Mongolia: Community Vegetable Farming for Livelihood Improvement

Project Name: Community Vegetable Farming for Livelihood Improvement  
Project Number: 50278-001  
Country: Mongolia  
Project Status: Active  
Project Type / Modality of Assistance: Grant  
Source of Funding / Amount:
- Grant 9192-MON: Community Vegetable Farming for Livelihood Improvement  
  - Japan Fund for Poverty Reduction  
  - US$ 3.00 million  
- Grant 0684-MON: Community Vegetable Farming for Livelihood Improvement  
  - High Level Technology Fund  
  - US$ 500,000.00

Strategic Agendas:
- Environmentally sustainable growth  
- Inclusive economic growth

Drivers of Change:
- Governance and capacity development  
- Knowledge solutions  
- Partnerships

Sector / Subsector:
- Agriculture, natural resources and rural development - Agricultural policy, institutional and capacity development - Agricultural production

Gender Equity and Mainstreaming:
- Gender equity

Description:
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 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.

The additional financing from the High-Level Technology Fund (HLTF) was requested for the design, testing, and rolling out of one HLT winter greenhouse, particularly envisioned to be utilized for (i) consulting advisory for (a) a rapid assessment and technical viability study of the different types of winter greenhouse models 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 HLT 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. The project will strengthen women’s capacity and participation in vegetable value chain activities; and they are expected to significantly benefit from HLT greenhouse practices training provided by the project. 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.
Project Rationale and Linkage to Country/Regional Strategy

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 and lessen the disproportionate dependence on livestock, and recently in the last few decades, agriculture, including smallholder vegetable farming, has become a priority. Within agriculture more broadly, investments in vegetable farming, processing, and marketing are considered particularly promising in improving the well-being of Mongolia’s local communities. Gradually creating alternative income opportunities to traditional livestock farming, vegetable farming is now seen as an important route to nearer self-sufficiency 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 2016 to 2018. No more than three in ten (i.e., sadness, caring, and turmoil) account for close to 70% of overall area planted to vegetables. The demand for good quality locally grown fresh produce is on the rise as urbanization increases and better-informed citizens 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.

Limited access to market and foregone income generating opportunities. It is difficult for farmers to access markets with good terms and they are often constrained 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 post-harvest storage of the sector as they result in marked seasonal price variations. To add to the above, vegetable producers do not have access to adequate 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 other post-harvest processing leads to significant post-harvest losses, reducing experience and knowledge through post-harvesting value-added opportunities and marketing, smallholder farmers will have better access to markets, negotiation power and more secure income.

Inefficient agricultural practices and the difficulty 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 consequently 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 with inefficient water use and 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. 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. Typically, however, are fragmented smallholdings of up to 5 ha characterized by limited workforce, 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.

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 vegetable 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 Bomur, Otkhon, Ulaanomg, 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. 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. The State Policy stresses vegetable productivity through a value chain approach, climate change adaptation, and capacity building for smallholder. 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 plasticculture) 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 (MOFA) sector priorities. 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. The project will serve as a pilot for scaling up under a climate-smart agriculture loan programme for 2019. It is proposed as a grant in ADB’s country operations business plan for Mongolia, 2017-2019.

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 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 in establishing viable management systems). Crop, too, has struggled with water scarce, 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 (past 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.

The project draws on lessons from agriculture sector initiatives undertaken in Mongolia. First, the need to reap economies of scale and benefits of shared learning are well understood; there is reluctance among target households or re-formalized collective structured in vegetable production. This stems from past experience of socialist collectives which were top-down, imposed on all and very large scale. Second, similar, more efficient agricultural groupings of growers that increase farmer incomes are preferred. Third, exporters who benefit from the value chain opportunities for expanding and sustaining growing patterns, 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.

Impact

Rural livelihood for smallholder vegetable farmers improved
Resilience and adaptation to climate change improved

Project Outcome

Description of Outcome

Model for community vegetable farming demonstrated

Progress Toward Outcome

The grant agreement was signed on 14 December 2017 and became effective on 28 March 2018. ADB approved the selection of project implementation unit (PIU) staff on 10 October 2018. The project advance account has been opened and advance of $0.2 million was disbursed in December 2018. ADB fielded an inception mission on 22-23 March 2019. The PIU equipment and furniture have been awarded in March 2019. The implementation support firm was mobilized in May 2019. Project Steering Committee meetings were held on 21 March 2019 and 15 October 2019. The Grant 0684-MON associated to the project was approved by ADB on 12 February 2020. The grant agreement was signed on 19 May 2020 and became effective on 12 August 2020. A virtual pre-award mission was conducted on 3 September 2020.

Implementation Progress

Description of Project Outcomes

Community growers groups established
Sustainable climate-resilient vegetable farming technology and practices applied
Farmers access to markets improved

Status of Implementation Progress (Outputs, Activities, and Issues)

Provided with the necessary agricultural equipment and greenhouses for all CGGs. As a result, technologies and techniques for sustainable climate-resilient vegetable farming have been applied 66% of summer greenhouse distributed by women, All CGGs developed technical operation and maintenance regulations for accessing farm infrastructure. They are all accessing the equipment, Seed production and availability has increased in all project soums. The project contracted CGGs specialized in seed multiplication in Ulaangom soum and purchased 1,016 kg of 7 vegetable seed types which were distributed to all CGGs in March 2020.As of 2019, 39 CGGs are registered with soum governor.As of 2019, 39 CGGs have signed community farming plans and laws. As of 2019, all CGGs have 53.5 % female membership (561 female over 1,048 members).

Geographical Location

Nation-wide

Safeguard Categories
An initial environmental assessment (IEA) was done at the proposed site for construction of winter greenhouses in Ulaangom soum of Uvs aimag and Yuruu soum of Selenge aimag by the aimag’s Environment and Tourism Department (ETD) in December 2019. The ETD supported the proposed construction of winter greenhouses and issued recommendations, in accordance to the Environmental Protection Law of Mongolia on surface and ground water, soil and vegetation, ambient air, potential damage to soil, pollution to water, soil, and air, noise, vibration, emission of chemicals and radiation, removal of wastes, and safety. These recommendations were reflected in the Generic Environmental Management Plan (GEMP) as specified in the project administration manual and updated with findings/recommendations of the IEA. The environmental impact monitoring plan, GEMP performance monitoring plan and environmental safeguards reporting plan are included in the GEMP.

**Involuntary Resettlement**

**Indigenous Peoples**

**Stakeholder Communication, Participation, and Consultation**

**During Project Design**

**During Project Implementation**

**Business Opportunities**

**Consulting Services**

All ADB-financed consultants will be hired following ADB’s Guidelines on the Use of Consultants (2013, as amended from time to time).

**Procurement**

All ADB-financed procurement will be conducted following ADB’s Procurement Guidelines (2015, as amended from time to time). A procurement agency will be hired to conduct procurement on behalf of the PMO and implementing agencies.

**Responsible ADB Officer**

Hinrichs, Jan F.

**Responsible ADB Department**

East Asia Department

**Responsible ADB Division**

Environment, Natural Resources & Agriculture Division, EARD

**Executing Agencies**

Ministry of Food, Agriculture, and Light Industry (MOFALI)

Strategic Planning and Policy Department

MOFALI, Peace Avenue, Ulaanbaatar, Mongolia

**Timetable**

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**Grant 0684-MON**

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Project Page: https://www.adb.org/projects/50278-001/main
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