ADB

Grant Assistance Report

Project Number: 50278-001
December 2017

Proposed Administration of Grant
Mongolia: Community Vegetable Farming for Livelihood Improvement
(Financed by the Japan Fund for Poverty Reduction)

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 4 December 2017)

Currency unit	–	togrog (MNT)
MNT1.00	=	$0.00041
$1.00	=	MNT 2,442.75

ABBREVIATIONS

ADB	–	Asian Development Bank
CGG	–	community growers group
ha	–	hectare
JFPR	–	Japan Fund for Poverty Reduction
MOFALI	–	Ministry of Food, Agriculture, and Light Industry
PAM	–	project administration manual
PIU	–	project implementation unit

GLOSSARY

aimag	–	province
soum	–	district
dzud	–	episode of extreme winter weather

NOTE

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

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PROJECT AT A GLANCE

1. Basic Data			**Project Number:** 50278-001	
Project Name	Community Vegetable Farming for Livelihood Improvement (formerly Sustainable Vegetable Farming for Smallholders)	**Department /Division**	EARD/EAER	
Country	Mongolia	**Executing Agency**	Ministry of Food, Agriculture, and Light Industry (MOFALI)	
Borrower	Mongolia			
2. Sector	**Subsector(s)**		**ADB Financing ($ million)**	
		Total	**0.00**	
3. Strategic Agenda	**Subcomponents**	**Climate Change Information**		
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Low	
Environmentally sustainable growth (ESG)	Eco-efficiency			
4. Drivers of Change	**Components**	**Gender Equity and Mainstreaming**		
Governance and capacity development (GCD)	Civil society participation	Gender equity (GEN)	✓	
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas Knowledge sharing activities			
Partnerships (PAR)	Civil society organizations Implementation Private Sector			
5. Poverty and SDG Targeting		**Location Impact**		
Geographic Targeting	No	Not Applicable		
Household Targeting	Yes			
SDG Targeting	Yes			
SDG Goals	SDG2			
6. Risk Categorization:	Low			
7. Safeguard Categorization	**Environment:** C **Involuntary Resettlement:** C **Indigenous Peoples:** C			

8. Financing

Modality and Sources	Amount ($ million)
ADB	**0.00**
None	0.00
Cofinancing	**3.00**
Japan Fund for Poverty Reduction - Grant (Full ADB Administration)	3.00
Counterpart	**0.00**
None	0.00
Total	**3.00**

Source: Asian Development Bank

I. INTRODUCTION

1. 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 processers across the four sites. The project has strong pro-poor and participatory features and will directly benefit at least 180 farming households (many of them female-headed) representing about 500 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.

II. THE PROJECT

A. Rationale

2. 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, Tuv, and Selenge *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.

3. 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]

4. **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 secure 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. **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.

6. **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. With more collaboration, organization and shared capacity amongst farmers, opportunities for better managed collective areas for farming, increased livelihood security and economies of scale can be achieved.

7. 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, (CGG)] 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]

8. **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[5] and the Ministry of Food, Agriculture and Light Industry's (MOFALI) sector priorities. It converges with ADB's Operational Plan for Agriculture and Natural Resources, 2015–2020[6] with its emphasis on

[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 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.

sustainable natural resources management and climate resilience. 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]

9. **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 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.

10. **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]

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 growers groups established.** The project aims to capture potential economies of scale in smallholder farming that exist in areas such as irrigation, equipment use, 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

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

[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.

effective groups and manage collaboration. Criteria for selection of beneficiary farming households will be specified; (ii) about 30 CGG will be formed[9] in the four project sites, bringing together an average of six farmer households per group;[10] (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.[11]

13. **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 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.

14. **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;[12] (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.

15. The project's value-chain activities—socially-inclusive, environmentally-friendly, and 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.[13]

16. **Project management.** MOFALI will manage the project. In spite of good experience in

[9] 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.

[10] 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.

[11] The funds will be partly subsidized through grant funds for the first couple of years. Funds will be used for operations and maintenance, and establishing more greenhouses or procuring farm tools required by the community growers groups.

[12] Supported through piggy-back support from the regional Knowledge Support Technical Assistance (50042): Strengthening Women's Resilience to Climate Change and Disaster Risk in Asia and the Pacific. ADB. 2017. *Technical Assistance Report: Strengthening Women's Resilience to Climate Change and Disaster Risk in Asia and the Pacific*. Manila.

[13] 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.

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, including a project steering committee and set up a project implementation unit (PIU); and (ii) finance required grant implementation consultants and operational costs.

17. **Stakeholder communication and dissemination of project results.** A project stakeholder communication strategy is included in the project administration manual (PAM).[14] The strategy describes target audiences and media approaches, including public events and workshops. These activities will also serve to promote the project approach and lessons learned. The PIU will carry out these activities, with support from the project steering committee.

D. Cost Estimates and Financing Plan

18. The project is estimated to cost $3.2 million (Table 1). The Japan Fund for Poverty Reduction (JFPR) will provide a grant equivalent to $3.0 million, to be administered by ADB. Taxes and duties are included in the base cost. 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.

Table 1: Cost Estimates

Item	Amount[a]	Share of Total (%)
I. Grant Funding		
A. Base Cost[b]		
1. Community growers groups organized	371,350	12
2. Sustainable climate-resilient vegetable farming practices applied	711,600	24
3. Farmers' access to markets improved	779,200	26
Project management	643,188	21
Subtotal (A)	**2,505,338**	
B. Contingencies[c]	**494,662**	**16**
Total (A+B)	**$3,000,000**	**100**
II. Counterpart Funding[d]		
Office space, training venues, government staff time & expenses for project related activities, and VAT exemption	$196,295	
Total (I+II)	**$3,196,295**	
Administrative Budget Support[e]	**$90,000**	

[a] Base costs include taxes and duties. Value added tax exemption granted by the Government of Mongolia as part of counterpart contribution.
[b] In 2017 prices as of 12 March 2017. Includes purchase of one vehicle and four motorcycles.
[c] Maximum of 17% of the total project cost. Price contingencies have been included in all costs based on cost escalation factors of 3.9% for 2018, 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.
[d] In the form of in-kind contribution.
[e] This additional budget support for grant implementation is provided under the Japan Fund for Poverty Reduction's administrative budget and is exclusive of the grant amount. This budget will be used for staff consultant for additional implementation support and monitoring and evaluation, knowledge development and information dissemination, and facilitate community participation or civil society organization collaboration.
Source: Asian Development Bank estimates.

19. The financing plan is in Table 2. The JFPR financing is limited to expenditures eligible under the rules of the JFPR. The government will provide in-kind counterpart support specified in para. 18.

[14] Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Table 2: Financing Plan[a]

Source	**Amount** ($ million)	**Share of Total** (%)
Japan Fund for Poverty Reduction[b]	3.0	94.0
Government	0.2	6.0
Total	**3.2**	**100.0**

[a] For now, the financing plan does not include possible contributions by yet-to-be-determined sources such as international nongovernment organizations or voluntary groups. The figures are rounded off to one decimal place.
[b] Administered by the Asian Development Bank. Excludes categories of expenditures ineligible under the Japan Fund for Poverty Reduction financing rules. Project vehicle purchase will be done using grant funds as approved by the Japan Fund for Poverty Reduction on exceptional basis.
Source: Asian Development Bank estimates.

E. Implementation Arrangements

20. The project will be implemented over 4 years from January 2018 to December 2021. MOFALI will be the executing agency. A PIU will be established under MOFALI's Crop Policy Implementation and Coordination Department. A consulting firm, nongovernment organization, or entity will be engaged to help implement the project. A project steering committee will provide oversight to the activities of the PIU and ensure close coordination and national ownership. Procurement and consultant recruitment funded by the grant will follow 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).

Table 3: Implementation Arrangements

Aspects	**Arrangements**		
Implementation period	January 2018 to December 2021		
Estimated completion date	31 December 2021		
Estimated closing date	30 June 2022		
Management			
(i) Oversight body	Project Steering Committee		
(ii) Executing agency	MOFALI		
(iii) Key implementing agency	MOFALI		
(iv) Implementation unit	PIU at CPICD, five full time staff in Ulaanbaatar, four staff in project *soums*, and technical specialists		
Procurement	National competitive bidding	3 packages (7 contracts)	$970,119
	Direct contracting	3 packages (3 contracts)	$33,932
	Shopping for goods	6 packages (9 contracts)	$298,731
Consulting services	Individual consultant selection	5 person-months	$145,000
	Quality and cost-based selection	316 person-months	$473, 244
	Least cost selection	4 person-months	$35,114
	Single source selection	2 resource persons	$22,000
Advance contracting	Advertisement and selection of consultants to be done prior to grant effectiveness.		
Disbursement	The 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.		

ADB = Asian Development Bank, CPICD = Crop Policy Implementation and Coordination Department, MOFALI = Ministry of Food, Agriculture and Light Industry, PIU = project implementation unit.
Source: ADB estimates.

III. PROJECT FEATURES

A. Technical

21. The pilot project is an attempt to inject dynamism and innovation into a subsector long marked by slow change and institutional stagnation. The innovative element of the design is the community farming model that seeks to reconcile the advantages of coordinated action of a larger group with the entrepreneurial nature of vegetable growing that demands (and rewards) the initiative of each participating household. While community-based action has been introduced with increasing success into livestock herding in Mongolia, its application to farming (and vegetable farming) is new and not entirely proven. Yet the need to formulate alternatives to a discredited collectivized agriculture of the days past is pressing. The project is being implemented at a time of major technological, scientific, and management advances worldwide (in plant breeding, protection culture, use of renewable energies in farming to mention only some) that are changing the economics of vegetable production and have the potential to offset some of the climate and other handicaps faced by Mongolia's growers. The project will build on existing local experience but rapidly re-orient local communities to a value chain approach to vegetable production, and support this transition technically (through extensive training), and financially. The project anticipates rapid learning-by-doing and dissemination of new techniques and approaches.

B. Economic and Other Impacts, Financial Viability, and Sustainability

22. With some exceptions, vegetable farming has not been markedly profitable for growers in target project areas until now despite growing demand for vegetables by urban populations, and the current economic difficulties of the country are unlikely to permanently alter this trend. The project aims to increase income for farming households by growing production, increasing yields, and moving to more high value vegetables and more efficient use of resources. Currently across the project sites, annual average farmer household yields are at 7 tons fetching them an income of around $2,400 per household per annum. With project interventions, it is expected that household level produce will increase by at least 20% to around 8.5 tons per year with a corresponding increase in income by at least 30% bringing annual income up to at least $3,000.

23. The project aims to ensure that vegetable production becomes financially attractive since sustainability is limited without that. Given the direction of unpriced repercussions of vegetable production in Mongolia—unpriced benefits such as improved nutrition or greater convenience for consumers outweighing unpriced costs—a more profitable vegetable farming is desirable also from a broader and social point of view. The national policy is strongly supportive of the subsector recognizing its income-generating, diversification, and resilience-building potential. Another sustainable design measure under the project will be the establishment of a community growers scheme. The scheme will be fully funded by the project in the first 2 years, in year 3 and 4 when CGGs have higher harvest, the subsidy from the project will be reduced and an amount for group-level contribution will be agreed upon to ensure financial sustainability.[15]

C. Governance

24. Due diligence on the executing agency's financial management was conducted. The pre-mitigation financial management risk for the project is assessed as moderate. MOFALI has qualified in-house financial management structure that will provide financial and auditing oversight

[15] Contribution amounts will be determined based on group size and project infrastructure and equipment received. Project assets will be transferred to groups who will continue to make a financial contribution to the fund. See project administration manual implementation note for details.

and has experience in implementing donor-funded projects. A qualified accountant will be engaged under the PIU; and accounting software acceptable to ADB will be used, supported by hard copy records. ADB will provide training and intermittent mentoring to the PIU on ADB's financial management guidelines and procedures as and when needed.

25. Due diligence on the executing agency's procurement capacity has also been conducted and MOFALI's capacity risk has been assessed as moderate. A procurement specialist will be recruited under the PIU. MOFALI will establish a project procurement committee to review and approve procurement decisions. ADB will provide training and intermittent mentoring to the PIU on procurement guidelines and procedures.

26. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and MOFALI. The specific policy requirements and supplementary measures are described in the PAM.

D. Poverty and Social Impacts

27. 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 50% group members being women and all from poor and vulnerable households.[16] 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 vegetable 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.

28. 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 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 livelihood opportunities for women in non-traditional formation of farming groups under output 1 will ensure at least 50% representation of households classified as female.

E. Participatory Approach

29. 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.

[16] Poor households in the project are defined as farming households with 1 ha or less of land.

F. Development Coordination

30. Consultations have been held during project formulation with the Mongolian Farmers Association, the Mongolian Women Farmers Association, and some of Mongolia's development partners with a history of support of the agriculture sector, i.e., Japan International Cooperation Agency, the Swiss Development Corporation, and Groupe Energies Renouvellables, Environnement et Solidarité. ADB will coordinate closely with these development partners to support inclusive smallholder farming in Mongolia and build on the best of the available experience. The Embassy of Japan has been consulted extensively. Opportunities for close cooperation have been identified with Japan International Cooperation Agency.

G. Safeguards

31. The project will comply with ADB's Safeguard Policy Statement (2009) (SPS) as described below.

32. **Environment (category C).** Project preparatory activities confirmed that the project will have minimal or no adverse environmental impacts. There are no environmentally sensitive areas within the target locations and no significant civil works will be undertaken. New structures (community greenhouses, shared storage facilities) are small-scale and their operations present minimal environmental risks. These will be constructed within existing farm-lands or community lands. Most waste generated by the project beneficiaries will be of organic origin. The use of plastic for plant protection or packaging of produce is likely to increase but the total volume of waste will remain modest and its management addressed under project training. As to project benefits, use of agrochemicals will become more controlled in line with the general emphasis on greater efficiency in input use. Similarly, increased efficiency of water use is expected.

33. **Prohibited activities.** Pursuant to ADB's SPS, 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. All project activities will comply with applicable national laws and regulations.

34. **Involuntary resettlement and indigenous peoples (category C).** No involuntary resettlement or land acquisition is envisaged, as the farming activities will be conducted on existing farm lands 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 project does not trigger the SPS requirements on involuntary resettlement and indigenous peoples.

H. Risks and Mitigating Measures

35. The risks that the project faces and corresponding mitigating measures are summarized in Table 4. Overall, the project carries a relatively low risk as: (i) ADB has a sound record in natural resource management in Mongolia, (ii) MOFALI is experienced in implementing projects under ADB administration procedures, (iii) procurement of goods and services is expected not to be particularly complex (and is classified as B), (iv) no significant safeguard concerns exist (all ADB safeguard categories are C), and (v) project activities are a modification and expansion of existing practices rather than an introduction of something completely new. Nevertheless, there are some risks which can be anticipated and mitigated as described in Table 4.

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Financial management and administration of the project can be complex and demanding.	A financial management action plan has been prepared identifying concrete steps to be taken by the implementing agency and ADB to ensure sufficient capacity. PIU will engage an accountant and a procurement specialist. Training in ADB procurement policies will be conducted as relevant.
Storage structures or greenhouses used for unintended purposes.	Operating rules of CGGs make such an outcome unlikely as they introduce group oversight. In any event, PIU's regular monitoring would be expected to put an end to such practices.
Moral hazard associated with the use of a common pool of resources (e.g., "free-riding", uncertain discipline, unwillingness to contribute to the community fund).	Ways of addressing these risks will be among the topics tackled during the setting up of CGGs and associated training. Provisions will be made in CGG operating rules for excluding persistent offenders from their CGG.

ADB = Asian Development Bank, CGG = community grower group, PIU = project implementation unit.
Source: ADB.

IV. ASSURANCES

36. The government and MOFALI have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and the grant agreement.[17]

V. THE PRESIDENT'S DECISION

37. The President, acting under the authority delegated by the Board, has approved the administration by ADB of the grant not exceeding the equivalent of $3,000,000 to Mongolia for the Community Vegetable Farming for Livelihood Improvement Project, to be provided by the Japan Fund for Poverty Reduction.

Takehiko Nakao
President

4 December 2017

[17] Legal document to be signed by the government and Asian Development Bank.

DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned with Rural livelihood for smallholder vegetable farmers improved[a] Resilience and adaptation to climate change improved[a]			
Results Chain	**Performance Indicators with Targets and Baselines**	**Data Sources and Reporting Mechanisms**	**Risks**
Outcome Model for community vegetable farming demonstrated	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 *Soum* 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
Outputs 1. Community growers groups established	By 2019: 1a. 30 CGGs registered with *soum* 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 *bagh* or *soum* administration trained under the project Out-migration of farmers from project areas
2. Sustainable climate-resilient vegetable farming technology and practices applied	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)	2a–2d. Quarterly progress/ implementation reports produced by PIU 2a–2d. ADB review mission reports	Storage structures or greenhouses used for unintended purposes Severe weather conditions limiting implementation of project activities or

	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)		damaging project infrastructure Lack of know-how and experience among farmers to operate new technologies and applying efforts
3. Farmers' access to markets improved	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%) 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 producers households trained in processing and marketing (of which at least 50% are women) (Baseline 2017: 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 *soums* at the end of the project (Baseline 2017: 0)	3a–3f. Final project completion report 3a–3f. 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 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 (Q1 2018).
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 (Q1–Q4, 2018).
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.) (Q1 2018).
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, 2018).

1.5. Formulate community growers action plans (Q4 2018).
1.6. Establish the community growers scheme (Q4 2018).

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 2019).
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, 2019).
  (i) At least 72 greenhouses in three vegetable growing *soums* (Bornuur, Orkhon, Yeruu);
  (ii) At least one greenhouse in Uvs for testing seed and propagating;
  (iii) Pilot one winter greenhouse in one *soum*; and
  (iv) Training for best practices in greenhouse operations, including the use of water and energy.
2.3. Improve water access and usage of existing irrigation sources for seed CGGs in Ulaangom (Q1 2019).
2.4. Train 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 2019).

Output 3: Farmers' access to markets improved
3.1 Conduct a market study and value chain analysis (Q1–Q2 2018).
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 2019).
3.3 Pilot one vegetable processing and packaging workshop for value addition in Orkhon *soum* (Q3 2019).
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 (Q4 2019–Q4 2020).
3.5 Pilot and establish various sales channels in all project sites (Q1 2020–Q2 2021).
  (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 2018).

Project Management Activities
Recruit consultants for project management unit by month 2.
Establish a PIU to support grant implementation and technical capacity of MOFALI by month 3.
Screen and conduct due diligence for small infrastructure by month 18.
Monitor and evaluate project impact, outcome, and outputs using the project performance management system; submit semi-annual progress reports until year 2021.
Prepare inception (Q2 2018), midterm (Q4 2019) and final (Q4 2021) reports.

Inputs
Japan Fund for Poverty Reduction: $3.00 million; counterpart in-kind: $0.20 million.

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.

ADB = Asian Development Bank, CGG = community grower group, 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.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/RRPs/?id=50278-001-2

1. Grant Agreement
2. Project Administration Manual
3. Summary Poverty Reduction and Social Strategy
4. Gender Action Plan

Supplementary Documents

5. Japanese Visibility
6. Specific Coordination Details with the Local Embassy of Japan and Japan International Cooperation Agency