–Q4 2020) (added).

Output 3: Farmers' access to markets improved

- 3.1 Conduct a market study and value chain analysis (Q1–Q2 2020) (unchanged).
- 3.2 Set up shared storage facilities in Orkhon, Ulaangom, and Yeruu soums. One facility per site—ventilated, climate and disaster-resilient, low cost, built, owned and managed by CGGs (Q2–Q4 2020) (unchanged).
- 3.3 Pilot one vegetable processing and packaging workshop for value addition in Orkhon soum (Q3 2020) (unchanged).
- 3.4 Train CGGs in vegetable grading and quality, waste disposal, food processing techniques (pickling, preserves, sauces, frozen vegetables, juicing), packaging of produce, and marketing (Q1–Q4 2020) (unchanged).
- 3.5 Pilot and establish various sales channels in all project sites (Q3 2020–Q2 2021) (unchanged).
 - (i) Support CGGs' participation in national vegetable trade fairs;
 - (ii) Pilot six kiosks (two for each growing soum) in Ulaanbaatar;
 - (iii) Set up a selling point along the main road axis linking the project soums with Ulaanbaatar; and
 - (iv) Pilot and make sales agreements between CGGs and buyers (agro-industries, commercial farms, supermarkets, public sector buyers, individuals).
- 3.6 Develop and launch farmer market information system (web and phone-based application), train farmers and local administration in its use (Q1–Q2 2020) (unchanged).

Project Management Activities

Recruit consultants for project management unit by month 2 (completed).

Establish a PIU to support grant implementation and technical capacity of MOFALI by month 3 (completed). Screen and conduct due diligence for small infrastructure by month 18 (unchanged). Monitor and evaluate project impact, outcome, and outputs using the project performance management system; submit semiannual progress reports until year 2021 (unchanged). Prepare inception (Q2 2018), midterm (Q4 2019) and final (Q4 2021) reports (unchanged).

Inputs

Cofinanciers	
Japan Fund for Poverty Reduction	High-Level Technology Fund
\$3,000,000 (current)	\$0 (current)
\$40,000 (additional)	\$500,000 (additional)
\$3,000,000 (overall)	\$500,000 (overall)

Government
\$200,000 (current)
\$0 (additional)
\$200,000 (overall)

Note: The executing agency will provide in-kind counterpart support in the form of office space, workshop and training venues, and staff time for project implementation; at the *soum* level, staff time and desk space will also be made available. In-kind counterpart support will also include exemption of taxes on consultant and PIU staff salaries.

Assumptions for Partner Financing

Current project

None.

Overall project

Unchanged.

ADB = Asian Development Bank, CGG = community grower group, HLT = high-level technology, M&E = monitoring and evaluation, MOFALI = Ministry of Food, Agriculture, and Light Industry, MOU = memorandum of understanding, PIU = project implementation unit, Q = quarter.

^a Government of Mongolia. 2016. *Program of Action 2016–2020*. Ulaanbaatar.

Source: Asian Development Bank.

B. Monitoring

86. **Project performance monitoring.** A project performance monitoring system (PPMS) will be established for the project.²⁹ The design and monitoring framework (DMF) forms the basis for monitoring the project progress. During project implementation, the PPMS, through project performance report, will monitor the likelihood that key milestone dates for activities, outputs, outcome, and impact will be achieved. The project's impact, fully assessed 5 years after project completion, will be anticipated during project implementation through monitoring assumptions and risks. The DMF will be reviewed during the project implementation and if needed, adjusted to

²⁹ ADB's project performance reporting system is available at <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>. ADB's project performance management system (PPMS) is a coherent and results-based approach to project planning, performance monitoring, and evaluation of results. The PPMS comprises five components: (i) design and monitoring framework (DMF); (ii) project performance report (PPR); (iii) grant recipient's monitoring and evaluation (at the central and executing and implementing agencies levels); (iv) project completion report (PCR); and (v) project performance evaluation report (PPER), and where appropriate, impact evaluation studies. The DMF provides the basis upon which the PPMS operates. It does this by establishing quantified, time-bound targets and measurable indicators, and by identifying key risks and assumptions that are used to monitor and evaluate performance in the PPR, PCR, and PPER.

reflect changing circumstances. Following project completion, the project will be subject to an assessment of the outcome along with recommendations for enhancing and sustaining the outcome. A project completion report will also include a preliminary assessment of the impact. The project impact, outcome, outputs, and targets and indicators are presented the DMF.

87. The PIU will monitor project implementation as well as feedback from the executing agency, project steering committee, project beneficiaries, and other stakeholders. ADB will monitor five aspects of project performance i.e., technical, procurement, disbursement, financial management, and safeguards (social and environment), through the executing agency's semi-annual progress reports (prepared by the PIU and endorsed by the executing agency), day-to-day communication with the PIU, and ADB review missions.

88. The PIU will prepare and submit semi-annual progress reports. These will include compliance monitoring with any conditions and covenants stipulated in the grant agreement; DMF activities and targets; environmental and social safeguards monitoring; and gender and social dimensions.

89. **Compliance monitoring.** On behalf of the executing agency, PIU will monitor compliance with covenants stipulated in the grant agreements. ADB will monitor the compliance status through the executing agency's semi-annual progress reports, day-to-day communication with the PIU, and ADB review missions; and take necessary remedial measures for any non-compliance.

90. **Environmental safeguards monitoring.** No specific environmental safeguards have been adopted for the project that is categorized as "C". Nevertheless, during the preparations of the project activities relevant environmental aspects will be considered and monitored during implementation, as needed. The PIU will monitor and report the observations as part of the project performance monitoring and report on them in the semi-annual progress reports. The PIU will immediately inform the executing agency and ADB of any unanticipated environmental concerns. Corrective actions will be developed as needed, and agreed between the executing agency, PIU, affected persons, and any other relevant agencies. An environmental management checklist will be developed to monitor and mitigate impacts from the civil works and facilities operations.

91. **Social safeguards monitoring.** The PIU will monitor project performance, including social safeguards as part of the project performance monitoring and report it in the semi-annual progress reports. The PIU will immediately inform the executing agency and ADB of any unanticipated social safeguard concerns. No involuntary resettlement impacts will occur due to the project.

92. **Gender and social dimensions monitoring.** The PIU social and gender specialist will record sex-disaggregated data and information on the social, gender, and participatory aspects of the project during the project activities. Monitoring and evaluation of the GAP will be incorporated into the project reporting. The social and gender specialist will prepare a semi-annual report on GAP implementation and progress, as part of the semi-annual progress reports, and will work closely with the project communities.

C. Evaluation

93. Project performance will be regularly monitored and rated through ADB's e-Operations project implementation module. ADB's overall grant implementation rating will be made based on five performance indicators: technical, procurement, disbursement, financial management, and social and environmental safeguards (Section IX.B). Such rating will be updated semi-annually based on executing agency's semi-annual progress reports and/or ADB review missions. Within

6 months of physical completion of the project, MOFALI (executing agency) will submit a grant project completion report to ADB.³⁰

94. ADB will conduct an inception mission when the grant becomes effective. ADB and the government will jointly field one to two project review missions 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 grant recipient's compliance with grant covenants and, where there is any noncompliance or delay, discuss proposed remedial measures, and (v) assess the likelihood of attaining the project's outcome.

95. 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 grant proceeds, as appropriate—to achieve the project's outcomes and impact.

96. 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 of projects for project performance evaluation reporting, the project will be subject to more detailed performance evaluation and impact assessment about 3 or more years after completion.

D. Reporting

97. The PIU, on behalf of the executing agency, will provide ADB with: (i) semi-annual 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 against the baseline data, (b) key implementation issues and solutions; (iii) updated procurement plan; (iv) updated implementation plan for each 12 months; and (v) a grant project completion report within 6 months of physical completion of the grant project. The completion report will present the government's assessment of the project's effectiveness and will take account of findings of the ADB's final review. To ensure that the project continues to be viable and sustainable, project accounts and the audited project financial statements, together with the associated auditor's report, should be adequately reviewed.

98. The PIU shall include the results of implementing the GAP and summary poverty reduction and social strategy in the semi-annual reports to be submitted by the executing agency to ADB.

99. **Donor visibility.** All project reports, training programs, seminars, workshops, materials, and equipment financed by the JFPR grant will clearly indicate the funding from the Government of Japan and display the JFPR and Japan Official Development Assistance logos.³¹ All project press releases issued by ADB will refer to the financial contribution from the Government of Japan. The GOM, including the executing agency, are requested to ensure that JFPR-financed activities are well covered by local print, electronic and social media, and that all related publicity

³⁰ Grant project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

³¹ ADB. 2016. *Japan Fund for Poverty Reduction. Guidance Note on Visibility of Japan*. Manila.

materials, official notices, reports and publications explicitly acknowledge Japan as the source of funding received. The executing agency and PIU will collect and maintain a database of high-resolution photographs of the project activities, for use in project communication activities and for provision to the GOM, ADB, and Embassy of Japan in Mongolia, which may use them for public awareness and visibility purposes.

100. **Dissemination of project results to the Government of Japan.** The PIU will provide the executing agency and ADB with reporting materials on the project activities, including high resolution photos, testimonials from project recipients and implementers, publications, and other knowledge products. In turn, the ADB project team will provide this information to ADB's Partner Funds Division–Japan team, as well as back-to-office reports, inception, midterm review, and completion reports.³² Information and methods for donor visibility and coordination are described in Appendices 1 and 2.

E. Stakeholder Communication Strategy

101. A stakeholder communication strategy has been prepared for the project (Appendix 3). By its design, the project requires and benefits from stakeholder participation and ownership. The communication strategy prescribes timely and inclusive dissemination of project progress and the opportunity for public feedback. The strategy focuses on three objectives: (i) effective communication with the project stakeholders to achieve informed and supportive engagement; (ii) project visibility in the media; and (iii) coordination and alignment of the project activities with other donor programs.

102. Public disclosure of project documents and activities will be made through a project website, to be established after project effectiveness, as well as other dissemination approaches.

³² ADB. 2016. *Japan Fund for Poverty Reduction. 2016 Policy Guidelines for Project Grants*. Manila.

X. ANTICORRUPTION POLICY

103. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.³³ 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.

104. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.³⁴

105. To support these efforts, relevant provisions are included in the Grant Agreements for the project.

XI. ACCOUNTABILITY MECHANISM

106. 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 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.

107. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort 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.

108. Details of the grievance redress mechanism for the project are provided in section VII of this document.³⁵

XII. RECORD OF PAM CHANGES

109. All revisions/updates during course of implementation should be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

³³ Anticorruption Policy: <https://www.adb.org/documents/anticorruption-policy>

³⁴ ADB's Integrity Office web site: <https://www.adb.org/site/integrity/main>

³⁵ Accountability Mechanism. <https://www.adb.org/site/accountability-mechanism/main>

JAPAN FUND FOR POVERTY REDUCTION – GUIDANCE NOTE ON VISIBILITY OF JAPAN

I. Introduction

On 6 October 2009, the Asian Development Bank Board of Directors approved the Revised Operating Framework for the Japan Fund for Poverty Reduction (JFPR), thereby 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 towards 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 their establishment in 1988 and 2000, respectively. It is but fitting and proper that these contributions should be 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 technical assistance (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.

II. Statement on Japanese Visibility

The JFPR Policy Guidelines provide general guidance on Japan Visibility and Coordination with Local Embassy of Japan Officials. More specifically, task teams are encouraged to help promote the visibility and local awareness of JFPR in recipient countries through the following:

- (a) Publications, training programs, seminars and workshops financed by JFPR grants should clearly indicate that the activities in question have received funding from the Government of Japan;
- (b) The JFPR logo (see below) should be used in publications financed by the JFPR program, and in banners and any other materials used in seminars and training programs financed by JFPR grants;
- (c) All press releases issued by ADB with respect to JFPR grants should refer to the financial contribution from the Government of Japan (GOJ);
- (d) 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, official notices, reports and publications explicitly acknowledge Japan as the source of funding received;
- (e) Grant signing ceremonies in the field should be encouraged, with the Recipients being encouraged to include Japanese embassy officials and to invite local and international press to these ceremonies; and
- (g) Civil works, project billboards/signages, vehicles, and equipment should carry the JFPR and Japan Official Development Assistance (ODA) (see below) logos.

In addition, Partner Funds Division (SDPF) may promote visibility of JFPR by: (i) informing Country Directors of the importance of signing ceremonies to Japanese officials and the public to ensure recognition and support for JFPR funding; and (ii) continuing widespread distribution of the JFPR Annual Report, inclusion of JFPR information in relevant ADB documents, and occasional information sessions for Japanese organizations. Below are examples of other ways to improve visibility.

III. The JFPR and Japan ODA Logos

The JFPR and Japan ODA logos will be used on the JFPR website. All grant approval notifications will include this guidance note and a printout of the logos. Soft copies (a pdf version and an Adobe Illustrator version) may be downloaded from the SDPF website for use by the ADB and transmission to grant recipients. The ADB will make every effort to ensure that: (i) publications, training programs, seminars, workshops, financed by the JFPR grants clearly indicate that the activities in question have received funding from the Government of Japan; (ii) all press releases issued by the ADB with respect to the JFPR grants refer to the financial contribution of Government of Japan; and (iii) the logos are used in publications financed by the JFPR program, banners and any other materials used in seminars and training programs financed by the JFPR grants; as well as on civil works projects, vehicles, equipment, etc.

IV. Local Publicity Opportunities

In addition to the use of the logos, ADB staff are urged to take all appropriate measures to encourage Recipients to ensure that JFPR-financed activities are well covered by local print and electronic media, and that all related publicity materials, official notices, reports and publications explicitly acknowledge Japan as the source of funding received. Below is a standard text suggested for use by those who prepare publicity materials: "The grant which financed this (name of activity) was received under the Japan Fund for Poverty Reduction which is financed by the Government of Japan."

Many ADB Resident Missions periodically publish newsletters. New grant approvals, signing ceremonies, and major project activities should be publicized in these newsletters. Most country offices have External Relations staff. Project/TA teams are encouraged to consult with them on ways to increase the visibility of Japan regarding JFPR grants. Opportunities to publish articles on high visibility projects prepared with the JFPR TA and project grants should be explored and utilized. Project/TA teams are advised to brief the Country Directors about the implementation status of JFPR grants. Such information will help the Resident Missions highlight Japan's contribution, where relevant, in their meetings and presentations in seminars and workshops.

V. Ceremonial Events

Country Directors, Division Directors, and the Project/TA Officers will receive notification of grant approvals and will be informed of the importance of signing ceremonies to Japanese officials and the public. At grant signing ceremonies and other publicity events, the ADB's country-based staff are expected to foster the attendance and participation of country-based officials of the Embassy of Japan in a manner that provides due recognition of their donor status. Grant recipients should take the lead in organizing such ceremonies, and whenever possible, Recipients should issue the formal invitation to attend. Such ceremonial events should also be alerted to the media and publicity outlets referred to above.

VI. Participation of Japanese Entities in Implementation

To promote GOJ's continued support for JFPR, it is also important to generate visibility for the project within Japan. SDPF will promote the visibility of the JFPR by: (i) informing Office and Department Heads of the importance of achieving high visibility in order to garner support for the JFPR from Japanese officials and taxpayers; (ii) encouraging TA components that involve or cooperate with Japanese experts, expertise, financial resources and technologies; and (iii) continuing widespread distribution of the JFPR Annual Report, inclusion of JFPR information in

relevant ADB documents, and occasional information sessions on JFPR for Japanese organizations. In terms of enhancing the visibility of Japan, it is highly recommended that ADB involve and cooperate with Japanese organizations, including NGOs, civil society organizations, aid agencies, particularly JBIC and JICA, private sector enterprises, or academic institutions.

VII. Visibility at ADB Headquarters

Country-based ADB staff are requested to forward copies of all visibility material, such as press releases, newspaper and magazine articles, and photographs (including descriptive captions) to the following address: Japan Partnerships Team, SDPF, Asian Development Bank, 6 ADB Avenue, Ortigas Center Mandaluyong City 1550 Philippines.

JAPAN FUND FOR POVERTY REDUCTION – GUIDANCE NOTE ON COORDINATION WITH THE EMBASSY OF JAPAN AND JICA

I. Introduction

The Final Report on the Review of Japanese Official Development Assistance (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). Thus, under JFPR, project officers are required to consult with the local EOJ about the project proposal before submitting the TA Summary and Report/Grant Summary and Report and Recommendation to the President (RRP) to Partner Funds Division (SDPF) for processing. This Guidance Note provides detailed instructions regarding coordination activities with the EOJ and Japan International Cooperation Agency (JICA).

II. Embassy of Japan and the Japan International Cooperation Agency Contact Persons

The names of EOJ and JICA contact persons and their contact details are listed in a table which is posted in the SDPF website. The list is provided to SDPF by Japan's Ministry of Finance and is updated from time to time. It is important to confirm the details in the table before contacting EOJ.

III. Role of the Resident Mission and the SDPF

Communications with EOJ and JICA should be done with copy to the Resident Mission (RM) or the relevant Country Officer at ADB HQ and with SDPF. If needed, RM's assistance may be sought to arrange the meeting with EOJ and JICA.

RM's role is also crucial in arranging the Grant Agreement/TA letter signing event (section V) and in overall coordination/relationship management with EOJ and JICA.

IV. Consultation with Embassy of Japan and the Japan International Cooperation Agency–Concept Stage

A meeting with the EOJ and JICA contact person should be scheduled during the Fact-Finding Mission. During the meeting, the Grant or TA Summary, together with the Design and Monitoring Framework, must be explained to and discussed with the embassy officer.

The Grant or TA Summary and the Design and Monitoring Framework should be submitted to EOJ and JICA at least five working days before the consultation to give EOJ time to review the document.

Any comments made by EOJ and/or JICA should be reflected and a summary of the consultation should be included in the final TA Summary and Report (TSR) or Grant Summary and RRP (GSR), as the case may be.

The project officer should exert all efforts to meet with EOJ and JICA contact persons. However, if a meeting with EOJ and/or JICA is not possible, email exchange, telephonic discussion or any

other form of inter-active communication may be used. In such cases, an email containing EOJ's/JICA's comments on the proposal should be sought and reflected in the final proposal.

In the case of Regional TAs, draft TSRs and DMFs should be sent by email to EOJ and JICA focal persons on no-objection basis.

V. Coordination Local Embassy of Japan and the Japan International Cooperation Agency—Upon Approval of the Proposal

Once the proposal has been approved by ADB, the project officer should inform EOJ and JICA about the approval. Project officers are strongly encouraged to stage signing ceremonies or launching ceremonies for JFPR projects, etc., with the attendance of EOJ officials.

In coordination with the RM, the project officer should inform EOJ as well as SDPF – which will alert the Japanese authorities in Tokyo – at least 10 working days in advance of the signing ceremony. The project officer should also draft news release in consultation with the Department of External Relations and coordinate arrangements for the RM to invite the local and international press to these ceremonies.

VI. Coordination with the Local Embassy of Japan and the Japan International Cooperation Agency—During Project Implementation and Upon Project Completion

From time to time, EOJ and JICA should be informed about project progress and milestones especially when major changes in scope and objectives are required. Throughout all phases of the project, from concept to completion, the project officers should answer inquiries from EOJ and JICA regarding the project and discuss where necessary. EOJ and JICA officials may also wish to join progress and completion review missions in order to see project results and to interact first-hand with project recipients.

Project officers are also required to share information on the outcomes and lessons from JFPR projects and TAs with EOJ and JICA in the field to enable both sides to explore and seek potential collaboration.

STAKEHOLDER COMMUNICATIONS STRATEGY

Objective	Risk	Audience	Desired Behavior	Information Needs	Channel / Activity	Timing	Responsibility	Resource Needs	Expected Outcome
OBJECTIVE 1: EFFECTIVE COMMUNICATION WITH PROJECT STAKEHOLDERS									
Output 1. Community grower groups organized									
Effective communication with communities in project soums for informed and supportive engagement.	Limited engagement due to poorly informed communities, or due to time limitation.	Farming households of 4 project soums namely Bornuur in Tuv aimag, Orkhon in Darkhan-Uul, Yeruu in Selenge, and Ulaangom in Uvs.	Well informed farmer households engage in community-based production of vegetables.	Advantages and potential of community-based approach to vegetable farming. The operational rules of CGGs and responsibilities of participating households.	The project's orientation program and introductory training Meeting venues in each project soum Designated information points in each project soum (likely the soum governor's offices) Posters, forms in Mongolian on meeting locations and times Local media e.g. TV, radio	2018	Executing Agency, PIU	PIU staff time Printed materials (posters, forms) Budget line for interaction with local media	Engagement of farming households in CGGs and the readiness of CGGs to prepare action plans and seek endorsement by soum authorities.
Output 2. Sustainable climate-resilient vegetable farming technology and practices applied									
Effective communication with often remote households in project soums, especially poor households and households headed by women, so they may access and benefit from the project	Limited engagement by poor, and remote households and households headed by women due to limited means of transport or communication	Farming families in 4 project soums and relevant soum authorities	CGGs develop and begin to implement their action plans and use project resources, (infrastructure, agro-inputs, equipment technology)	Information on scope for adjusting action plans, ways of ensuring trouble-free use of shared resources of CGGs, financial aspects of CGG operations CGG action plans presented in user-friendly ways (e.g. posters, calendars) and provided to communities	PIU technical specialists visiting project locations Designated information points in each project soum (likely the soum governor's offices) Posters, leaflets in Mongolian on meeting locations and times Local media	2018–2020	Executing Agency, PIU	PIU staff time Printed materials (posters, leaflets, technical information ("how to") sheets, calendars) Budget line for interaction with local media	CGG households begin to apply the community model, begin to see its advantages and are open to more innovation.
Output 3. Farmers' access to market improved									
Farmers have better access to the market and	CGGs may initially lack the business acumen	CGG households, Soum authorities,	CGGs willing to consider new ways of selling and	Information on value chain opportunities and obstacles	Specialized training in project soums by PIU technical advisers	2018–2020	Executing Agency, PIU, farmer	PIU staff time Printed materials	CGG having reasons to be increasingly confident of their

Objective	Risk	Audience	Desired Behavior	Information Needs	Channel / Activity	Timing	Responsibility	Resource Needs	Expected Outcome
can financially benefit from it	required to succeed in the market Vested interests may not welcome the entry of farmer groups into areas (such as distribution of the produce) they formerly controlled	selected municipal authorities, consumers in town centers	adding value to their produce <i>Soum and aimag</i> authorities supportive of value chain development by farmer groups		Interaction with other growers and participants in the vegetable business at national producers' fairs		themselves through learning	(posters, leaflets, technical information sheets) Budget line for CGG members to participate in trade and producer fairs	capacity to improve their financial results by more fully utilizing the vegetable value chain.
OBJECTIVE 2: EFFECTIVE COMMUNICATIONS WITH DONORS, PARTNERS AND THE SOCIETY AT LARGE									
Public and donors' awareness of and support of the project philosophy and objectives	The public unwilling to consider vegetables important enough amid other concerns. Donor have doubts about the sustainability of the community model	General public, local and national media, CSOs, civil servants, donor organizations	Informed and supportive constituency at the national level and continued support by donors	Dissemination of project rationale, its objectives and activities, focusing on results and impacts	Local, national news releases; interviews with <i>aimag</i> and <i>soum</i> governments, information supplied to MOFALI to "strengthen its hand" Briefings/consultations with key politicians, committees, CSOs Grant signing ceremony with media with GOJ attendance Forming technical and information networks with other donors active in natural resource management and agriculture in Mongolia	201–7-2020	Executing Agency, PIU, ADB project team, MNRM	PIU staff time. – ADB staff time allocated to foster continued support of multiple donors of community-based farming Budget line for interaction with local media JFPR and Japan ODA logos on all materials	Public support for local vegetable producers, awareness of this activity's potential and its economic and health benefits, and continued support by the international donor community.

ADB = Asian Development Bank; CGG = community grower group; CSO = civil society organization; GOJ = Government of Japan; JFPR = Japan Fund for Poverty Reduction; MNRM = ADB Resident Mission in Mongolia; MOFALI = Ministry of Food, Agriculture, and Light Industry; ODA = Official Development Assistance of Japan Ministry of Foreign Affairs; PIU = project implementation unit.

Source: ADB.

NOTES FOR IMPLEMENTING THE PROJECT

INTRODUCTION

1. These notes identify key implementation-related aspects of the project. They are intended to reinforce the understanding by the executing agency, and project implementation unit (PIU) of the intent of the main elements of the project. The notes are organized by key activities under each project output and should be read in conjunction with the project design and monitoring framework (DMF), implementation schedule, budget, procurement plan, and consultant terms of reference (TOR).

Output 1. Community grower groups established.

A. Principles of Community Grower Groups

2. The PIU should apply a set of principles in establishing CGGs. These should apply to training project *soum* coordinators, setting up CGG, and developing community group action plans (CGAP).

Principles for Training Project *Soum* Coordinators

- (i) The PIU should provide induction training that includes the project itself (objectives, expected results, activities, and budget); the role of project *soum* coordinator, and key activities to be carried out by the project *soum* coordinators.
- (ii) The PIU should provide training in facilitating skills, participatory, and adult learning methods; working with CCGs, and conducting consultations with the local community.
- (iii) The PIU should provide training in community farming principles and practices, including pooling of resources, use of shared resources and setting up a community growers' scheme.

Principles for Setting-up CGGs

- (i) Project *soum* coordinators hold consultations in each *soum* on the project, introduce the concept of CGGs, their potential advantages and operating principles.
- (ii) Member of groups will be households, not individuals or companies.
- (iii) Groups must consist of only vegetable growing households owning plots smaller than 3 hectares (ha).
- (iv) Members should preferably have been involved in vegetable growing in previous 2 years.
- (v) The CGGs can be formed in all *baghs*, including the *soum* center *bagh*.
- (vi) Members within a group should preferably have adjacent plots.
- (vii) Each group should include 5–10 households, depending on sizes of members' plots.
- (viii) Total number of CGGs in a *soum* should be no more than 10.
- (ix) The CGGs need to register with the *soum* coordinators. The registration should provide information on:
 - a) a rationale for the CGGs, possible existence of other groups in the area (e.g. groups formed by other donor projects) and the expected relations between them and the CGG being registered.
 - b) The number of households involved, and their location.
 - c) The number of households in the group classified as poor¹ and vulnerable according to the project definition of having 1 hectare or less of land.
 - d) The number of households in the group that are headed by women.

¹ Poor households in the project are classified as those having 1 or less than 1 ha of land.

- (x) Inclusion of a CCG into the project will consider the following:
 - a) All households are considered vulnerable and poor with limited agriculture land resources, having 1 hectare or less of land.
 - b) The number of households headed by women.
 - c) The fit of the rationale provided with the project goals.
- (xi) Project *soum* coordinators will present recommendations for setting up CGGs to *soum* governor.

Principles for Developing Community Group Action Plans

- (i) Plans should be developed by CGG members themselves, assisted by project, as needed.
- (ii) Based on the project implementation plan, budget, PIU should estimate an average amount of funds that it can support each CGG for first 2 years of the project duration.
- (iii) Given the amount of funds available, action plan for groups may need to be adjusted taking into account:
 - a) Current plot sizes of each household.
 - b) Size of the plot each household intends to use for vegetable production during project duration.
 - c) Types and quantities of existing pool of equipment, hand tools, and facilities (storage) that can be shared with other groups members.
 - d) Types and quantities of equipment and hand tools the group would like to procure with project support, in order of priority.
 - e) Current harvest (type, quantity) per ha.
 - f) Amount of harvest per ha members expect each year during project duration.
 - g) Types of vegetables to be planted in each plot, or segments of a plot.
 - h) Current revenue from vegetable growing.
 - i) Expected revenue from vegetable growing each year during project duration.
- (iv) Actions in each action plan should be then be prioritized to make them compatible with available budget.
- (v) Project *soum* coordinators recommend to the PIU which planned activities the project can support. The PIU decision is communicated to project *soum* coordinators, who inform the CGGs and then present the final CGAP to the *soum* governor for approval.
- (vi) CGAPs are to be displayed graphically, for example in a calendar, showing which actions are expected to take place and when.
- (vii) CGAPs are to initially cover 2 years. At the end of the second year, plans will be reviewed and updated for the next 2 years. The project will continue its support to groups with satisfactory results and reward good results by considering the group for additional support.
- (viii) Good examples of implementation of CGAPs are to be presented in the symposium.

B. Key Training and Steps for Participatory Community Farming Planning for CGGs

3. The PIU's community development expert, and *soum* coordinators provide orientation to vegetable grower communities and *soum* administrations on collaborative farming, and potential advantages of CGGs. If the rationale of CGGs is accepted the *soum* coordinators recruit and register the CGGs, the *soum* coordinators train the CGGs on concepts of collaborative farming and developing the CGAPs.

4. In summary, collaborative community farming—to be carried out by the CGGs—includes six steps, which the *soum* coordinator will oversee for each of the registered CGGs:

- Step 1.** Introduce concepts of community-based farming and obtain support for the collaborative approach.
- Step 2.** Position the CCGs to implement community-based farming.
- Step 3.** Establish an inventory of existing resources potentially available to CGGs and specify the rules that are to govern the use of these resources.
- Step 4.** Develop the community farming action plans.
- Step 5.** Implement the community farming action plans.
- Step 6.** Participatory monitoring and evaluation.

5. After Step 4, the revised and finalized CGAPs are submitted to the *soum* administrations for approval. The *soum* coordinators with the backing of the project should provide support to the CGGs in implementing the CGAPs, (Step 5) and in monitoring the implementation of the CGAPs (Step 6).

C. Example of An Input Table for the CGAP

6. Following is an example of an input table for a CGAP that a CGG in Yeruu *soum* could prepare. (CGAPs by CGGs in Bornuur, Orkhon, and Ulaangom *soums* could include different actions) After the input table has been completed and approved by the *soum* administration (see principles above in Section A.3) the project could produce a graphical version of the plan, such as a wall calendar.

7. The actual format for both CGG input tables and the graphical version of the approved plan should be developed and finalized by the PIU during the first year of implementation.

i. Existing tools and equipment available for sharing

Member households	Plough	Harrow	Cultivator	Seeder	Harvester	Other & Hand tools
1. XXXXXX						
2. XXXXXX						
3. XXXXXX						
4. XXXXXX						
5. XXXXXX						
6. XXXXXX						
7. XXXXXX						
8. XXXXXX						
9.						
10.						

ii. Tools and equipment to be procured with the project support

Member household (to be responsible for keeping track)	Plough	Harrow	Cultivator	Seeder	Harvester	Other & Hand tools
1. XXXXXX						
2. XXXXXX						
3. XXXXXX						
4. XXXXXX						

Member household (to be responsible for keeping track)	Plough	Harrow	Cultivator	Seeder	Harvester	Other & Hand tools
5. XXXXXX						
6. XXXXXX						
7. XXXXXX						
8. XXXXXX						
9.						
10.						

**iii. Schedule for use (and maintenance until handing over)
of shared tool equipment for 2019**

Members)	Plough	Harrow	Cultivator	Seeder	Harvester	Hand tools
1. XXXXXX	5/10/2019					
2. XXXXXX	5/11		6/15		9/15	
3. XXXXXX	5/12					
4. XXXXXX	5/13					
5. XXXXXX	5/14					
6. XXXXXX	5/15					
7. XXXXXX	5/16					
8. XXXXXX	5/17					
9.						
10.						

iv. Interests in using greenhouses to be supported by the project

Member household	Requesting project support for greenhouses	If yes, expected size of the requested greenhouse	Have previously tried growing in a greenhouse?	Can share the greenhouse with whom (name of the member)?
1. XXXXXX	Yes	50 m ²	Yes	6. XXXXXX
2. XXXXXX	Yes	50 m ²	No	
3. XXXXXX	Yes	30 m ²	No	7. XXXXXX
4. XXXXXX	No		No	
5. XXXXXX	No		Yes	
6. XXXXXX	Yes	1000 m ²	No	
7. XXXXXX	Yes	80 m ²	No	3. XXXXXX
8. XXXXXX	No		No	
9.				
10.				

v. Plot size

Members	Plot size in 2018	Plot size in 2019	Plot size in 2020	Plot size in 2021
1. XXXXXX	in open field			

	in greenhouse(s)						
2. XXXXXX	in open field						
	in greenhouse(s)						
3. XXXXXX	in open field						
	in greenhouse(s)						
4. XXXXXX	in open field						
	in greenhouse(s)						
5. XXXXXX	in open field						
	in greenhouse(s)						
6. XXXXXX	in open field						
	in greenhouse(s)						
7. XXXXXX	in open field						
	in greenhouse(s)						
8. XXXXXX	in open field						
	in greenhouse(s)						
9.	in open field						
	in greenhouse(s)						
10.	in open field						
	in greenhouse(s)						

vi. Vegetables to be planted in 2019, area in are (100M²)

Members		Cucumbe r	Tomato	Carrot	Spinach	Turni p	...
1. XXXXXX	in open field	2		6		5	
	in greenhouse(s)	0.3	0.2		0.2		
2. XXXXXX	in open field						
	in greenhouse(s)						
3. XXXXXX	in open field						
	in greenhouse(s)						
4. XXXXXX	in open field						
	in greenhouse(s)						
5. XXXXXX	in open field						
	in greenhouse(s)						
6. XXXXXX	in open field						
	in greenhouse(s)						
7. XXXXXX	in open field						
	in greenhouse(s)						
8. XXXXXX	in open field						
	in greenhouse(s)						
9.	in open field						
	in greenhouse(s)						
10.	in open field						
	in greenhouse(s)						

vii. Vegetables to be harvested in 2019, in tons unless specified otherwise

Members		Cucumber	Tomato	Carrot	Spinach	Turnip	...
1. XXXXXX	in open field	2		6		5	
	in greenhouse(s)	0.3	0.2		0.2		

2. XXXXXX	in open field						
	in greenhouse(s)						
3. XXXXXX	in open field						
	in greenhouse(s)						
4. XXXXXX	in open field						
	in greenhouse(s)						
5. XXXXXX	in open field						
	in greenhouse(s)						
6. XXXXXX	in open field						
	in greenhouse(s)						
7. XXXXXX	in open field						
	in greenhouse(s)						
8. XXXXXX	in open field						
	in greenhouse(s)						
9.	in open field						
	in greenhouse(s)						
10.	in open field						
	in greenhouse(s)						

viii. Area to be planted, area in are (100M2). Member name: XXXXXX

Year		Cucumber	Tomato	Carrot	Spinach	Turnip	...
2018	in open field	2		6		5	
	in greenhouse(s)	0.3	0.2		0.2		
2019	in open field						
	in greenhouse(s)						
2020	in open field						
	in greenhouse(s)						
2021	in open field						
	in greenhouse(s)						

ix. Vegetables to be harvested, in tons unless specified otherwise. Member name: XXXXXX

Year		Cucumber	Tomato	Carrot	Spinach	Turnip	...
2018	from open field						
	from greenhouse(s)						
2019	from open field	2		6		5	
	from greenhouse(s)	0.3	0.2		0.2		
2020	from open field						
	from greenhouse(s)						
2021	from open field						
	from greenhouse(s)						

Member
name:
XXXXX

J. Revenue from vegetable growing, in MNTs

Year		Cucumber	Tomato	Carrot	Spinach	...	Total
1. XXXXXX	from open field						
	from greenhouses						
2. XXXXXX	from open field						
	from greenhouses						
3. XXXXXX	from open field						
	from greenhouses						
4. XXXXXX	from open field						
	from greenhouses						
5. XXXXXX	from open field						
	from greenhouses						
6. XXXXXX	from open field						
	from greenhouses						
7. XXXXXX	from open field						
	from greenhouses						
8. XXXXXX	from open field						
	from greenhouses						
9.	from open field						
	from greenhouses						
10.	from open field						
	from greenhouses						
Total	from open field	YYYYYYY	YYYYYYY	YYYYYYY	YYYYYYY	YYYYYYY	YYYYYYY
	from greenhouses	YYYYYYY	YYYYYYY	YYYYYYY	YYYYYYY	YYYYYYY	YYYYYYY

X. Contribution to the community scheme, in MNTs

Members	Year				
	2018	2019	2020	2021	Total
1. XXXXXX	160000				
2. XXXXXX	150000		170000		
3. XXXXXX	170000				
4. XXXXXX	80000				
5. XXXXXX	150000				
6. XXXXXX					
7. XXXXXX					
8. XXXXXX					
9					
10					
Total					25,000,000

Signature and seal of *soum* governor

Date: _____

Signature of CGG leader

Date: _____

D. Set up the community growers' scheme for operation, maintenance and reinvestment

8. After the CGGs are established, the project will support the creation and initial facilitation the community growers' scheme for operation, maintenance and expansion by contributing an amount specified in the budget. Contribution to the fund from project funds will be phased during the four years of the project; for example, the project funds will contribute a 100% to the community growers' scheme in year 1, 50% in year 2 (with remaining 50% contribution from CGG member households), 25% in year 3 (with remaining 75% contribution from CGG member households), and 0% in year 4 (community will contribute 100%). Each CGG member (household level) will be required to contribute to the fund. The project will help communities to draft rules and regulations for the community growers' scheme, including withdrawal procedures and amount of contribution by each member. The objective of the fund is to support operation and maintenance of facilities and equipment provided by the project and to create seed capital for sustainable farming for project farmers by replacing and/or expanding the shared resources.

Output 2. Sustainable Climate-Resilient Vegetable Farming Technology and Practices Applied.

A. Procurement of Infrastructure, Tools, Equipment for Community Grower Groups

i. Procurement of Tractors, Equipment and Tools for Project Soums

9. For all four project soums, the project should provide each soum a tractor with engine capacity of no less than 70 horse power. Tractors from producers in various countries are available; the project should consult with farmers to identify their preferences in terms of capacity and axle size. Availability of parts, fuel consumption, match with the tools that farmers already have or to acquire with project support, and dealership services should be considered. Suppliers may not have preferred tractors in stock in Mongolia, but they can import upon order. Therefore, lead time of several months may be necessary. The initial owners of the tractor will be soum administrations. Tractors will be shared among all CGGs in the soum under clear rules for sharing the running and maintenance cost. Soum coordinators will need to develop daily schedules for use of the tractor. PIU shall establish an agreement with soum administration on the use of tractors restricting their use for project-related purposes only.

10. In all four project soums, the project will provide some equipment and tools (plough, harrow, cultivator, seeder, harvester, motoblock, and the like) to be shared among members of CGGs, with households assigned responsibility for their maintenance and running cost of the equipment. Procurement be made after registering and assessing existing equipment and tools that can be shared within the CGG. Sharing between CGGs should not be ruled out.

11. PIU should only supply equipment and tools to CGGs that have specifically requested the equipment and tools in their approved action plan and have a rationale and actions for why they require the equipment and tools.

ii. Set Up CGGs Greenhouses

12. PIU shall manage the procurement of small-scale greenhouses to be shared among CGGs households for vegetable growing in the main soums and for seed testing and improving in Ulaangom soum. Several factors should be considered under this activity.

- (i) **Location:** Land for greenhouse should not have high level of underground water to prevent salinization. Location with good exposure to sunlight and easy access by CGG households shall be preferred.
- (ii) **Shared use:** Although sharing a greenhouse should be encouraged by the project, risk of contamination increases with the number of people that are allowed in the greenhouse. This factor should be taken into account in deciding how many small greenhouses to establish, and where.
- (iii) **Proliferation:** Members who received project support for establishing a greenhouse should contribute a higher amount to the community growers' scheme than those who have not yet benefitted. The size of such contribution should be clearly specified while the operating principles of CGGs are drafted.
- (iv) **Technology:** There are numerous greenhouses technologies and techniques used around the world. The international agronomist and agri-business specialist, national agronomist, and national community development expert—will make recommendations on the most promising from among the existing options to be supported by the project.

13. The project shall procure a large all-season greenhouse in one of the project soums in 2019 to be operated by a CGG that has shown the greatest success in implementing its CGAP. There are, at present, few proven designs and technologies for all-season greenhouses in Mongolia (see the information sheet on greenhouses in the attachments to this document). The all-season greenhouse to be procured by the project will therefore be a pilot component designed to test existing and new features (e.g. use of renewable energy for heating) of greenhouse operations in Mongolian conditions climate. Greenhouses shall be supplied only to CGGs that have specifically requested them in their action plan, and provided a good justification for requesting this technology.

iii. Provide Protective Clothes for Each CGG

14. The project shall purchase and distribute protective clothing to be used by CGG members when applying pesticides using knapsack sprayers. It is assumed that each group will need one set of protective clothing.

iv. Provide Agrochemicals to Each CGG

15. The project shall procure agrochemicals (pesticides and fertilizers) to each CCGs in 2018 and 2019. It is expected that CGGs, using the community growers' scheme resources, will be able to purchase pesticides and fertilizers without project support from 2020 onwards. Use of agrochemicals should be based on soil quality tests and best farming practices in Mongolia, and require approval by the project agronomist.

B. Support Seed Growing and Propagation in Ulaangom, Uvs

i. Provide Support for Improving Water Access in Gashuunii Gol, Ulaangom

16. The project shall support construction of a water well, and reticulation to improve access to water in seed growing fields in Gashuunii gol, Ulaangom *soum*. PIU should contract a firm that specializes in well installation.

ii. Provide Support for Improving Water Access in Chandmani, Ulaangom

17. The project will procure an electricity line to three existing but unconnected-to-grid wells in Chandmani, Ulaangom. The wells are located on land owned by the Uvs Branch of the Institute of Plant and Agriculture Sciences (IPAS). The construction of the grid connection shall be conditional on IPAS readiness to make at least 5 ha of its land available free of charge for CGGs for seed production for a period of at least 15 years or with nominal rent. A tri-patriate agreement to this effect should be signed by Uvs aimag Governor, IPAS and CGGs.

C. Test Soil to Establish Baseline for Soil Quality

18. The PIU should support testing of soil in 2018 in all four project *soums* to establish baseline soil quality. The laboratory to test the soil quality should be chosen in consultation with MOFALI. Quality of soil in Bornuur *soum* has already been tested in international laboratories with supports from JICA. Test results should be compared with this data.

D. Provide Mother Seed, and Seed to All Groups

19. For all four project *soums*, PIU should organize supply of mother seed and seed to all CGGs. In Ulaangom *soum*, Uvs branch of IPAS will be the supplier of mother seed to seed growing CGGs. In the first years of project implementation, when production of seed is not sufficient to meet demands in the three main *soums*, project shall support purchase of seed from Uvs branch of IPAS. It was agreed that MOFALI will serve as intermediary to obtain at-cost seed prices for project CGGs. If and when CGGs in Ulaangom produces enough seed to meet demands of farmers in the three main *soums*, project will support transportation of seed from Uvs to the three project *soums*. Purchase of seed from Ulaangom by CGGs should be on voluntary basis.

E. Provide Training on Sustainable Farming

20. The PIU should implement training program for 2018–2020 in all four project *soums* in sustainable farming. The training should cover topics such as greenhouse operations efficient water use and water saving practices, crop rotation, seed selection, farming best practices and use of equipment.

Output 3. Farmers Access to Markets Improved

A. Provide Facilities Intended to Increase Farmers Access to Market

i. Set Up Shared Storage Facilities

21. Shared storage facility with different capacities (150 tons in Orkhon *soum*, 100 tons in Yeruu *soum* and 60 tons in Ulaangom *soum*) will be constructed in 2019 with project support. No storage facility will be built in Bornuur *soum*. There is a large variety of storage methods in Mongolia starting from traditional below-ground storage to large, modern mechanized facilities. MOFALI's current policy does not support repair and construction of traditional below-ground storage. The PIU agronomist, community development expert, and *soum* coordinators will identify the type of storage facilities most appropriate for the needs of project CGGs.

ii. Establish Vegetable Processing and Packaging Facility in Orkhon

22. The project is likely to support construction of a vegetable processing and packaging facility (VPPF) in Orkhon *soum* in 2019. The justification, design, and equipment for the facility

will be described in a proposal prepared by a resource person engaged during the project preparation. In addition to the amount specified in the project budget, \$100,000 will be financed from RETA funding to establish the VPPF.

23. The owner of VPPF should be any one or more CGGs established with the project support, or their individual members. In order to efficiently use and manage the facility the owners may need to establish an organizational structure that is more formal than CGGs such as a cooperative, or a limited liability company with multiple members. To encourage good performance, PIU may restrict the membership of the formal structure only to CGG members who are satisfactorily implementing their CGAPs. The VPPF could purchase its inputs from any CGG or individuals although preference should be given to produce grown by VPPF owners. In the event the available budget is insufficient to fund both construction of building for VPPF and the equipment. PIU shall consider the possibility of a long-term lease of a building in Orkhon *soum*, or an offer of co-ownership of VPPF to the owner of the existing building.

iii. Rent a Shared, Mechanized Storage Facility

24. The project will support renting of an appropriate storage facility near/in Ulaanbaatar City, to be shared by CGGs from all three main project *soums* who are selling their produce in Ulaanbaatar. MOFALI has recently stopped construction of new storage facilities in Ulaanbaatar preferring instead to make a more efficient use of these facilities including renting them to the project. If so, this option would be based on a tri-patriate agreement between MOFALI, the project and the storage manager. The project budget foresees renting of such a facility for 9–10 months a year for 3 years between 2019–2021 including the salaries of the warehouse staff.

iv. Set Up Kiosks in Ulaanbaatar City for Selling Products

25. The main objective of the kiosks is to increase the share of the final price going to the growers rather than accruing to existing intermediaries. Setting up the kiosks is conditional on Ulaanbaatar Municipality granting necessary land use permit. MOFALI has agreed to assist in seeking such an authorization. A tri-patriate agreement among MOFALI, Ulaanbaatar City administration and the project specifying rules for use land the kiosks would be required. The kiosks are expected to be placed within or close to residential areas including *gher* areas, but not necessarily in the city center where access to land is severely constrained. Project financing would cover all activities related to the kiosks including design, procurement and setting up. Operational cost of the kiosks will be paid by CGGs selling their produce at the kiosk.

v. Set Up Sale Points Along Main Roads Going to the East from Ulaanbaatar

26. The project will support construction of a sale point along the road from eastern *aimags* to Ulaanbaatar to market the output of the project CGGs. MOFALI has agreed to assist in acquiring the necessary land. JICA is supporting construction of a sale point near Bornuur expected to be operational by 2018. Although this facility is much larger and complex than the sale point intended in this project, the project can draw on the experience of the Bornuur sale point.

B. Support Farmer Groups in Participating National Vegetable Trade Fairs

27. The project will support participation of CGGs in the main three *soums* at national vegetable trade fairs twice a year in 2018–2021. The project will finance the cost of transportation of vegetables to the fair, promotional display, and packaging developed the project's branding and marketing plan.

C. Develop and Launch Market Information System

28. The market information system, initiated by MOFALI, is to provide consumers with information on the origin of vegetables they are purchasing, while giving the growers data on the area of vegetables planted and harvested at the national level, facilitating business decisions by CGGs. The system will be developed in 2018 with web and mobile based applications. Programming terms of references for the system will have been written during project preparation. PIU will work closely with MOFALI to develop the system.

D. Provide Farmer Groups Training on Value Chain Management

29. The PIU will organize training in 2018 and 2019 aimed to improve CGG farmers' awareness and knowledge of value-enhancing aspects of the vegetable business such as vegetable grading, quality control, waste disposal and management of a value chain.

E. Prepare Promotional Display, Bag, and Packaging

30. The project will prepare promotional displays and other promotional items (e.g. bags) as part of the marketing and branding plan to be prepared by the branding and marketing expert. These promotional materials are to be used by CGGs at national vegetable trade fairs, and at kiosks and the sale point supported by the project.

F. Implement Stakeholder Communications

31. The project has prepared a stakeholder communication plan to be implemented by PIU. Its main elements are establishment of a project website, presence on selected social media sites—for example, Facebook—and development of printed materials and media communications to promote project activities, consultations, and training events.

G. Implement Japanese Visibility

32. The project has a plan to ensure Japanese visibility. The PIU will (i) inform the stakeholders about the use of Japanese resources in the project, and (ii) involve Japanese officials when communicating the progress and achievements of the project.

H. Develop knowledge products

33. During the last 2 quarters of the project, Q2 2021 and Q3 2021, the PIU shall develop knowledge products that (i) summarize the key lessons learned, (ii) contain guidelines on how to replicate the best of the project experience elsewhere, and (iii) propose a strategy for scaling up community-based farming approaches to other areas of Mongolia.

I. Organize an End-of-Project Symposium

34. During the second half of 2021, the last year of the project, the PIU will organize a workshop for key project participants (MOFALI, *soum* administrations, representatives of CGGs) and other stakeholders (staff of government ministries and international organizations such as USAID, Embassy of Japan in Mongolia, JICA, and others). The symposium will review the experience of the project, its achievements and weaknesses, and attempt to reach a consensus on the future direction of community-based vegetable farming in Mongolia.

PROJECT MANAGEMENT

A. Recruitment and Appointment of PIU Staff

35. A critical task during project start-up is the recruitment of PIU staff. The positions of the PIU project coordinator, finance specialist, and procurement specialist are to be filled. Initial contracts should also be with firm/NGO/entity to support the overall implementation of the project. A QCBS selection mechanism as specified in the ADB guidelines on the use of consultants shall be used for that purpose. This step should be completed no later than the end of the second month of the project. The project director and coordinator can then focus on recruiting and appointing other PIU staff and consultants.

B. Monitoring and Evaluation and the DMF

36. The M&E system monitors project performance against the DMF. In the first year of the project, the PIU's M&E specialist shall review the project DMF, design the M&E system, collect the necessary data (from secondary sources and primary data from project sources) to establish the baseline for the project, and set up the format for quarterly project reports.

37. The M&E specialist shall ensure that the PIU project coordinator and key PIU consultants are fully informed about the use the M&E system, including the entry of performance data into the system and producing quarterly reports on project performance.

38. The M&E specialist is expected to return to the project in subsequent years to assist PIU in compiling mid-term and project completion reports.

C. Social Safeguards and Gender Action Plan

39. In the first year of the project, PIU's social and gender specialist shall review the GAP, its targets and indicators; collect the necessary data (from secondary sources and primary data from project sources) to establish the social and gender baseline for the project, and set up the format for reporting on gender aspects in the quarterly project reports. The social and gender specialist should also identify any potential social issues that PIU needs to be aware of when implementing the project. The specialist should ensure that the PIU project coordinator and key PIU consultants are fully informed about the project's social and gender targets, know how to track progress against these targets, and can report on them in the quarterly reports on project performance.

40. The social and gender specialist shall return to the project in subsequent years to assist PIU in monitoring performance under GAP and to assist PIU in completing gender-related activities.

ENVIRONMENTAL MANAGEMENT SUMMARY

Given the anticipated pattern of project's environmental impacts, the project is classified as "C" under ADB Safeguard Policy Statement and no Environmental Management Plan is required. A review of anticipated impacts has been undertaken nonetheless and its results are summarized in table below.

Table EMP-1: Environmental Management Summary

Potential Issues	Mitigation measures	Responsible body
Promotion of community grower model likely to lead to intensification of farming.	<ul style="list-style-type: none"> The project and community action plans to promote more efficient (rather than mainly more extensive) use of agricultural inputs (water, agrochemicals, farm equipment). Project target beneficiaries informed right from the project outset of the preference given to organic and other environmentally friendly agricultural inputs. 	Executing agency through PIU
Some of the minor infrastructure (storage sheds, small greenhouses) may be inappropriately located.	<ul style="list-style-type: none"> The siting of small infrastructure to be reviewed by PIU and soum authorities to ensure that no sites are subject to waterlogging. no sites should be within or adjacent to natural habitats or sensitive ecosystems 	PIU, project technical advisors and soum project coordinators.
Implementation Phase		
Application of agrochemicals could pose health risks.	<ul style="list-style-type: none"> The project to supply protective clothing to CGG members applying pesticides. The use of such clothing to be enforced. The intensity of pesticide use to be monitored. 	Soum project coordinator and soum health authorities
Increased production likely to result in more agricultural waste.	<ul style="list-style-type: none"> The project seeks to reduce agricultural waste by improving market access and promoting more complete use of the produce (e.g. through part-processing). Disposal of organic waste as well as its composting and reuse to be encouraged. 	PIU and project technical advisers
Increase in areas planted may result in local water scarcity.	<ul style="list-style-type: none"> More efficient use of water in vegetable farming to become one of key training topics. 	
Introduction of new techniques of vegetable farming (e.g. use of "tunnels" or small greenhouses) may result in more plastic and glass waste	<ul style="list-style-type: none"> Provisions for storage of waste plastic and glass and their safe disposal to be incorporated in CGGs' action plans and monitored. 	PIU and project technical advisers
Development of value chains likely to result in increased demand for packaging materials and transport (the latter with some adverse environmental impacts).	<ul style="list-style-type: none"> Possible disadvantages of greater packaging (in disposing of it) outweighed by its health and convenience benefits. The intensity of transport to remain very low in rural Mongolia. The impact on air quality will remain negligible even if degradation of (grass)land through "multiple tracking" is likely to increase somewhat. Its adverse impact likely to be negligible compared to project benefits. 	
Greater local processing of farm produce may create health risks (e.g. contamination by bacteria).	<ul style="list-style-type: none"> All commercial processing by CGGs to be monitored by soum authorities for the observance of existing hygiene rules. 	PIU and soum health authorities
Sales Kiosks	<ul style="list-style-type: none"> Not within any environmental sensitive areas Areas will be agreed upon between MOFALI, UB City government and the project (documented in a MOU) Proper waste disposal will be ensured, following local regulations 	PIU and project technical advisers

Source: Asian Development Bank.

A record will be maintained by PIU of any project-related public consultations following a format given below. Two public consultations to be held both during the design stage and during operations.

SAMPLE CONSULTATION RECORD

Consultation Record (meeting, focus group, discussion)

Key Issues Discussed	Proponent (general position only required)
Action and Deadline	Party to implement the action
Additional Comments	

PROJECT IMPLEMENTATION UNIT STAFFING REQUIREMENT

To implement the project the executing agency will establish a project implementation unit (PIU). The executing agency will establish a selection committee comprising representatives from MOFALI, MOF, and other concerned agencies. PIU staff will be recruited as individual consultants in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). The appointments and dismissal of PIU staff will be subject to ADB prior approval.

PIU Consultants Input Months	
Positions	Input Months
1 PIU project coordinator	47
2 Finance specialist	47
3 PIU procurement specialist	23
4 M&E specialist	8
5 Office manager	47
Total	172

Terms of references for the PIU consultants follow below.

1. PIU Project Coordinator – National (47 person-months)

Introduction: Reporting to MOFALI's project director, the coordinator will organize, keep track of, coordinate, report on, and facilitate the deployment of the resources provided for under the project. While keeping scrupulously to the provisions agreed between the government and ADB the coordinator will keep in mind the overall objective of the project that is to sustainably improve the livelihoods of the project's rural clients and facilitate a transition of CGGs from grant-dependent groups towards viable horticulture businesses.

Expertise: The candidate shall have a university degree, preferably in public administration, business management, agricultural economics, or natural resources management. He/she must have experience in implementing a project of a multilateral development bank, preferably ADB, or another international development organization. Preferred candidates will have at least 8 years of overall work experience, of which 5 years in helping deliver the type of outputs specified below, including involvement in, community development, natural resources management, or horticulture in Mongolia. They must have led PIUs and have strong communication skills.

The candidate must be fluent in the English language, both spoken and written. The coordinator will lead the PIU including five staff based in Ulaanbaatar, short-term project consultants, and field coordinators in 4 project soums in Darkhan-Uul, Tuv, Selenge, and Uvs aimags.

Reporting: The position will report to MOFALI's project director

Post Location: Ulaanbaatar

Duration of Contract: 47 person-months

Expected timing: Starting in February 2018

Scope of work: Preparation of annual work plans and budgets; communicating clearly to PIU staff the activities to be completed; ensuring that *soum*-based PIU staff complete assigned 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, and preparing reports for the executing agency and the MOF and ADB.

Expected Outputs - Tasks and Activities

Output 1: Lead the PIU in project implementation.

- (i) As delegated by the project director, lead the PIU in project implementation, ensuring all outputs are delivered according to approved work plans and budgets.
- (ii) Represent the project director as required for project related matters.
- (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 each PIU project 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 that address the progress of the work plan and any impediments.

Output 2: Prepare implementation work plans and PIU budgets.

- (i) Based on the project work plans and related Gantt charts for (i) assisting local communities in setting up CGGs, formulating CGG operating rules, and drafting community group action plans (CGAP), (ii) providing small infrastructure, equipment and other selected inputs to community groups, and (iii) training of, and other support provided to CGGs in implementing CGAPs, develop annual PIU work plans and budgets with detailed time bound activities and clear assignment of responsibilities and accountabilities and submit them for approval by the project director and ADB.
- (ii) Coordinate the activities of the PIU and ensure that planned activities are carried out.
- (iii) Adapt the PAM to more specific needs of the PIU in the form of a Project Management Manual that contains implementation and administrative procedures not already covered by PAM and conduct related training of PIU staff.

Output 3: Ensure all ADB and JFPR policies and procedures are disseminated to all project staff and are being complied with.

- (i) Ensure that all PIU staff and consultants are well aware of ADB policies, including social and environmental safeguards, gender, anti-corruption, financial management, procurement and disbursement.
- (ii) 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 the *soum* coordinators aware of safeguard requirements and due diligence to do when starting project activities to ensure compliance.
- (iii) Disseminate JFPR policies and procedures to all engaged with project implementation.
- (iv) Request ADB MRNM for additional training on ADB policies and procedures when needed.

Output 4: Enable implementation of PIU activities.

- (i) Ensure timely preparation of contracts with suppliers and communities for various project activities according to ADB procurement standards
- (ii) Coordinate delivery of consultant work.

- (iii) Ensure linkages between *soum*-based PIU staff and non-PIU local government agency staff to ensure the latter's input and participation in project activities
- (iv) Ensure PIU finance specialist actively manages cash flow through the imprest account to enable timely implementation.
- (v) Obtain necessary and timely approvals by the project director of work activities.

Output 5: Conduct monthly monitoring of PIU activities and expenditures, prepare quarterly progress reports, and annual performance reviews.

- (i) Monitoring PIU activities on a monthly basis against the annual work plan and budget, and report on the progress achieved to the project director.
- (ii) Participate in periodic field reviews of project preparatory activities, implementation of CGAPs and delivery of project-funded inputs and services.
- (iii) Based on the preceding, prepare quarterly reports for submission to MOFALI/MOF and ADB.
- (iv) Complete annual performance reviews of PIU activities and expenditures highlighting activities outstanding and those that need to be strengthened or modified. Propose possible revisions of Project plans and corresponding reallocation of resources within budget limits.
- (v) Complete timely preparation of other reports to the project director, as required.
- (vi) Organize Project Steering Committee meetings in accordance with the work plan.

2. PIU Finance Specialist – National (47 person-months)

Expertise: The candidate shall have a bachelor's degree in accounting, finance or business administration and 5 to 10 years of proven experience in accounting in the public or private sector. The candidate will be familiar with accounting under ADB projects and accounting systems used by the Mongolian government. The candidate must have a good command of spoken and written English.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 47 person-months.

Expected timing: Starting in February 2018.

Scope of Work: The finance specialist will (i) prepare quarterly and annual budgets, (ii) prepare quarterly and annual financial reports, (iii) track the progress of disbursement under the project, (iv) perform cash management and disbursements, (v) maintain a fixed asset system, (vi) calculate and pay personal income tax of staff contracted for the project, and (vii) prepare financial and disbursement documents and other financial reports.

Expected Outputs - Tasks and Activities

Output 1: Prepare and monitor budgets.

- (i) Prepare quarterly and annual budgets for the PIU
- (ii) Monitor expenditures against budgets on a monthly basis
- (iii) Prepare quarterly and annual financial reports of PIU activities

Output 2: Prepare financial reports.

- (i) Monitor expenditures against budget and prepare monthly reports of expenditures
- (ii) Prepare bank reconciliation statements on a monthly basis
- (iii) Prepare financial statements and financial reports

- (iv) Maintain accounting ledgers
- (v) Take responsibility for safe custody of accounting books, and all financial related documents and instruments

Output 3: Manage cash and accounts payable.

- (i) Initiate requisitions for payments
- (ii) Arrange payments to suppliers
- (iii) Pay income and other required taxes of PIU staff and its contractors

Output 4: Request funds from ADB and prepare financial reports for ADB.

- (i) Initiate requests for project funds and submit to ADB
- (ii) Respond to queries from ADB with respect to financial aspects of the Project

Output 5: Accounting management.

- (i) Prepare and maintain a fixed asset register
- (ii) Liaise with external auditors wherever required

3. PIU Procurement Specialist – National (23 person-months, intermittent)

Expertise: The candidate shall have a bachelor's degree in accounting, finance or business administration preferably with 5–10 years of experience as a national procurement officer under a development project; and past experience in procurement in an ADB project. The candidate shall be familiar with procurement systems of the Mongolian government and the rules, regulations, and practices of procurement and contracting in general, and have a good command of spoken and written English.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 23 person-months.

Expected timing: Starting in February 2018.

Scope of Work: The appointee will carry all procurement-related duties of the project based on ADB and MOF regulations, namely: (i) preparing and standardizing procurement-related documents; and (ii) implementing, managing, and monitoring the project's procurement.

Expected Outputs - Tasks and Activities

Output 1: Plan, implement, and monitor the project's procurement activities.

- (i) Advise the PIU on best practices in procurement, based on the policies and guidelines for procurement of ADB and the Mongolian government.
- (ii) For each package in the project procurement plan, prepare bidding documents for the goods or services required. These are to include technical specifications for the good or service required, contract conditions that each bidder must accept, and formats/templates for bidders to use in preparing their bids.
- (iii) Submit the draft bidding documents for each procurement package to the PIU and ADB for approval, according to the timelines in the project work plan.
- (iv) Advertise the request for bids for the goods or services as required.
- (v) Prepare a list of qualified bids submitted in response to the request for bids.
- (vi) Evaluate the bid proposals for technical compliance and financial criteria and rank the bids.
- (vii) Prepare and submit an evaluation report on the bids to the PIU and ADB for approval, as

- necessary.
- (viii) Provide advice to the PIU on the bids and evaluation as required. Provide information to the Project Steering Committee, as appropriate.
 - (ix) Assist the PIU in finalizing a contract with the first-ranked firm.

Output 2: Review and periodically revise, as required by ADB and the PIU, the procurement plan negotiated between ADB and the executing agency under the grant contract. Submit revisions to the PIU and ADB for approval.

Output 3: Regularly monitor progress on procurement and prepare reports for the PIU and ADB. Report progress of the procurement program on a monthly basis to the PIU project coordinator and complete quarterly and annual procurement reports.

4. Monitoring and Evaluation Specialist – National (8 person-months, intermittent)

Expertise: The candidate shall have a university degree in business or other discipline relevant to monitoring and evaluation (M&E). He/she will have at least 5 years of experience with rural development projects. Experience of ADB or World Bank projects is required. The candidate must have a good command of spoken and written English.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 8 person-months intermittent, tentatively 3 months between March - May 2018, 1 month each in 2019, 2020, and 3 months in 2021.

Post Location: Ulaanbaatar.

Expected timing: Starting in March 2018.

Scope of work: The expert will (i) establish an M&E system for the project, using the project DMF as a guide, that meets the requirements of the Government of Mongolia and ADB, (ii) propose a monitoring plan to be used by the PIU, (iii) complete an M&E baseline report for the project, (iv) train PIU staff in compiling monitoring reports based on the project DMF and approved monitoring plan, and (v) produce a midterm M&E report and a final M&E report against DMF targets.

Expected Outputs - Tasks and Activities

Output 1: Establish an M&E system for the project that meets the requirements of the government of Mongolia and ADB.

Output 2: Develop a monitoring plan to be used by PIU for approval by the project director.

Output 3: Complete an M&E baseline report for the project. This should include targets spelled out in the DMF, indicators, and data collected for the baseline including data required by the project's GAP.

Output 4: Train PIU staff in generating data for regular monitoring reports, according to the approved monitoring plan.

Output 5: Produce a midterm M&E report and a final M&E report on the project.

5. Office manager – National (47 person-months)

Expertise: The candidate shall have a bachelor's degree or equivalent in business administration, secretarial or other related fields and at least 2 years of relevant experience in the public or private sector. The candidate shall be proficient in main office software applications and be fluent in spoken and written English.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 47 person-months.

Expected timing: Starting between November and February 2018.

Scope of Work: The specialist will support the PIU project coordinator, the community development expert, the PIU finance specialist, and the PIU procurement specialist in information-related needs and in ensuring smooth functioning of office equipment.

Expected Outputs - Tasks and Activities

Output 1: Administrative management support.

- (i) Maintain project files and records.
- (ii) Assist in preparing reports, as required.
- (iii) Arrange external and internal meetings, and workshops.
- (iv) Prepare minutes of external and internal meetings.
- (v) Make logistic arrangements for project activities.

Output 2: Technical support.

- (i) Translate documents from Mongolian into English and vice versa, as required.
- (ii) Ensure smooth functioning of office equipment and security of project-related information.
- (iii) Undertake other IT-information-related tasks on an ad hoc basis.

PROJECT IMPLEMENTATION SUPPORT FIRM/NGO/ENTITY STAFFING REQUIREMENT

Input months for consultants to be engaged through the project implementation support Firm/NGO/Entity are summarized in the table below.

Input Months of Consultants to be Recruited Through Project Implementation Support Firm/NGO/Entity

Positions	Input months
1 Community development expert - deputy project coordinator	46
2 <i>Soum</i> coordinator in Yeruu	46
3 <i>Soum</i> coordinator in Orkhon	46
4 <i>Soum</i> coordinator in Bornuur	46
5 <i>Soum</i> coordinator in Ulaangom	46
6 Agronomist & agri-business specialist	34
7 Branding and marketing expert	30
8 Social and gender expert ^a	24
9 Resource person for greenhouse technology	4
10 Resource person for packaging and processing workshop	3
Pool of Agriculture Extension Specialists	
11 Vegetable Processing/Value-Added Agriculture Specialist	4
12 Water Management and irrigation Specialist	3
13 Soil Sciences Specialist	3
14 Entomologist / Pest Management Specialist	3
15 Seed Management Specialist	3
Total	341

^a 12 of the 24 months of the social and gender specialist will be covered through grant funds as part of the consulting firm/NGO contract; 12 of the 14 months will be covered from piggy-back funding support under the SDCC KSTA REG (50042): Strengthening Women's Resilience to Climate Change and Disaster Risk in Asia and the Pacific.

Terms of references for the consultants to be engaged through the Firm/NGO/Entity follow below.

1. Community Development Expert - Deputy Project Coordinator – National (46 person-months)

Introduction: Reporting to the PIU coordinator, the expert will be principally responsible for PIU support given to local communities in organizing and making functional the CGGs engaged in vegetable production and for the delivery of technical inputs to them. The expert will concurrently act as deputy PIU project coordinator acting on the project coordinator's behalf and carrying out his/her functions in the event of the project coordinator's temporary inability to perform them.

Expertise: The candidate shall have a university degree in social or environmental sciences, or other discipline relevant to community farming, experience of horticulture considered a plus. The candidate must have at least 5 years of experience working with rural communities under a project of an international organization such as ADB, World Bank, a United Nations affiliate or an international NGO. The candidate must be fluent in English, both spoken and written.

Reporting: The position will report to PIU project coordinator.

Duration of contract: 46 person-months.

Post Location: Ulaanbaatar.

Expected timing: starting in March 2018.

Scope of work: The appointee will (i) coordinate the process of forming CGGs and preparing CGAPs, (ii) work with the project coordinator, *soum* coordinators, and other team members and consultants to deliver the technical aspects of community vegetable farming and training programs, (iii) technically and administratively oversee project *soum* coordinators, (iv) perform PIU project coordinator's tasks in the event of the coordinators temporary inability to do so, and (v) contribute to the development of knowledge products and dissemination of project activities and results.

Expected Outputs - Tasks and Activities

Output 1: Oversee, and directly contribute to the process of setting up new collaborative structures for vegetable production by smallholders (the CGGs) and developing such structures' operating rules.

- (i) For the above purpose, procure or develop suitable teaching aids (visual presentations, video clips, examples of similar initiatives elsewhere in Mongolia and in other countries) that help the target communities embrace the concept.
- (ii) Design and deliver a training program for project *soum* coordinators and target communities on community farming and its organizational and management principles.
- (iii) Be prepared to present a vision that goes beyond a passive implementation of CGAPs and introduces innovations all along the vegetable value chain and the prospect of turning the CGGs, over time, into true and financially viable horticulture businesses. Procure or develop material (photos, video clips, reports etc.) that helps illustrate that vision.
- (iv) Ensure that the operating rules of CGGs are adequately explained to target households and that the *soum* project coordinators too fully understand them. Pay particular attention to specifying clearly the roles and responsibilities of the parties (the participating households, the PIU and its inputs, local government officials) including the financial aspects.
- (v) Ensure that CGG members understand and support the principle of gradually re-investing some of the expected profits into further modernization of own facilities and skills. Design, in collaboration with the PIU project coordinator and *soum* coordinators, a community growers' scheme and incorporate the concept into CGG operating rules.

Output 2. Provide advice and assistance on the preparation of CGAPs.

- (i) Directly and/or through *soum* coordinators help the newly formed CGGs develop CGAPs and make them ready for approval by local governments and the PIU.
- (ii) Ensure that all project *soum* coordinators and *soum* governors have a chance to comment on CGAPs under preparation and that the plans are then reconciled with the broader *soum* development plans following procedures specifically developed for this purpose. Develop such procedures for approval by PIU project coordinator and project director, after consultation with *soum* governors, and organize related training, if necessary.

Output 3. Coordinate the delivery of inputs and technical support for the implementation of CGAPs.

- (i) Design and deliver a training program for project *soum* coordinators on best practices in community farming to guide them in overseeing the implementation of CGAPs.
- (ii) Design and deliver a training program for CGG members on best practices in community

- (iii) farming covering production and management aspects.
- (iv) Design the rules and regulations for access and use by CGGs of seed fund, equipment, shared storage facilities and greenhouses provided by the project.
- (v) Design and deliver training of project *soum* coordinators and CGG members on operating and maintaining tractors and other equipment provided to CGGs and initially managed by the relevant *soum* authority.
- (vi) In consultation with the project resource person on greenhouse technology, deliver training of project *soum* coordinators and CGG members in constructing and operating greenhouses, and using other protection cultivation technologies and shared storage facilities.
- (vii) Monitor the progress of implementation of CGAPs directly in the field or through monthly reports submitted by *soum* coordinators.
- (viii) Ensure that project *soum* coordinators complete their assigned tasks in line with the PIU plan.

Output 4. Ensure all project activities are in line with project social and environmental safeguards. Make all the *soum* coordinators aware of safeguard requirements and due diligence to do when starting project activities to ensure compliance.

Output 5. Represent the PIU project coordinator, when required, and perform PIU project coordinator's tasks in the event of the coordinator's temporary inability to do so.

Output 6: Work with the PIU project coordinator and the international agronomist and agribusiness specialist on other assignments, as required.

2. ***Soum* Coordinators – National (4 position, 46 person-months each)**

Introduction: Reporting to the PIU deputy director, *soum* coordinators stationed in the project's *soums* will be PIU's local facilitators, helping organize the local growers into CGGs, prepare CGAPs, deliver material inputs and training to CGGs, monitor field performance and liaising with the local authorities.

Expertise: The candidates shall have a university degree in business, agriculture, or other discipline relevant to community horticulture with at least 3 years of involvement in rural community development projects. The candidate shall have prior experience in the *soum* to which he/she is to be assigned.

Reporting: The position will report to the community development expert / PIU deputy project coordinator.

Duration of contract: 46 person-months.

Post Location: One of four project *soums* in Darkhan-Uul, Selenge, Tuv, and Uvs *aimags*.

Expected timing: Starting in March 2018.

Scope of work: The *soum* coordinator will (i) help organize and participate in all relevant project trainings, (ii) working with the *soum* administration and the target farming households and guided by the community development expert, help establish CGGs in the *soum* concerned, (iii) assist the community development expert in training the CGGs in developing and updating CGAPs, (iv)

help develop procedures for reconciling CGAPs with *soums'* broader development plans, (v) advise directly or organize assistance by technical consultants on implementing CGAPs and best ways of overcoming possible obstacles, (vi) monitor implementation progress and report on it to PIU deputy coordinator; and (vii) contribute to the project's awareness-raising, and dissemination activities.

Expected Outputs - Tasks and Activities

Output 1: Help establish CGGs in the *soum* concerned.

- (i) Ensure that suitable venues exist for initial discussions with local households and *soum* administrations on the principles of community farming and its organizational and management basics.
- (ii) Assist the community development expert in preparing and using teaching tools (videos, posters, etc.) to better illustrate the potential of community horticulture in the *soum* and present a broader vision of this activity.
- (iii) Assist the community development expert in developing CGG operating rules and their acceptance by target project beneficiaries.
- (iv) Inform the *soum* administration on all aspects of CGG formation.

Output 2: Help develop and update CGAPs.

- (i) Facilitate and participate in the training on CGAPs preparation conducted by the community development expert or a PIU technical consultant.
- (ii) Work alongside CGGs in drafting the CGAPs and ensure that CGAPs are completed on time to the standard required.

Output 3: Help reconcile CGGs with the *soum*'s broader development plans.

Obtain opinions of *soum* administration on best ways of integrating CGAPs into the *soum*'s broader development plans. Taking these opinions into account, help the central PIU develop procedures of reconciling CGGs with *soums'* broader development plans and help obtain local administration's approval of these procedures.

Output 4: Help implement CGAPs.

- (i) Work alongside project supported CGGs to help them implement CGAPs. Monitor the delivery of project inputs and services and alert the central PIU to any impediments to implementation linked to procurement.
- (ii) Deliver or help deliver training of CGGs on best horticultural practices and the operation of project-supplied facilities such as greenhouses or share storage.
- (iii) Deliver or help deliver training of CGGs, as required, in operation and maintenance of tractors and other equipment provided by the project.
- (iv) In collaboration with the branding and marketing expert, help deliver training of CGG members in selected value-added activities such as part-processing of produce, quality control, packaging, distribution, or sales promotion.
- (v) Help identify any unexpected technical or governance-related obstacles to implementation and alert the community development expert and other PIU team members to their existence. Seek advice and support of PIU and offer solutions to CGGs.

Output 5: Monitor the implementation progress and report on it.

- (i) Monitor CGG implementation progress and report to the central PIU on a monthly basis highlighting any departure from work plans and budgets together with proposed remedial action.
- (ii) Provide inputs to the central PIU for the preparation of consolidated annual work plans and

budgets.

Output 6: Contribute to the project's awareness-raising and dissemination activities.

- (i) Help ensure that suitable information on technical and management aspect of vegetable farming can be accessed by CGG members. Coordinate with the central PIU the preparation of such information and its availability to CGGs.
- (ii) Help ensure exchange of technical and practical information among the *soum*'s CGGs as well as exchange of information and learning outside the *soum*, for instance by CGG members' participation in trade fairs and similar events.
- (iii) Encourage publicity given to CGG activities, both as a means of finding new markets for CGGs' produce as well as to consolidate political support for the sub-sector.

3. Agronomist and Agribusiness Specialist – National (34 person-months)

Expertise: The candidate shall have a university degree in agronomy or related subjects with at least 5 years of experience in agricultural and rural development, especially in horticulture. The candidate must have a good command of spoken and written English.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 34 person-months, intermittent.

Post Location: Ulaanbaatar, with frequent trips to project *soums*.

Expected timing: Starting in April 2018.

Scope of Work: The expert will (i) in collaboration with international agronomist and agribusiness specialist, consolidate local experience with vegetable breeds and cultivation practices best suited to Mongolian climate and soil conditions, (ii) summarize local experience of protected horticulture, especially the use of greenhouses to supplement a review of relevant international experience in this domain prepared by the international counterpart, (iii) train CGG members in applying best cultivation and protected horticulture practices, (iv) develop rules and operating procedures for the use of shared storage facilities and greenhouses by CGG members, and (v) monitor the progress of and report on CGGs' adoption of best practices, and use of project-financed facilities.

Expected Outputs - Tasks and Activities

Output 1: Contribute to the identification of crops, crop breeds and varieties, technologies, techniques and practices most suitable for adoption by the project CGGs.

- (i) Consolidate the results of available local research on vegetable crops and varieties best suited for the climatic conditions of Mongolia's central region.
- (ii) Consolidate local experience of protected horticulture, in particular, the use of greenhouses and tunnels, to be combined with a similar review of international experience in the domain by the agronomist's international counterpart.
- (iii) In collaboration with the international agronomist and agribusiness specialist and the national greenhouse technology specialist, develop training program for project farmers on introduction of improved vegetable varieties, best cultivation practices, post-harvest operations, and practices of protected horticulture.

Output 2: Help ensure that the technical recommendations made are incorporated in CGAPs.

- (i) Conduct field consultations with project community farmer groups to understand their

- current situation and perceived needs.
- (ii) Working closely with the community development expert, provide technical support to CGGs during the process of CGAP preparation to ensure that CGAPs (a) have a sound technical basis and incorporate the best of local and international horticulture experience, and (b) embody realistic targets.

Output 3: Assist CGGs in implementing CGAPs.

- (i) Deliver in-field training to project farmers on the topics listed under Output 1.
- (ii) Train the CGGs in the operation and maintenance of equipment provided to the group by the project.
- (iii) Provide refresher training during the project.
- (iv) In collaboration with the community development expert, the international agronomist and agribusiness specialist and the greenhouse technology expert, determine the types of greenhouses and storage facilities to be constructed with project support.
- (v) Develop rules and operating procedures for the use of shared storage facilities and greenhouses by CGG members and train CGGs on their use.
- (vi) In collaboration with the *soum* coordinators, monitor CGGs' observance of the technical and management recommendations made and suggest remedial steps when such steps are considered necessary.

4. Branding and Marketing Expert – National (30 person-months)

Expertise: The candidate shall have a university degree in business, commerce, agriculture economics/marketing or related fields, with at least 5 years of experience in communication, product promotion, brand development and marketing. Good access to the media and existing contacts in wholesale and retail agri-business would be considered a plus. The candidate must have a good command of spoken and written English.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 30 person-months, intermittent.

Post Location: Ulaanbaatar.

Expected timing: Starting in May 2018.

Scope of Work: The expert will (i) develop and implement branding and marketing plan for the produce grown by CGGs, (ii) develop and deliver training programs for *soum* coordinators and CGG households on selling, marketing, and branding of CGG output, (iii) arrange for a design and development of a logo, promotional displays, and bags for CGG produce, (iv) coordinate establishment of sale points in and near Ulaanbaatar City for some of CGG output, (v) develop and deliver training programs on web and mobile based market information systems to community farmer groups, and (vi) organize participation of some CGG members at national trade fairs.

Expected Outputs - Tasks and Activities

Output 1: Develop a branding and marketing plan for produce grown by CGGs.

- (i) Consult with community farmer groups in all project *soums* and *soum* coordinators on perceived need for training on branding and marketing.
- (ii) Consolidate the best of relevant international and local experience of selling and marketing of vegetables and the role of branding in the process.

- (iii) Deliver information and training sessions for CGGs in all project soums on existing structure of wholesale and retail trade in vegetables in Central Mongolia, existing pattern of agro-processing of relevance to the project and the principal buyers/consumers of CGG produce. Focus on the changing nature of demand for fresh or packaged produce.
- (iv) Based on the preceding, develop branding and marketing plans for each project soum's CGGs with specific target markets, locations, target sales, dates, and other relevant information.

Output 2: Help implement the branding and marketing plans.

- (i) Arrange for a design and development of a project logo, promotional displays, and bags for CGG produce.
- (ii) Develop and deliver training programs to community farmer groups in each of project soums on implementing the relevant branding and marketing plan dealing with both fresh and packaged produce.
- (iii) Make recommendation to CGGs on most promising new sales channels and participate directly (accompanying CGG members) in piloting such new links.

Output 3: Coordinate establishment of sale points in and near Ulaanbaatar City for selling CGG-grown vegetables.

- (i) Assist and coordinate with MOFALI and Ulaanbaatar City Governor's office in acquiring land for kiosks in Ulaanbaatar City to sell CGG produce.
- (ii) Assist and coordinate with MOFALI and Ulaanbaatar City Governor's office in acquiring land for sale point(s) along the major road to Ulaanbaatar City to sell CGG produce.
- (iii) Commission the design of kiosks and sale points and ensure that the design meets existing environmental, hygiene, and safety standards.

Output 4: Develop and deliver training programs on web and mobile based market information system to community farmer groups.

Output 5: Support project farmers in participating at national trade fairs.

- (i) In collaboration with soum project coordinators, determine the extent of such support compatible with project resources, and identify the fairs and other events offering the greatest promise.
- (ii) Organize equitable participation of CGG farmers at fairs and similar events.

5. Social and Gender Expert – National (12 person-months, intermittent)

Expertise: The candidate shall have a university degree in sociology, social anthropology, or other discipline relevant to social and gender development. The candidate will preferably have at least 5 years of experience with rural development projects. Experience of ADB or other foreign-funded projects is required. The candidate must have a good command of spoken and written English.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 12 person-months, intermittent.

Post location: Ulaanbaatar.

Expected timing: Starting in April 2018.

Scope of work: The expert will (i) lead the analysis of social issues relevant to the project, (ii) ensure that the formation of CGGs is in line with the stated pro-poor, participatory and gender-sensitive priorities and meet the targets presented in GAR, (iii) support the community development expert in guiding the CGGs in developing CGAPs and ensure that the CGAPs are in line with the project's stated social priorities, (iv) work closely with other PIU specialists in helping the CGGs achieve the objectives of GAPs, (v) advise the PIU, MOFALI, and soums on social issues and recommend appropriate actions, (vi) monitor the project's performance against the GAP.

Expected Outputs - Tasks and Activities

Output 1: Review ADB documentation on social and poverty analysis (SPRSS, GAP) and due diligence conducted during project preparation and prepare a two-page summary of the essential findings and requirements for easy reference by PIU staff and soum administrations.

Output 2: Carry out consultations with communities and the government to orient them on the social aspects of the project.

- (i) Orient and advise staff of the PIU, MOFALI, and soums administrations on anticipated poverty and social impacts, participatory approaches, and gender mainstreaming via the GAP developed for the project.
- (ii) Ensure that a shared understanding exists in project locations of the social criteria to be used in establishing CGGs.
- (iii) Assess training needs, including training that specifically targets women beneficiaries. Design such training anticipating its evolution and modifications in the course of implementation.

Output 3: Directly or through soum coordinators, provide advice to CGGs on how best to incorporate social concerns into CGAPs.

Output 4: Periodically conduct a field review of the extent to which the social priorities and targets CGGs are being achieved and ensure that the assessment is incorporated into regular project monitoring reports. Based on the field review, recommend possible modification of the GAP.

Output 5: Train PIU staff on effective gender mainstreaming and reporting sex-aggregated data.

6. Resource Person for Greenhouse Technology – National (4 person-months)

Expertise: The candidate shall have a technical diploma in engineering, horticulture or other subjects relevant to protected horticulture, or proven track record of successfully using greenhouses to grow non-conventional vegetables in Mongolia.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 2 person-months.

Post Location: Ulaanbaatar.

Expected timing: May 2018.

Expected Outputs - Tasks and Activities

- (i) Visit project soums and work closely with international and national agronomist and

- (i) agribusiness experts to determine farmer communities' needs and scope for greenhouses.
- (ii) Share with the project lessons learned from building and operating greenhouses in other locations in Mongolia.
- (iii) Recommend the types of greenhouses of several sizes, best suited to project conditions under CGG management.
- (iv) Assist the community development expert, national agronomist, and *soum* coordinators in selecting sites appropriate for constructing greenhouses.
- (v) Create preliminary technical drawings for greenhouses in cooperation with the international resource person for greenhouse technology
- (vi) Train the project team and CGGs in the selection of crops to be grown in the greenhouses, operating practices, greenhouse maintenance, and operating costs.

6. Resource person for packaging and processing workshop – (3 person-months)

Expertise: The candidate shall have a technical diploma in engineering, food processing or other subjects relevant to packaging and processing vegetables, or proven track record of successfully designing small-to-medium scale food processing facilities in Mongolia.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 3 person-months.

Post Location: Ulaanbaatar.

Expected timing: May 2018.

Expected Outputs - Tasks and Activities

- (i) Visit project *soums* and work closely with international a resource person for packaging and processing workshop to determine farmer communities' needs and scope for vegetable processing workshop.
- (ii) Share with the project lessons learned from building and operating food and vegetable processing workshops in other locations in Mongolia.
- (iii) Recommend the types of workshops best suited to project conditions.
- (iv) Create preliminary blueprint for the vegetable processing workshop in collaboration with the international resource person for packaging and processing workshop.

7. Pool of Agriculture Extension Specialists – National (5 positions)

The prospects of smooth implementation of the project improve further if a measure of flexibility in delivering technical support and solutions can be built into the design. This will be achieved by creating a pool of agriculture extension specialists that can be called upon to tackle specific technical and management problems experienced by CGGs and their members during implementation. This resource will complement the administrative and technical staff of PIU and core technical consultants. The most likely areas of the stand-by expertise include soil science, seed management, pest control, water management (including water saving technologies), protection horticulture and vegetable processing and value-added activities more generally¹.

¹ The composition of the agriculture technical pool is deliberately specified only in part, leaving room for reacting flexibly to unexpected implementation challenges.

A pool of agriculture extension specialists will be established to provide technical advice and problem solving for CGGs on an as-needed basis.

(i) Vegetable Processing/Value-Added Agriculture Specialist – Nationally recruited² (4 person-months)

Expertise: The candidate shall have a technical diploma in food processing or other subjects relevant to processing, packaging or otherwise adding value to agricultural produce, or proven track record of successfully processing such activities in Mongolia or similar conditions.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 1 person-month.

Post location: Ulaanbaatar and project field locations

Expected timing: 2019.

Tasks and activities: The specialist will train and advise CGG members (project farmers and workers at the vegetable processing unit) on vegetable processing and packaging issues on an as-needed basis.

(ii) Water Management and Irrigation Specialist – Nationally recruited (3 person-months)

Expertise: The candidate shall have a degree in agriculture water management, irrigation engineering other relevant fields and at least 10 years of experience in agricultural irrigation in Mongolia or in growing conditions similar to those of Mongolia.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 1 person-month.

Post location: Ulaanbaatar and project field locations

Expected timing: 2018.

Tasks and activities: The specialist will train and advise CGG members on water and irrigation issues on an as-needed basis.

(iii) Soil Sciences Specialist – Nationally recruited (3 person-months)

Expertise: The candidate shall have a degree in soil and crop sciences or other relevant fields and at least 10 years of experience in soil analysis and vegetable production in Mongolia or in growing conditions similar to those of Mongolia.

Reporting: The position will report to the PIU project coordinator.

² The TOR should be open to national specialists and international specialists recruited locally. Many international NGO technicians and international (highly skilled) experts (well, almost-volunteers) are prepared to work at local specialist salaries and have a lot to offer. This area may benefit from international know-how.

Duration of contract: 1 person-month.

Post location: Ulaanbaatar and project field locations

Expected timing: 2018.

Tasks and activities: The specialist will train and advise CGG members on soil improvement and the use of fertilizers on an as-needed basis.

(iv) Entomologist / Pest Management Specialist – Nationally recruited (3 person-months)

Expertise: The candidate shall have a degree in entomology, agricultural pest management or other relevant fields, and at least 10 years of experience in agricultural pest management in Mongolia or in conditions similar to those of Mongolia.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 1 person-month.

Post location: Ulaanbaatar and project field locations.

Expected timing: 2018.

Tasks and activities: The specialist will train and advise CGG members on entomology and pest management on an as-needed basis.

(v) Seed Management Specialist – Nationally recruited (3 person-months)

Expertise: The candidate shall have a degree in seed technology, agricultural biotechnology, or other relevant fields and at least 10 years of experience in vegetable seed management (grading, quality control, sorting, etc.) in Mongolia or in growing conditions similar to those of Mongolia.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 1 person-month.

Post Location: Ulaanbaatar and project field locations.

Expected timing: 2018.

Tasks and activities: The specialist will train and advise CGG members on seed selection, grading, and sorting on an as-needed basis.

SOUM PROFILES

Main Characteristics of the Four Project Soums

1. Background

Bornuur and Orkhon soums has historically been some of the largest vegetable producers in Mongolia. Bornuur soum has traditionally been one of the main potato growers while Orkhon soum has been the largest producer of vegetables other than potato. All four major producers of pickled vegetables in Ulaanbaatar get at least some of their vegetables from Orkhon soum. The trend continues to date; Orkhon and Bornuur soums still tend to specialize in growing vegetables they have traditional knowledge and experience.

Ulaangom soum has traditionally been one of the main seed producers in Mongolia. Although seed production has declined significantly in recent years compared with its peak, vegetable growing households still mainly specialize in seed production.

Yeruu soum does not have a traditional large-scale vegetable growing sector.

Table 1: Soum Vegetable Production, in Tons, 2016

	Ulaangom	Orkhon	Bornuur	Yeruu
Potato	2,119.0	3,731.0	6,600.0	653.7
Other vegetables	2,137.0	10,500.0	2,234.0	410.2

Source: Soum Governor's Office data.

2. Vegetable growing land

According to data from soum administrations, among the four project soums, Bornuur soum has the highest number of vegetable-growing plots owned by households (549 plots with area of 976.5 Ha) while Orkhon has the largest total area of plots owned by households.

Table 2: Plots Owned by Households

	Ulaangom	Orkhon	Bornuur	Yeruu
Total number of plots owned by households	163	282	549	283
Total area of plots owned by households (ha)	240	1,633.0	976.5	133.5

Source: Soum Governor's Office data.

Yeruu soum is characterized by very high portion (74%) of vegetable growers owning plots less than 0.6 Ha. Most of the vegetable growers are people who grow for their own household consumption (with excesses are sold) within their household fences instead of designated planting areas. On the contrary, almost a half of vegetable growing households in Orkhon soum have plots larger than 2 Ha. Own consumption growing is the next largest group in Orkhon where 22% of plots are less than 0.5 Ha. In the other two soums, plots owned by households are evenly distributed in small, medium and large sizes. Tables 3 and 4 present this in detail.

Table 3: No. of Vegetable Grower Households by Plot Sizes Owned

		Ulaangom	Orkhon	Bornuur	Yeruu
No. of individual vegetable growers	up to 0.5 Ha	9	63	174	209
	0.51 - 1.0 Ha	48	38	143	32
	1.01 - 1.5 Ha	49	24	43	19
	1.5 - 2.0 Ha	26	23	74	6
	Above 2 Ha	31	134	115	17
Total		163	282	549	283

Table 4: % of Vegetable Grower Households by Plot Sizes Owned

		Ulaangom	Orkhon	Bornuur	Yeruu
No. of individual vegetable growers	up to 0.5 Ha	6%	22%	32%	74%
	0.51 - 1.0 Ha	29%	13%	26%	11%
	1.01 - 1.5 Ha	30%	9%	8%	7%
	1.5 - 2.0 Ha	16%	8%	13%	2%
	Above 2 Ha	19%	48%	21%	6%
Total		100%	100%	100%	100%

Availability of Resources

Because of their long tradition of vegetable growing in large scales, growers in Bornuur and Orkhon soums are relatively well equipped with hand tools compared those in Yeruu and Ulaangom soums do not have much tools. In general, vegetable growing is highly labor-intensive in Mongolia. Hand tools that the vegetable growers currently have only complement labor input.

Smallholders in all four soums rent tractors to plough their fields. Lack of tractors with appropriate capacity in the soums is one of the major constraints faced by smallholders. Harvesting of potato is one of the time- and labor-consuming work. For improving efficacy of this work, growers need potato-harvesting machine that is a lack. Some of other equipment, such as plough, harrows and cultivators hand made by smallholders and their increased availability will improve productivity significantly.

1. Bornuur soum, Tuv aimag

1.1 Summary Socio-Economic Statistics

No.	Information		Year of data	Value
1.	Territory (hectare)		2016	114,687.0
2.	Population*		2016	5,161
3.	of which	Male	2016	2,591
4.		Female	2016	2,570
5.		% of female in population	2016	49.8%
6.	No. of baghs		2016	4
7.	No. of livestock (heads)		2016	114,073
8.	Unemployment rate for population 25-59		2016	31.5%

No.	Information		Year of data	Value
9.	Employment rate for population 15-59		2016	41%
10.	Poverty rate		2016	2.5%
11.	Distance from UB, km		2016	105
12.	No. of households		2016	1,581
13.	of which	Women headed households		2016
14.		Households under the poverty line		2016
15.	No. of vegetable grower households		2016	232
16.	of which	Women headed households		2016
17.		Households under the poverty line		2016
18.	Number of grower household groups		2016	1
19.	No. of vegetable growers		2016	447
20.	No. of women in vegetable growers		2016	264
21.	Total area planted by vegetable grower households (hectares)		2016	976.5
22.	of which	vegetable		2016
23.		potato		2016
24.	Total production (tons)		2016	8,835.0
25.	of which	Vegetable production (tons)		2016
26.		Potato production (tons)		2016
27.	Average household revenue of vegetable grower households			₮8.0million
28.	of which	with plots of 0.5 Ha		2016
29.		with plots of 1.0 Ha		2016
30.		with plots of 1.5 Ha		2016
31.	Total number / capacity (tons) of storages in soum		2016	656 / 13,252.0
32.	Total number / capacity (tons) of storages owned by vegetable grower households		2016	652 / 9,252.0
33.	Number / capacity (sq. m) of greenhouses in soum		2016	40 / 5,200.0
34.	Number / capacity (sq. m) of greenhouses owned by vegetable grower households		2016	30 / 4,200.0

Data sources: Bornuur soum Governor's Office and a Report of D. Nyamdarj, National Consultant.



Bornuur soum. Water reservoir and vegetable fields. (Source: Google Map. 2016)

1.2. Main Problems Faced by Vegetable Growing Households

Most of Bornuur soums vegetable growers have plots along the 8 (with additional 6 km from the reservoir to the fields) km irrigation scheme located near the soum center. The scheme was built in 1966 and has been in use since 1967. Due to usage over a long period, the irrigation scheme started to malfunction. Leakages appeared in the dam holding reservoir, which cannot be filled up because of potential risk of dam breaking. This coupled with uncoordinated use of water by farmers, results in water shortage for plots located towards the end of the scheme (Sections XA -1 & XA-2). The pumping station that was supposed to pump water upslope towards the end of the scheme is not fully functional due to two reasons: a) farmers do not have money to pay for electricity; b) there is not enough water to pump at the station.

Second, farmers currently protect their vegetable with fences made with wood pillars connected by wires separating some plots individually. Such fences do not provide reliable protection, and there are regular conflicts between herders and vegetable growers over animals eating vegetables. Growers must stay near by the plots day and nights during growing season to protect their vegetables.

1.3. Main Actions Taken by The Government to Tackle with the Problems

In recent years, Government had spent approximately MNT 4 billion (~USD 2 million) for repairing / rehabilitating the two sections (XA -1 & XA-2) of dam, but the leakage problem was not addressed during the rehabilitation. Technical drawings for repairing the leakage have not been made and is expected that solution of the problem will require significant amount of fund.

1.4. Requests from the Soum Administration and Farmers to the Project

The soum administration and farmers have expressed their interests to implement the project in their soum. Their most pressing need is to repair the leakages in the reservoir dam in the irrigation scheme, and to improve protection of their fields by building fences around the field along the irrigation scheme.

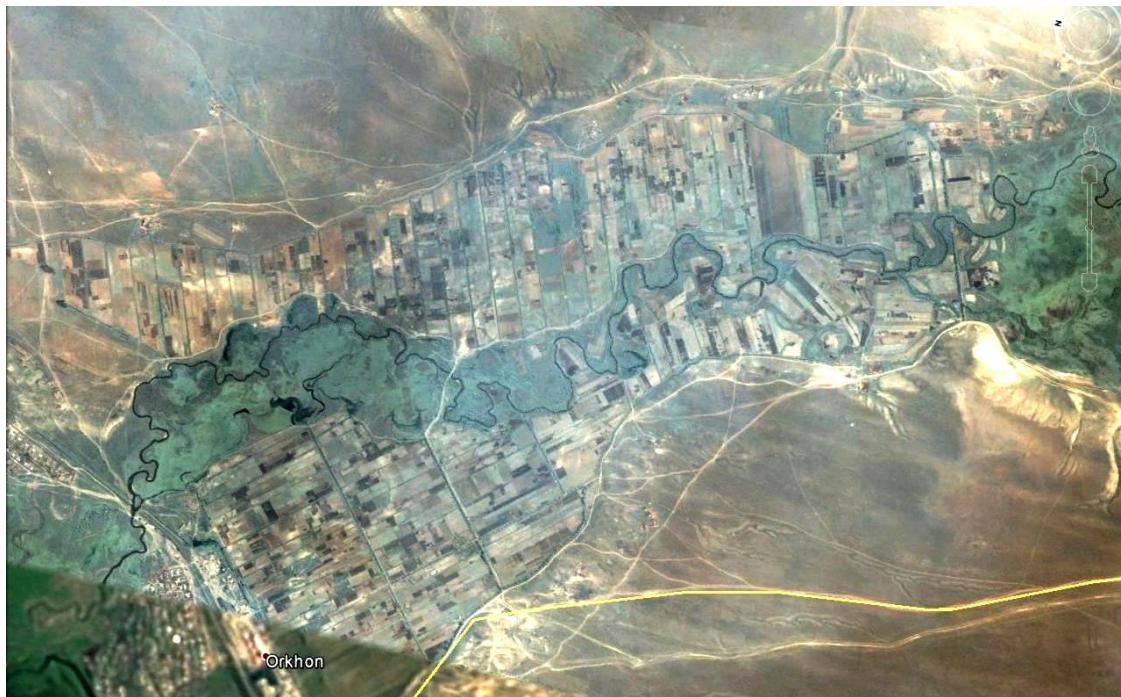
2. Orkhon soum, Darkhan-Uuul aimag

2.1. Summary Socio-Economic Statistics

No.	Information		Year of data	Value
1.	Territory (hectare)		2016	44,177.0
2.	Population		2016	3,226
3.	of which	Male	2016	1,657
4.		Female	2016	1,567
5.		% of female in population	2016	48.6%
6.	No. of <i>bhags</i>		2016	2
7.	No. of livestock (heads)		2016	41,465.0
8.	Unemployment rate for population 25-59		2016	10%
9.	Employment rate for population 15-59			Not available
10.	Poverty rate		2016	0.60%
11.	Distance from UB, km		2016	270
12.	No. of households		2016	965
13.	of which	Women headed households	2016	49
14.		Households under the poverty line	2016	18
15.	No. of vegetable grower households		2016	742
16.	of which	Women headed households		Not available
17.		Households under the poverty line		Not available
18.	Number of grower household groups			Not available
19.	No. of vegetable growers		2016	1,279
20.	No. of women in vegetable growers		2016	549
21.	Total area planted by vegetable farmer households (hectares)		2016	1,633.0
22.	of which	vegetable	2016	1,336.0
23.		potato	2016	297.0
24.	Total production (tons)		2016	14,231.0
25.	of which	Vegetable production (tons)	2016	10,500.0
26.		Potato production (tons)	2016	3,731.0
27.	Average household revenue of vegetable grower households		2016	₮4.5 million

No.	Information		Year of data	Value
28.	of which	with plots of 0.5 Ha	2016	₮2.0 million
29.		with plots of 1.0 Ha	2016	₮4.0 million
30.		with plots of 1.5 Ha	2016	₮6.0 million
31.	Total number / capacity (tons) of <i>soum</i> storages		2016	108 / 7,656.0
32.	Total number / capacity (tons) of storages owned by vegetable grower households		2016	108 / 7,656.0
33.	Number / capacity (sq. m) of greenhouses in <i>soum</i>		2016	23 / 2,760
34.	Number / capacity (sq. m) of greenhouses owned by vegetable grower households		2016	23 / 2,760
35.				

Data sources: Orkhon *soum* Governor's Office and a Report of D. Nyamdorj, National Consultant.



Orkhon soum. Vegetable fields. (Source: Google Map. 2016)

2.2. Main Problems Faced by Vegetable Growing Households

The irrigation scheme of Orkhon *soum* is owned by a private company, 'Khurtai' LLC. No major repair has been done for the scheme since its construction, and maintenance has been minimal, and current condition of the scheme is not good. Canal brackets and head construction of the scheme are aged and broken, and the concrete canals cracked with leakages. The owner 'Khurtai' LLC has not made any investment to address the problems. However, the company allows farmers with fields along the scheme to use water without requiring any payment.

Soil in some parts of irrigated vegetable fields has been depleted / eroded and affected by diseases. Few of the growers use fertilizers to improve production.

2.3. Main Actions Taken by the Government to Tackle the Problems

Soum Administration is concerned about the current situation of the scheme and spends some fund when necessary to prevent floodwater from creating more damages to the scheme.

2.4. Requests from the *Soum* Administration and Farmers to the Project

The *soum* administration and farmers have expressed their interests to implement the project in their *soum*. There is a vital need to repair the entire irrigation scheme – head construction, brackets of the canals etc. in the future. In addition, *soum* requests the project's assistance in improving soil quality and in fighting with weeds such as wheat grass, dog grass and others that negatively affect vegetable production.

If and when the project is implemented, the *soum* administration will be willing to encourage collaboration among vegetable growers by forming growers' groups to improve their livelihood. The *soum* is also planning to increase size of fields for growing fruits.

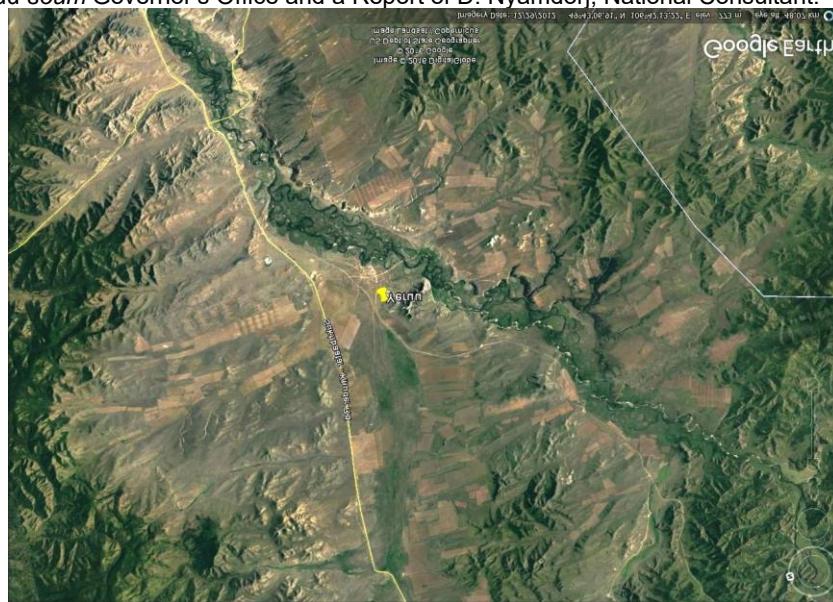
3. *Yeruu soum, Selenge aimag*

3.1. Summary Socio-Economic Statistics

No.	Information		Year of data	Value
1.	Territory (hectare)		2016	837,993.0
2.	Population		2016	6,631
3.	of which	Male	2016	3,384
4.		Female	2016	3,247
5.		% of female in population	2016	48%
6.	No. of baghs		2016	3
7.	No. of livestock (heads)		2016	76,419.0
8.	Unemployment rate for population 25-59		2016	29.7%
9.	Employment rate for population 15-59		2016	62.9%
10.	Poverty rate		2016	25%
11.	Distance from UB, km		2016	320
12.	No. of households		2016	1,816
13.	of which	Women headed households	2016	113
14.		Households under the poverty line	2016	51
15.	No. of vegetable farmer households		2016	267
16.	of which	Women headed households	2016	58
17.		Households under the poverty line	2016	48

18.	Number of grower household groups	2016	5
19.	No. of vegetable growers	2016	500
20.	No. of women in vegetable growing households	2016	358
21.	Total area planted by vegetable farmer households (hectares)	2016	133.4
22.	of which of which vegetable	2016	68.6
23.		2016	64.8
24.	Total production (tons)	2016	1,063.9
25.	of which Vegetable production (tons)	2016	410.2
26.		2016	653.7
27.	Average household revenue of vegetable farmer households	2016	₮600,000.0
28.	of which with plots of 0.5 Ha	2016	₮1.0 million
29.		2016	₮1.5 million
30.		2016	₮2,0 million
31.	Total number / capacity (tons) of storages in soum	2016	15 / 450.0
32.	Total number / capacity (tons) of storages owned by vegetable grower households	2016	14 / 300.0
33.	Number / capacity (sq. m) of greenhouses in soum	2016	18 / 460.0
34.	Number / capacity (sq. m) of greenhouses owned by vegetable grower households	2016	17 / 100.0

Data sources: Yeruu soum Governor's Office and a Report of D. Nyamdorj, National Consultant.



Yeruu soum. Soum center and vegetable / crop fields. (Source: Google Map. 2016)

3.2. Main Problems Faced by Vegetable Growing Households

Compared with other *soums*, Yeruu *soum* has high proportion of vegetable growers that grow vegetables for their own household consumption with intention to sell the excess in their household fences. About 30% of the plots is smaller than 0.05 Ha (500m²), 50% of the plots are smaller than 0.2 Ha (2000m²).

The *soum* has a vegetable growers' association established in 2010 to implement a project implemented by a Parliament member supporting smallholders. Nominally the association has membership of 70 households (283 members) divided into 22 grower groups, but the association has been largely inactive until last year. The association resumed its activity to some extent last year to sell vegetables grown by its members to two large mines operating in the *soum* territory.

The *soum* administration and farmers have expressed their interests to implement the project in their *soum*, and recognize the need to reactivate grower groups, and combine their efforts in vegetable production, selling, marketing and ultimately improving their livelihood.

Major constraints faced by smallholders is lack of storages and equipment. Lack of storages force farmers to sell most of their product during harvesting season where prices are low. Because of their small-scale operation, most farmers are not able to afford tools and equipment and perform most of the task manually. As Yeruu *soum* is located along a river, farmers do not face any problem with irrigation.

3.3. Main Actions Taken by the Government to Tackle the Problems

Soum government is plans to establish and vegetable processing workshop. However, the plan is in early stage with no concrete for funding, design and management structure. *Soum* administration also transferred some equipment from the Agricultural Centre to the Growers Association.

3.4. Requests from the *Soum* Administration and Farmers to the Project

The *soum* administration and farmers have expressed their interests to implement the project in their *soum*. The *soum* governor understands that successful implementation of the project is a guarantee for improving the livelihood of growers and get more support from donor organizations like ADB/JFPR and others. The *soum* and growers' requests to the project include:

- Various training for strengthening the existing grower groups, seed and new technology
- Equipment for vegetable growing (tractor, seeder, cultivator, digger, plough, etc.)
- Greenhouses for grower households (if possible, winter greenhouse)
- Storage (100 tons capacity)
- Vegetable processing workshop

4. Ulaangom *soum*, Uvs aimag

4.1. Summary Socio-Economic Statistics

No.	Information		Year of data	Value
1.	Territory (hectare)		2015	260,433.2
2.	Population		2015	30,270
3.	of which	Male	2015	15,408
		Female	2015	14,862

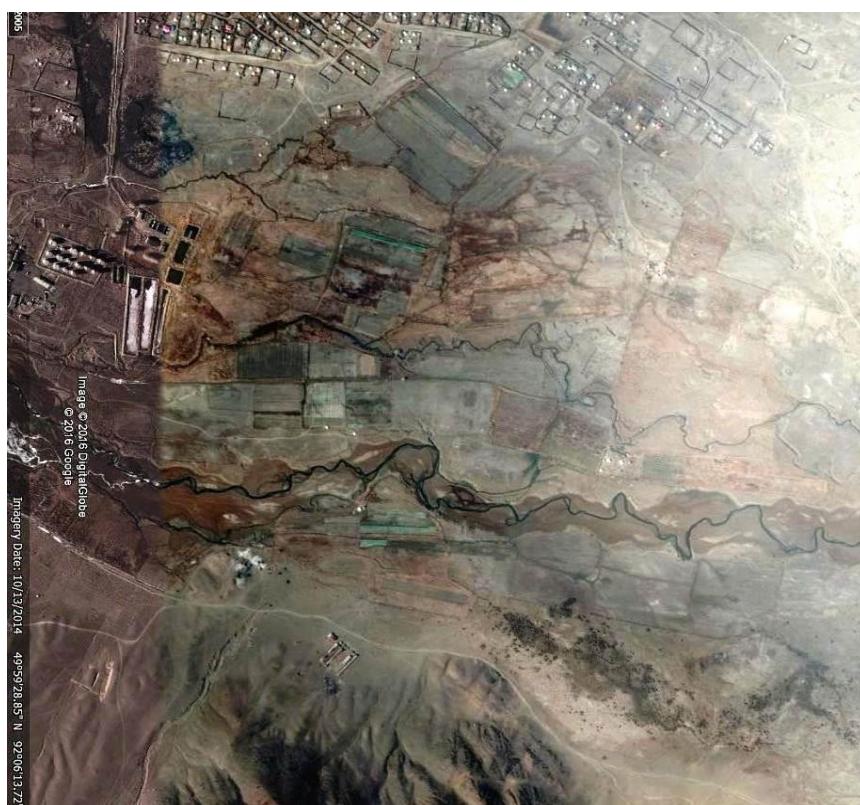
No.	Information		Year of data	Value
5.	% of female in population		2015	49%
6.	No. of <i>baghs</i>		2015	12
7.	No. of livestock (heads)		2015	137,666.0
8.	Unemployment rate for population 25-59		2015	12.70%
9.	Employment rate for population 15-59			Not available
10.	Poverty rate			Not available
11.	Distance from UB, km		2015	1,456
12.	No. of households		2015	8,312
13.	of which	Women headed households	2015	1,221
14.		Households under the poverty line	2015	740
15.	No. of vegetable growing households		2015	258
16.	of which	Women headed households		Not available
17.		Households under the poverty line		Not available
18.	No. of vegetable growers		2015	620
19.	No. of women in vegetable growers			Not available
20.	Total area planted by vegetable grower households (hectares)		2015	240
21.	of which	vegetable	2015	155.0
22.		potato	2015	145.0
23.	Total production (tons)		2015	4,256.0
24.	of which	Vegetable production (tons)	2015	2,137.0
25.		Potato production (tons)	2015	2,119.0
26.	Average household revenue of vegetable grower households			Not available
27.	of which	with plots of 0.5 Ha		Not available
28.		with plots of 1.0 Ha		Not available
29.		with plots of 1.5 Ha		Not available
30.	Total number / capacity (tons) of storages in <i>soum</i>		2015	74 / 1,520
31.	Total number / capacity (tons) of storages owned by vegetable grower households			Not available

No.	Information	Year of data	Value
32.	Number / capacity (sq. m) of greenhouses in soum	2015	161 / 13,820
33.	Number / capacity (sqm) of greenhouses owned by vegetable grower households		Not available
34.			

Data sources: Ulaangom soum Governor's Office and a Report of D. Nyamdorj, National Consultant.



Ulaangom soum. Vegetable seed fields. Chandmani (IPAS)
(Source: Google Map. 2016)



Ulaangom soum. Vegetable seed fields. Gashuunii gol.
(Source: Google Map. 2016)

4.2. Main Problems in Seed Production Faced by the *Aimag* Recently

Ulaangom *soum* of Uvs *aimag* has favorable climate condition for seed growing, and farmers have traditionally grown seeds for several decades. This area produces 95-98 percent of seeds of root crops namely turnip, beet, carrots. As Mongolia aims to increase domestic vegetable production, demand for seeds produced in Ulaangom is expected to be increased further.

In *Gashuunii gol* area, where around 1/3 of seed farmers are produced, farmers face limited supply of water. Main source of water is wells, but there are not enough wells to provide water to all fields.

In *Chandmani* area, where the branch of the Institute for Plant and Agricultural Science (IPAS) owns a large field, three wells that have already been constructed in 2011 is not fully functional due to lack of electricity. Providing electricity to these well will help increase seed production by the IPAS branch. In return, IPAS branch is willing to make some of its land available for seed production by smallholder growers.

Currently, electricity line reached to these farmers in comparatively close distance. Ground water well should be established in the middle of farmers plot together with water reservoir, which will use electricity. An electricity transformer should also be installed to operate water well(s). Reservoir and irrigation scheme should be installed for demonstration purpose among farmers. The branch of the Institute for Plant and Agricultural Science (IPAS) started to suffer from a problem with water during May and September (vegetation period), so that installed three water wells in 2011 to use for field irrigation, but they have not yet connected with electricity. The IPAS also need storage for seed.

4.3. Main Actions Taken by the Government to Tackle the Problems

Soum administration plans to deliver electricity to the ‘*Gashuunii gol*’ area using the public development fund (government support). *Aimag* government is planning to increase land areas for improving the seed production.

4.4. Requests from the *Soum* Administration and Farmers to the Project

The *soum* administration and farmers have expressed their interests to implement the project in their *soum*. The Deputy Governor of the Uvs *aimag* expressed his interest in implementing the project in Ulaangom and confirmed to provide full support to the project in every stage of its implementation. If the project is to be implemented in Ulaangom, *aimag* administration promised to make new fields available for seed production by including the issue in *aimag*'s land use plan in 2017. The *soum* administration and farmers need project support in the following areas:

- (i) Purchase of farming equipment and tractor.
- (ii) Purchase of agrochemicals. Budget might be around 10 percent of the equipment support to seed producers.
- (iii) Water well and reservoir (tank) and irrigation pipes in *Gashuunii gol*.
- (iv) Soft loan (revolving fund) for operation.
- (v) Connecting water wells *Chandmani* area to the electricity line.
- (vi) Mother crop storages (IPAS branch).
- (vii) Make land available for research and for local seed producers.
- (viii) Training to seed farmers.

**9057-REG: Building Sustainable Food and Nutrition Security in Asia and the Pacific
(Phase 1)**
Request for Funding Support for a Sub-Component Focusing on Creating Livelihood Opportunities for Women

The Project

The Community Vegetable Farming for Livelihood Improvement project is a pilot initiative aiming to improve the livelihood of smallholders involved in vegetable production in selected *soums* of four of Mongolia's *aimags*: Bornuur in Tuv, Orkhon in Darkhan-Uul, Ulaangom in Uvs, and Yeruu in Selenge. This is to be achieved by introducing a community farming model, applying improved climate-resilient farming practices, strengthening farm-to-market linkages, and integrating farming groups into inclusive agriculture value chains. Project beneficiaries will be vegetable growers, seed producers, and household-based food processors across the four sites. The project has strong pro-poor, women empowerment and participatory features and will directly benefit some 180 farming households (many of them female-headed) representing about 400 farmers and seed producers. Indirect benefit will accrue to the wider community in target *soums* with a total population of about 45,000 and beyond.

Impact, Outcome and Outputs

The impacts will be: (i) income generation and enterprise support for smallholder vegetable farmers increased and agricultural productivity based on a value chain approach improved; and (ii) resilience and adaptation to climate change improved. The outcome will be rural livelihoods for smallholder vegetable farmers in project areas improved. The project will have three outputs: Community grower groups established; Sustainable climate-resilient vegetable farming practices applied; and farmers' access to markets improved. ***Please see attached project draft GAR and GAP for more details.***

Support Requested

Support from the RETA is being requested to support a sub-component under Output 3 – setting up a vegetable food processing workshop in Orkhon *soum* to create livelihood opportunities for women CGG members, and gender-targeted training in food processing, packaging, labeling, marketing, and selling will be conducted.

The current JFPR grant budget is covering activities in 4 project *soums* across the entire value chain. Given the limited budget and breath of activities to be conducted, curtail work under the project to focus on building and setting up of the processing workshop and some training activities. In order to achieve maximum benefits and have more impact, additional funds are required to: (i) put in place small-scale equipment (tools and appliances) for the value-addition and processing of fruits and vegetables, such as graters, blenders, juicers, etc, for women to be able to pickle, make jams, sauces, juices etc. Also, some small-scale equipment for freezing and drying of fresh produce; and (ii) provide skills training to a large number of women on value-added agri-processing, sorting, packaging, selling, and marketing knowledge.

Within the current project scope funded by JFPR, around 50 women could benefit from this sub-component. If additional support was provided through the RETA, there is a potential to upgrade this project to GEM with the potential direct benefits for women in non-traditional "green" livelihood activities tipping to almost 150 women (around 10% of the entire female population in Orkhon *soum*).

The potential increase in benefits to women in the Orkhon project site and impact for livelihood overall will be significantly greater if RETA funding \$100,000 is be tapped into.

Terms of Reference

Social and Gender Expert – National (24 person-months, intermittent) * 12 months from grant via firm/NGO/entity, 12 months from gender RETA

Expertise: The candidate shall have a university degree in sociology, social anthropology, or other discipline relevant to social and gender development. The candidate will preferably have at least 5 years of experience with rural development projects. Experience of ADB or other foreign-funded projects is required. The candidate must have a good command of spoken and written English.

Reporting: The position will report to the PIU project coordinator.

Duration of contract: 24 person-months, intermittent.

Post location: Ulaanbaatar with field visits as required.

Expected timing: Starting around April 2018.

Scope of work: The expert will (i) lead the analysis of social and gender issues relevant to the project, (ii) ensure that the formation of CGGs is in line with the stated pro-poor, participatory and gender-sensitive priorities and meet the targets presented in GAR, (iii) support the community development expert in guiding the CGGs in developing CGAPs and ensure that the CGAPs are in line with the project's stated social and gender priorities, (iv) work closely with other PIU specialists in helping the CGGs achieve the objectives of GAPs, (v) advise the PIU, MOFALI, and soums on social and gender issues and recommend appropriate actions, (vi) ensure progress together actions and activities in GAP and monitor the project's performance against the GAP, (vii) conduct gender sensitive and gender targeted training, and (viii) work closely with the project and beneficiaries on the women targeted vegetable processing workshop.

Expected Outputs - Tasks and Activities

Output 1: Review ADB documentation on social and poverty analysis and gender action plan (SPRSS, GAP) and due diligence conducted during project preparation and prepare a two-page summary of the essential findings and requirements for easy reference by PIU staff and soum administrations.

Output 2: Carry out consultations with communities and the government to orient them on the social and gender aspects of the project.

- (i) Orient and advise staff of the PIU, MOFALI, and soums administrations on anticipated poverty and social impacts, participatory approaches, and gender mainstreaming via the GAP developed for the project.
- (ii) Ensure that a shared understanding exists in project locations of the social criteria to be used in establishing CGGs.
- (iii) Assess training needs, including training that specifically targets women beneficiaries. Design such training anticipating its evolution and modifications in the course of implementation.

Output 3: Work closely on the vegetable processing workshop subcomponent of Output 3 that will be targeted particularly and solely for women project beneficiaries. Responsible for training related to vegetable processing, packaging and marketing targeted to women.

Output 4: Directly or through *soum* coordinators, provide advice to CGGs on how best to incorporate social and gender concerns into CGAPs.

Output 5: Periodically conduct a field review of the extent to which the social priorities and targets CGGs are being achieved and ensure that the assessment is incorporated into regular project monitoring reports. Based on the field review, recommend possible modification of the GAP.

Output 6: Train PIU staff on effective gender mainstreaming and reporting sex-aggregated data.



Technical Assistance Report

Project Number: 49305-001
Research and Development Technical Assistance (RDTA)
December 2015

Building Sustainable Food and Nutrition Security in Asia and the Pacific (Phase 1)

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

ABBREVIATIONS

ADB	– Asian Development Bank
ANR	– agriculture and natural resources
COE	– center of excellence
DMC	– developing member country
FAO	– Food and Agriculture Organization of the United Nations
RDFS TG	Rural Development and Food Security (Agriculture) Thematic Group
TA	– technical assistance

NOTE

- (i) In this report, “\$” refers to US dollars.

Vice-President	B. Susantono, Knowledge Management and Sustainable Development
Director General	M.C. Locsin, Sustainable Development and Climate Change Department (SDCC)
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CONTENTS

	Page
RESEARCH AND DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE	
I. INTRODUCTION	1
II. ISSUES	1
III. THE RESEARCH AND DEVELOPMENT TECHNICAL ASSISTANCE	3
A. Impact and Outcome	3
B. Methodology and Key Activities	3
C. Cost and Financing	4
D. Implementation Arrangements	4
IV. THE PRESIDENT'S DECISION	5
APPENDIXES	
1. Design and Monitoring Framework	6
2. Cost Estimates and Financing Plan	9
3. Outline Terms of Reference for Consultants	10

RESEARCH AND DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

				Project Number: 49305-001
1. Basic Data	Project Name	Building Sustainable Food and Nutrition Security in Asia and the Pacific (Phase 1)	Department /Division	SDCC/SDCC-AR
	Country	REG	Executing Agency	Asian Development Bank
2. Sector	Subsector(s)			ADB Financing (\$ million)
Agriculture, natural resources and rural development	Agricultural production			0.30
	Agro-industry, marketing, and trade			0.30
	Land-based natural resources management			0.20
	Water-based natural resources management			0.20
				Total 1.00
3. Strategic Agenda	Subcomponents		Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive		Adaptation (\$ million)	0.30
Environmentally sustainable growth (ESG)	Disaster risk management Global and regional transboundary environmental concerns Natural resources conservation		Climate Change impact on the Project	Low
4. Drivers of Change	Components		Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Client relations, network, and partnership development to partnership driver of change		Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Pilot-testing innovation and learning			
Partnerships (PAR)	Implementation United Nations organization			
5. Poverty Targeting			Location Impact	
Project directly targets poverty	Yes		Regional	High
Geographic targeting (TI-G)	Yes			
6. TA Category:	B			
7. Safeguard Categorization	Not Applicable			
8. Financing				
Modality and Sources				Amount (\$ million)
ADB				1.00
Research and development technical assistance: Technical Assistance Special Fund				1.00
Cofinancing				0.00
None				0.00
Counterpart				0.00
None				0.00
Total				1.00
9. Effective Development Cooperation				
Use of country procurement systems	Yes			
Use of country public financial management systems	No			

I. INTRODUCTION

1. Food and nutrition security is a key element of the inclusive and sustainable growth agenda. The Midterm Review of Strategy 2020 of the Asian Development Bank (ADB) reaffirmed ADB's commitment to invest \$2 billion annually in food security and agriculture in developing member countries (DMCs) of Asia and the Pacific.¹ ADB's Operational Plan for Agriculture and Natural Resources: Promoting Sustainable Food Security in Asia and the Pacific in 2015–2020 provides guidance for ADB operations in the agriculture and natural resources (ANR) sector.² This technical assistance (TA) will help accelerate ADB's efforts to implement the plan through pilot innovations, new partnerships building, and knowledge solutions development.³ The design and monitoring framework is in Appendix 1.

II. ISSUES

2. Although Asia and the Pacific has achieved the Millennium Development Goal of halving the hunger rate, supported by impressive economic growth, approximately 490 million or two-thirds of the global hunger population remain in the region and high levels of malnutrition persist.⁴ In addition, as DMCs continue to evolve from low- to middle-income countries, they face a wide range of challenges to produce and supply more nutritious and safe food to a growing middle class and urban population in the face of shrinking natural resources, a degrading environment, global climate change and disaster risks, a changing labor profile and demographics, and price and market volatilities. To assist DMCs strategically in addressing such highly diversified and dynamic challenges and working toward Sustainable Development Goal 2, innovations, partnerships, and new business approaches for knowledge solutions need to be brought into DMCs' ANR development and management.⁵

3. Introducing innovative and best practices to address food and nutrition security issues is of common interest to many DMCs, who share the sector development targets to support climate resilience building in the ANR sector; and agribusiness development and market orientation of the rural economy, which are reflected in country partnership strategies. The proposed TA will assist DMCs to introduce essential innovations, promising technologies, and new business and partnership approaches in the ANR sector, particularly in three challenging areas, where ADB support to DMCs will be critical.

4. First, ADB support to DMCs should be expanded in climate-smart agriculture as (i) farming in DMCs is likely to face the highest reductions in agricultural potential as a result of climate change,⁶ and (ii) the poor population in the region is particularly vulnerable to food

¹ ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

² ADB 2015. *The Operational Plan for Agriculture and Natural Resources: Promoting Sustainable Food Security in Asia and the Pacific in 2015–2020*. Manila. Adopted in June 2015, the operational plan emphasizes four priority areas for operations: (i) productivity enhancement; (ii) market connectivity and value chain linkage; (iii) food safety, quality, and nutrition; and (iv) climate resilience and sustainable management of natural resources.

³ The TA first appeared in the business opportunities section of ADB's website on 12 November 2015.

⁴ About 195 million of the hungry population resides in India; 134 million in the People's Republic of China; 19 million in Indonesia; and 14 million in the Philippines. Food and Agricultural Organization of the United Nations (FAO), International Fund for Agricultural Development, and World Food Programme. 2015. *The State of Food Insecurity in the World 2015 – Meeting the 2015 international hunger targets: taking stock of uneven progress*. Rome: FAO.

⁵ Sustainable Development Goal 2 is to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

⁶ For instance, the expected negative effects in 2050 are especially profound in South Asia, where production reductions of 11%–18% for rice and 40%–45% for wheat are expected. ADB and International Food Policy Research Institute. 2009. *Building Climate Resilience in the Agriculture Sector of Asia and the Pacific*. Manila.

production and price shocks resulting from climate change and extreme weather events.⁷ Climate change is likely to impact significantly on cropping, agroforestry, grazing, and aquaculture. Climate change adaptation and mitigation, and disaster risk management, are critical to the food and nutrition security agenda in the region. ADB's engagement in DMCs for resilience building remains limited in light of the expected scale of adverse climate impacts.⁸

5. The second area of focus is promoting inclusive and sustainable agribusiness value chain development. Asia's food systems are undergoing a significant transformation from innovations at the farm level to the supermarket revolution, applications of information and communication technology innovations (e-commerce, mobile phone-based transactions, and internet banking), and agricultural insurance tools. The grocery market in Asia has grown to more than \$1.9 trillion in 2015, and is expected to grow further at a fast rate of 8% per annum during 2015–2020.⁹ In response to such market growth prospect, private sector enterprises have begun constructing new supply value chains to source agricultural produce by investing in the technical and institutional capacity improvement of agricultural value chains, many of which have resulted in the increased productivity and incomes of many farming households.¹⁰ Such private sector initiatives also encourage the adoption of sustainable agricultural practices among smallholder farmers, while increasing their supply capacity of high quality agricultural products. Public investments have opportunities to scale up their development impacts to the national and regional levels by collaborating with private investments and helping them expand their market-based solutions. Such collaborations will promote vertical integration of the food value chain and generate further opportunities, such as making sustainable agricultural practices the industry standards, expanding green commodity markets, and effectively introducing food quality and safety controls. Business models for collaborating with private sector activities, structuring catalytic public investments with a clear exit strategy, and scaling up promising private sector initiatives need to be strategically incorporated in ADB's operations and DMCs' sector developments plans. ADB's sovereign and nonsovereign investments in ANR have been increasing in recent years in this area.

6. The third area is to utilize knowledge partnerships more effectively in generating knowledge-based interventions and addressing the highly diversified needs of DMCs. The development of new partnership models for working effectively with centers of excellence (COEs), private sector institutions, and platforms for innovation generation and implementation is critical to respond to the emerging challenges of DMCs and scale up the impacts of ADB's food and nutrition security engagement. Effective knowledge partnership development with key COEs, multilateral development banks, and the private sector is important for swiftly mobilizing

⁷ Climate-smart agriculture is defined as "agriculture that sustainably increases productivity and resilience; reduces greenhouse gases, and enhances achievement of national food security and development goals." FAO. 2010. *"Climate Smart" Agriculture: Policies, Practices and Financing for Food Security, Adaptation and Mitigation*. Rome. (page ii). Examples include alternate wetting and drying of rice crops that enable crop yield increase while reducing the use of water, seeds, and fertilizer; agroforestry to restore biodiverse forests, which increase income-generating wood and tree products; and soil erosion protection measures that result in increase in yields and income.

⁸ ADB is committed to increase its investment in climate-smart agriculture as part of its \$6 billion annual commitment to support DMCs for climate change adaptation and mitigation by 2020.

⁹ IGD Retail Analysis projections. <http://www.igd.com/>

¹⁰ For instance, Olam, Nestle, and Unilever have pledged the sourcing of sustainably cultivated raw materials and have been supporting highly productive agricultural value chains development engaging 4.0 million (Olam), 5.0 million (Nestle), and 0.5 million (Unilever) smallholder farmers, together with civil society organizations, famers' organizations, and government agencies in DMCs. Beyond multinational companies, local food companies such as PRAN in Bangladesh, Engro in Pakistan, Akay in India and Cambodia, and Mountain Hazelnuts in Bhutan, are also developing contract farming models to support sustainable agriculture of smallholder farmers.

technical experts from different organizations to work together on specific assignments and delivering knowledge solutions collectively for DMCs.

III. THE RESEARCH AND DEVELOPMENT TECHNICAL ASSISTANCE

A. Impact and Outcome

7. The impact will be safe, nutritious, and affordable food for all in DMCs.¹¹ The outcome of the TA by 2018 will be increased knowledge solutions on climate-smart agriculture, and inclusive and sustainable agribusiness value chain development in DMCs.

B. Methodology and Key Activities

8. The TA will support pilot innovations and analytical works that will assist DMCs in addressing emerging food and nutrition security challenges under ADB's pipeline projects in the ANR sector and formulating new partnerships. The TA will finance activities related to pilot innovations, sector analysis, and the evaluations and dissemination of knowledge and best practices in climate-smart agriculture and inclusive and sustainable agribusiness value chain development—two of the four priority areas identified by the operational plan.

9. **Output 1: Climate-smart agriculture interventions tested and introduced.** A comprehensive review of innovative technologies and farming practices for climate-smart agriculture, and international best practices in scaling up their adoption, will be carried out. The review will identify several innovations to be tested under ADB's sector operations. Two or three activities will be selected based on technical feasibility, environmental sustainability, scale of development impacts, required public investments, and the priorities of operational departments and DMCs concerned. Once pilot innovations are selected, technical feasibility studies and implementation arrangements will be prepared for their implementation, together with the relevant project teams. Each activity will be monitored and evaluated, and a report to summarize the outcomes and experiences of TA activities will be prepared for discussion at knowledge dissemination events.

10. **Output 2: Approaches to develop inclusive and sustainable agribusiness value chain tested and introduced.** A wide range of relevant technologies and innovative institutional settings, logistics, financing, and business models for agribusiness value chains that can generate transformational impacts in ensuring environmental sustainability and the beneficial engagement of a large number of smallholder farmers will be analyzed and pilot innovations that can be tested under ADB's pipeline projects will be identified. A few promising business collaboration models for inclusive and sustainable agribusiness value chain development will be selected for pilot testing based on the scale of development impacts, required public investments, and demand of operational departments and DMCs concerned. These will be implemented together with relevant projects. The outcomes of pilot testing will be evaluated and summarized in a report for knowledge dissemination.¹²

¹¹ ADB has operations in the ANR sector in more than 20 DMCs. Priority will be given to DMCs in which climate change agribusiness development issues are critical. The participation of DMCs is subject to their endorsement on a no-objection basis.

¹² The proposed TA, particularly Output 2, is an emerging regional cooperation and integration area that would facilitate agriculture trade, benefiting farmers—particularly smallholder farmers, and is in line with ADB's Regional Cooperation and Integration Strategy. ADB. 2006. *Regional Cooperation and Integration Strategy*. Manila.

11. Output 3: Partnerships with centers of excellence developed for innovations and knowledge dissemination. Partnerships with both public and private institutions with critical expertise in food and nutrition security in DMCs will be developed. While ADB has signed a regional food security partnership agreement with United Nations agencies, new partnerships and collaborations will be sought with selected institutions that have relevant expertise to address DMCs' outstanding and emerging food and nutrition security issues. With current development partners, new types of partnerships will be explored, such as a business collaboration with the consultative group for the Consortium of International Agricultural Research Centers beyond ongoing research assistance, and collaboration with private sector institutions to leverage private investment and develop knowledge products.¹³ The results of such activities will be presented and discussed at various knowledge events for wider dissemination.

C. Cost and Financing

12. The TA is estimated to cost \$1,000,000, which will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V). Appendix 2 lists the cost items for the proposed TA.

D. Implementation Arrangements

13. The TA will be implemented over 3 years from January 2016 to December 2018.¹⁴ ADB, through its Agriculture, Rural Development, and Food Security Unit of the Sustainable Development and Climate Change Department, will be the executing agency. The unit, which also serves as the secretariat of the Rural Development and Food Security (Agriculture) Thematic Group (RDFS TG), will be responsible for the overall supervision of TA implementation. The TA will require in total 29 person-months of international experts and 39 person-months of national experts. The outline terms of reference for consultants are in Appendix 3. Engagement of consulting services will follow ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

14. The secretariat will monitor the TA activities and report to the RDFS TG committee for discussions and decision making as appropriate. It will coordinate with the working groups formed under the RDFS TG (Climate-Smart Agriculture Working Group and Agribusiness Value Chain Working Group) for implementing outputs 1 and 2. Within the scope of outputs 1 and 2, the two working groups supported by the secretariat will develop partnerships with COEs and the private sector institutions. The two working groups will actively engage in the implementation of TA activities in coordination with relevant project teams.

15. ADB will engage the Investment Center of the Food and Agriculture Organization of the United Nations (FAO) through single source selection to assist the two working groups in providing technical support to DMCs and ADB; and in carrying out relevant analytical works, pilot testing, and monitoring under outputs 1 and 2.¹⁵ The FAO has the necessary expertise at global, regional, and national levels to provide technical and operational services to deliver the two TA outputs. Single source selection is justified because the FAO has (i) multiple expertise in agriculture, rural development, and food security that are relevant to ADB's sector operations,

¹³ Asia and the Pacific Regional Food Security Partnership Framework signed by ADB, the FAO, and the International Fund for Agricultural Development in 2010.

¹⁴ Depending on the need for expansion of partnerships and pilot activities, the duration may be extended and the amount of the TA budget may be increased.

¹⁵ Arrangements with the FAO will comply with the 1981 ADB-FAO Memorandum of Understanding.

particularly the leadership role at the Global Alliance for Climate Smart Agriculture and various works for agricultural value chain development in DMCs; (ii) significant teams of technical and operational personnel in the field, whose activities complement the TA activities; and (iii) extensive experience in collaborative work in the sector among DMC governments, ADB, and other development partners. The FAO will propose a team comprising 16 person-months of international and 26 person-months of national consulting services to deliver the TA outputs.

16. For output 3, ADB will recruit individual experts (6 person-months international and 8 person-months national) to assist the RDFS TG working groups in carrying out (i) preparation of knowledge products that summarize the best practices and lessons from the TA activities; (ii) events preparation to disseminate knowledge to DMCs and within ADB; and (iii) follow-up activities, including project proposal preparation to seek additional funds. In addition, ADB will recruit firms to provide 7 person-months of international and 5 person-months of national market research and agribusiness value chain development specialists based on the consultants' qualifications selection method to carry out technical analysis required for business collaboration model development with COEs and private sector institutions. The use of the method is justified as the assignments require the services of institutions with highly specialized expertise as well as investment experience in relevant DMCs, for which very few institutions are qualified.

17. The RDFS TG working groups will identify and select TA activities based on DMCs' priority and ownership, the needs of regional departments, and opportunities with ADB's future food and nutrition security engagement. The RDFS TG committee will endorse the TA activities selected. Once the scope of TA activities is confirmed, consultations will be carried out with relevant DMCs and endorsement by the DMCs on a no-objection basis will be sought prior to implementing any country-specific activities.

18. TA activities will be recorded and evaluated, and any good practices and lessons will be compiled into working papers and/or policy briefs for wider dissemination. Some outputs will be presented and disseminated at the Food Security Knowledge Forum in June 2016 and other knowledge dissemination events, including events at DMC resident missions. Working papers in multilingual forms will be produced for wider dissemination of the TA outputs.

19. All disbursements under the TA will be made in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). ADB will undertake procurement of equipment in accordance with its Procurement Guidelines (2015, as amended from time to time) in coordination with its Office of Information Systems and Technology and Office of Administrative Services, where applicable. After TA completion, any procured equipment will be disposed of in compliance with the project administration instructions on administering grant-financed TA.

IV. THE PRESIDENT'S DECISION

20. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,000,000 on a grant basis for Building Sustainable Food and Nutrition Security in Asia and the Pacific (Phase 1), and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Impact the Technical Assistance is Aligned with^a Safe, nutritious, and affordable food for all in DMCs			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Knowledge solutions on climate-smart agriculture and inclusive and sustainable agribusiness value chain for DMCs increased	a. Participating DMCs adopt at least 2 novel knowledge solutions to address food and nutrition security challenges by 2018 (2015 baseline = 0)	a. Annual reports of the Rural Development and Food Security (Agriculture) Thematic Group; and progress reports and PDSs of relevant projects	Risks Unstable macroeconomic performances of DMCs Shocks to the food system and commodity markets (e.g., economic, extreme weather events, and infectious disease) to discourage investments in ANR sector Unsustained commitment of development partners and stakeholders for innovations
Outputs 1. Climate-smart agriculture interventions tested and introduced	1a. At least 2 pilot tests for adopting climate-smart agriculture practices carried out by 2018 (2015 baseline = 0) 1b. Report on assessing preliminary outcomes of all tested innovations and 1 knowledge product developed by 2018 (2015 baseline = 0)	1a. Annual reports of the Rural Development and Food Security (Agriculture) Thematic Group; and progress reports and PDSs of relevant projects 1b. Sustainable development working paper series uploaded to ADB website	Risks No effective regulations in place to ensure sustainable use of water and land Limited access to financing for smallholder farmers and agribusiness small and medium-sized enterprises
2. Approaches to develop inclusive and sustainable agribusiness value chain tested and introduced	2a. At least 2 pilot tests for gender inclusive, pro-poor and sustainable agricultural value chain development carried out by 2018 (2015 baseline = 0) 2b. Report on assessing preliminary outcomes of all tested innovations (including from a gender perspective) and 1 knowledge product developed by 2018 (2015 baseline = 0)	2a. Annual reports of the Rural Development and Food Security (Agriculture) Thematic Group; and progress reports and project data sheet of relevant projects 2b. Sustainable development working paper series uploaded to ADB website	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
3. Partnerships with centers of excellence developed for innovations and knowledge dissemination	<p>3a. At least 2 knowledge events carried out under new partnerships or business collaboration arrangements with COEs or private sector entities for collaborative works in ANR identified and developed by 2018 (2015 baseline = 0)</p> <p>3b. Gender perspective integrated in the knowledge events and new partnerships developed around climate-smart agriculture and agribusiness value chain development</p>	3a. Annual reports of the Rural Development and Food Security (Agriculture) Thematic Group	

Key Activities with Milestones

1. Climate-smart agriculture interventions tested and introduced

- 1.1 Analyze international best practices among both public and private investments in promoting climate-smart agriculture that ensures environmental sustainability in developing countries (Q1–Q3 2016)
- 1.2 In consultation with Climate-Smart Agriculture Working Group of the Rural Development and Food Security (Agriculture) Thematic Group, identify opportunities to test for potential incorporation in ADB operations; select a few for pilot testing that best suit DMCs' needs and ADB's operational demand^b (Q1 2016–Q1 2017)
- 1.3 Prepare technical feasibility studies for selected pilot activities and implementation arrangements, together with relevant project team leaders (Q1 2016–Q1 2017)
- 1.4 Implement and monitor the selected pilot tests as integral parts of ADB's ongoing or pipeline projects (Q2 2016–Q4 2018)
- 1.5 Produce a report summarizing key findings of the pilot activities (Q3 2017–Q3 2018)
- 1.6 Disseminate the multilingual reports at knowledge dissemination events, including events at DMC resident missions (Q4 2018)

2. Approaches to develop inclusive and sustainable agribusiness value chain tested and introduced

- 2.1 Analyze a wide range of relevant technologies and innovative institutional settings, logistics, financing, and business models in ANR sector that can generate transformational impacts in ensuring environmental sustainability as well as the beneficial engagement of a large number of smallholder farmers, particularly women farmers, in commercial food value chain development (Q1–Q3 2016)
- 2.2 Identify promising innovations that meet DMCs' needs and which can be tested under ADB's operations; select the most suitable ones for TA support based on discussions at the Agribusiness Value Chain Working Group of the Rural Development and Food Security (Agriculture) Thematic Group and agreed selection criteria^b (Q1 2016–Q1 2017)
- 2.3 Prepare technical feasibility studies and implementation arrangements for the selected pilot activities in consultation with various internal and external development partners for selected proposals (Q1 2016–Q1 2017)
- 2.4 Implement the selected proposals as integral parts of ADB's ongoing or pipeline projects (Q2 2016–Q4 2018)
- 2.5 Produce a report summarizing key findings of the pilot activities (Q3 2017–Q3 2018)
- 2.6 Disseminate the multilingual reports at knowledge dissemination events, including events at DMC resident missions (Q4 2018)

3. Partnerships with centers of excellence developed for innovations and knowledge dissemination

- 3.1 Identify partnership development and collaboration opportunities with COEs and private sector institutions, particularly in climate-smart agriculture, and gender inclusive and pro-poor agribusiness value chain development, considering institutions' expertise and their potential value addition to ADB's ANR operations (Q1 2016–Q4 2017)

Key Activities with Milestones
3.2 Develop and negotiate the concept and scope of collaborative activities with partner organizations, and plan and carry out technical and preparatory works for the identified activities (Q1 2016–Q4 2017)
3.3 Implement the identified collaborative activities together with the partner institutions, DMC government offices, and ADB project team (Q3 2016–Q4 2017)
3.4 Evaluate the effectiveness of engaging experts of the partner organization in ADB's operation and discuss the partnership and collaboration outcome, and prepare knowledge products (Q4 2017, Q4 2018)
3.5 Plan and implement the Food Security Knowledge Forum in 2016 and other event for knowledge dissemination, together with partner institutions
Inputs
ADB: \$1,000,000 (grant)
Assumptions for Partner Financing
Not applicable.

ADB = Asian Development Bank, ANR = agriculture and natural resources, COE = center of excellence, DMC = developing member country, PDS = project data sheet, Q = quarter, TA = technical assistance.

^a ADB. 2015. *Operational Plan for Agriculture and Natural Resources: Promoting Sustainable Food Security in Asia and the Pacific in 2015–2020*. Manila.

^b Selection criteria will include the scale of potential development impacts, the types and scale of required public investment, and the financial viability of the business approach.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN

(\$'000)

Item	Amount
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	611.0
i. International consultants	143.0
ii. National consultants	
b. International and local travel	29.0
c. Reports and communications	2.0
2. Equipment ^b	10.0
3. Training, seminars, and conferences ^c	
a. Facilitators	25.0
b. Training program	25.0
4. Surveys and industry analysis ^c	50.0
5. Miscellaneous administration and support costs ^d	5.0
6. Pilot testing ^e	50.0
7. Contingencies	50.0
Total	1,000.0

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-V). No suitable financing from other sources has been found to date. Once additional financing sources are identified, the technical assistance (TA) amount will be increased to finance more TA activities.

^b All equipment, such as mobile phones and tablets, are planned to be rented. If any equipment is to be purchased, the equipment procurement will follow ADB's Procurement Guidelines (2015, as amended from time to time), and all equipment will be turned over to subproject implementing agencies concerned after completion or disposed of in accordance with ADB policy.

^c Any advances provided should be liquidated within a 30-day period, so that the TA can be closed in an orderly and timely manner.

^d Miscellaneous administration and supports costs will be for the implementation of TA activities to be selected during the TA implementation and translations of reports for in-country knowledge dissemination.

^e Excludes consultants. Includes costs of equipment rental, training, extension and communication materials, agricultural inputs, and consultation meetings. The TA will not exceed the 30% limit of pilot testing.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The Asian Development Bank (ADB) will recruit international experts for 29 person-months and national experts for 39 person-months to carry out technical assistance (TA) activities in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Output-based (lump sum) contracts will be considered for all consulting services.

A. Consultant Requirements from the Food and Agriculture Organization of the United Nations (Outputs 1 and 2)

2. The Food and Agriculture Organization of the United Nations (FAO) will be selected by ADB through single source selection. The FAO, through its Investment Center, will implement the TA activities and assist in sector analysis, pilot innovations, and other technical works associated with pipeline development in developing member countries (DMCs) in agriculture and food security. FAO experts will work with ADB staff on various knowledge products and pipeline development. FAO support will be utilized to target two to three countries initially for sector analysis, pre-investment work, and innovation pilot works for investment formulation, in line with the priorities of regional departments and DMCs. The FAO will provide a total of 16 person-months of international and 26 person-months of national consulting services.

3. **Climate-smart agriculture specialists** (international, 6 person-months; national, 10 person-months). The experts will have graduate degrees in agriculture, climate change, resource economics, or other relevant fields, with extensive experience in designing and implementing climate change adaptation and mitigation as well as disaster risk management measures for agriculture and natural resources projects in DMCs. The specialists' outputs will include (i) a report on international best practices on climate-smart agriculture that should be introduced to DMCs; (ii) analysis of subsector for pre-investment works; (iii) a list of innovations that can be introduced to ADB operations, and methodology and activities for testing them under ADB's pipeline projects; (iv) technical proposals of selected pilot activities; and (v) TA activity progress reports. The specialists' tasks will include the following:

- (i) Survey past and ongoing ADB interventions and international best practices among both public and private investments in promoting climate-smart agriculture and ensuring environmental sustainability in developing countries.
- (ii) Carry out relevant subsector analysis and other analytical works related to food and nutrition security issues.
- (iii) In consultation with the Climate-Smart Agriculture Working Group of the Rural Development and Food Security Thematic Group, identify and conceptualize new projects on climate-smart agriculture, as well as the opportunities to test some of the promising disaster risk management, climate adaptation, and mitigation measures for potential incorporation in ADB's operations; and select a few that best suit DMC's needs and ADB's operational demand.¹
- (iv) Utilizing the ongoing and pipeline projects, identify opportunities for innovation and knowledge sharing, and generate knowledge products on lessons and good practices in climate-smart agriculture.
- (v) Develop and implement training programs for capacity building of sector divisions as required.

¹ Selection criteria will include the scale of potential development impacts, environmental sustainability, the types and scale of the required public investment, and the financial viability of the business approach.

- (vi) Prepare technical feasibility studies for selected pilot testing activities, together with relevant project team leaders.
- (vii) Implement and monitor the selected pilot tests, together with relevant project teams, as integral parts of ADB's ongoing or pipeline projects.
- (viii) Report the progress of TA activities to ADB and relevant project offices of DMCs.

4. Agribusiness value chain development specialists (international, 7 person-months; national, 10 person-months). Successful candidates will have graduate degrees in agribusiness, finance, economics, business administration, or a related field, with a good record of working in the agriculture and food industries and relevant experience in agribusiness development in DMCs. The outputs of the specialists include (i) a report on agricultural value chain development that will engage smallholder farmers and promote environmental sustainability standard in relevant DMCs, (ii) a list of potential pilot innovations that can be tested and scaled up when successful by ADB's pipeline projects, (iii) technical proposals for pilot tests and business partnership development with key value chain players, and (iv) TA activity progress reports. Specialists' tasks will include the following:

- (i) Assess a wide range of relevant technologies and innovative institutional settings, logistics, financing, and business model development in agriculture that can generate transformational impacts in ensuring environmental sustainability as well as the beneficial engagement of a large number of smallholder farmers, particularly women farmers, in commercial food value chain development.
- (ii) Unbundle the values that accrue along the value chain to identify areas of intervention and analyze interventions that promote private sector and smallholder partnership.
- (iii) Survey past and ongoing relevant ADB interventions, and identify promising innovations to generate synergies between public and private investments that can be tested by ADB's operations; develop proposals and specify the technical feasibility and implementation arrangements, in consultation with various internal and external development partners.
- (iv) Evaluate and select the proposals suitable for TA support under the guidance of the Agribusiness Value Chain Working Group of the Rural Development and Food Security Thematic Group, based on agreed selection criteria (footnote 1, Appendix 3).
- (v) Implement the selected proposals, together with relevant project teams, as integral parts of ADB's ongoing or pipeline projects.
- (vi) Report the progress of TA activities to ADB and relevant project offices of DMCs.

5. Participatory stakeholder consultation specialists (international, 3 person-months; national, 6 person-months). The specialists will have graduate degrees in the social sciences or a related field, and experience in planning and conducting participatory multistakeholder consultations for agricultural projects, particularly agribusiness investments. The outputs of the specialists will include (i) successful group discussions with wide outreach for each pilot testing activity; and (ii) a report on the findings of such discussions and recommendations for the relevant TA activities—reflecting the social, economic, and environmental concerns of the consulted groups. More specifically, the specialists will do the following:

- (i) Review the profile of prospective stakeholders of the pilot activities, develop a profile directory, and contribute to the design of the selection criteria for pilot testing activities.
- (ii) Analyze gender issues regarding the pilot activities, carry out consultation with women beneficiaries, and propose any gender mainstreaming measures that needs to be incorporated in the TA activities.

- (iii) Together with the agribusiness value chain development specialists, develop the design of the stakeholder dialogues and the modality for consultations; implement the group consultations.
- (iv) Prepare a report on the findings of the consultations; provide recommendations for pilot project activities, reflecting the priority concerns of the groups.

B. Consultant Requirements for Output 3

6. ADB will hire individual experts for knowledge product preparation and dissemination, and firms for technical assessments that require special expertise for partnership and business collaboration development.

7. **Knowledge development and dissemination specialists** (international, 6 person-months; national, 8 person-months). The specialists will have a graduate degree in economics, agriculture, development studies, or a related field; and strong experience in development assistance projects in DMCs. Working knowledge of ADB's project implementation, knowledge products, and events preparation would be an advantage. The output of the specialists will include a summary of findings and lessons from the TA activities. More specifically, the specialists will do the following:

- (i) Review TA activities and their reports, and prepare a summary to highlight key findings and lessons from the activities.
- (ii) Assist the working groups and relevant project teams in carrying out some TA activities, preparing reports and evaluation works.
- (iii) Assist in drafting and editing TA reports and developing them into knowledge works.
- (iv) Assist in preparing for the knowledge events and new partnerships that integrates gender perspective
- (v) Assist the secretariat and working groups in preparing and implementing knowledge dissemination events.

8. **Market research and agribusiness value chain development specialists** (international, 7 person-months; national, 5 person-months). Technical feasibility studies will be carried out as preparatory works to (i) develop business models for collaboration between ADB's investment projects and private sector institutions and/or centers of excellence for the development of commercially viable, inclusive, and environmentally sustainable agricultural value chains; and (ii) improve the productivity and incomes of a large number of smallholder farmers. The specialists will have graduate degrees in agribusiness, finance, economics, business administration, or a related field, with 5 years or more of continuous working experience in the food and agriculture industries and agricultural market analysis in developing countries, with specific focus on smallholder agriculture. Experience in analyzing the impacts of yield gains for smallholder farmers from engaging in such agricultural value chain development investments would be an advantage. Specific tasks of the specialists will include the following:

- (i) Analyze the feasibility of the demand-based business development potential and opportunities for scaling up agricultural commodity value chains, based on the current and projected needs of both vegetable and field crops, by region and market segment;
- (ii) Analyze the value chain key players including producers, storage, logistics services, primary processors, wholesale, and retail industries;
- (iii) Assess the state of production conditions including agronomy, access to inputs, information, utilities, financing means, and extension services of smallholder farmers;

- (iv) Identify key players in agricultural value chains; their business interests; and their capacity for importation, local seed production, marketing, and distribution;
- (v) Analyze the potential business interests in scaling up value chain development, based on collaborations among private companies and potential public investments;
- (vi) Estimate the scale of the potential development impacts of such value chain development on smallholder farmers;
- (vii) Recommend partnership models among private entities and public institutions; and approaches to develop agricultural value chains of scale, specifying the role of public institutions and finance; and
- (viii) Identify potential exit strategies for such public investment.