

# Facility Administration Manual

Project Number: 49430-005  
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## Mongolia: Aimags and Soums Green Regional Development Investment Program

## ABBREVIATIONS

ADB	–	Asian Development Bank
ALAMGAC	–	Agency for Land Management and Administration, Geodesy and Cartography
AMC	–	Development Bank of Mongolia Asset Management SC LLC
APIU	–	<i>aimag</i> project implementation unit
CAHW	–	community-based animal health worker
COVID-19	–	coronavirus disease
CPP	–	community participation in procurement
DBM	–	Development Bank of Mongolia
EIB	–	European Investment Bank
EMP	–	environmental management plan
ESMS	–	environmental and social management system
FAM	–	facility administration manual
FIL	–	financial intermediation loan
FMA	–	financial management assessment
GCF	–	Green Climate Fund
GHG	–	greenhouse gas
GIRAF	–	green and inclusive regional agribusiness fund
GRM	–	grievance redress mechanism
LCADP	–	low-carbon and climate-resilient agribusiness development plan
LCLVC	–	low-carbon and climate-resilient livestock and agrobusiness value chain
MCUD	–	Ministry of Construction and Urban Development
MED	–	Ministry of Economy and Development
MET	–	Ministry of Environment and Tourism
MFF	–	multitranche financing facility
MOFALI	–	Ministry of Food, Agriculture and Light Industry
MRV	–	measurement, reporting, and verification
NAMEM	–	National Agency for Meteorology and Environmental Monitoring
NFPUG	–	National Federation of Pasture User Groups
NMLP	–	National Mongolian Livestock Program
O&M	–	operation and maintenance
PIHMP	–	participatory and inclusive herd management plan
PIU	–	project implementation unit
PPMS	–	project performance management system
PUG	–	pasture user group
QCBS	–	quality- and cost-based selection
RUA	–	rangeland use agreement
SGAP	–	social and gender action plan
SMEs	–	small and medium-sized enterprises
SOE	–	statement of expenditures
TOSK	–	State Housing Corporation
UNDP	–	United Nations Development Programme

## WEIGHTS AND MEASURES

Gcal	–	gigacalorie
ha	–	hectare
km	–	kilometer
m <sup>3</sup>	–	cubic meter
m <sup>3</sup> /d	–	cubic meter per day
m <sup>3</sup> /h	–	meter per hour
MW	–	megawatt
tCO <sub>2</sub> e	–	tons of carbon dioxide equivalent

## GLOSSARY

<i>aimag</i>	–	province
<i>dzud</i>	–	succession of droughts and severe winters
<i>ger</i>	–	yurt or traditional dwelling
<i>soum</i>	–	subunit of an <i>aimag</i>

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### **Facility Administration Manual Purpose and Process**

The facility administration manual (FAM) describes the essential administrative and management requirements to implement the program on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The FAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the FAM.

The executing and implementing agencies are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the FAM and ensure consistency with the loan and grant agreements. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the FAM and the loan and grant agreements, the provisions of the loan and grant agreements shall prevail.

After ADB Board approval of the project's report and recommendation of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the FAM.



## I. PROGRAM DESCRIPTION

1. The program represents a fundamental paradigm shift in applying a transformative model to promote green territorial development and urban–rural linkages, whereby livable human settlements—*aimag* (province) and *soum* (subunit of an *aimag*) centers—become anchors of green agribusinesses that promote sustainable, resilient, and high-carbon sequestration rangeland management. Initially focusing on Mongolia’s western *aimags*, the program will promote climate finance and private sector investment mechanisms that can be replicated countrywide.

### A. Rationale

2. In 1990, upon disengaging from the Soviet Union, Mongolia entered a transitional period. *Aimag* and *soum* centers were unable to play their role as anchors of rural economy.<sup>1</sup> Herders started to migrate to urban areas in response to (i) the low value of livestock; (ii) higher exposure of their animals to disease because of poor livestock breeding, feed supply, and veterinary services; and (iii) the impact of climate change, especially the increase of extreme weather such as *dzud* (succession of droughts and severe winters), causing massive losses of livestock, particularly during 2000–2001 and in 2010. The loss of large quantities of livestock during the past *dzud* illustrates the vulnerability of herders and the severe impact of extreme climate events on national livestock assets. During the *dzud* of 2000–2001, 25% of Mongolia’s livestock perished. From 1999 to 2003, about 180,000 people migrated to Ulaanbaatar, having lost their livelihoods to the severe winters, and started to settle on the outskirts of Ulaanbaatar and in *aimag* centers overwhelming the capacity of cities to absorb them; and formed vast substandard settlements, known as *ger* areas, which account for about 60% of Ulaanbaatar’s population and more than 70% of the population of *aimag* centers.<sup>2</sup> In 2021, the urbanization ratio in Mongolia represented about 69.4% of the country’s 3.4 million population. This caused urban systems, already exceeding their planned service life, to further deteriorate and become undersized to meet existing and future needs for Mongolia’s growing urban population.<sup>3</sup> With 1.6 million population, Ulaanbaatar accounts for 69% of the urban population, and 63% of gross domestic product. The demographic and economic weight of the capital city illustrates the country’s drastic territorial imbalance.

3. The combination of herders expanding herd size to compensate for anticipated livestock losses (especially from *dzud*), open access to pasture, unbalanced herd composition (with a high proportion of goats which are particularly destructive to rangelands but can generate good income from cashmere), and poor rangeland management practices has put Mongolia’s rangelands, which covers 82% of the country, under severe threat. In addition, climate change has reduced the productivity of rangelands, affected glacier-fed water regimes, and increased exposure of

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<sup>1</sup> *Aimag* center refers to the *aimag* capital. Except for Darkhan and Erdenet (each with about 80,000 people), the population of most *aimag* centers ranges from 15,000 to 40,000. *Soum* center refers to the main town in a *soum*. Inter-*soum* centers refer to *soum* centers of strategic and economic importance within an *aimag*, with populations ranging from 2,000 to 10,000.

<sup>2</sup> *Ger* areas are settlements characterized by loosely aligned plots, irregular and unpaved pathways, and poor access to basic infrastructure. Poorly insulated detached solid houses and *ger* tents use inefficient coal stoves that produce heavy carbon dioxide emissions and air pollution, especially during winter.

<sup>3</sup> In *aimag* and *soum* centers, gaps between supply and demand for urban services are mainly caused by (i) underperforming urban systems with limited operation and maintenance (O&M) resources; (ii) lack of drainage and flood protection infrastructure; (iii) a stagnating economic situation that constricts infrastructure investment; (iv) overcrowded public buildings in poor condition (e.g., for education, government, and health services), especially in *soum* centers; and (v) lack of provision for affordable housing.

herders and the animal husbandry sector to climate-related natural hazards.<sup>4</sup> Overgrazing is on average 22.6% above the rangeland carrying capacity, and as a result, about 70% of pastoral land has been degraded.<sup>5</sup> The situation has impacted livestock productivity and made herds more vulnerable to climate events and disease, resulting in deteriorating quality of meat, wool, and other livestock products and lower incomes for herders, who compensate by further increasing herd sizes.<sup>6</sup> This vicious cycle has led to uncontrolled and exponential increases of livestock heads. While livestock numbers ranged from 20 million to 25 million heads during 1970–1990, it has reached 66.5 million in 2018 and 71.1 million in 2022.<sup>7</sup> Ongoing rangeland degradation is also associated with considerable reduction of above- and below-ground biomass, and lessening the carbon storage capacity of soil. Improving rangeland management thus offers huge climate change mitigation prospects. It is estimated that Mongolia can avoid emissions of more than 440 million tons of carbon dioxide equivalent (tCO<sub>2</sub>e) over the next 20-year period from soil carbon sequestration.<sup>8</sup>

4. During the last decade, the Government of Mongolia has set policies and objectives to reverse overgrazing trends and reduce overall livestock numbers to sustainable levels. However, those attempts failed to reverse the exponential increase of animals and overcome complex and interrelated barriers inherent to the livestock industry.<sup>9</sup> The Swiss Agency for Development and Cooperation through the Green Gold project has established pasture user groups (PUGs) and rangeland use agreements (RUAs) to strengthen traditional user groups of herders for inclusive and improved grazing management of common seasonal rangelands.<sup>10</sup> Green Gold project activities were gradually handed over to the National Federation of Pasture User Groups and the *Aimags* Federation of Pasture User Groups. Yet, few RUAs have been officially registered and even fewer stocking adjustment rates have been formulated.<sup>11</sup> PUGs lack incentives and marketing opportunities to sell animals and reduce herd sizes. The lack of well-functioning cooperatives, certification systems, and linkage with agriculture value chain led to a dearth of quality livestock raw materials and failure to establish sustainable mechanisms to reduce herds and ensure sustainable rangeland management.

5. **Weak small and medium-sized enterprise development.** Development of small and medium-sized enterprises (SMEs) in Mongolia is constrained by unaffordable interest rates and short-term loans; high and rigid collateral requirements, especially for immovable assets; overly

<sup>4</sup> Based on Mongolia's updated National Determined Contribution, November 2019, the frequency of extreme weather phenomena has doubled in the last 2 decades. This is expected to increase by 23%–60% by the middle of the century as compared to present conditions.

<sup>5</sup> Data from the 2017 National Mongolian Livestock Program (NMLP), the National Statistical Office (NSO) of Mongolia, and *soum*-level datasets of the Ministry of Food, Agriculture and Light Industry (MOFALI).

<sup>6</sup> NSO indicates that two-in-five herder families live in poverty. If the situation continues, more herder families will be pushed into poverty, eroding national food security and contributing to turning rangelands into deserts.

<sup>7</sup> Livestock data from NSO. [Mongolian Statistical Information Service](#) (accessed January 2022).

<sup>8</sup> Carbon sequestration is the process of capturing and storing carbon dioxide. It reduces the amount of carbon dioxide in the atmosphere, contributing to the mitigation of global climate change.

<sup>9</sup> The rapid growth of animal husbandry since 2010 has caused numbers to exceed the NMLP targets. The NMLP target for sheep heads unit for 2021 is 79.7 million while the actual number for 2021 was 117.6 million, exceeding the target by 48%. Sheep head unit is commonly used to convert the grazing impact of animals to a sheep equivalent.

<sup>10</sup> Swiss Agency for Development and Cooperation. 2021. [Sustainably Managed Pastures and Healthy Animals: Mongolia's 'Green Gold'](#). RUA is a collective and voluntary agreement between a group of herders and the *soum* government that is (i) legally recognized and registered by the Agency for Land Management and Administration, Geodesy and Cartography and the Ministry of Justice and Home Affairs; and (ii) socially and politically accepted by all parties. To be legally registered and binding, it must include five annexes with information such as herd size, composition, pasture use, state of rangeland, and carrying capacity.

<sup>11</sup> Stocking adjustment rate is the number of animal units set at or below the carrying capacity of a certain land area.

complicated administrative procedures; and low financial literacy of SME borrowers.<sup>12</sup> In remote *aimags*, SMEs lack access to appropriate urban and economic services. Local agricultural enterprises and value chains suffer from weak finance ecosystems; dominance of large agribusiness companies based in Ulaanbaatar; low entrepreneurial skills; and lack of start-up capital and support to access available financing, affordable financing products, and supportive national program and policies. These challenges impede agribusiness investments at the point-of-need, preventing job creation and local development, which are required to promote economic diversification, counterbalance Mongolian's overdependence on mining, and reverse the flow of migration to Ulaanbaatar.

6. The weak agribusiness SMEs development and the lack of quality and sustainably certified agricultural product both prevent capturing the (i) growing domestic demand in higher-quality and greener meat product mainly in urban areas and especially in Ulaanbaatar; (ii) large export potential for green and sustainably certified agricultural products coming from sizable markets demand such as the People's Republic of China, the Russian Federation, Central Asia Countries, Japan, Iran, and Viet Nam; and (iii) growing demand from developed country markets for sustainably certified cashmere and wool products.

7. **Western *aimags*.** The western *aimags* of Bayan-Ulgii, Khovd, and Uvs have fragile ecosystems and rely heavily on mountain pastureland, high mountain water flow, and oases. The population and environment of these three *aimags* are particularly vulnerable to climate change. Melting permafrost and glaciers, rising temperatures, and changing precipitation patterns are severely affecting the composition and distribution of water resources. The overgrazing rate in the western *aimags*, estimated at 27.4% more than the carrying capacity, is five percentage points higher than the national average. The lack of investment in the three western *aimags* has left them isolated and underequipped, despite (i) being a strategically important trade and western development link along Central Asia Regional Economic Cooperation corridor 4a; (ii) the importance of the area in balancing Mongolia's territorial development and boosting regional trade; and (iii) the prominence of animal husbandry in employment (it accounts for about 38%–51% of total employment).

8. **Government road map.** The government is fully aware of the severity of the situation and has formulated Vision 2050, a two-stage framework supported by the Asian Development Bank (ADB), to guide long-term development and promote human development, quality of life, green development, and sustainable regional development.<sup>13</sup> The New Recovery Policy of the government aims to create the conditions to reach the objectives of the first implementation stage (2021–2030) of Vision 2050.<sup>14</sup> It promotes Recovery of Operations of Border Ports, Energy Recovery, Industrial Recovery (especially through supporting agrobusiness industry development and increased value-added of local agro-processing industry for domestic and export markets), Urban Rural Recovery (especially through supporting the development of regional clusters, reversing migration to Ulaanbaatar, and decreasing the Capital City congestion); and Recovery through Green Development (especially through sustainable rangeland management and green urban development), and Recovery of Public Productivity. Finally, following the food security and

<sup>12</sup> As of December 2022, the average interest rate for SME business loans was 17.3%—much higher than the Bank of Mongolia's policy rate of 13.0%. Banks require collateral to guarantee a loan in 99.7% of cases, and collateral value required is about 200.0% of the loan's value on average.

<sup>13</sup> State Great Khural. 2020. *Vision 2050: Long-Term Development Policy of Mongolia*. Ulaanbaatar. The two-stage national comprehensive development plan (2021–2030 and 2030–2050) was formed with the support of ADB. [Mongolia: Human Settlements Development Program](#); and the Japan International Cooperation Agency's Regional Development Policy.

<sup>14</sup> Enacted by the Act of Parliament No.106 dated 30 December 2021.

promoting food supply resolution of the Parliament,<sup>15</sup> the government, through the Ministry of Economy and Development (MED), has developed a national food safety and sustainable food supply strategy based on Mongolia's specific climatic, geographical, and local resources conditions using an integrated planning approach aiming to upgrade agricultural production, supply, and logistic clusters in selected *soums*.<sup>16</sup> Ministries have developed sector plans and policies to support and guide the implementation of the road map.<sup>17</sup> The Ministry of Construction and Urban Development (MCUD) and the MED are implementing territorial and regional development studies that formulate key strategic directions for *aimag* development and priority public and private investments. The Ministry of Food, Agriculture and Light Industry (MOFALI) formulated the State Policy on the Food and Agriculture Sector (2016–2025), 2015. The Mongolian Herders National Program, 2020; and the Mongolia Livestock II Program (2022–2024).<sup>18</sup> Finally, Mongolia's Third National Communication drives the national climate action plan.<sup>19</sup> The program is included in the public investments plan of Mongolia's Five-Year Development Guidelines (2021–2025).<sup>20</sup>

9. **Program priorities and approach.** Implementing the comprehensive government road map in *aimags* and *soums* will help arrest the vicious cycle of interrelated and mutually reinforcing sector bottlenecks (para. 3), further aggravated by the coronavirus disease (COVID-19) crisis and the Russian invasion of Ukraine, which generated exogenous shocks that adversely impact Mongolian economy. In this context, a piecemeal, short-term, or single sector-oriented approach would be unsustainable and insufficient. For example, investing solely in infrastructure in a stagnating economic context would be inefficient and would not promote a functional and dynamic urban development process. Providing financial support for agriculture and livestock husbandry while failing to address lagging infrastructure, complicated SME administrative services and the problem of poor animal value would not be enough. Supporting better management of natural resources would be unsustainable and less effective without parallel provision of services for herders and support for market links to promote inclusive and green value chains. Finally, promoting agricultural trade and ensuring sustainable food supply implies improving livestock health and promoting transboundary sanitary and phytosanitary measures, such as veterinary regulated quarantine zones. Through its comprehensive and multisector long-term approach, the multitrance financing facility (MFF) program of ADB will ensure that real transformation takes place within rural communities, motivated and sustained by low-carbon and climate-resilient livestock and agrobusiness value chains (LCLVCs), with livable *aimag* and *soum* centers acting as anchors for private sector investment.<sup>21</sup> The MFF program will incorporate this approach into

<sup>15</sup> On 17 June 2022, the parliament ratified a resolution on ensuring food security and promoting food supply, which includes the following key measures: (i) promote export-oriented food production and increase food production to reduce dependency on imported food; (ii) improve standards, quality controls, innovation, and M&E mechanism in food production, storage, transportation, and trade; (iii) increase domestic supply of fodder and forage; (iv) promote irrigated agriculture production; (v) develop agro-industrial parks for establishing cluster-based agriculture value chains; (vi) improve livestock sanitary condition and improve pastureland management; and (vii) support domestic food processing.

<sup>16</sup> This includes 10 *soums* located in the western region.

<sup>17</sup> The two-stage national comprehensive development plan (2021–2030 and 2030–2050), was formed through the support of ADB. [Mongolia: Human Settlements Development Program](#); and the Japan International Cooperation Agency's Regional Development Policy.

<sup>18</sup> MOFALI Minister Order No. A/177, June 2022, following the Mongolian National Livestock Program.

<sup>19</sup> Ministry of Environment and Tourism. 2018. *Mongolia Third National Communication under the United Nations Framework Convention on Climate Change*. Ulaanbaatar.

<sup>20</sup> State Great Khural. 2020. *Public Investment Program 2021–2025 (Attachment 2)*. Ulaanbaatar.

<sup>21</sup> LCLVC means that the full range of herders, herder groups, agrobusinesses, cooperatives and firms and their successive coordinated value-adding activities that transform agricultural raw material, especially livestock derived materials into food, beverage, fiber, animal skin, and leather products that are sold to final consumers and disposed

a regional development strategy and develop a green agro-territorial<sup>22</sup> model supported by policy reforms and institutional strengthening at both the local and national levels and building on agricultural production, supply, and logistic clusters model formulated by MED.

10. **Policy framework.** Aligning with the long-term strategic development objectives of the road map, the program will follow integrated and synergetic guiding principles for its policy framework,<sup>23</sup> capacity development, and investment outputs: (i) inclusive and green urban–rural transformation, through improved living conditions and performance of priority urban settlements as anchors for local economic development, to attract LCLVC investments at the point-of-need and reconnect urban and rural economies; (ii) sustainable, climate-resilient, and low-carbon rangeland management, driven by incentives to encourage better rangeland management practices, grassroots organization, and transitional support for herders; improve animal feed, breeding, and health to support more productive and quality animals; reverse ecosystem degradation and increase its capacity for carbon sequestration; enhance rangeland and herder communities’ resilience to climate change; and, by improving resource efficiency and food production, improve food security despite the adverse impacts of climate change; (iii) well-functioning and inclusive LCLVCs (that provides stakeholders with services to sustain their activities while minimizing their carbon footprint, supporting sustainable management of natural capital, and promoting climate adaptation), hinged on accessible and responsive financial and non-financial support for herders, SMEs, and other stakeholders involved in the agriculture sector operating in the *aimag* and inter-*soum* centers; and (iv) improved planning, capacity, knowledge, and institutions, especially for all the stakeholders of the agriculture sector, to support transformational low-carbon, climate-resilient, and inclusive territorial development plans and policies.

11. **Strategic context.** The strategic context and long-term support of the road map (i) is consistent with ADB’s country partnership strategy for Mongolia, 2021–2024,<sup>24</sup> especially with its post–COVID-19 recovery action plan, and will contribute to overcoming economic contraction and exacerbated inequalities to promote sustainable economic growth, diversification, and inclusiveness; (ii) is aligned with the seven operational priority plans of ADB’s Strategy 2030;<sup>25</sup> and (iii) supports Central Asia Regional Economic Cooperation 2030 and its Common Agenda for Modernization of Sanitary and Phytosanitary Measures for Trade by contributing to agricultural trade and regional public goods, mitigating desertification and climate change, and containing transboundary animal health problems.<sup>26</sup>

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after use, in a manner that is profitable throughout the chain, promotes rangeland regenerative practices, respects constraints imposed by available and shrinking water resources, reduces GHG emissions, and increases soil carbon sequestration.

<sup>22</sup> A territorial approach aims to realize the potential of a territory through strategic management of the relationship between economic development, social inclusion, and environmental sustainability. The goal of agro-territorial development is to link smaller cities and towns with their rural “catchment areas” and improve access to food and income opportunities for the urban and rural poor. Food and Agriculture Organization of the United Nations. 2017. [Development Economics Policy Brief: Strong Rural–Urban Linkages are Essential for Poverty Reduction](#). Rome.

<sup>23</sup> The policy framework is outlined in the Framework Financing Agreement (FFA) (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President [RRP]), and details are in Appendix 8 of this Facility Administration Manual (FAM).

<sup>24</sup> ADB. 2021. [Country Partnership Strategy: Mongolia, 2021–2024—Laying Resilient Foundations for Inclusive and Sustainable Growth](#). Manila.

<sup>25</sup> ADB. 2018. [Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#). Manila.

<sup>26</sup> ADB. 2017. [CAREC 2030: Connecting the Region for Shared and Sustainable Development](#). Manila.

## B. Impact and Outcome

12. The investment program is aligned with the following impact: green development, regional development sustainability, quality of life, and human development achieved (footnote 13). The investment program will have the following outcome: green and inclusive agro-territorial development advanced.<sup>27</sup>

## C. Outputs

13. **Output 1: Climate-resilient, low-carbon, and attractive *aimag* and *soum* centers developed.** This output will target development of priority infrastructure and services to support the transition of targeted *aimag* and inter-*soum* centers into anchors for LCLVC investments. It will address *aimags* and *soums* infrastructure gaps to support green agribusiness development and the agriculture sector based on the locations for agricultural logistics and supply centers, industries, and clusters identified by MED. It will employ a comprehensive and integrated approach to address urban service deficiencies (such as district heating, drainage and flood protection, power, roads, social facilities, waste collection and treatment, wastewater treatment, and water supply) and improve the living conditions in *aimag* and inter-*soum* centers. The output will promote low-carbon solutions through the use of renewable energy and energy-efficient urban services and buildings. In each targeted *aimag* and *soum* center, an agro-industrial park dedicated to LCLVCs will be developed, including utilities to attract processing activities and an incubator center.<sup>28</sup> Finally, a smart land management center will improve land and urban management; and monitor rangeland health (rangeland health refers to the set of environmental conditions that sustain rangeland productivity and biodiversity), water availability, and soil carbon sequestration.

14. **Output 2: Climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented.** This output will support climate vulnerable herder groups and empower them with sustainable livestock and agricultural management practices (e.g., improved grazing practices, balanced herd composition, reduced herd size, and improved animal breeding) to reverse rangeland degradation while producing high-value agricultural products. It will (i) support the implementation of community-based investment projects for participating herder groups belonging to PUGs that have signed RUAs and are included in the participatory and inclusive herd management plan (PIHMP); (ii) provide financial support to cooperatives of participating PUGs; (iii) establish a certification system and process; and (iv) provide incentives to reduce herd sizes, improve livestock commercialization, create an adequate herd structure, improve livestock breeding, and increase fodder production.<sup>29</sup> Primary works for irrigated perimeters and water conservancy solutions will enable the expansion of fodder production and increase herders' capacity to cope with water shortages induced by climate change. Animal health and veterinary services will be strengthened at each level of the agribusiness value chain to develop a reliable animal health control and traceability system. This includes supporting the construction of veterinary laboratories in the location identified by MED to

<sup>27</sup> The design and monitoring framework is in Section IX.

<sup>28</sup> Agro-industrial parks will boost food exports and local economies by bringing processing facilities to the point-of-need (thereby shortening processing circuits, decreasing the carbon footprint of livestock value chains, and tightening geographic and economic integration between herders, rangeland management, and the food industry). Agricultural production, supply, and logistic clusters identified by MED will be prioritized.

<sup>29</sup> The PIHMP identifies and prioritizes short- to medium-term investments and activities to improve rangeland management, herd quality, and the livelihoods of PUG members. The RUA is one of its components.

support agricultural production, supply, and logistic clusters.<sup>30</sup> Critically, the certification system and improved animal quality and health will attract LCLVC investments; link certified herders, cooperatives, and PUGs; and herders' livelihoods will be improved on a sustainable basis through share of profits from processing activities which will compensate them for maintaining lower herd size.

**15. Output 3: Accessible financing for low-carbon and climate-resilient livestock and agrobusiness value chains created (financial intermediation loan component).** This output will establish a green and inclusive regional agribusiness fund (GIRAF) to provide climate-smart financial mechanisms and institutions to overcome the financial bottlenecks of agribusiness SMEs in the targeted areas especially in the agricultural production, supply, and logistic clusters defined by MED<sup>31</sup> by (i) loans with affordable interest rates, longer grace periods and tenors, higher values, and a customized repayment plan that take into account the production cycle and its seasonality to help SMEs overcome the financial barriers described in para. 5;<sup>32</sup> (ii) credit guarantees that could be used as a substitute for collateral in lending and will reduce the risks of financiers, thereby contributing to more affordable interest rates and facilitating access to the GIRAF loans; and (iii) reimbursable innovation grants to stimulate pioneering agribusiness enterprises to advance innovative green products, processes, and business models such as (a) precision livestock farming that uses biosensors; (b) smartphone applications that synchronize with farm management software; (c) green and intelligent packaging; (d) digital systems in livestock marketing and distribution; or (e) renewable energy solutions. The GIRAF will support investments that demonstrate clear supply linkages and/or profit-sharing mechanisms with herders, PUGs, and cooperatives that are certified in sustainable rangeland management, and preferably located in agro-industrial parks that support local development and exports.

**16. Output 4: Institutional capacity and policies for low-carbon and climate-resilient agro-territorial development strengthened.** The output will focus on building the government and main stakeholders' capacity (including professional associations of the agriculture sector, academics, herders, farmers, the private sector, and SMEs), especially in the priority locations identified by MED, to ensure efficient program management and implementation. Output 4 will (i) establish soft tools and plans necessary for the implementation of other program outputs such as the PIHMP, the low-carbon and climate-resilient agribusiness development plan (LCADP)—based on a participatory and consensus-building process with all local stakeholders the LCADP

<sup>30</sup> The program will (i) appoint a community-based animal health worker in each PUG to provide preliminary veterinary services and raise herders' awareness on animal health; (ii) establish a unified database for livestock breeding services and registration and supply equipment for veterinary services and a traceability system; (iii) construct laboratories in the *aimag* and inter-*soum* centers, including one regional research development center; and (iv) construct disease-free establishments to facilitate animal health control.

<sup>31</sup> The GIRAF will be established following the Law of Mongolia and the eligibility criteria for financial intermediation loans (FILs) as per ADB. 2003. Financial Intermediation Loans. *Operations Manual*. OM D6/BP. Manila. GIRAF will be managed by a "GIRAF Manager" which (i) satisfies the eligibility criteria set forth in para. 37 of Schedule 4 of the Loan Agreement, (ii) manages GIRAF and is responsible for implementing output 3 of the project, and (iii) may be the Development Bank of Mongolia Asset Management SC LLC (AMC) or any other party agreed upon between the Borrower and ADB and acceptable to GCF.

<sup>32</sup> The GIRAF will have three lending windows. Window 1 will provide three categories of loans to support SMEs engaged in livestock processing, commercial and logistic investments for retail and exports, and other forms of economic diversification. To be eligible, subprojects should be implemented by SMEs in partnership and profit-sharing agreements with certified herders' cooperatives and should be included in the LCADP. Window 2 will provide loans to qualified medium and large enterprises involved in livestock production, processing, distribution and marketing, and international trade. The proposed agribusinesses should demonstrate congruence and consistency with the LCADP. Window 3 will be piloted for potential expansion for microfinance that will be channeled through savings and credit cooperatives to certified herders engaged in microenterprises. Details of financing terms and conditions are in Boxes 2, 4, and 5, and Appendix 3 of this FAM.

will prioritize investments and activities necessary to develop LCLVCs—or the green urban development and certification, and traceability systems; (ii) support the design, installation, and operationalization of the program’s measurement, reporting, verification, and monitoring and evaluation systems; and (iii) explore public–private partnership arrangements especially related to agro-industrial park management. It will implement the program policy framework to strengthen the government’s capacity to formulate, implement, and enforce policies and plans that are conducive to integrated green agro-territorial development, as well as climate-smart livestock husbandry, rangeland management, and urban development. The output will conduct policy dialogues and advocacy for the program’s green agro-territorial model replication inside and outside of Mongolia and explore a partnership for low-carbon and climate-resilient rangeland management in Central Asia.<sup>33</sup>

**17. The multitranche financing facility.** The program will be implemented using an MFF modality with a financial intermediation loan (FIL) component, over a 10-year period with three tranches. Lessons from similar ADB sector interventions indicate that a comprehensive urban–rural development program requires close coordination among multiple government agencies and strong government capacity to carry out policy reforms, sustain the program outcome, and replicate outputs to other regions of the country.<sup>34</sup> This is built into the program’s detailed policy framework, its capacity development component, and the stakeholder engagement plan, which are linked to the outputs and tranche structure of the MFF. The MFF structure will enhance ADB’s value addition in carrying out the necessary transformations, remove barriers and implement replicable mechanisms over its successive tranches, and drive the paradigm shift promoted by the program and its road map. Subsequent tranche investments will fall within the framework of the overall MFF and its output structure, conditional upon the MFF undertakings, subproject readiness, selection criteria, and decision filters.<sup>35</sup> The FIL component will be implemented in close coordination with the Private Sector Operations Department of ADB for lending window 2 of the GIRAF that will provide entry points and opportunities for the Private Sector Operations Department’s parallel investment support to qualified medium- and large-scale enterprises.

**18. Modality advantage.** Compared with other modalities, only an MFF could generate the critical mass, continuity, predictability, and replicable mechanisms to support communities, the government, and the private sector to transform the status quo of the animal husbandry industry and the urban economy in a sustainable manner.<sup>36</sup> The MFF’s well-defined and phased shifts will allow the government to upscale, mainstream, and maintain the green agro-territorial model, focusing in priority locations for agricultural production, supply, and logistic clusters identified by MED, to achieve the objectives of the road map. Specifically, the MFF will (i) allow effective implementation of processes and plans (para. 16) that require sustained long-term engagement and phasing; (ii) pilot innovations in project 1 (para. 20) and phase their upscaling and replication without losing momentum, capacity, and knowledge; (iii) deploy in a timely manner lessons from earlier tranches to subsequent tranches, and ensure necessary adjustments to accommodate the local context; (iv) build cross-agency institutional coordination and cooperation mechanisms through a large upfront capacity building component, sustained over the subsequent tranches; (v) provide stakeholders and development partners with multiple entry points for policy dialogue and

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<sup>33</sup> Box 8 of this FAM.

<sup>34</sup> Lessons in urban development, rangeland and livestock management, and financial intermediation and support for SMEs and agribusinesses are in Sector Assessment (Summary): Water and Other Urban Infrastructure and Services; Agriculture, Natural Resources, and Rural Development (accessible from the list of linked documents in Appendix 2 of the RRP); and in Development Coordination (accessible from the list of linked documents in Appendix 2 of the RRP).

<sup>35</sup> Schedule 4 of the FFA (accessible from the list of linked documents in Appendix 2 of the RRP).

<sup>36</sup> Comparison of Financing Modality (accessible from the list of linked documents in Appendix 2 of the RRP).

apply lessons from tranche-to-tranche; and (vi) replicate the green agro-territorial development model by capturing achievements from complementary sector-focused initiatives using a set of well-defined readiness and selection criteria, and focusing in priority locations for agricultural production, supply, and logistic clusters identified by MED.

**19. Eligibility of financial intermediary.** An apex financial institution will be established to channel the funds to participating banks. Selection of financial intermediaries is based on eligibility and selection criteria that include the following: (i) duly registered bank in Mongolia under the applicable laws of Mongolia; (ii) adequate capacity to conduct retail banking for agriculture and agribusiness in the targeted *aimags* and *soums*; (iii) meet ADB's reporting, governance, safeguard, and financial due diligence policies and standards; (iv) have no past due obligations with the Bank of Mongolia or adverse audit findings; and (v) have agriculture sector and multisector financing experience in the targeted *aimags*.

**20. Scope of tranches 1–3.** The program will cover up to 17 *aimags*, for targeted investments from outputs 1 and 2.<sup>37</sup> Outputs 3 and 4 will cover the above mentioned *aimags*, but can also be implemented over the entire country based on selection criteria in Boxes 4 and 5 of this Facility Administration Manual (FAM). Tranche 1 (Project 1) will focus on up to 11 *aimags*. This includes Bayan-Ulgii *aimag*, Khovd *aimag*, and Uvs *aimag* for targeted investments; plus up to eight other additional *aimags* for outputs 1 and 2 initial activities and project preparation, to be identified during tranche 1 based on selection criteria in Schedule 4 of the FFA and agricultural cluster location identified by the MED.<sup>38</sup> Output 2 will cover all affiliated *soums* that are under the area of influence of the targeted *aimag* or inter-*soum* centers under output 1. Tranche 2 (Project 2) will cover project 1 locations to complement project 1 activities and will cover additional *aimags* based on selection criteria in Schedule 4 of the FFA and based on priority locations for agricultural development identified by MED (footnote 37). Project 2 will build on ongoing ADB, United Nations Development Programme, or other initiatives wherein some of the program outputs are already in place and are compatible with the program's green agro-territorial model.<sup>39</sup> Similarly, tranche 3 (project 3) will assess local achievement in other *aimags* and provide complementary investments to replicate the program's green agro-territorial model, using its resources more strategically to cover a wider geographical scope based on the 17 *aimags* identified for priority implementation (footnote 37).

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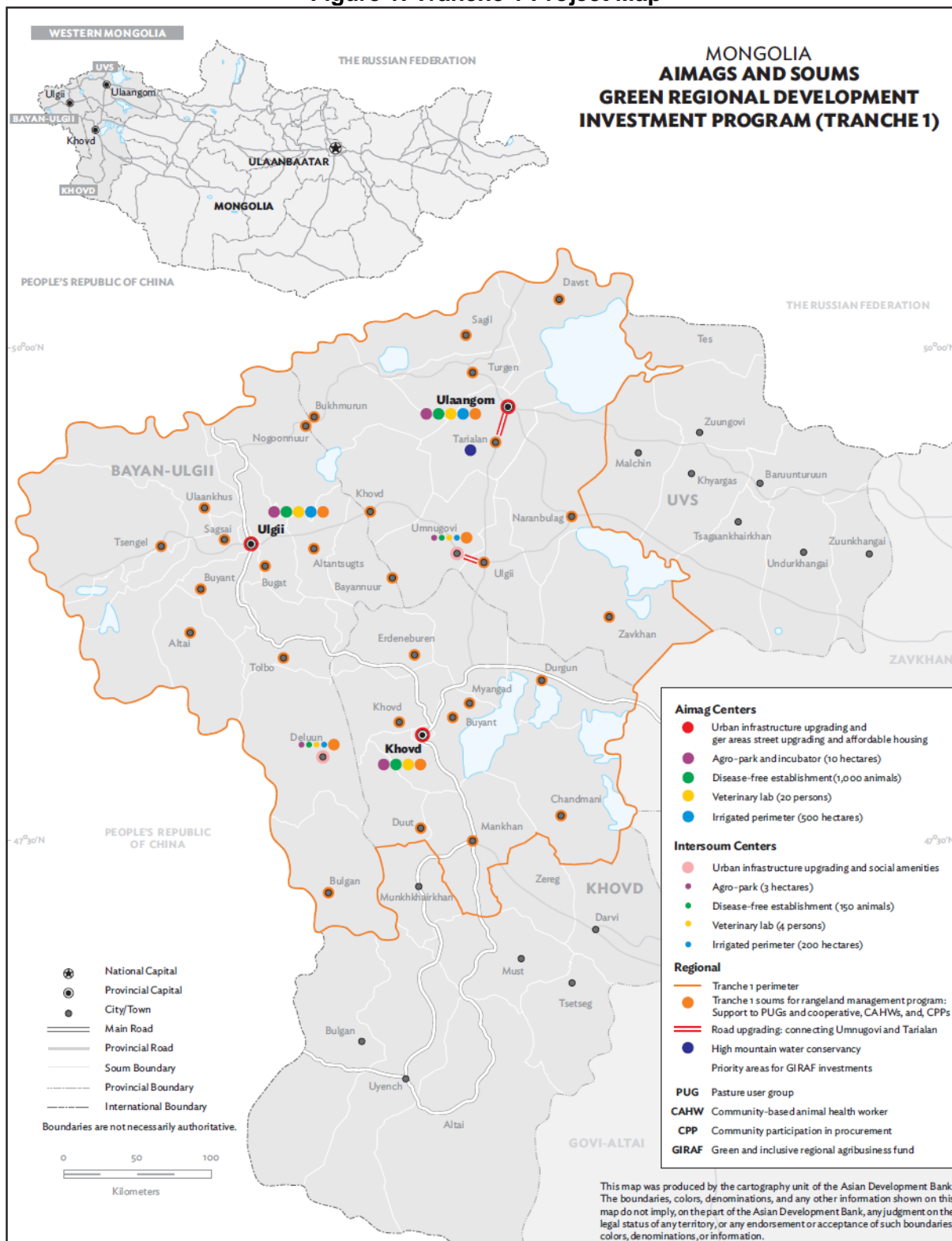
<sup>37</sup> Based on priority locations for agricultural production, supply and logistic clusters identified by MED, and other criteria such as socioeconomic development level, urban hierarchy and urban development, rangeland degradation and overgrazing, vulnerability to climate change, livestock agribusiness development potential criteria, up to 17 *aimags* have been identified for priority implementation: Khovd, Uvs, Bayan Ulgii, Arkhangai, Dornod, Tuv, Khentii, Bulgan, Selenge, Dundgovi, Darkhan-Uul, Khuvsgul, Ovorkhangai, Bayankhongor, Zavkhan, Dornogovi, and Govi-Altai.

<sup>38</sup> Output 1 activities will focus on (i) Ulgii *aimag* center and Deluun inter-*soum* center in Bayan-Ulgii, (ii) Khovd *aimag* center, and (iii) Ulaangom *aimag* center and Umnogovi inter-*soum* center.

<sup>39</sup> In southern Khovd *aimag* or in other *aimags*, United Nations Development Programme Mongolia. 2021. [Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia](#). Ulaanbaatar; ADB. [Mongolia: Climate-Resilient and Sustainable Livestock Development Project](#); and ADB. [Mongolia: Vegetable Production and Irrigated Agriculture Project](#).

## D. Detailed Description of Outputs and Activities for Tranche 1

Figure 1: Tranche 1 Project Map



Source: Asian Development Bank.

20. Project 1 comprised the following outputs:
- (i) climate-resilient, low-carbon, and attractive *aimag* and *soum* centers developed;
  - (ii) climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented;
  - (iii) accessible financing for LCLVCs created (FIL component); and
  - (iv) institutional capacity and policies for low-carbon and climate-resilient agro-territorial development strengthened.
21. **Output 1: Climate-resilient, low-carbon, and attractive *aimag* and *soum* centers developed** will have three activities.
- (i) **Activity 1: Upgrade of low-carbon and climate-resilient infrastructure and services in *aimag* centers.** Detailed activities include the following:
    - (a) Comprehensive climate-resilient and low-carbon urban infrastructure delivered: water supply capacity increased by 400 cubic meters per hour ( $\text{m}^3/\text{h}$ ); two water reservoirs of 2,000 cubic meters ( $\text{m}^3$ ) each constructed; 12 kilometer (km) of water pipes laid; wastewater treatment plants upgraded with a total capacity of 10,200 cubic meters per day ( $\text{m}^3/\text{d}$ ) using low-carbon technologies with wastewater pipes extended by 21.1 km and pumping capacity increased by 650  $\text{m}^3/\text{h}$ ; district heating network extended by 9.2 km; seven energy-efficient heating substations constructed with up to 5 gigacalories per hour each; electricity substation upgraded with increased capacity and extended power line of 68.0 km; optical cable extended by 15.5 km in urban centers; urban roads extended by 9.1 km; drainage system extended by 14.0 km; flood protection extended by 15.4 km; and initial treatment of 484 hectares (ha) of solid waste dumpsite.
    - (b) Rehabilitation of 5.4 km of *ger* area roads with utility networks; and delivery of 420 affordable highly insulated low-carbon housing units, 18,900 square meters ( $\text{m}^2$ ) of public landscaping, 9,000  $\text{m}^2$  of social amenities, and 400 low-carbon streetlights installed.
    - (c) Agribusiness park infrastructure and services for LCLVC investments delivered: 2.0 km of road constructed, 7.1 km of water pipes laid, 750  $\text{m}^3/\text{d}$  increased wastewater treatment capacity using low-carbon technologies, 5.1 km of wastewater pipes laid, two energy-efficient, low-carbon heat-only boiler plants and one heating substations with 1–2 gigacalories per hour each constructed, heating network extended by 4.1 km, electricity substation upgraded with increased capacity and power line of 2.5 km, optical cable extended to 12.9 km, and three business incubators and training centers constructed.
    - (d) Installation of 4,670  $\text{m}^2$  of solar panels with a total capacity of 1.35 megawatts.
  - (ii) **Activity 2: Upgrade of low-carbon and climate-resilient infrastructure and services in inter-*soum* centers.** Detailed activities include the following:
    - (a) Comprehensive climate-resilient and low-carbon urban infrastructure delivered: water supply capacity increased by 50  $\text{m}^3/\text{h}$  and 5.4 km of water pipes laid; wastewater treatment plant upgraded with a total capacity of 200  $\text{m}^3/\text{d}$  using low-carbon technologies with wastewater pipe extended by 3.3 km; 0.8 km of heating network extended (in Deluun); electricity substation upgraded with increased capacity and extended power line of 20 km; optical cable extended by 158 km for inter-*soum* connection; and initial treatment of current 100 ha of solid waste dumpsite.

- (b) Agribusiness park infrastructure and services for LCLVC investments delivered: 1.1 km of water pipes laid, 100 m<sup>3</sup>/d wastewater treatment capacity increased using low-carbon technologies, 1.0 km of wastewater pipes laid, 1.1 km of heating network extended, two energy-efficient low-carbon heat-only boiler with 1–2 gigacalories each constructed, electricity substation upgraded with increased capacity and power line of 1.3 km, optical cable extended to 5.0 km, and two business incubators and training centers constructed.
  - (c) Extension of socioeconomic services in inter-*soum* centers: two dormitories for 450 pupils improved, two community centers constructed, two sports complexes constructed, and existing facilities rehabilitated.
  - (d) 35.4-km link roads to Umnugovi and to Tarialan improved.
  - (e) Installation of 1,740 m<sup>2</sup> of solar panels with a total capacity of 0.51 megawatts.
- (iii) **Activity 3: Implementation of smart land management system.** Detailed activities include the following:
- (a) Data center's hardware and software upgraded (including the calibration and proper parameterization of the Century model).
  - (b) Land and urban development management and information technology systems and databases properly administered.
  - (c) Remote sensing laboratory with data receiver station from satellites and soil analysis certified laboratory (research and development center) constructed.
  - (d) Public outreach and information center organized.

22. For output 1, ADB will finance the agro-industrial park infrastructure, affordable housing units, business incubator, communication, community facilities, heating system, inter-*soum* connection roads, power supply, solid waste management, and urban roads. The European Investment Bank (EIB) loan and Asia Investment Facility of the European Union grant will be dedicated to *ger* area street redevelopment, water and wastewater infrastructure, and flood protection and drainage. The European Union grant will also finance the smart land management and climate responsive digital center. The Green Climate Fund (GCF) loan will finance the solar panels.

**Box 1: Overview of Output 1: Climate-resilient, Low-Carbon, and Attractive *Aimag* and *Soum* Centers Developed**

In the communist era before 1991, *aimag* (province) and *soum* (subunit of an *aimag*) centers played a key role in anchoring livestock value chains by providing infrastructure, processing facilities, and offering professional services. These were based on transfers and external support and could not be operated and maintained on that basis after 1991. Infrastructure fell in disrepair, and processing facilities and services were discontinued, resulting in severe infrastructure gaps. The existing infrastructure is outdated, badly maintained, maladapted to climate change, inefficient and emits significant amount of greenhouse gases, making it unsuitable for a rural economy. Many infrastructure systems (implemented during the Soviet period, 40–50 years ago) have exceeded their planned service life or have deteriorated, are inefficient and lack the size to meet present needs and planned future growth. These infrastructure deficiencies have significant consequences on the targeted *aimag* and *soum* centers' attractiveness for private sector investments into low-carbon and climate-resilient livestock and agrobusiness value chains (LCLVC) and livability. The following are some examples:

- (i) Most of the living areas in the *aimag* centers are prone to flooding due to the lack of drainage which affects the poorest housing areas.

- (ii) Air and soil pollution, among others caused by the dumpsite located near the housing areas are without any sorting and treatment.
- (iii) Current wastewater treatment facilities are not properly treating domestic and industrial wastewater leading to high soil pollution levels.
- (iv) In the *aimag* centers, *ger* areas (home to between 60% and 70% of the *aimag* centers' population) are characterized by underserved informal settlements with no water and sewerage connections, unimproved pit latrines, a highly polluted environment because of coal heating, lack of access to social facilities, limited employment opportunities, and limited housing investment. As such, *ger* area's air quality in winter is often worse than Ulaanbaatar itself (which is the world's worst polluted city in winter).
- (v) At the inter-*soum* centers, all public (education, health, government) buildings are in very poor condition and dormitories are overcrowded.
- (vi) Natural hazards (such as floods), further contribute and reinforce the poor attractiveness for investments of these cities.

*Aimag* and *soum* centers currently do not have the infrastructure needed to host agro-processing industries and provide the urban environmental infrastructure that can attract and keep professionals to provide services. Output 1 targets and eliminates infrastructure gaps that have been identified over a series of studies and reports, thus restoring the functions these small cities used to have, but using low-carbon and climate-resilient technologies that are more efficient and cleaner.<sup>a</sup>

Output 1 introduces for the first time in Mongolia a comprehensive and integrated approach to tackle low-carbon and climate-resilient urban infrastructure and service deficiencies in targeted *aimag* and *soum* centers to improve their capacity, reliability, and efficiency so that the necessary infrastructure is in place for LCLVCs.<sup>b</sup> The design of the output is based on extensive consultations with the relevant planning and technical agencies of the Ministry of Construction and Urban Development, *aimag* and *soum* governments, and with the community; integrating all stakeholders' expectations, objectives, and constraints. It has identified how existing infrastructure can support the planned economic and redevelopment programs and what interventions are required to support urban upgrading and economic activities promoted by the project. Where possible, the output integrates low-carbon technologies (low-carbon and energy-efficient district heating, insulation, low-carbon wastewater treatment facilities, and renewable energy). Adaptation is included in drainage, waste management, wastewater treatment, and water supply investments. Finally, financial and management aspects of targeted *aimags*, as well as Mongolian standards and regulations have been studied to ensure the adequacy and sustainability of the proposed investments. Applicable international standards have been used and will be applied.

Output 1 aims to eliminate the deficit in strategic investments in *aimag* centers, particularly in *ger* areas with (i) poor condition of roads; (ii) lack and inefficient heating, water, and wastewater systems; and (iii) frequent flooding due to a high shortage in drainage and flood protection. The program also includes the renewal of the out-of-date infrastructure networks and supports the reinforcement of heating and power supply, water supply, and wastewater treatment. Output 1 will also introduce the installation of solar panels to houses, facilities, and public amenities as well as energy-efficient, low-carbon heating.

Underserved residential areas surrounding the *aimags'* core centers have grown without proper infrastructure. This generates high greenhouse gas emissions and huge pollution (especially in winter), which prevents proper urban development and private sector investment, and makes it more difficult to attract professionals. Because of the population's low income and the neighborhoods' low density, network development in those areas is not viable. Therefore, Tranche 1 will pilot a combined approach of street infrastructure development, housing connection, and densification through housing supply to respond to the local and future demand on affordable housing renting. The redevelopment process starts with a global vision of the site potential, the perimeter, which identifies the basic parameters of urban design.<sup>c</sup> Then it focuses on a chosen pilot road according to its potential for success as a replicable model. It might be considered as an experimental phase, which offers the best condition for a sustainable redevelopment extended step-by-step to the whole perimeter. Tranche 1 will pilot roads, each one around 800 meters long and part of a perimeter of about 40 hectares (ha), which should be developed during the next tranche, with a possible extension to two optional roads during Tranche 1, depending on the

outcomes from the implementation of the pilot roads. It aims to target at least around 35% of the total *ger* area population in the three *aimag* centers, about 6,000 households within the scope of the program, out of the 17,000 households living in the *ger* areas.

Design and scope of the agro-industrial parks are based on local economic development potential and target, LCLVC analysis, and consultation with local businesses. It represents the first investments of the project that will be complemented, if necessary, by the subsequent tranches based on emerging needs and developments. In each targeted urban center, infrastructure, and services for treating the waste and supplying the necessary urban services for economic activities have been designed and dimensioned for initial processing and economic activities. With a planned area of 10 ha in *aimag* centers, the agro-industrial parks are scaled to host LCLVC activities.

Similar issues linked to the lack of urban services are encountered in the inter-*soum* centers. Infrastructure is even worse, while more resources are needed on a per capita basis to raise the service levels. In addition to the upgrading of infrastructure networks and waste collection and treatment, major improvement of public buildings (administrative, educational, sanitary, cultural, and sports) is required, among others, to create and restore a sound urban environment as reliable basis for the local economic expansion (outputs 2 and 3).

Infrastructure for the LCLVC is also supported by the implementation of agro-industrial parks (3–5 ha in area) close to the storage and pre-processing activities planned in the *soum* centers. Agro-industrial parks in inter-*soum* centers are designed on similar assumptions as for *aimag* centers.

Finally, the Smart Land Management Center will provide an essential tool to improve land and urban management, particularly the monitoring of rangeland health, water availability, soil condition, and carbon sequestration in the soil. It will (i) establish a monitoring network and laboratory for land and soil condition and quality, including software development and hardware supply, densification of analysis and monitoring points, field measurement instruments and equipment supply, processing and application of satellite data, and protocol integration with exiting system; (ii) include (a) software development and hardware supply; (b) information technology systems and database for land administration and territorial management; field measurement; data collection; and system for receiving, processing, and application of satellite data; (c) digitalization of historical geodesy and cartographic archive; and (d) improvement of data storage, protection, and security; (iii) develop an urban cadaster database and system, including software development and hardware supply, field measurement, and data collection; and (iv) implement institutional development and capacity building program, and public information and outreach program.

<sup>a</sup> Asian Development Bank (ADB). 2015. *Fostering Value-Added Activities in Western Mongolia*. Consultant's report. Manila (TA 9066-MON); ADB. 2017. *Preparing the Aimag and Soum Centers Regional Development Investment Program*. Consultant's report. Manila (TA 9451-MON); ADB. 2018. *Human Settlements Development Program*. Consultant's report. Manila (TA 9666-MON); ADB. 2019. *Unleashing the Private Sector to Drive Inclusive Growth in Eastern Mongolia*. Consultant's report. Manila (TA 9751-MON); and ADB. National Urban Assessment of Mongolia. Manila. Unpublished.

<sup>b</sup> Current challenges faced by the local governments and operating agencies have been considered in determining the proposed interventions.

<sup>c</sup> Ratios of residential, public amenities, open space areas, and population density.

Source: ADB.

## 23. **Output 2: Climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented** will have four activities.<sup>40</sup>

<sup>40</sup> Output 2 will be implemented under the supervision of MOFALI in close cooperation with the General Authority for Veterinary Services, Ministry of Environment and Tourism, and National Federation of Pasture User Groups. MED is the program executing agency and has overall responsibility of project implementation.

- (i) **Activity 1: Implementation of community-based low-carbon and climate-resilient investments.** Financial support will be provided to 90 targeted PUGs through around 600 small projects using community participation in procurement (CPP) to support investments in small infrastructure and equipment to improve pastureland resilience and productivity, water availability, herders' livelihood, quality inputs to the agribusiness value chain, and more sustainable management of local resources and herds.<sup>41</sup> Support to PUGs through CPP will be *conditional* and *phased*: signing of RUAs and stocking adjustment plans as well as preparation of PIHMP will be a preliminary condition for first project funding through CPP, and each year, funding is conditioned by successful implementation of the RUA and its stocking adjustment plan. Each year, several projects can be financed for each PUG, but maximum yearly program funding per PUG is \$40,000. For each project, maximum program funding is \$30,000. Over the 6 years of Tranche 1 implementation, each PUG will be supported with a maximum of \$2,000 per PUG member.
- (ii) **Activity 2: Support to low-carbon and climate-resilient pasture user groups and cooperatives.** Assistance to participating herder communities will be provided to (a) build the capacities of PUGs, develop participatory and inclusive herd management plan (PIHMP), establish rangeland use agreements (RUA), and formulate stocking adjustment plans for about 90 PUGs; (b) establish a cooperative in each targeted *aimag*, *inter-soum*, *soum*, and at regional level organizations based on participative and certified low-carbon herders and PUGs;<sup>42</sup> and (c) encourage the reduction of herd size through annual rewards for each compliant PUG.<sup>43</sup>
- (iii) **Activity 3: Implementation of water efficient irrigation systems for fodder production.** This activity will (a) construct primary works (head structures and irrigation canals) for four irrigated schemes, envisioning in total 1,400 ha of fodder farms; and (b) implement an ecosystem-based high mountain water conservancy and harvesting pilot in Uvs *aimag*, in collaboration with the Ministry of Environment and Tourism (MET) to be replicated in other in western *aimags*, including headworks on the Kharkhiraa River, channel feeding the reservoirs, two reservoirs of about 40,000 m<sup>3</sup>, and a primary irrigation channel.
- (iv) **Activity 4: Improvement of animal productivity and health.** This includes (a) strengthening of animal breeding, technology, and veterinary services at each level of the agrobusiness value chain,<sup>44</sup> including improvement of the animal traceability

<sup>41</sup> Such investments are key to sustainable use of rangelands and to adapt to varying weather patterns exacerbated by climate change. These include: wool, hay, and fodder storage; water harvesting structures; new and rehabilitated wells; support to improved fodder production such as protected irrigated hay and fodder fields, establishing guarded grazing reserves, and provision of productive investments; wind-blocking animal shelters for winter; animal combing and shaving facility and equipment; small bridges for river/stream crossing and earth road repair, wells and drinking troughs equipped with solar water pumps; equipment for dairy processing; and breeding facilities. Where the conditions are suitable, afforestation and agroforestry investments may also be considered for funding. However, it should be noted that in general, the conditions for tree growth in Mongolia are not good. The cold climate and limited precipitation encourage growth of grasses rather than trees, and the growth cycle of forests is very long.

<sup>42</sup> With inputs from ADB. [Mongolia: Cooperative-Based Sustainable Agriculture Production](#).

<sup>43</sup> The various mechanisms to support PUGs, savings and credit cooperatives, and the incentives to reduce animal numbers are summarized in this FAM. It provides a wide-range system that in its entirety covers all herder households in the program areas.

<sup>44</sup> In coordination with the World Bank Livestock Commercialization Project, which has its own separate financing. It is a nationwide project, whereas the program is regional. The World Bank Livestock Commercialization Project has some complementary components with the program at the national level (veterinary campaigns capacity building, central veterinary laboratory in Ulaanbaatar), as well as at the regional level (regional laboratories, disease-free

system; (b) establishment of 90 community-based animal health workers (CAHWs) set in each targeted PUG, with CAHWs serving as para-vets; (c) provision of equipment for veterinary services and traceability system; (d) construction of laboratories in *aimag* and inter-*soum* centers, including one regional research development center; and (e) construction of five disease-free establishments (three in *aimags* centers and two for inter-*soum* centers) to provide adequate facilities for animal health control.

24. For output 2, ADB will finance civil works for the disease-free establishments and irrigation perimeter primary works. The GCF grant will finance the rest of the activities. The GCF loan will mainly be used for operation and maintenance (O&M) costs. Beneficiaries will participate in activity 1 through in-kind contributions. Box 2 provides an overview of some of the key elements of output 2. Specific selection criteria for output 2 activities financed by GCF are in Box 4. Specific requirements and conditions for beneficiaries of output 2 activities financed by GCF are in Box 5.

#### Box 2: Pasture User Group and Rangeland Use Agreement Approach

There are three types of herder organizations:

- (i) **Pasture user groups (PUGs).** They regulate pasture usage (governance), including *soum* and inter-*soum* *otor*<sup>a</sup> reserve pastureland, through the delineation of herders' rangeland, measurement of rangeland capacity versus rangeland load (number of animals) and establishing contracts with *soum* governments using rangeland use agreements (RUAs).
- (ii) **Cooperatives.** Their role is to distribute government financial incentives to herders, such as bonuses for wool, cashmere, and hide; and provide linkages to the market, and develop infrastructure for herding and agribusiness activities.
- (iii) **Savings and credit cooperatives (SCCs).** These are financial institutions that provide loans to their members.

However, in most *soums*, these organizations are still weak and need support and capacity building to function properly. Reaching agreements on pasture rotation and rangeland use among herders and establishing efficient SCCs requires in-depth cooperation among herders. It starts with the implementation of the PUG and RUA approach which includes eight major steps:

- (i) awareness raising among herders regarding animal husbandry techniques, animal health, and traditional grazing management;
- (ii) establishment of PUGs;
- (iii) ecological site description mapping and rangeland assessment;
- (iv) carrying capacity of rangeland;
- (v) developing rangeland management plan;
- (vi) adjustment of stocking rates and integrated registry database;
- (vii) development of RUA; and
- (viii) implementation, enforcement, and monitoring of the RUA.

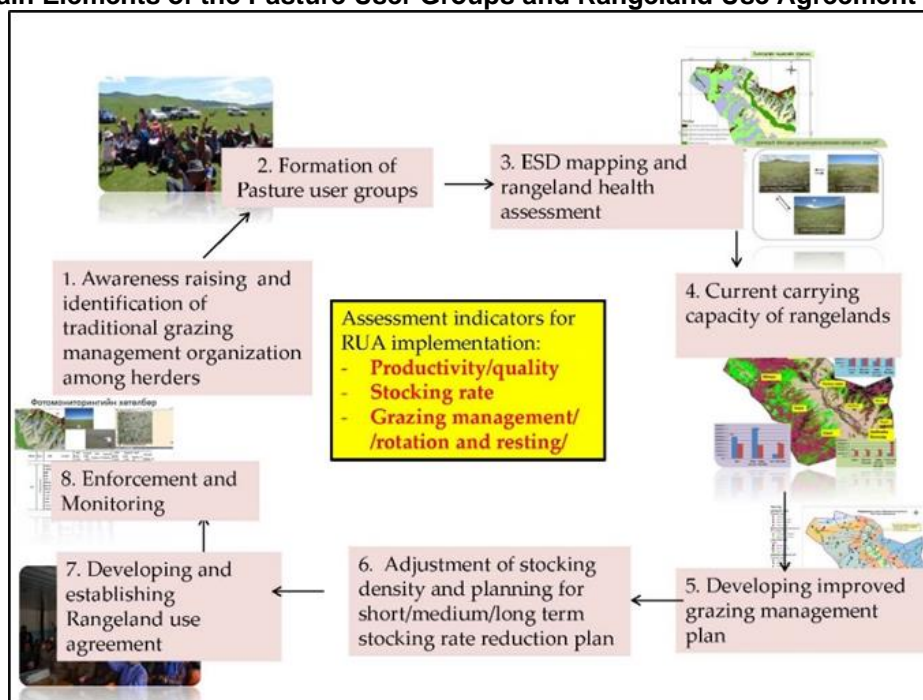
The whole process combines traditional knowledge of herders in rangeland management with scientific evidence. The main responsibilities belong to the PUGs which need to define and agree on grazing boundaries of common rangelands, decide on seasonal rotational grazing plans and schedules within agreed boundaries, adopt community-based rules to enforce grazing plans and schedules, and monitor the enforcement of the rules by members. The process is continuously accompanied and facilitated by technical experts and by officials from the *bagh* (subdistrict), *soum*, and *aimag* levels.<sup>b</sup> The RUA needs to be agreed upon by the local authorities which usually have to substantially contribute to it, especially

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zones). At the regional level, coordination to avoid overlapping between the two projects is ensured by the General Authority for Veterinary Services within MOFALI. For instance, the program will finance the Khovd regional laboratory and support veterinary services in the western *aimags*, and the World Bank Livestock Commercialization Project finances regional laboratories in other *aimags*.

once the RUA is embedded in the *soum* land management plan. The main law of Mongolia on land management is the Land Law. There is no specific regulation for rangeland management, yet in the Land Law, there exist two provisions as per rangeland management.<sup>c</sup> This is users and herders may establish agreement on the use of shared seasonal rangelands as a group with the local authority. The second important regulation for rangeland management is the *soum* annual land management planning methodology which was adopted in 2006 to ensure enforcement of the Land Law. Implementation of this methodology is the mandate of Agency for Land Management and Administration, Geodesy and Cartography (ALAMGAC) which has branches in all *aimags* and land managers in each *soum*.

### Eight Main Elements of the Pasture User Groups and Rangeland Use Agreement Approach



ESD = ecological site description, RUA = rangeland use agreement.

The ALAMGAC has approved rangeland recovery classes and photo monitoring methodology to monitor RUA implementation. ALAMGAC, National Federation of PUGs (NFPUG), and National Agency for Meteorology and Environmental Monitoring (NAMEM) are key institutions to continue updating and ensure enforcement of RUAs beyond the Green Gold Animal Health Project (GGAHP). ALAMGAC and NAMEM represent the State (owner of the rangelands) and NFPUG represents the users (herders). Rangeland ecological recovery class database at the NAMEM is used to define the baseline state of rangeland health upon the establishment of RUA which needs to be measured annually by photo monitoring of rangeland productivity and composition of key indicator species created at the ALAMGAC. Within the program, this will be linked with information on soil carbon content in selected sample sites to further increase the suitability of this system for the measurement of greenhouse gas mitigation. The initiative of GGAHP to register rangelands based on PUGs and RUA has been accepted by ALAMGAC 2 years ago and is progressing smoothly. This will enable the assurance of herders' user rights to their traditional rangelands and monitor the implementation of the RUAs by ALAMGAC. Between 2016–2017, GGAHP has assisted ALAMGAC in revising the existing software to accommodate registration of PUGs and RUA. As of December 2017, 100 PUGs and RUAs have been registered in Mongolia. The new software has enabled to attach photo monitoring indicators, updated annually, to each of respective PUG and RUAs making it possible to monitor if PUGs' grazing management has improved and resulted in improved rangeland health. This has been leveraged into the development of rangeland protection law that the enforcement tool has already been tested and created in the forms of PUG, RUA, and ALAMGAC database. As of December 2017, with the technical assistance of GGAHP, 5,700 sampling sites have

been identified in the seasonal rangelands of PUGs and baseline data has been collected and housed in the national database. This means that photo monitoring database now covers about 60% of all *soums*.

Based on existing situation, the project will provide capacity building and technical assistance to establish or work with existing PUGs to develop RUA and a participatory and inclusive herd management plan (PIHMP), which identify the current constraints for rangeland management and livelihood improvement and list activities that are needed to improve the rangeland management, the quality of the herds, the life of herders, and the livelihood of PUG members. As incentives, once the two documents are in place, each PUG will benefit from financial support to implement priority items identified in the PIHMP through CPP. The program will build a development process at the *soum* level which enables the strengthening of herders' organizations under low-carbon and climate-resilient development conditions. The model is built on milestones to achieve for further support from the program as described below and in **Appendix 1**. It also is important to note that the organization process between herders, local and national authorities, and other relevant stakeholders is built on the current herders' organization structure and will act as guarantor for prevention, settlement, and resolution of issues and conflicts related to land and water access and usage. The PUG and RUA approach have contributed to reduce conflicts between herders related to access to communal rangelands and water resources, improved participation of herders in *soum* rangeland management planning, and herders' participation in local governance.<sup>d</sup>

**Step 1:** Establish local governance mechanism for the project consisting of the *bagh* government, *bagh* council, and *Bagh* Herders Group Association; (ii) organize group discussion and on the project principles and implementation steps; and (iii) make a first assessment of PUGs that are ready to proactively participate in the project. Continue to engage with groups that are not ready until they want to move further.

**Step 2:** (i) Check the existing RUA or formulate the RUA, assess herds size and composition, and rangeland carrying capacity using existing data from the Ministry of Food, Agriculture and Light Industry, land officer, and the ALAMGAC; (ii) provide capacity building to all targeted PUGs for them to formulate and/or upgrade the RUA including herd stocking and composition adjustment plan;<sup>e</sup> (iii) establish the rangeland management objectives, prioritize the list of activities that are needed to, improve the animal feed production, the rangeland management, the quality of the herds, the life of herders, support to vulnerable groups, and the livelihood of herders, involve livestock in categorized screening and commercialize animals, define the plan and annual target for herds reduction and composition, and develop PUG's aspirations for the creation of a *soum*-level cooperative; and (iv) compile all those elements in the participatory and inclusive herd management plans (PIHMPs).

**Step 3:** PUG which has signed a RUA, elaborated a stocking adjustment plan, prepared a PIHMP, and committed to the cooperative establishment are considered certified<sup>f</sup> PUG and/or herder group and are eligible for financial support for micro-projects and activities identified through community participation in procurement (CPP), and support for cooperative establishment (**Appendix 2**). Continue to engage with those who are not ready. Go to the next steps for those ready.

**Step 4:** Priority activity investment plan and financing plan are developed, and CPP activities are implemented.<sup>g</sup>

**Step 5:** Once several PUGs are certified, the project supports the creation of a herders' cooperative (referred to as *soum coop*) through seed funding, herder participation,<sup>h</sup> and capacity building. In the case where there is a functioning cooperative, and where it is deemed that the project should rather build on and improve the existing cooperative, the project will provide technical support and advice to the existing cooperative for the coop to meet the project requirements for financial support. *Soum* cooperatives will benefit from technical and financial support to establish inter-*soum*, *aimag*, and regional level organizations of cooperatives. Cooperatives are to play a key role in the marketing of products, which includes the collection of raw materials and quality check and implementation of traceability and certifications systems. Cooperatives will manage key assets for production and will be supported to invest in pre-processing of animal raw materials, which can be done at the *soum* by the cooperatives and its member herders. Also, the cooperatives will be supported to invest in/partner with private sector entities

who invest in pre-processing and processing facilities (cf. output 3). The cooperative will contribute to establish the green agribusiness plan at *soum* and inter-*soum/aimag* level.<sup>i</sup>

The table below summarizes the actions, support linked with the program activities, and responsibilities to each target group leading to a more low-carbon and climate-resilient rangeland management. For more details see TRTA final report Vol 3 and **Appendix 1** Mechanisms to support PUGs, cooperatives and SCCs, and incentives for reduction of herds.

#### Overview of Support for Low-Carbon and Climate-Resilient Rangeland Management

Target	Action	Support	Responsibilities
Herders	<ul style="list-style-type: none"> <li>- Form pasture user groups (PUGs) and/or herder groups</li> <li>- Sign the rangeland use agreement (RUA) and contribute to PUG's commitment for stocking adjustment</li> <li>- Participate in the participatory and inclusive herd management plan (PIHMP)</li> <li>- Participate in the community participation in procurement (CPP)</li> </ul>	Awareness, capacity building, technical advisory (Output 4 – Activity 2)	<ul style="list-style-type: none"> <li>- Implement the stocking adjustment plan</li> <li>- Participate in community financial contribution to micro-projects financed by the CPP, use and maintain the assets</li> </ul>
PUG	<ul style="list-style-type: none"> <li>- Sign RUA and elaborate stocking adjustment plan</li> <li>- Formulate PIHMP</li> <li>- Own and/or use the CPP asset<sup>i</sup></li> <li>- Establish and/or join the <i>soum</i> cooperative</li> </ul>	<ul style="list-style-type: none"> <li>- Legally binding RUAs providing a strong and permanent basis for access to rangelands for the herders in the PUG.</li> <li>- Awareness, capacity building, technical advisory (Output 4 – Activity 2)</li> <li>- Up to \$2,000/herder household of the PUG grant support per PUG to implement priority investment identified in the PIHMP (Output 2-Activity 1)</li> <li>- Training of community-based animal breeding and health workers (Output 4-Activity 2)</li> <li>- Provision of veterinary equipment (Output 2 – Activity 5)</li> </ul>	<ul style="list-style-type: none"> <li>- Implement RUA and stocking adjustment plan</li> <li>- Implement the PIHMP</li> <li>- Implement the CPP</li> <li>- Raise herder awareness on animal vaccination and traceability</li> </ul>
<i>Soum</i> association of PUGs and/or herder groups	<ul style="list-style-type: none"> <li>- Own the CPP asset</li> <li>- Inter-PUG and/or herder group coordination and linkage with local government</li> </ul>	Awareness, capacity building, technical advisor (Output 4 – Activity 2)	<ul style="list-style-type: none"> <li>- Support RUA registration</li> <li>- Traceability system input</li> </ul>
<i>Aimag</i> Federation of PUGs	<ul style="list-style-type: none"> <li>- Implementation of capacity buildings programs to PUGs and/or herder groups</li> </ul>	Awareness, capacity building, technical advisor (Output 4 – Activity 2)	<ul style="list-style-type: none"> <li>- Data monitoring</li> <li>- Traceability system input</li> </ul>

	and coordination of activities at <i>aimag</i> level		
<i>Bagh/soum</i> government	<ul style="list-style-type: none"> <li>- Support and participate in the formation of PUG and/or herder group</li> <li>- Sign the RUA and register RUA in the ALAMGAC database</li> <li>- Own the CPP asset</li> </ul>	Capacity building and technical assistance to soum land officers (Output 4 – Activity 2)	<ul style="list-style-type: none"> <li>- Registration of data within ALAMGAC system</li> </ul>
<i>Soum</i> cooperative	<ul style="list-style-type: none"> <li>- Gradually integrate PUGs and/or herder groups of the <i>soum</i> when meeting low-carbon criteria</li> <li>- Form/join the inter-<i>soum</i> joint cooperative and <i>aimag</i> level organization of cooperatives</li> <li>- Management of assets for increased animal productivity (such as disease-free establishments)</li> <li>- Marketing of raw and pre-processed and/or processed material</li> <li>- Own the CPP asset</li> </ul>	Awareness, capacity building, technical advisory (Output 4 – Activity 2) \$132,000 grant in average support per cooperative over 5 years for initial capital investment, initial working capital and support to fixed charges <sup>k</sup> (Output 2 – Activity 2)	<ul style="list-style-type: none"> <li>- Collection of raw material and first quality checking</li> <li>- Participation in traceability and certification systems and respect low-carbon criteria</li> </ul>
Inter- <i>soum</i> joint cooperative	<ul style="list-style-type: none"> <li>- Investment in animal raw materials pre-processing and processing</li> <li>- Market the cooperatives' products in the inter-<i>soum</i> agro-industrial park industries</li> <li>- Support the creation of partnerships between the private sector's entities and the cooperatives, with profit sharing agreements, for investments in fodder production, meat processing facility, wool and cashmere processing facilities, dairy farms, and meat, hide, and skin industries</li> <li>- Technical support on animal health and improvement of products quality</li> <li>- Help cooperatives to access bank loans</li> </ul>	Awareness, capacity building, technical advisory (Output 4 – Activity 2) Fund for investments through eligibility under the green and inclusive regional agribusiness fund (GIRAF) (10% of total investment) in meat processing facilities and fodder farms (Output 3 – Activity 1) Up to \$80,000 grant support per cooperative over 5 years for initial capital investment, initial working capital and support to fixed charges (Output 2 – Activity 2)	<ul style="list-style-type: none"> <li>- Marketing of products and participation to traceability and certification process</li> <li>- Participation in traceability and certification systems and respect low-carbon criteria</li> </ul>
<i>Aimag</i> organization of cooperatives	<ul style="list-style-type: none"> <li>- Investment/partnership with private entities investing in pre-processing facilities</li> </ul>	Capacity building, technical advisory (Output 4 – Activity 2) Up to \$150,000 grant support per <i>aimag</i>	<ul style="list-style-type: none"> <li>- Marketing of products and participation to traceability and certification process</li> </ul>

	<ul style="list-style-type: none"> <li>- Investment in animal raw materials pre-processing and processing</li> <li>- Marketing of raw materials and linkages with processors</li> <li>- Technical support on animal health and improvement of products quality</li> <li>- Help cooperatives to access bank loans</li> </ul>	organization over 5 years for initial capital investment and support to fixed charges (Output 2 – Activity 2)	
Regional organization of cooperatives	<ul style="list-style-type: none"> <li>- Create international market linkage and support in standards requirement</li> </ul>	Capacity building, technical advisory (Output 4 – Activity 2) Up to \$135,000 grant support over 5 years for initial capital investment and support to fixed charges (Output 2 – Activity 2)	<ul style="list-style-type: none"> <li>- Marketing of products and participation to traceability and certification process</li> </ul>

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- <sup>a</sup> Traditional mobility strategy developed by Mongolian herders to cope with their highly variable and uncertain environment.
- <sup>b</sup> Administratively, Mongolia is divided into 21 provinces, called *aimags*, and one capital city. Each *aimag* is divided into *soums*, and each *soum* is further subdivided into *baghs*.
- <sup>c</sup> The RUA is a collective and voluntary agreement between a group of herders and the *soum* government that is (i) legally recognized and registered by ALAMGAC and the Minister of Justice, and (ii) socially and politically accepted by all parties. To be legally recognized and registered it must include five annexes with information on herds, pasture use, state of rangeland, carrying capacity, etc. Once it includes all requested information and is signed, it can be registered by ALAMGAC and becomes legally binding, which itself is a strong incentive for entering into a RUA and complying with its requirements.
- <sup>d</sup> Green Gold's report on Pasture User Groups (2017).
- <sup>e</sup> The stocking adjustment plan indicate annual objectives for herd reduction at the PUG level.
- <sup>f</sup> Certification is based on sustainability criteria and makes the PUGs eligible for further project support.
- <sup>g</sup> The rangeland small-scale investment for 90 PUG or 6,315 herders households is equivalent to a \$2,000 grant for all of the participating herder households. The GCF grant will cover 76.25%, that is \$1,525, while the rest will come from the beneficiaries. It should be noted that this is only one incentive and that the full set of incentives is much wider.
- <sup>h</sup> Initial capital of the cooperative should come from the herders, with in-kind or cash participation of about MNT200,000–MNT500,000.
- <sup>i</sup> Seed money will be used as working capital and to purchase equipment and establish 30 *soum* cooperatives, 5 *aimag*/inter-*soum* center cooperatives, 3 *aimag* cooperatives, and 1 regional cooperative. Operation costs over 5 years for *soum* PUG associations and *aimag* PUG associations include: (i) \$132,000 average grant support to each of the 30 *soum* cooperatives for initial capital investment, initial working capital, and support for fixed charges; (ii) up to \$80,000 grant support to each of the five inter-*soum*/*aimag* center cooperatives for initial capital investment, initial working capital, and support for fixed charges; (iii) up to \$84,000 grant support to each of the three *aimag* cooperatives for initial capital investment, initial working capital, and support to fixed charges; (iv) up to \$117,000 grant support for the regional cooperative for initial capital investment, initial working capital, and support to fixed charges; (v) up to \$90,000 annual grant support for all *soum* PUG associations and *aimag* PUG associations in the three *aimags*.

<sup>j</sup> CPP assets can be owned by herder groups, *soum* association of PUGs, *bagh/soum* governments, or *soum* cooperatives, depending on type of asset, number of users, and herders' preference.

<sup>k</sup> In addition, there is a herders' investment which represents about 10% of total capital investment and 30% of fixed charges. The *aimag* project implementation unit's technical assistance will seek higher herders' contribution (thus reducing the program's contribution), to increase and ownership and appropriation by herders, thus ensuring higher sustainability. Amounts indicated are the ceiling amounts.

Source: Asian Development Bank.

### Box 3: High Mountain Water Conservancy Pilot

The high mountain water accumulation is an important water saving and storage investment that will help to cope with the impact of climate change on the precipitation patterns. This is a high priority of the Government of Mongolia, included in Mongolia's GCF programming and described in an earlier concept note called *High mountain water accumulation to alleviate negative impacts of climate changes in high mountain area of Mongolia* and alternatively *High-altitude water management to alleviate the negative impacts of climate changes in the Mongolian Altai*.

The pilot is part of Output 2, activity 3 of the program, which consists of two linked sub-activities, one related to irrigated schemes for fodder farms, and one related to an ecosystem-based high mountain water conservancy and harvesting pilot to be used in the irrigated schemes. Fodder production sequesters carbon at the rate of slightly more than 1 tCO<sub>2</sub>e per hectare per year and supports the reduction of grazing intensity by providing an additional source of animal feed and increasing output per animal.<sup>a</sup>

The second sub-activity (the high mountain water conservancy pilot) aims at building the climate changes resilience of highly vulnerable and water-dependent rural populations near the Kharkhiraa, Turgen, and Khovd rivers located in western Mongolia through glacier melt water and precipitation conservation and management measures for sustaining adequate water availability for animal husbandry, farming, household use, pasture, wildlife, and freshwater lake ecosystems. The investment activity will collect and accumulate glacier melt water, spring snow melt water and heavy summer rain and flood water of the Mongol-Altai mountains, Great Lakes depression, Kharkhiraa, Turgen, and Khovd rivers in the western part of Mongolia. The collected water will be used for different purposes, including agriculture, livestock, power production and sustaining natural water systems, such as lakes and groundwater. Water will be collected in river bed associated ponds and partially distributed to restored ancient irrigation systems, allowing for increased resilience and adaptation of local communities to climate change, in particular through the stabilization of water resources, the reversion of the current trend of rapid degradation of rich mountain pastures for livestock and wildlife, and the prevention of a possible shutdown of traditionally irrigated crop production, which served as a principle income source for certain local communities for several hundreds of years. The sub-activity also contributes to greenhouse gas (GHG) mitigation because it ensures the availability of water for feed production. Availability of feed in winter is crucial to main animal weight and productivity and reduce mortality and reduces the amount of "catch-up grazing" needed after winter. By making water availability more certain, the sub-activity takes away the main risk factor of feed production and provides an important impetus to the local production of affordable feed. This will enable grassland restoration, improve productivity of animals and herds, and reduces input per animal. Moreover, earlier analyses conducted with ADB support have shown that feed production can be commercially attractive and at the same time itself sequester carbon, independent of the impact on rangelands and GHG intensity of animal husbandry outputs (note a). This, however, assumes that sufficient water is available for feed production.

In addition, the sub-activity has a direct favorable impact on rangelands. As plant coverage on the ground is reduced, water absorption decreases, and palatable plants are not able to grow due to the lack of soil moisture. Rangeland plant growth depends on moisture supply, particularly in springtime (May)—the period of revitalization. Currently, it is important to create favorable conditions for the soil to absorb and retain a sufficient supply of moisture.<sup>b</sup> This is exactly what the sub-activity aims to achieve.

- <sup>a</sup> Wilkes, A. and N. Batjargal (2015), Mainstreaming Climate Technology in Mongolia: Report for the Agriculture sector. Report prepared under TA-8109, Integration of Climate Technology Financing Needs into National Development Strategies, Plans, and Investment Priorities.
- <sup>b</sup> Dagvadorj, D., T. Tennigkeit, A. Wilkes and C. Yeager (2013), Nationally Appropriate Mitigation Actions for Grassland and Livestock Management in Mongolia. ADB Brief No. 13, May 2013.

#### Box 4: Specific Selection Criteria for Output 2

All output 2 rangeland investment programs must meet the following criteria:

**Contribution to impact.** Investment should prove direct contribution to:

- reduced emissions from land use, low-carbon and climate-resilient rangeland management and conservation, and enhanced rangeland carbon stock;
- increased resilience to climate change, including against natural hazards linked to climate change as well as contributing to improved livelihoods of the most vulnerable people, communities, and regions threatened by climate change; and
- improved resilience of ecosystems and ecosystem services against natural hazards.

**Activities:**

Green Climate Fund will be used for the following activities:

- support and capacity building for low-carbon pasture user groups and pasture management plans;
- support and capacity building for low-carbon herders' cooperatives that build on low-carbon pasture user groups;
- incentives to encourage the reduction of the herd size;
- small infrastructure and equipment to improve resilience against natural hazards, and increase productivity and herder's livelihoods;
- improve veterinary services;
- head structures and primary irrigation canals for fodder, animal feed, or vegetable production;
- ecosystem-based water conservation and water harvesting solutions;
- support animal tracking and traceability system; and
- support to certification system.

Additional activities not envisaged in Tranche 1 could be considered only if they can prove to support herders' resilience and livelihood, ecosystem resilience, direct herds reduction or indirect through economic diversification, and improved grazing system.

**Due diligence.** Comply with Asian Development Bank due diligence policy.

**Safeguard categorization.** None of the investment or activity should trigger safeguard category A.

**Gender.** The investments should support the overall tranche as *effective gender mainstreaming* and should prove meaningful consultation during the investment preparation.

**Environmental integrity.** Ensure that the funded activities will not lead to an increase in greenhouse gas emissions.

Source: Asian Development Bank.

**Box 5: Conditions and Requirements for Beneficiaries of Outputs 2 (Climate Resilient, High-Carbon Sequestration, and Sustainable Rangeland Management Implemented) and 4 (Institutional Capacity and Policies for Low-Carbon and Climate Resilient Agro-Territorial Development Strengthened)**

1. **Conditions to pasture user groups' community investments through community participation in procurement (output 2, activity 1)** are below:
  - (i) benefit several households and is not be considered as private business investments;
  - (ii) part of the eligible projects;
  - (iii) included in the participatory and inclusive herd management plan (PIHMP) and implemented by pasture user groups (PUGs);
  - (iv) PUGs must have signed rangeland use agreements (RUAs) with *soum* governments following program requirements, including with a stocking adjustment plan;
  - (v) PUG must contribute 20% of the total investment (labor force, material, equipment, and investment capital); and
  - (vi) elaborate a community participation in procurement program sheet following the program requirements.
2. **Support to pasture user groups' organizations (output 2, activity 2.2).** In all targeted areas, financial support to cover seed fund for the first few years of *soum* PUG association and *aimag* PUG association.
3. **Technical and financial support to herders' cooperatives and their organizations (output 2, activity 2).** Eligible cooperatives are either cooperatives created under the programs from successful PUGs, or pre-existing cooperatives that meet the list of criteria or are willing to be supported to meet them. The exact list of criteria will be defined at the implementation stage, but following guidelines can be taken into account:
  - (i) *Soum* cooperative members are members of PUGs which have signed RUAs including stocking adjustment plan and are engaged in a PIHMP.
  - (ii) *Soum* cooperative embraces the principle of low-carbon and climate-resilient development, including the three pillars of sustainability, i.e., social, economic, and environmental sustainability. These objectives should be clearly indicated in the cooperative status.
  - (iii) All members have provided an initial financial contribution to be defined during the general assembly meeting to form an initial investment capital for the cooperative.
  - (iv) Democratic/bottom-up governance based on active participation of the members in the decision-making, implementation, and monitoring processes.
  - (v) Statutes are registered and updated.
  - (vi) Cooperative management bodies are functional and operating.
  - (vii) Profit-redistribution is based on the decisions of all members.
  - (viii) Availability of annual financial report.
  - (ix) Agreement to be controlled by an ethics committee that oversees if the cooperative is implementing its mission and objectives and gives advice to fulfil these objectives.
  - (x) Implementation or willingness to implement a livestock product low-carbon certification fitting with the definition of the sustainability concept, providing scientific guarantees that it came from herders who adopt low-carbon practices.
  - (xi) In the case of existing cooperatives, the program will assess their willingness to participate in capacity building programs on sustainability, governance, administration, and financial management; if it does not fully comply with the criteria.
4. **Rewards for reduction in animal numbers (output 2, activity 2.3).** Will benefit PUGs that have signed RUAs following program requirements that are yearly monitored and reach the objectives stated in the stocking adjustment plan.
5. **Laboratories, animal traceability, veterinary equipment, and disease-free establishments (output 2, activities 4 and 5)** are managed by the general authority of veterinary services which provides access to all herders. Eligible criteria: targeted *aimag* or inter-*soum* centers (for laboratory and disease-free establishment, and herds/PUG for affiliated *soum* for veterinary and breeding equipment, and traceability).
6. **Training and capacity building support (output 4, activity 2) for better rangeland management and for better veterinary practices.** All herders and PUGs are eligible in the targeted *soums* for

activities related to development of PUGs and cooperatives, RUA, PIHMP, and veterinary and breeding practices.

7. **Training of one community-based animal health worker (para-vet) per pasture user group (output 4, activity 2) and provision of equipment (output 2, activity 5).** All PUGs in targeted *soums* will be eligible.
8. **Primary works for the irrigated perimeters (output 2, activity 3) will be implemented in the vicinities of the selected *aimag* and inter-*soum* centers.** Location, technical parameters, preliminary design, and costs will be done through feasibility study. In each location where it is implemented, the "primary" beneficiary is the local government, who will keep the ownership of the infrastructure, and the "secondary" beneficiaries are the farmers and water users. The selection of farmers and water users benefiting from the primary works for irrigated perimeters will be done through output 3 of the project, which will provide financing support to the private sector to develop irrigation perimeters to be connected to the primary works. Selection criteria are developed under output 3.
9. **Capacity building for herders' cooperatives and their organizations, and the water users of the irrigated perimeters (output 4, activity 2).** The selection criteria for the beneficiaries of output 4, activity 2 are the same as those used under output 2.
10. **Improvement of the capacity for low-carbon and climate-resilient agribusiness finance (output 4, activity 3).** Beneficiaries are (i) agribusinesses (small and medium-sized enterprises and cooperatives) working in the sectors identified by the low-carbon agribusiness development plan; and (ii) Development Bank of Mongolia and private banks to develop the financing mechanism to support agribusinesses (selection of the private banks is detailed under output 3).

Source: Asian Development Bank.

## 25. **Output 3: Accessible financing for low-carbon and climate-resilient livestock and agrobusiness value chains created (FIL component).**

- (i) **Activity 1: Provision of accessible low-carbon and climate-resilient agrobusiness loans and credit guarantees to herders' cooperatives and small and medium-sized enterprises.** This includes:
  - (a) Lending window 1, to provide low-carbon and climate-resilient agribusiness loans through qualified participating banks for small and medium-sized enterprises in partnership agreements with herders' cooperatives and herders engaged in sustainable rangeland management, or promoting advance processing, commercial and logistic investments for retail and exports; and other forms of economic diversification.
  - (b) Lending window 2, to provide direct low-carbon and climate-resilient agrobusiness loans to qualified medium- and large-scale enterprises which are involved in livestock production, processing, distribution and marketing, and export. The enterprises to qualify must have business plans that include a clearly articulated approach for working and sharing their profits with herders' cooperatives or herders engaged in sustainable rangeland management. They must also demonstrate congruence and consistency with the low-carbon and climate-resilient agribusiness development plan (LCADP).
  - (c) A low-carbon and climate-resilient credit guarantee facility to provide low-carbon and climate-resilient credit risk mitigation for financial institutions participating in the project and to facilitate the acceptability of collateral substitutes to be developed as part of the project's LCLVC financing schemes.

- (d) A pilot lending window 3 to focus on low-carbon and climate-resilient microfinance to be channeled through savings and credit cooperatives (SCCs) to certified herders and their households. The pilot program will be expanded during tranche 2 to support livestock-related home-based businesses and microenterprises with plans to locate in the business incubators under output 1.
- (ii) **Activity 2: Provision of innovation grants for low-carbon and climate-resilient livestock and agrobusiness value chains to qualified herders and small- and medium-sized enterprises.** This includes low-carbon and climate-resilient innovation grants to provide business incentives designed to commercialize innovations leading to greener, more inclusive, and competitive LCLVCs.

26. For output 3, the GCF loan will finance Activity 1 with financing contribution from participating commercial banks. Activity 2 will be fully financed by the GCF grant. Box 4 provides an overview of some of the key elements of output 3, while Volume 4 of the transaction TA Final Report provides a more detailed discussion.

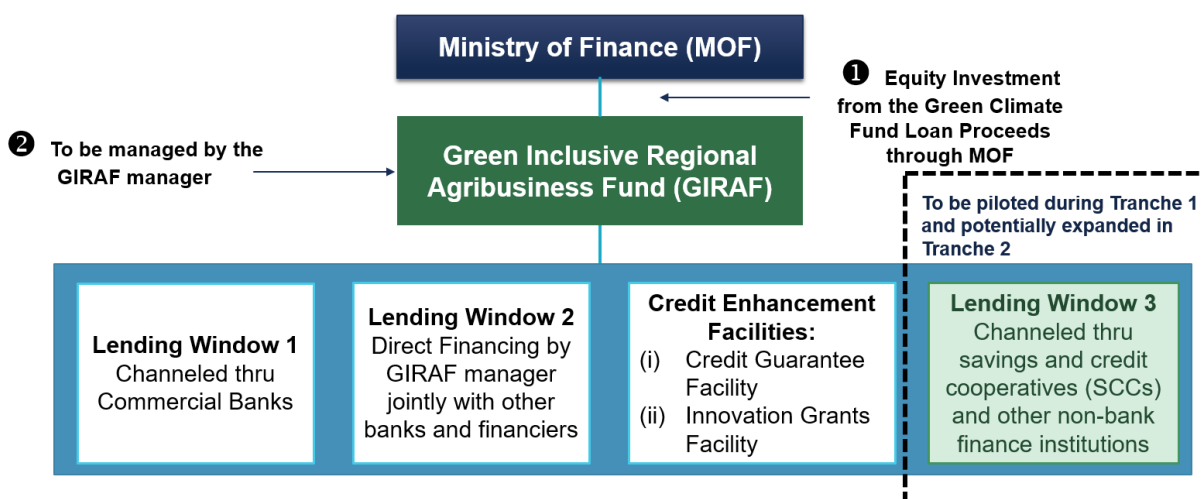
**Box 6: Summary of the Green and Inclusive Regional Agribusiness Fund  
(See Appendix 3)**

**Traditional barriers to access to agriculture finance.** The World Bank in analyzing how climate finance can work in agriculture has noted that access to sufficient and adequate finance has been a challenge to the agriculture sector (including the livestock industry) in developing countries for decades due to perceptions of low profitability, low margins for financiers, and high actual and perceived risks (among other issues). Financiers in most countries, therefore, have reacted by limiting their exposure to the sector, raising interest rates, tightening the lending criteria, shortening terms, imposing onerous lending terms, and often shying away from lending to agriculture at all, seeking more stable returns from other sectors of the economy. The three major barriers that have traditionally limited the access of smallholder farmers/herders and small and medium-sized enterprises (SMEs) to sufficient and adequate finance—often referred to as the missing middle in agriculture literature—are (i) high transaction costs, (ii) inadequate enabling environments, and (iii) insufficient capacity of the finance sector to manage specific agriculture risks.<sup>a</sup> These constraints to agriculture finance are evident in Mongolia as discussed in several Asian Development Bank (ADB) studies and based on consultations conducted in the program-targeted *aimags* and *soums*. Addressing these constraints will pave the way for climate change mitigation and adaptation finance to support the transition to sustainable rangeland and consequently, a more climate-smart livestock sector in Mongolia.

**Fund structure and management of the Green and Inclusive Regional Agribusiness Fund.** For the delivery of output 3, financing and implementation arrangements will facilitate the application of a blended climate change mitigation and adaptation finance strategy to support a climate-smart, low-carbon livestock sector in Mongolia using a financial intermediation loan (FIL) component.<sup>b</sup> Under the proposed FIL component of the program, a green and inclusive regional agribusiness fund (GIRAF)<sup>c</sup> on behalf of the Ministry of Finance to support the climate change mitigation and adaptation investment requirements of sustainable rangeland management. Simultaneously, it will address the financing constraints preventing the livestock herders, pasture user groups (PUGs), and agriculture cooperatives as well as their partner business enterprise from capturing the full benefits of a competitive and inclusive low-carbon and climate-resilient livestock and agrobusiness value chain (LCLVC).<sup>d</sup> Through the GIRAF, GIRAF manager will leverage GCF funding to attract additional investments from commercial banks and nonbank financial institutions; small, medium, and even large enterprises; agricultural cooperatives; and the government.

Under the program, the government will invest \$87.61 million from the GCF loan proceeds into the GIRAF which will be managed by GIRAF manager as the apex financial institution. It will also pass on the \$5.0 million reimbursable grant proceeds to the GIRAF to finance low-carbon, climate-resilient innovations. The GIRAF will be established as a private investment fund<sup>e</sup> and structured as a revolving fund. Cognizant of the different climate-smart financing needs of a LCLVC's stakeholders, the fund will initially operate with (i) two low-carbon, climate-resilient lending windows to be channeled through participating commercial banks or directly through GIRAF manager jointly with other banks and financiers, (ii) a low-carbon and climate-resilient credit guarantees facility, and (iii) a low-carbon climate-resilient innovations grant facility for incentivizing investments to commercialize innovations leading to a greener, more inclusive, and competitive LCLVC (see the following Green and Inclusive Regional Agribusiness Fund Structure). Another low-carbon and climate-resilient lending window to address the financing needs of microenterprises and which will channel loans through qualified savings and credit cooperatives and other nonbank financial institutions will be piloted during Tranche 1 to be potentially launched and expanded in Tranche 2. For the first two low-carbon and climate-resilient lending windows, business enterprises in partnership with herders or herders' cooperatives engaged in low-carbon and climate-resilient rangeland management and urban–rural linkages as well as diversification of the livestock agribusiness value chain will be eligible to borrow.

## GIRAF FUND STRUCTURE AND MANAGEMENT



**Onlending and relending mechanisms.** Participating commercial banks will be selected using an eligibility and selection criteria that includes the following: (i) must be a duly registered bank in Mongolia under the applicable laws of Mongolia; (ii) must have a proven track record of at least 3 years in agriculture and agribusiness finance; (iii) must have adequate capacity to conduct retail banking for agriculture and agribusiness in the targeted *aimags* and *soums*; (iv) must be currently implementing or have plans to implement a financing program for green growth initiatives including carbon finance; (v) have corporate, financial, and governance practices that are acceptable to ADB; (vi) satisfy ADB's due diligence requirements for integrity, anti-money laundering, and counter financing of terrorism, and have put in place measures to implement such controls; (vii) have no past due obligations with the Bank of Mongolia or adverse audit findings; (viii) have an adequately maintained financial management system including accounting records, procedures, and internal as well as risk management control systems that are satisfactory to ADB; (ix) have an established environmental and social management system or is willing to set up such in a manner acceptable to ADB, including appointing qualified staff to manage and implement the system; and (x) willing to designate experienced professional staff who will report progress to, and coordinate relevant activities with the MOF, GIRAF, GIRAF manager, Ministry of Economy and Development; Ministry of Construction and Urban Development, and Ministry of Food, Agriculture and

Light Industry. Due diligence of the preselected commercial banks will be carried out and updated at least twice a year during the program implementation.

**The GIRAF Lending Window 1.** Three categories of subprojects are eligible for financing under this window. The details of each and their financing terms are discussed in the table below:<sup>f</sup>

<b>Category 1 Subprojects</b>	
Eligible sub-borrowers and subprojects	<p>Under this lending window, the GIRAF will provide low-carbon, climate-resilient agribusiness loans through qualified participating banks for the following essential LCLVC-related agribusiness subprojects involving (i) certified herders' cooperatives or (ii) SMEs in partnership agreements with certified herders' cooperatives where it is stipulated that the latter has contributed to the financing of the total subproject cost and will receive at least a 10% share of the subproject profits:</p> <ul style="list-style-type: none"> <li>(i) new meat processing to be located in the program-financed agro-industrial parks, or location providing similar level of infrastructure and urban services, in the targeted <i>aimags</i> and inter-<i>soum</i> centers;</li> <li>(ii) new irrigated perimeters (for fodder crops and seeds growing only, other uses are not eligible for financing under this window);</li> <li>(iii) relocate processing facilities to the point-of-need, limiting the requirements for transport, and reducing the transport emissions and emissions resulting in wastage during transport;</li> <li>(iv) subprojects that introduce low-carbon and climate-resilient technologies into the production process, such as renewable energy and use of waste materials; and</li> <li>(v) subprojects that provide herders on a commercial basis with inputs such as breeding techniques and breeding services improved access to water and feeds to help them adapt to climate change and lower their greenhouse gas (GHG) emissions and grazing pressure.</li> </ul>
Eligible sub-loan expenditures	<ul style="list-style-type: none"> <li>(i) Working capital requirements</li> <li>(ii) Equipment purchase</li> <li>(iii) Civil works</li> <li>(iv) Feasibility study/business plan preparation</li> <li>(v) Surveys integral to the feasibility study/business plan preparation</li> <li>(vi) Detailed engineering design</li> </ul>
Indicative sub-loan size	Up to \$350,000 or MNT equivalent
Indicative lending terms	Interest rate: 7% per annum; Term: working capital loans (up to 2 years), others: (up to a maximum of 7 years); Grace period: up to 3 years
<b>Category 2 Subprojects</b>	
Eligible sub-borrowers and subprojects	<p>Under this lending window, the GIRAF will provide low-carbon and climate-resilient agribusiness loans through qualified participating banks for the following livestock processing-related agribusiness subprojects in the value chain involving (i) SMEs in partnership agreements with certified herders' cooperatives (where the latter have a minimum share of 10%–15% of the subproject profits); (ii) SMEs signing sales and purchase agreement with its suppliers such as the certified herders, PUGs, and herders' cooperatives (schedule and quality) which indicate that suppliers are paid for the raw materials and annual (or seasonal) profit sharing; or (iii) SMEs in partnership with certified herders provided there is a mutually agreed work and profit sharing agreement among the two parties:<sup>9</sup></p> <ul style="list-style-type: none"> <li>(i) meat</li> <li>(ii) skin</li> <li>(iii) wool</li> <li>(iv) cashmere</li> </ul>

	<p>(v) dairy</p> <p>These agribusinesses, to be financed, must be included in the low-carbon and climate-resilient agribusiness development plan (LCADP) to be formulated with the support of the program for the targeted <i>aimags</i> and <i>soums</i> using a participatory, consensus building approach among the agribusiness value chain stakeholders. They should also be located in the program-financed agro-industrial park, or location providing similar level of infrastructure and urban services, in the targeted <i>aimag</i> or inter-<i>soum</i> center. For agribusinesses engaged in meat, skin, and hide, they must be located in a program-financed agro-industrial park where there is a meat processing facility that is operational or will soon be operational.</p>
Eligible sub-loan expenditures	<p>(i) Working capital requirements</p> <p>(ii) Equipment purchase</p> <p>(iii) Civil works</p> <p>(iv) Feasibility study and/or business plan preparation</p> <p>(v) Surveys integral to the feasibility study and/or business plan preparation</p> <p>(vi) Detailed engineering design</p>
Indicative sub-loan size	Up to \$500,000 or MNT equivalent
Indicative lending terms	Interest rate: 7.5% per annum; Term: working capital loans (up to 2 years), others: (up to a maximum of 7 years); Grace period: up to 3 years
<b>Category 3 Subprojects</b>	
Eligible sub-borrowers and subprojects	<p>Under this lending window, the GIRAF will provide low-carbon and climate-resilient agribusiness loans through qualified participating banks for subprojects involving certified herders' cooperatives and their business partner enterprises in off-pastureland, non-wood related, and less GHG-intensive economic diversification. Subprojects that are related to the vegetable agro-value chain or manufacturing by-products that are key to the herders' livelihood income, food security or support economic diversification will also be eligible for financing under this window, even if they are not mentioned in the LCADP. These may include but not limited to the following:</p> <p>(i) subprojects related to livestock marketing including the export market;</p> <p>(ii) subprojects that are related to service industries operating in the <i>aimag</i> and inter-<i>soum</i> centers and which can provide the certified herders household with alternative income sources;</p> <p>(iii) greenhouse and crop farming (note: there are no restrictions on the location of this type of subproject); and</p> <p>(iv) animal waste valorization businesses to be located in the program-financed agro-industrial parks in the targeted <i>aimags</i> and inter-<i>soum</i> centers.</p> <p>The above agribusinesses, to be financed, should be in the LCADP to be formulated with the support of the program for the targeted <i>aimags</i> and <i>soums</i> using a participatory, consensus building approach among the agribusiness value chain stakeholders.</p>
Eligible sub-loan expenditures	<p>(i) Working capital requirements</p> <p>(ii) Equipment purchase</p> <p>(iii) Civil works</p> <p>(iv) Feasibility study/business plan preparation</p> <p>(v) Surveys integral to the feasibility study/business plan preparation</p> <p>(vi) Detailed engineering design</p>
Indicative sub-loan size	Up to \$1 million or MNT equivalent
Indicative lending terms	Interest rate: 8.5% per annum; Term: working capital loans (up to 2 years), others: (up to a maximum of 10 years); Grace period: up to 3 years

**The GIRAF Green Lending Window 2.** Under this lending window, the GIRAF will directly provide low-carbon, climate-resilient agrobusiness loans in parallel financing with other banks and/or financial institutions valued at \$500,000 up to \$5 million to qualified medium- and large enterprises who are involved in low-carbon and climate-resilient livestock production, processing, distribution and marketing, and exports in the meat, skin, hide, dairy, wool, and cashmere value chains.

To receive financing under this window, the business plans of these medium and large enterprises must include a clearly articulated approach for

- (i) working and sharing their profits, with certified herders' cooperatives engaged in sustainable rangeland management;
- (ii) promoting low-carbon, climate-resilient rural-urban linkages and development; incorporating investments that reduce the GHG impacts of energy use such as solar panel, solar rooftops, or energy efficiency measures; investments that use waste products or reduce wastage (losses in the value chain); and investments that shorten the distance raw materials and products need to travel, thereby reducing the amount of GHG emissions related to transport;
- (iii) generating additional jobs and employment in the process reinvigorating the LCLVC; and
- (iv) diversifying as well as making more competitive the local economies of the program-targeted *aimags* and *soums*.

The proposed agribusinesses must also be able to demonstrate congruence and consistency with the low-carbon and climate-resilient agribusiness development plan to be formulated with the support of the program in the targeted *aimags* and *soums*. Eligible sub-loan expenditures will include civil works, equipment, feasibility studies and business plan preparation including all necessary surveys, and detailed engineering design. The interest rate to be charged by the GIRAF for this window, currently estimated at 10% to 12% per annum, will be a product of the blended finance to be provided, reflecting to the greatest extent possible, the concessionality provided by the GCF loan financing.

**The GIRAF Low-Carbon and Climate-Resilient Credit Guarantee Facility.** Based on a review of the lessons learned from similar types of agricultural credit guarantee facilities/funds in Asia, Europe, and Africa, the credit guarantee facility (CGF) of the GIRAF has been designed to (i) provide a third-party credit risk mitigation tool to lenders through the full or partial coverage of the lender's losses on the GIRAF subloans to agricultural cooperatives, microenterprises, SMEs, even large enterprises, in case of default; (ii) serve as a collateral substitute for the missing middle sub-borrowers of the GIRAF mostly comprising the agricultural cooperatives and SMEs, with no hard collaterals such as real estate properties; (iii) facilitate acceptability of collateral substitutes used in innovative agribusiness value chain financing schemes such as receivables discount financing, also known as factoring, and (iv) enable the adoption of lower lending rates since the guaranteed portion of the subloans which may be categorized as posing minimal or zero risk to the lending financial institutions.

The basic features of the CGF will include the following: (i) the guarantee/insurance premium structure and coverage will depend on the size, purpose, and sub-borrowers of the GIRAF subloans; (ii) the ceiling for sub-loan-to-collateral value will be structured depending on the capacity to repay of the sub-borrowers and the collateral(s) they are able to provide; (iii) the extent of the guarantee coverage to be adopted will range from 70% to 90% of the sub-loan value, depending on the purpose, size and tenor of the sub-loan and the type of sub-borrower; (iv) occurrence of default or failure of the sub-borrower to pay applicable amortization will be defined based on the nature and amortization scheme of the sub-loan; (v) enrolment of accounts may be undertaken with a system of representations and warranties to be provided by the participating lending financial institution; and (vi) GIRAF manager as facility manager will have the right to conduct random audits to assess the documentary status and financial viability of enrolled subloans under the credit guarantee line of a participating lending financial institution.

**Credit guarantee enrolment.** Participating financial institutions providing GIRAF low-carbon and climate-resilient subloans are all eligible to avail of the fund's credit guarantee coverage. The process for enrolling and making a call on the CGF of GIRAF will be as follows: (i) financial institutions (banks, SCCs, and nonbank financial institutions) apply for a credit guarantee line with the GIRAF; (ii) GIRAF manager

evaluates the applications against the approved CGF eligibility criteria for participating financial institutions under the GIRAF Lending Windows 1 and 2; (iii) for applications approved, a contract of guarantee will be executed between GIRAF manager and the applicant financial institution. The contract will cover provisions on the structure of the guarantee premium, extent of coverage and sub-loan ceilings, sub-loan to collateral value, borrowers' equity, acceptable collateral and valuation, eligible sub-loan purposes, and definition of default based on applicable payment schedule of guaranteed subloans; and (iv) the financial institutions with approved credit guarantee line and contract of guarantee with GIRAF manager will enroll eligible subloans from the GIRAF Lending Windows 1 and 2 under their respective guarantee line with a letter of enrolment stating the required warranties and representations which will include: (a) the completeness of documents evidencing the sub-loan and the collateral/s securing the repayment thereof are valid, binding and enforceable against the sub-borrower; and (b) the reasonable examination of the loan accounts to ensure credit worthiness of the borrower under credit policies and guidelines on underwriting the loans extended by the financial intermediary are compliant to provisions of the contract of guarantee.

**Call procedure on the guarantee.** In the event of a default, as defined in the contract of guarantee, the financial institution will file a claim against the guarantee cover for the defaulting account and forward all documents and other requirements for evaluation of the call by GIRAF manager. A valid claim on the guarantee coverage of an account will trigger the processing of a call payment on the outstanding principal of the insured loan. However, the financial intermediary will warrant the continuing management of the defaulting account to enable, if possible, the recovery of the sub-loan call payments by the CGF.

**The GIRAF Low-Carbon and Climate-Resilient Innovation Grants Facility.** Mongolia's agriculture sector is the second largest contributor to the country's GDP with a share of 11% and the biggest source of employment, providing jobs to nearly 35% of the country's economically active population. Within agriculture, the livestock industry is the largest GDP contributor with a share of almost 85%. However, despite the comparative advantages of the Mongolian livestock industry and the tremendous market opportunities available, both domestically and internationally, there are still too few successful livestock agribusinesses that operate successfully in the market. What exists in the *aimags* and *soums* of Mongolia is a plethora of micro- and small business enterprises which are unable to transform into middle and large enterprises comprising an economically competitive, climate change resilient, and socially inclusive industry. There are many impediments to the transformation: a lack of marketing and marketing knowledge, inappropriate technology, a weak value chain integration, inaccessible financing, and insufficient innovations. The result is a perverse cycle of low value added to the livestock sector, inadequate income, and poor livability; exacerbating the need to increase the number of animals leading to further rangeland degradation. The primary objective of the GIRAF Low-Carbon and Climate-resilient Innovation Grants Facility (GIGF) is to increase the competitiveness and growth of pioneering agribusiness livestock enterprises in Mongolia's *aimags* and *soums* by advancing low-carbon, climate-resilient agribusiness products, processes, and business model innovations. It will seek to catalyze low-carbon green and inclusive regional agribusiness growth by accelerating the transformation of micro-and small agribusiness enterprises into competitive medium- and large-scale enterprises with the capacity to invigorate and diversify Mongolia's livestock value chain, in the process alleviating rangeland degradation, increasing the animal feed production, and promoting more efficient markets and integrated rural-urban development.

**Eligible financing, structure, and management of the facility.** The total requested GCF grant for the program is \$45 million, \$5 million of which has been earmarked for the GIGF of the GIRAF. From the total GCF grant, \$25 million has been allocated to Tranche 1. Of this Tranche 1 GCF grant allocation, \$3 million will be passed on as a grant by the Government of Mongolia to the GIRAF for the GIGF innovation grants.

The GIRAF manager which is tasked to establish and manage the GIRAF in accordance with the Mongolian Investment Law will set up the GIGF as a revolving fund under the GIRAF. As such, the facility will also be managed by GIRAF manager in accordance with the grant policies and mechanics approved by the projects steering committee (PSC) and the Financial Regulatory Commission (FRC).<sup>h</sup> The financial management system of the GIGF will adhere to the relevant standards and procedures to meet

ADB requirements, including separate accounting, reporting, auditing, and monitoring systems appropriate for grants. GIRAF manager will appoint a grant administrator to ensure the smooth functioning and operations of the GIGF. He or she will report directly to the GIRAF fund manager and will have primary responsibility for the following: (i) evaluation of the grant applications in accordance with the GIGF criteria, (ii) recommendations on GIGF grant awards, and (iii) grant administration including disbursements and monitoring evaluation. In these tasks, he or she is expected to ensure that the GIGF strictly adhere to the grant policies and mechanics approved by the FRC and the PSC.

**Grant mechanics and operations, eligible grant recipients.** Eligible grant recipients are the innovative and SMEs whose written policies and ongoing and proposed programs demonstrate a firm commitment to agribusiness innovations and competitive growth. They must also be working in partnership or in association with herders engaged in sustainable low-carbon and climate-resilient rangeland management and which has the potential to become leaders in the low-carbon and climate-resilient livestock agribusiness value chain, as evidenced by their corporate values, strategies, and priorities as well as network. They must be registered SMEs in Mongolia, established in accordance with all relevant Mongolian laws and must be operating profitably for at least 2 years, with no adverse audit findings, at the time of grant application. SMEs deemed eligible to borrow from any of the GIRAF Lending Windows are also eligible to apply for grants from the GIGF. If they are already a GIRAF sub-borrower, their account must be in financial good standing, with no defaults and no adverse audit findings. In addition, they have to meet the subproject eligibility criteria specified by GIGF.

**Eligible subprojects and subproject eligibility criteria.** To be eligible a subproject proposal will have to demonstrate compliance with all the following six requirements below:

- (i) The proposed subproject should be a prototype.<sup>i</sup> It should be the first-of-its kind or near the first-of-its kind in the targeted *aimag* (maximum of one project of the same nature during the last 5 years in the *aimag*).
- (ii) Should be sufficiently green. The proposed subproject should have adequate climate change mitigation and adaptation benefits with an assessed climate change benefits<sup>j</sup> to investment ratio of at least 10%.
- (iii) It should demonstrate additionality. It should show how the subproject can capture GHG emission reductions in the agriculture livestock value chain that would not occur without the GIGF support to the subproject, demonstrating a positive effect from a baseline scenario.<sup>k</sup>
- (iv) It should be replicable. It should have an approach that clearly illustrates how its experience and lessons learned from the program can be replicated or scaled up in the near future for other *aimags*.<sup>l</sup>
- (v) It should demonstrate green social inclusivity. It should have institutional and design features that show how it will foster the linkage between growth and competitiveness and sustainable rangeland management, specifically with respect to herders' cooperatives and the vulnerable segments of society.<sup>m</sup>
- (vi) It should have the potential to transform the SME into a larger, more competitive entity. It should show how the proposed low-carbon and climate-resilient agribusiness innovation can evolve into a larger enterprise capable of generating additional annual revenues of at least 10% and additional green jobs and employment of at least 30% for the economy.

**Examples of eligible subprojects.** Subprojects should employ innovative knowledge products and technologies in agricultural production and productivity, agro-processing, and agricultural marketing toward a low-carbon, climate-resilient and inclusive livestock agribusiness value chain at the *aimags* and *soums*. These may include but are not limited to the following: (i) gel applications to the ground to retain water, (ii) improved breeds and livestock breeding services, (iii) artificial insemination, (iv) feed additives to reduce methane emissions, (v) digital systems in livestock marketing and distribution (related to product certification), and (vi) renewable energy or energy efficiency solutions for production and processing.

**Ineligible subprojects and activities.** Some subprojects and/or activities will not be funded by the GIGF. The following list is a guide to the types of subproject-related activities or costs which the GIGF will not cover. The GIGF will not cover costs relating to

- (i) "business as usual" expenses, including
  - (a) overheads incurred during normal business and/or industry;
  - (b) activities that are already happening in business and/or industry; and
  - (c) capital expenditures planned in the normal course of business, such as spending on machinery, equipment, stock, software, and other similar expenditures.
- (ii) expenses the business/industry would incur anyway if it did not get funding under the GIGF;
- (iii) costs that are not in cash;
- (iv) activities that contribute to increases in GHG emissions or increases in climate change vulnerability;
- (v) activities that fail to meet the program environmental and social safeguards; and
- (vi) activities that do not contribute to the achievement of the program objectives.

**Grant applications, awards, disbursements, and monitoring.** The approval of GIRAF grants will be based on an application using a template provided by GIRAF manager. The template will require all applicants to provide the rationale for their grant request, details of their proposed innovation(s), the impact on climate change mitigation and adaptation and the agribusiness livestock value chain, anticipated results (outcome and outputs), and details of their budget and implementation plan with progress milestones. The grant applications will be evaluated using selection criteria that will include the following: (i) must be a prototype, the first or near the first-of-its kind in the targeted *aimag*; (ii) climate change benefit to investment indicator of at least 10%, (iii) ability to capture cost-efficient GHG emission reductions in the agriculture livestock value chain; (iv) replicability in other *aimags*; (v) green social inclusivity fostering partnership agreements that ensure a more equitably distribution of benefits; and (vi) potential to transform into a larger, more competitive entity capable of generating additional revenues and green jobs. Upon approval, GIRAF manager will monitor and disburse grants proportionately based on their implementation schedule and progress milestones achieved. This will mitigate the risk of grants being used to repay the loans.

A more detailed discussion of Output 3 and the GIRAF is attached as **Appendix 3**.

<sup>a</sup> Marc Peter Sadler. 2016. *Making Climate Finance Work in Agriculture*. World Bank: Washington, D.C.

<sup>b</sup> ADB provides a financial intermediation loan on a stand-alone basis, or as components of sector development programs or sector or project loans, to finance specific development projects whose individual financing requirements are not large enough to warrant its direct supervision. ADB funds can be directly provided to one or several financial intermediaries depending on their management and administrative capabilities or channeled to financial intermediaries through the government and/or apex wholesale financial mechanisms, where conditions necessary for their sustainable operation exist. Apex institutions are usually financial institutions through which donor-funded financial intermediation loans are channeled to a second layer of financial intermediaries, who will in turn onlend such loan proceeds to the sub-borrowers. Apex institutions take the credit risk on the second-tier intermediaries.

<sup>c</sup> GIRAF will be managed by a "GIRAF Manager" which (i) satisfies the eligibility criteria set forth in para. 37 of Schedule 4 of the Loan Agreement (accessible from the list of linked documents in Appendix 2 of the RRP), (ii) manages GIRAF and is responsible for implementing output 3 of the Project, and (iii) may be AMC or any other party agreed upon between the Borrower and ADB and acceptable to GCF.

<sup>d</sup> Based on Government Resolution 135 and DBM Board of Directors Resolution 66 dated 23 August 2017, DBM established GIRAF manager and acquired special license for investment management services. In accordance with Financial Regulatory Commission Resolution 241 dated 15 December 2017, GIRAF manager received the right to establish and manage investment funds.

<sup>e</sup> Private investment fund is one of the two types of funds available under the Mongolian law. The other is public investment fund, which is a mutual fund.

<sup>f</sup> The low-carbon and climate-resilient loan financing terms indicated for each window are based on a survey of prevailing agricultural finance programs in Mongolia which are funded by the government and/or international donor agencies. Analysis conducted under the transaction technical assistance based on consultative meetings with banks and the private sector in June to September 2018 at the targeted *aimags* and *soums* revealed that

access to finance by the herders, herders' cooperatives, and agriculture and/or agribusiness SMEs has been severely limited, lending credence to the missing middle financing gap in Mongolia's *aimags* and *soums*, particularly for the livestock agribusiness sector.

<sup>g</sup> Tannery businesses are not eligible due to their high environmental impacts.

<sup>h</sup> A draft manual containing the detailed grant policies and mechanics will be prepared by GIRAF manager with the support of program consultants under O4A3 to be financed by the ADB concessional loan. This manual will be submitted to the projects steering committee for approval. The Financial Regulatory Commission will review and approve the manual prior to the approval of the projects steering committee.

<sup>i</sup> The proposed intervention and/or subproject should be a prototype, a model that can serve as a basis for future innovative knowledge and technology applications in activities critical to the strengthening the agribusiness livestock value chain in the targeted *aimags* and *soums*. These activities include (i) agricultural production, (ii) agricultural processing, (iii) packaging, (iv) distribution, (v) branding, and (vi) other aspects of marketing including those relevant to the export markets.

<sup>j</sup> The climate change benefit indicator is a measure of climate change value for money. It is a monetized estimate of the main annual climate change benefits resulting from the program or intervention, linking the annual climate change benefits to the investment amount (**Appendix 4**).

<sup>k</sup> Additionality is the determination whether a proposed activity will produce some "extra good" in the future relative to a reference scenario, which is referred to as a baseline. The proposed subproject must be able to demonstrate how it will produce incremental greenhouse gas emissions in the agribusiness livestock value chain, given the with- and without-the-subproject scenarios, in which the without-the-subproject-scenario is the baseline.

<sup>l</sup> Consistent with the terms used in the relevant climate change literature, replicability is defined in this case as refers to activities that explicitly attempt to reproduce a specific intervention in a different location(s). This means that the subproject proposal should convincingly argue that with the GIGF support, it will be possible to overcome barriers toward the future implementation of similar projects in other *aimags*.

<sup>m</sup> The subproject must have an approach that explains how the subproject can achieve growth and competitiveness and reduce greenhouse gas emissions while producing benefits that are more equitably distributed. This can take the form of legally viable partnership arrangements between the SMEs and herders' cooperatives as well as the vulnerable households in the targeted *aimags* and *soums* which enabling the latter to share in the benefits to be generated by the subproject.

**27. Output 4: Institutional capacity and policies for low-carbon and climate-resilient agro-territorial development strengthened** will have the following activities:

- (i) **Activity 1: Support for project management and implementation.** This includes:
  - (a) capacity building and support for project implementation and management including procurement capacity support for works, goods, and consulting services;
  - (b) on-the-job (OJT) and formal training to project implementation unit (PIU) staff on all aspects of project management;
  - (c) financial management training to handle submission of withdrawal applications to ADB;
  - (d) financial management and accounting system for the project;
  - (e) procurement assistance, bidding document review and evaluation, and contract management and disbursement;
  - (f) support the implementation of the resettlement framework, land acquisition and resettlement plan, and the social and gender action plan;
  - (g) provide OJT and formal training to PIU staff on social, gender, voluntary participation, and community participation aspects of the project;
  - (h) provide project management training to PIU on ADB safeguards, due diligence, procurement, and financial management;
  - (i) monitoring and effective implementation of the land acquisition and resettlement plan, and social and gender action plan;
  - (j) update, finalize, and monitor safeguards documents, including the resettlement plan, initial environmental examination or environmental impact assessment, and environmental management plan in compliance

with ADB's guidelines and the relevant frameworks agreed between ADB and the Government of Mongolia.

- (ii) **Activity 2: Sustainable urban development, energy-efficient housing, efficient service delivery, and utility management.**<sup>45</sup> The activity will provide training to the PIU and/or *aimag* PIUs, Ministry of Construction and Urban Development, and *aimag* and *soum* governments to support the implementation of output 1 and change practices toward a more sustainable urban planning and resource management through OJT; and in particular:
  - (a) development of a model based on the pilot *ger* areas redevelopment of inclusive, participative, and green *ger* areas' street redevelopment framework completed based on the tranche 1 pilot and replicated on tranches 2 and 3, and capitalization for replication beyond the multitranche financing facility;
  - (b) capacity building for effective management of solid waste collection and transport, using recycling programs and financially stable operations;
  - (c) specific advisory services for energy-efficient housing improvements (insulation and connection) of *ger* area housing units; and
  - (d) introduction of heat metering, now only in Ulaangom, with appropriate tariff restructuring to incentivize energy efficiency.
- (iii) **Activity 3: Support for low-carbon and climate-resilient rangeland and agricultural management.** This includes:
  - (a) **Improvement of rangeland management and climate change adaptation and mitigation.** Capacity building will be provided to the Agency for Land Management and Administration, Geodesy and Cartography and land officers for improved rangeland health monitoring and registration and monitoring of RUAs; and capacity building and awareness raising activities to PUGs on the elaboration of PIHMP, and signing of RUAs and elaboration of stocking adjustment plans.
  - (b) **Herders' organizations sustainable development.** Support will be provided to PUGs and their structuring at *soum*, *aimag*, and national levels, through capacity building and OJT; to cooperatives and their structuring at *aimag* and regional level through capacity building and OJT; support on developing and establishing green cooperative model; support to SCCs through the set up of another lending window to address the financing needs of microenterprises, which will channel loans through qualified SCCs and other nonbank financial institutions, piloted during tranche 1 to be potentially launched and expanded in tranche 2; creation of institutional linkages and synergies between PUGs, cooperatives, and SCCs, and inclusion of local governments through the facilitation of "*soum* exchange platforms" in which all organizations participate; and capacity building will be provided to all herders' organizations of the project areas based on voluntary participation, and to all PUG and cooperatives as a pre-condition to benefit from project support.
  - (c) **Veterinary and animal breeding services.** Strengthening of veterinary and animal breeding services at each level of the agribusiness chain; and

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<sup>45</sup> Capacity building main beneficiaries are (i) the residents, for relevant use and maintenance of technical unit and for energy efficiency improvement of existing houses; and (ii) the utility companies, for more efficient operation and maintenance of networks, plants, and services.

provision of training programs to CAHWs in each PUG in-charge of providing preliminary veterinary services and raising herders' awareness on animal breed and health (footnote 41).

- (d) **Sustainable low-carbon value chains and market development**, including preparation of LCADP and LCLVC together with activity 3 and of related pre-feasibility studies, business plans, and technical specifications for the priority investments.
- (e) **Development of certification and traceability systems**. Capacity building support will be provided to MOFALI, General Authority for Veterinary Services, and National Federation of Pasture User Groups. Certification systems will be based on three pillars: ecological (sustainable rangeland management, resilience of herds); social (fair price, fair share of profit, empowerment); and technical (optimization of practices, quality versus quantity, animal welfare).
- (f) **Training programs to operate and maintain the irrigation systems and grow fodder and animal feed crops**. The activity will define water conservancy and management principles and improve cultivation and production of animal feed crops. Support to water users will depend on their commitment to produce fodder at a regulated price for the herders.
- (g) **Support the formulation of policies on rangeland and land use management**, *soum* territorial development plan, pastoralism, and livestock management (including the formulation and dissemination of knowledge products and lessons learned and contributions to the formulation of the successor of the National Mongolian Livestock Program).
- (h) **Sustainable water management practices developed and disseminated** through the following: (i) generate, disseminate, and implement good practices, knowledge on sustainable water management, and climate change adaptation practices widely among local communities with specific focus on vulnerable groups; (ii) from the project's lessons learned and good practices generated, develop and support the adoption of modified national and regional water management, agricultural and regional development policies, and a national action program on rural climate change adaptation; and (iii) support farmers in the area for efficient use of water and provide modern pilots of irrigation schemes that also minimizes the run-off of chemicals used in agriculture. It will also support the formation of water users' groups that will co-invest in such irrigation schemes, thus ensuring ownership of the technology by the farmers. The pilot demonstration and its multiplication through co-investment will be rigorously supported by training on new cropping technologies, proper use of agrochemicals, storage, and marketing of agricultural products. New innovative approaches such as solar powered and/or drip irrigation systems will be introduced in the agriculture sector.

Combining the items above will generate a territorial framework promoting low-carbon agribusiness development, sustainable land management, and livable and attractive urban development.<sup>46</sup> It also includes analyses to capitalize on mechanisms and incentives developed and implemented under the program and study suitability as policy, and policy recommendations.

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<sup>46</sup> This will be complemented by ADB. [Mongolia: Human Settlements Development Program](#).

- (iv) **Activity 4: Improvement of capacity for low-carbon and climate-resilient agribusiness finance.** This includes:
- (a) Training programs to strengthen the capacities of SMEs and cooperatives in the areas of business planning, marketing, strategy formulation, and technology adaptation and application, to be delivered in the business incubators and in partnership with the *Aimag* Employment Services for increased sustainability.
  - (b) Provide inputs in the preparation of LCADP, LCLVC, and of related pre-feasibility studies, business plans, and technical specifications for the priority investments.
  - (c) SMEs and cooperatives will be selected based on their interest to get project financing support from output 3 and in compliance with project criteria related to rangeland management, carrying capacity, veterinary services, and certification system.
  - (d) Create an environment where financial institutions provide the financing required to improve the livestock agribusiness value chain. This support may include but will not be limited to the following: (i) multisector, consultative meetings and workshops to bring together financial institutions and livestock agribusiness stakeholders to formulate innovative financing solutions for the missing middle (e.g., developing collateral substitutes such as factoring or account receivables finance); (ii) providing transaction advisory services to producer organizations or lead actors in the chain to help them meet the requirements of viable, sustainable chain operations (including related financial services); and (iii) facilitate linkages with exporters (or importers in target market countries) to demonstrate the availability of well-established domestic and international market outlets to financiers, and to provide sufficient value-added potential at the *aimag* and *soum* levels.
  - (e) Create an environment where cooperation between cooperatives and SMEs is facilitated, through the creation of models (templates, guidelines, and advisory services) for partnership or purchase agreements.
  - (f) Develop and support the implementation of low-carbon income generation opportunities for rural communities through diversification of agriculture and livestock products.
  - (g) Pilot microfinance mechanisms through SCCs and other nonbank financial institutions to make affordable loans more accessible to certified herders and formulation of recommendations on how the Green and Inclusive Regional Agribusiness Fund lending window 3 in output 3 can be structured in the most effective and efficient manner. This will, among other sub-activities, study how SCCs can address lending through innovative financial products and services to member herders complying with the stocking adjustment rates supportive of the program's objectives of increasing animal productivity and economic diversification.
  - (h) Support the national working group on sanitary and phytosanitary measures that was established with the support of ADB and Central Asia Regional Economic Cooperation Common Agenda (or its update), to strengthen the coordination among trade-related agencies involved in sanitary and phytosanitary issues, and cooperate with development partners such as the Food and Agriculture Organization of the United

Nations and World Organization for Animal Health to align Mongolia's sanitary and phytosanitary systems with international standards.<sup>47</sup>

- (v) **Activity 5: Implementation of monitoring and evaluation and measurement, reporting, and verification systems.** The activity will assist in the development of proper monitoring and evaluation and measurement, reporting, and verification (MRV) system. Box 5 contains a description of the main features of the proposed MRV, which builds on existing rangeland monitoring mechanisms. These existing monitoring mechanisms mainly focus on ecological and biodiversity aspects of rangeland health and will be complemented with the biomass and carbon components of rangeland health. The program intends to mobilize funding through the smart land management center.
- (vi) **Activity 6: Enhancement of capacity for policy reforms formulation, implementation, and enforcement.** This includes:
  - (a) Addressing the current impediments to enable a policy environment that is more conducive to (i) developing climate-resilient, low-carbon, and attractive *aimag* and *soum* centers; (ii) a just low-carbon and clean energy transition; (iii) managing rangelands more effectively for climate resilience, high-carbon sequestration, and sustainable herding; (iv) creating and strengthening low-carbon, climate-resilient, and inclusive value chains through more accessible green finance; and (v) developing the sectoral capacity for low-carbon, climate-resilient and more competitive agro-territorial development in Mongolia.
  - (b) Support to create a comprehensive and broad-based support for the formulation, advocacy, and implementation of the necessary policy reforms among the various sector stakeholders, including the program and/or project participants and stakeholders. For this purpose, it will adopt a highly participatory, consensus building approach.
  - (c) Support knowledge learning and dissemination activities that would reach out to the participant-beneficiaries of tranches 1, 2, and 3 of the program and beyond (i.e., the program non-targeted *aimags* and beneficiaries). Lessons learned from effective policy reform and implementation programs in Mongolia and other countries will be applied to plan and undertake the various tasks deemed critical to putting in place and implementing the necessary capacity development program.

28. Specific requirements and conditions for beneficiaries of output 4 activities financed by GCF are in box 5.

**Box 7: Main Elements of the Measurement, Reporting, and Verification System (See Appendix 5)**

Measurement, reporting, and verification of rangeland-related greenhouse gas emission reductions can be based on a variety of approaches, including the Intergovernmental Panel on Climate Change guidelines and the use of existing monitoring methodologies such as those included in the Plan Vivo PDD (Appendix 8), which the Asian Development Bank intends to use, or alternatively the very comparable Verra (previously called VCS) methodology, Approved VCS Methodology VM0026, Version 1.0, dated 22 April 2014, Sectoral Scope 14: "Sustainable Grassland Management." The reason for

<sup>47</sup> ADB. [Regional: Modernizing Sanitary and Phytosanitary Measures to Facilitate Trade](#); and ADB. [Regional: Implementing the Integrated Trade Agenda in the Central Asia Regional Economic Cooperation Program](#).

selecting the Appendix 8 of the Plan Vivo PDD as proposed monitoring methodology is that it has been developed for Mongolia and has already been successfully applied to a project in Mongolia.

Significant infrastructure exists that can be used for monitoring purposes. The National Agency for Meteorology and Environmental Monitoring (NAMEM) is the institution responsible for nationwide rangeland monitoring covering 1,516 monitoring sites representing all *baghs* in Mongolia. NAMEM has achieved significant progress to (i) institute measurement of internationally accepted core indicators that are standardized nationally; (ii) develop a reference database of different rangeland types that provides a basis for interpreting monitoring data and determining what is "healthy" or "degraded" (ecological site descriptions); and (iii) build capacity to produce a timely outlook on rangeland health based on monitoring data.

Comparisons of existing rangeland monitoring methodologies used by different Mongolian institutions (research institutes; universities; Ministry of Environment and Tourism; Ministry of Food, Agriculture and Light Industry; NAMEM, and the Agency for Land Management, Geodesy and Cartography led to an agreement on unified set of core indicators that will reduce controversy in assessments of rangeland health and biodiversity into the future. Core indicators include foliar canopy cover, species composition, and basal gaps of perennial plants, plant height, and biomass. Measurement methods include line-point intercept, gap intercept, air dry biomass at 1-centimeter clipping height, and photo points. A methodology for rapid characterization of soils to identify ecological sites and a concept for developing simplified ecological site descriptions that match existing herder concepts (see below) were also agreed upon. The newly standardized methodology is replicable, precise, and simple enough for easy use. The method can not only be used to report rangeland health at a point in time (assessment), but also provide precise estimates of rangeland change over the long-term (monitoring). In 2011, the methodology and indicators were approved by the government as a nationwide monitoring methodology of rangeland health.

Additionally, extensive information is collected on rangeland biodiversity, rangeland use, grazing patterns, stock composition, etc. These data are collected through the monitoring of the rangeland user agreements signed with the pastureland user groups and will be used for monitoring the success of the adaptation elements of the program.

What has been missing so far is the link between the monitoring of rangeland health and the monitoring of rangeland management on the one hand, and soil carbon stocks on the other hand. Models such as the Century model can play a role in this regard, but it is important to calibrate the model based on local data. Additionally, it is important to link data from rangeland health monitoring points with soil carbon. To complement the existing data collection methods, it is therefore important to measure soil carbon at a sample of the monitoring points established by NAMEM. For this purpose, the methodology described in He et al (2011) can be used.

The program, in its fourth output, provides considerable attention to the question of proper monitoring of soil carbon sequestration, and will ensure that accurate numbers are collected and reported. This is also important given the objective to crowd in result-based funding from non-Green Climate Fund sources for improved rangeland management.

Source: Asian Development Bank's - Appendix 5 Climate Change Assessment.<sup>48</sup>

Source: Asian Development Bank's - Appendix 5 Climate Change Assessment.<sup>49</sup>

<sup>48</sup> The Climate Change Assessment contains a further elaboration as well as a description of the measurement, reporting, and verification for the other main elements of the program.

### **Box 8: Partnership for Low-Carbon and Climate-Resilient Rangeland Management in Central Asia**

Rangelands are among the largest ecosystems in the world and contribute to the livelihoods of more than 800 million people. In Asia, pastures (part of the rangelands) account for over 10 million square kilometers of land area. Large parts of the rangelands in Central Asia are degraded through overgrazing and other causes.

Restoring rangelands requires the reduction of grazing pressure. In the process of rangeland restoration, depleted soil organic carbon stocks will be restored. This is a slow and gradual process that takes about 20 years. During this process carbon dioxide is sequestered as soil carbon. While the amount of soil organic carbon that can annually be sequestered per hectare is limited, the large rangeland areas make the mitigation potential very large. Using data generated in TA 7534-REG: *“Strengthening Carbon Financing for Regional Grassland Management in Northeast Asia”* for Mongolia and the People’s Republic of China, and combining this with Food and Agriculture Organization statistics, the total annual mitigation potential in the People’s Republic of China, Kazakhstan, Mongolia, Turkmenistan, and Uzbekistan can be conservatively calculated as 64 million tons of carbon dioxide equivalent (tCO<sub>2</sub>e) per year, with a corresponding mitigation potential over a 20-year period in excess of 1.0 billion tCO<sub>2</sub>e.

The above estimate is preliminary and based on several simplifying assumptions. If anything, the estimate of the potential is conservative. Moreover, measures to restore grasslands will in most cases also reduce greenhouse gas emissions from the livestock sector.

The program has prepared more detailed emission reduction calculations for the sequestration of soil carbon from improved rangeland management and will implement accurate greenhouse gas emission reduction calculations as part of the measurement, reporting, and verification of its operations.

The Green Climate Fund (GCF) funding for carbon sequestered will include a combination of a concessional loan and a grant, but the amount of finance provided by the GCF will be limited compared to the value of the carbon sequestered. At any reasonable price of carbon,<sup>a</sup> the value of the amount of carbon sequestered would be exceeding the total investment cost of the program (expected to reach \$735 million) and would also otherwise be beyond the capacity of GCF to pay.

It is therefore proposed to use the program and initial GCF funding as a catalyst to pilot and develop an Asian Development Bank-managed Partnership for Low-Carbon and Climate-Resilient Rangeland Management in Asia: a regional program (covering developing member countries in Central and West Asia and East Asia with an initial focus on Mongolia) with funding from developed member countries of the Asian Development Bank that might be expected to have an interest in rangeland management and husbandry. Such a partnership would aim to establish and improve low-carbon and climate-resilient rangeland management and enhance soil carbon stocks on previously degraded land in the targeted region. The partnership could be expected to focus on

- (i) measurement of soil carbon stocks and validation of the monitoring methodologies<sup>b</sup> used to estimate soil carbon stocks;
- (ii) measurement of the impact of changed rangeland management practices on soil carbon stocks;
- (iii) calculation of improved mitigation estimates for improved rangeland management;
- (iv) analysis of the impact of various policy instruments and plans on rangeland use practices, herder income levels, and carbon stocks;
- (v) formulation and implementation of projects and policies to improve rangeland management;
- (vi) measurement, verification, and reporting of the carbon sequestered as a result of the policies and projects;
- (vii) benefit-sharing of results-based payments for carbon sequestered through improved rangeland management. payments will be collected from the countries represented in the partnership and will be either directly distributed to herder households or more likely be used to finance policies and incentives;

- (viii) monitoring and evaluation, followed by formulation of lessons learned and preparation of knowledge products and their dissemination, for improved implementation of future projects and policies; and
- (ix) active reaching out to other countries that could benefit from low-carbon and climate-resilient rangeland management.

The program and the catalytic GCF funding would also be used to validate and demonstrate the viability of the approach (see i–iv above) in the context of a first project integrating investments and policies (see v above). The results will be used to expand the proposed partnership. The proposed partnership would initially pay for (and depending on the wishes of the partnership countries and the progress of international negotiations, also receive) the carbon sequestered by the program in excess of a threshold of 6.22 million tCO<sub>2</sub>e, and assuming enough appetite, carbon sequestered by replication projects in Mongolia and/or projects focusing on other rangeland areas in Asia. It would provide a source of revenues that could help to pay back funding and could additionally function as collateral for debt funding.

There is a strong interplay with some of the project activities related to replication. For example, Activity 4.5 focuses on knowledge sharing and policy formulation, implementation, monitoring and enforcement, which are ingredients for replication. The activity is important for setting government objectives, aligning efforts, creating awareness raising and supporting policy change. Concrete reductions of livestock numbers relative to the baseline in non-targeted *aimag* will however also require (i) on the ground capacity building and (ii) incentives provided in these territories as well. The program does not intervene in non-target *aimags*, and the Government of Mongolia has no resources available to do this, so this may not happen easily. However, the proposed partnership could step in to realize the replication potential.

<sup>a</sup> A current price assumption would be \$10–15 per tCO<sub>2</sub>e, which is below the social cost of carbon.

<sup>b</sup> It is proposed to use a Verra (previously called VCS) methodology, Approved VCS Methodology VM0026, Version 1.0, dated 22 April 2014, Sectoral Scope 14: “Sustainable Grassland Management.”

## E. Tranches 2 and 3

29. Tranches 2 and 3 will support three additional *aimag* centers, four additional inter-*soum* centers, and their affiliated *soums*; and will replicate Tranche 1 activities. Each activity should contribute to the achievement of its related outcome and output objectives, and demonstrate its contribution to specific target indicators, as formulated in the DMF for the program. Project and activity selection criteria are in the framework financing agreement. Preparation of subsequent tranches will cover commercial, economic, financial, legal, regulatory, social dimensions, and technical due diligence; and assess climate change rationale for the targeted *aimags*, anticorruption aspects, capacity, fiduciary oversight, governance, implementation, procurement, safeguards, social risks, sustainability, and other matters.<sup>50</sup> The due diligence will help determine whether the investments are ready for financing, i.e., whether they have been suitably prepared and can be implemented in compliance with the relevant ADB policies and agreed criteria. Preparation will also inform on the proposed component readiness and selection criteria, and the compliance decision filters for GCF loan and grant financing as indicated the framework financing agreement. Preparation of subsequent tranches will also assess previous tranches' compliance with the road map, loan covenants, and program undertaking.

30. Tranche 2 will cover tranche 1 locations to complete and complement initial activities and investments and will cover the remaining territory of the three western *aimags* by extending to eastern Uvs and to southern Khovd.<sup>51</sup> One inter-*soum* center will be added in Khovd and potentially one in eastern Uvs. In southern Khovd *aimag*, the program will build on the United Nations Development Programme (UNDP) project for Improving Adaptive Capacity and Risk

<sup>50</sup> A climate change rationale should be presented to and accepted by GCF for tranches 2 and 3 targeted *aimags*.

<sup>51</sup> Locations include *aimags* of Bayan-Ulgii, northern Khovd, and western Uvs.

Management of Rural Communities, to pilot the replicability and complementary potential of its integrated model with other initiatives that are implementing part of its outputs or activities on sustainable rangeland and livestock management.<sup>52</sup> Through its outputs 2 and 3, UNDP aims to improve herders' capacity and organization for sustainable rangeland management and resilience, herders' productivity, and access to markets for sustainably sourced climate-resilient livestock products. These are similar with the program's output 2 (activities 1 and 2) and output 4 (activity 2) and will be implemented based on the same institutional and organizational platform formed by the PUG (established by Green Gold Program) and using RUAs to monitor overgrazing and sustainable rangeland management. This means that if the two projects are carefully aligned, there will be high synergy and complementarity in the outputs and activities. The two projects' complementarities, geographic proximity, and overlapping project duration periods, present an opportunity to maximize synergies through a sequenced and coordinated implementation framework. A memorandum of understanding with UNDP will be developed at the early stage of project implementation to synchronize activities and optimize compatibility, synergies, and coordination.

31. Tranche 2 will also look at areas where other outputs for green agribusiness development and sustainable urban development are already in place and need to be completed to achieve the program's integrated model. *Aimags* of Dornod and Zavkhan (combining the UNDP program, European Union-funded Support to Employment Creation in Mongolia, and FAO and UNIDO project for agri-value chain development), Dundgovi (potential EIB investments for sustainable urban development as part of the COVID-19 economic resilience response packages), and Govi-Altai (Mercy Corps and Swiss Agency for Development and Cooperation's Green Pasture Project for green value chain development and successful local cooperatives) could also be considered. Based on Tranche 1 model and the preparation of Tranche 2 implementation, the program capacity for replicability and compatibility on favorable pre-conditions developed by other initiatives will be further fine-tuned and be extended under Tranche 3.

32. Tranche 3 will carry forward the program's integrated model to synergize with ongoing initiatives that have or are implementing part of its outputs or activities. Tranche 3 implementation locations will prioritize the UNDP project locations but could also look at other areas where sustainable rangeland and livestock management components are in place.<sup>53</sup> The program will (i) assess the level of readiness of its similar outputs or activities, (ii) assess the additional requested investment to ensure the program's full compatibility with the integrated implementation mechanisms, (iii) provide necessary urban services investments to *aimags* and/or inter-*soum* centers to act as catalyst for private sector investment, (iv) provide private sector financing to bridge the gap between grant-based financing and market-based financing through its revolving GIRAF, and (v) provide missing activities for sustainable rangeland and livestock management.

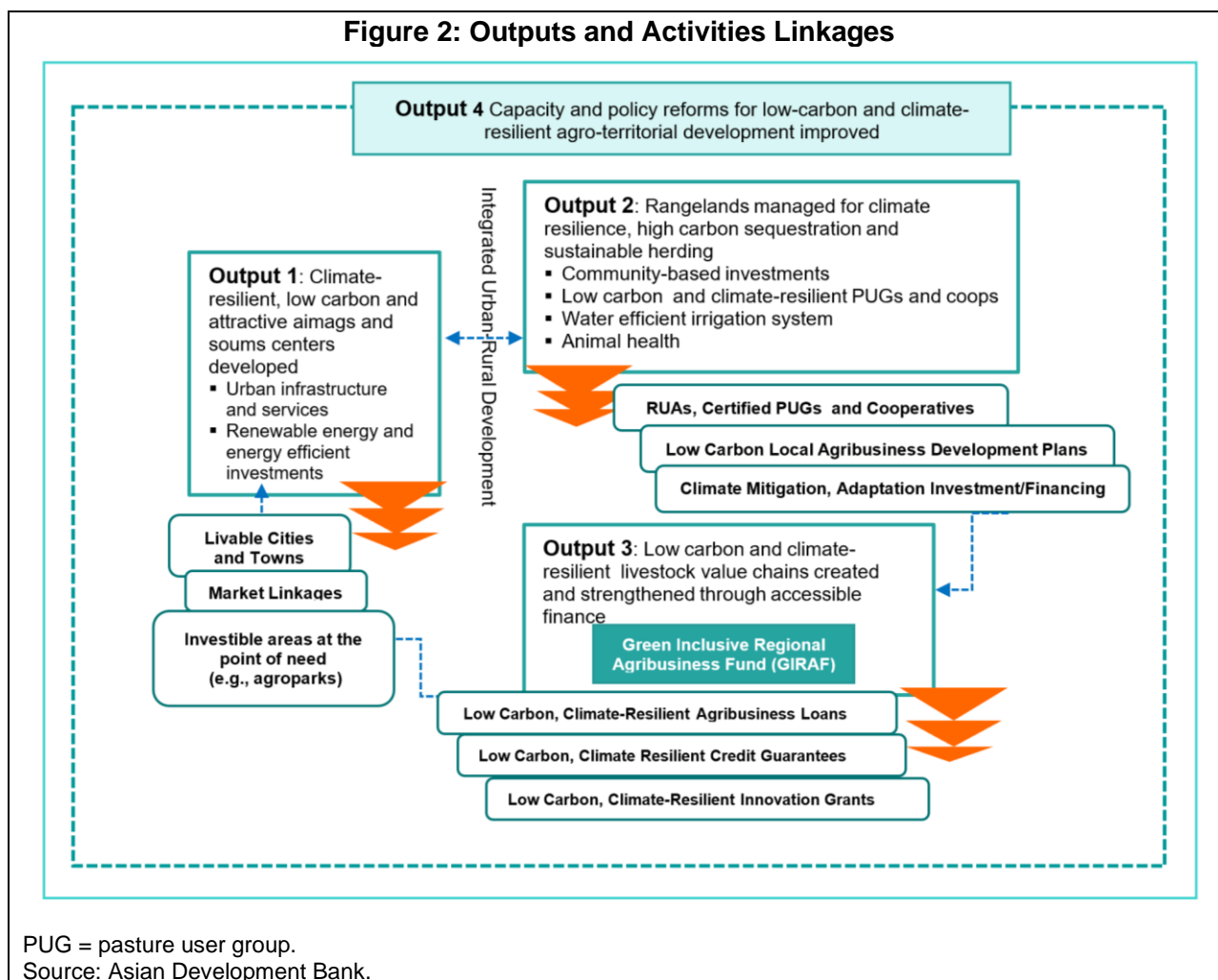
33. Through this approach, the program's long-term replicability is embedded in its implementation structure. It will capitalize on local achievements for some of its program components and use resources more strategically to cover a wider geographical scope. The

<sup>52</sup> The UNDP project for Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia aims to strengthen the resilience of resource-dependent herder communities in four *aimags* vulnerable to climate change through three outputs: (i) integrate climate information into land and water use planning at the national and sub-national levels; (ii) scaling up climate-resilient water and soil management practices for enhanced small-scale herder resource management; and (iii) build herder capacity to access markets for sustainably sourced, climate-resilient livestock products.

<sup>53</sup> *Aimags* of Dornod, Sukhbaatar, and Zavkhan. It is estimated that the program would be able to cover and benefit about 50% of the *aimags* covered by the UNDP project. As mentioned in para. 41, Dundgovi and Govi-Altai *aimags* could also be targeted.

replication potential of the program will also benefit from its long-term financial incentives. The GIRAF will be established as a revolving fund and will operate beyond the original scope and implementation timeline of the program, given the GCF loan's highly concessional terms (40-year term inclusive of a 10-year grace period). Through various financial intermediaries with branches all over the country (in both the target and non-target *aimags* under the program), it will act as a powerful incentive and national policy enforcement tool to influence local practices and local development and attract LCLVC.

## F. Outputs and Activities Linkages



34. **Supporting targeted *aimag* and *soum* centers as anchors of low-carbon, climate-resilient livestock value chain investment with improved living conditions (outputs 1 and 4 [Activity 1]).** The infrastructure gaps and deficiencies in targeted *aimag* and *soum* centers have created human settlements that do not play their role as anchors for the local economy, are not well adapted to climate change, have high carbon dioxide (CO<sub>2</sub>) emission, and are polluting and offer substandard living conditions for their residents.<sup>54</sup> Restoring their critical role in Mongolia's

<sup>54</sup> Addressing the poor living conditions requires an immediate abatement of soil and air pollution, starting from the *ger* areas, accommodating almost 70% of the population. About 20%–35% of the population, depending on the targeted

agrarian economy (for instance, providers of adequate animal breeding and veterinary services; meat, milk, and hides processing facilities; storage facilities; fodder sheds and mills; and banking services) and developing services specifically dedicated to attracting LCLVC investments is a fundamental step to support low-carbon and climate-resilient urban–rural linkages. The program will address key infrastructure and service needs (water, power, wastewater treatment, waste collection and treatment, heat, roads, affordable housing) using low-carbon technologies (renewable energy in the form of solar panels, energy efficiency in the form of insulation and efficient heat supply, and low-carbon waste and wastewater treatment technologies) to decrease urban CO<sub>2</sub> emissions and urban pollution creating more livable and low-carbon urban areas. In addition, the investments will address water shortages and adapt the targeted centers against flooding. With agro-industrial parks specifically dedicated to stimulating LCLVC investments, this will create the necessary conditions to attract processing facilities designed as a direct outlet for the products from herders engaged in low-carbon and sustainable rangeland management. This will also shorten the livestock value chains and bring processing facilities at the point-of-needs closer to the herders. This will in turn decrease the carbon footprint of the value chain and create a tighter geographic and economic integration of herders, rangeland management, and a food industry designed for low-carbon output and minimizing wastage as a strategy to adapt to climate change.

**Figure 3: Local Value Chains Development in Western Aimag**



Source: Asian Development Bank.

35. Tranche 1 will pilot an innovative integrated street redevelopment process in *ger* areas in *aimag* centers to be upscaled in Tranches 2 and 3. The process includes three main steps: (i) upgrading of the urban infrastructure (roads, pedestrian/cycle lanes, water supply, wastewater, heating, power, communications and public space and green areas) in selected streets;<sup>55</sup> (ii) exchange of a portion of land plot against connection and the implementation of private technical units (basic sanitary and heating facilities on the *khashaas*)<sup>56</sup> for willing households. The piece of land is then used either for the densification process (construction by State Housing Corporation (TOSK) for affordable housing units); and (iii) the densification of the neighborhoods.<sup>57</sup> The use of the ceded land for construction by TOSK of new affordable housing units takes part to this process (for the implementation of necessary public amenities or for any urban planning action). Townhouses and low-rise buildings will be built according to the

*aimag* centers, will be connected to urban services resulting in a significant greenhouse gas reduction, much more than the generation due to the improved service delivery.

<sup>55</sup> Depending on location, especially coordination with *aimag* infrastructure development, local urban development plan, and willingness of the resident to participate.

<sup>56</sup> Plot of land of various sizes surrounded by wooden fences.

<sup>57</sup> The average low density of the *ger* area (40 to 50 persons/hectare) requires a densification process to reach an acceptable population urban ratio justifying the comprehensive implementation of urban infrastructure network. The future density is expected at about 90 persons/hectare.

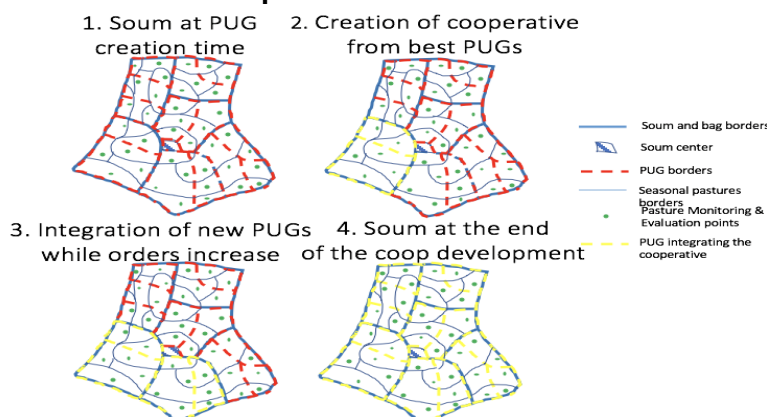
Mongolian Norm for energy efficiency BnDB23-03-09. Each building will be equipped with photovoltaic solar panels based a 10 square meter/apartment ratio. The accessibility to these apartments relies heavily on renting and rent-to-own mechanisms. About 10%–20% of the TOSK's program is planned as social housing units especially dedicated to the other plot occupiers, not the plot owner. To connect and make use of technical units more efficient, a financial support package for the beneficiaries will initiate the existing housing redevelopment. The residents will be advised and supported by engineers and/or architects for the best use of this improvement package, essentially dedicated to the existing housing insulation.

**36. Organizing and financing the initial stage of the transition process for the herders (Outputs 2 [activity 1] and 4 [activity 2]).** The program support will be based on a PUG system established by the Swiss Agency for Development and Cooperation under the Green Gold Project from the traditional Mongolian structures for herding.<sup>58</sup> Each PUG will commit to and implement RUAs, including stocking adjustment plans and herd management plan, indicating PUG's annual objectives for reducing the size of its herd, targets for changes in livestock composition, and improved grazing practices. The RUA will be one component of a larger participatory inclusive herd management plan (PIHMP) that identifies and prioritizes short- to medium-term investments to improve rangeland management, fodder production, quality of herds, and the livelihood of the PUG members. For this initial stage of the low-carbon and climate-resilient rangeland management process, the primary mitigation financing instrument of the program will take the form of matching grants to incentivize the commitment on and implementation of the RUAs. The matching grants will be cofinanced by the PUGs through cash or in-kind contributions and will be used to implement the community-based micro-projects identified in the participatory and inclusive herd management plan (such as water wells, shelters, and hay fields) with a strong adaptation and to a lesser degree mitigation focus, using CPP. These matching grants are appropriate to incentivize the participation of the herders and compensate the initial effort to comply to the RUA.

**37. Developing the capacity of certified livestock herders to increase their investment returns or income during the transition process (outputs 2 [activity 2] and 4 [activity 4]).** PUGs with signed RUAs are supported by the project to form cooperatives. In each *soum*, all PUGs will be encouraged to gradually sign RUAs and integrate into a cooperative. The cooperative in this case will be an economic structure providing services for herders complying with low-carbon and climate-resilient rangeland management policies. Its objectives are to create benefits to its members who will be engaged in low-carbon and climate-resilient herding through increased market leverage and investments and share profits for its members. Its role will be to (i) market herders' products (including surplus products such as the initial excess animals from destocking); (ii) provide services and information to PUGs and/or herders; monitor RUAs, destocking, certification, grazing practices and herds composition; and improve planning; (iii) defend the interest of its members; and (iv) improve access to finance and investment.<sup>59</sup> A cooperative is supported by the project only if it is comprised of PUGs with signed RUAs.

<sup>58</sup> *Saakhalt ails* means neighboring herders.

<sup>59</sup> The cooperative can engage in processing activities, in partnership with SMEs or alone (see output 3).

**Figure 4: Constitution of Cooperatives Based on the PUGs with Signed RUAs**

PUG = pasture user group, RUA = rangeland use agreement.  
Source: Asian Development Bank.

38. Simultaneously, the program will put in place traceability and certification systems at the cooperative, PUG, and herder levels. These systems enable monitoring how the herder households, PUGs, and cooperatives are complying with sustainable rangeland management rules, and thus, participating in climate change mitigation and adaptation. Thus, herders, PUGs, and cooperatives who get certified will be eligible to receive program benefits.

39. **Improving animal health and breeding, and fodder production (output 2 [Activities 3 and 4]).** This is a key measure in the adaptation and mitigation strategy to reduce the herd size needed to achieve a given output, so that the production system can adapt to the impact of climate change on the resource base and reduce grazing and greenhouse gas (GHG) emissions per unit of output produced.<sup>60</sup> It contributes to improve herd value added (higher selling price/animal due to gained weight and quality, use of all animal products, higher amount of outputs/herd and possibility to export), and allows to increase herders' income without increasing animal numbers. The program includes activities at different levels:<sup>61</sup>

- A. **Herder group (PUG) level.** This is the smallest production unit. In each PUG, one CAHW will be trained to deliver breeding services and care, and veterinary assistance and raise herders' awareness. The CAHWs will be paid by the project in the first years but will gradually be paid by the *soum* cooperative.
- B. **Inter-*soum* and *aimag* center levels.** Veterinary laboratories (for animal health control, breed, and food safety) will be built, to be used by private veterinary clinics, as well as veterinary inspection equipped rooms for animal health check prior to animals' admission in the disease-free establishments.<sup>62</sup>

<sup>60</sup> Appendix 5 of the Climate Change Assessment. See also FAO (2013a), *Mitigation of greenhouse gas emissions in livestock production – A review of technical options for non-CO<sub>2</sub> emissions*. FAO Animal Production and Health Paper No. 177; FAO (2013b), *Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities* and the Climate-Smart Agriculture sourcebook of the FAO, focusing on adaptation and mitigation opportunities. See <http://www.fao.org/climate-smart-agriculture-sourcebook/production-resources/en/> and in particular the module on climate-smart livestock production: <http://www.fao.org/climate-smart-agriculture-sourcebook/production-resources/module-b2-livestock/b2-overview/en/>

<sup>61</sup> Appendix 6, *Elaboration for Selected Activities discussions, Veterinary Services: Scope, Affordability and Willingness to Pay* the reasons for proposing this type of intervention focusing on support at different administrative levels rather than other approaches. This appendix also discusses whether herders can afford to pay for the services, and whether they are willing to.

<sup>62</sup> Appendix 6, *Elaboration for Selected Activities, Disease-Free Establishments* the reasons for proposing this intervention rather than others.

40. The disease-free establishment will integrate the following functions: (i) improvement of vaccination control and animal health and breed control through inspection laboratories, providing certification for exportation; and (ii) feeding the animals and check-up for selling.<sup>63</sup> The access to the disease-free establishment will be given in priority to animals coming from participating or certified PUGs/cooperatives. This twofold approach is key to the successful improvement of animal health.

41. Lack of fodder supply is a major constraint for herders to adapt to climate change and manage their herds through the winter with minimal losses. Lack of fodder supply directly and indirectly (through the coping mechanism to manage expected losses) increases the rangeland's grazing pressure.<sup>64</sup> It is one of the main constraints that currently limit the livestock economy to function only a few months a year, during the summer, when animals have gained some weight and one of the reasons why herders increase the size of their herds. Adequate production of high nutritious fodder crop plants sold at an affordable price would allow the extension of the period of activity of all livestock-related activities, and in return, increase the revenues of herders. Under the program, the creation or rehabilitation of irrigated perimeters together with water conservancy and water efficiency components to ensure water availability will overcome this issue. The reconstruction of the head and the main structure of irrigation systems for fodder crop plantations and the piloting of water conservancy solutions in targeted *aimag* and inter-*soum* centers under output 2 will be combined with financing support as part of output 3 for private sector investment in irrigated perimeter and fodder crop farming activity.

42. **Low-carbon and climate-resilient agribusiness development plan and low-carbon and climate-resilient livestock and agrobusiness value chain.** Simultaneously, under output 4 (activities 2 and 3), the program will also support a participative, consensus building formulation of LCADP. The LCADP will identify priority investments and activities at the inter-*soum* and *aimag* levels to establish the LCLVC that will provide the certified herders, PUGs, and/or cooperatives with low-carbon and climate-resilient opportunities for increasing their investment returns and compensating them for their foregone income as they transition to sustainable rangeland management. Here, LCLVC means that the full-range of herders, herder groups, cooperatives, and firms and their successive coordinated value-adding activities that transform raw livestock-derived materials into food, beverage, fiber, animal skin, and leather products are sold to final consumers and disposed of after use, in a manner that is profitable throughout the chain, promote rangeland regenerative practices, adapts to climate change, and its impacts on water availability, land availability and land productivity reduces GHG emissions and increases soil carbon sequestration, all in consideration of social and environmental benefits. The program will not only consider the core value chain (production, aggregation, processing, distribution, and consumption) but will also consider the extended value chain (provision of inputs, services, and finance). To support the entire transformation process, the program will not only invest directly in community and urban–rural infrastructure to pursue a low-carbon and climate-resilient development pathway for Mongolia's livestock sector. It will also invest in the necessary enabling factors such as climate mitigation and adaptation finance, technology development and transfer, effective institutions, policies and governance, and the appropriate knowledge products including a technically sound monitoring, reporting, and verification system. Throughout this process, the program will use pioneering approaches to foster paradigm shifts away from the traditional barriers and risks that perpetuate the restrictions in agriculture and climate finance, low-carbon

<sup>63</sup> Before 1990, each *soum* center had such facilities.

<sup>64</sup> Large quantities of fodder are imported especially from the Russian Federation (it is estimated at 70% of the consumption in the western *aimags*).

and climate-resilient innovations, a policy environment more conducive to sustainable rangeland management, and stronger institutions capable of reinvigorating the LCLVC.

**43. Leveraging mitigation and adaptation finance for private sector investments incorporating partnership agreements with certified livestock herders, PUGs, and cooperatives in low-carbon climate-resilient livestock and agrobusiness value chains (output 3).** The establishment of the GIRAF will offer financial products designed to attract private sector participation into the LCLVC, and expand the access of certified herders, PUGs, and cooperatives to affordable mitigation and adaptation finance. The GIRAF will adopt a blended finance strategy by leveraging the GCF loan proceeds to mobilize private sector resources that would otherwise not be allocated or invested in sustainable rangeland management. It also safeguards the ability of the herders to benefit more equitably from the LCLVC investments by financing only those that are included in the LCADP and those with explicit and well-defined profit or partnership agreements between herders' cooperatives and eligible agribusiness enterprises. The GIRAF will be structured to provide the mitigation and adaptation finance that will help implement the LCADP beyond the initial transition phase through identified priority investments in agribusiness comprising the LCLVC. It will provide the following innovative financial products:

- (i) Low-carbon and climate-resilient loans with more reasonable lower-than-market interest rates made possible by the concessional GCF financing, longer terms and grace periods, higher loan values, and an adjustable repayment period that take into account the production cycle and its seasonality;
- (ii) Low-carbon and climate-resilient credit guarantees that can be used as collateral substitutes and reduce the risks of the financiers, thereby contributing to lower interest rates; and
- (iii) Low-carbon, climate-resilient innovation grants that increase the competitiveness and growth of pioneering low-carbon, climate-resilient agribusiness livestock enterprises in Mongolia's *aimags* and *soums* by advancing low-carbon, climate-resilient agribusiness products, processes, and business model innovations.

**44.** The LCLVC investments included in the LCADP will comprise the initial long list of subprojects for GIRAF financing. In addition to being included in the LCADP, investment or subprojects to be eligible for GIRAF financing must demonstrate that

- (i) they can improve either mitigation and adaptation outcomes simultaneously or one of the two with a neutral impact on the other outcome. So, either improve carbon sequestration and reduce GHG emissions and at the very least neutral on adaptation, or improve adaptation (improved water efficiency, improved water supply, improved resource efficiency, improved feed supply, improved breeds that are more resilient to water scarcity) and at the very least, neutral on mitigation;
- (ii) they can provide certified livestock herders with a profit sharing or partnership agreement to provide them with higher investment returns or income and incentivize them to continue their commitment to their RUAs and destocking plans;
- (iii) they have a plan for incorporating investments that reduce the GHG impacts of energy use, for example, through investment(s) in solar panels, solar rooftops, or energy efficiency measures; investments that use waste products, for example, to produce biodiesel or biogas; investments that reduce wastage (losses in the value chain); and investments that shorten the distance raw materials and products need to travel, thereby reducing the amount of GHG emissions related to transport;
- (iv) they cannot be financed without GIRAF support; and

- (v) they are located in the proposed LCLVC *aimag* and inter-*soum* centers agro-industrial park (under output 1) or provide evidence that services and/or infrastructure supply and waste treatment are satisfactory.

45. **Capacity and policy reforms improved for low-carbon and climate-resilient agro-territorial development** will address the current constraints to enable a policy environment that is more conducive to (i) developing climate-resilient, low-carbon, and attractive *aimag* and *soum* centers; (ii) managing rangelands more effectively for climate resilience, high-carbon sequestration, and sustainable herding; (iii) creating and strengthening low-carbon, climate-resilient, and inclusive value chains through more accessible green finance; and (iv) developing the capacity for a greener and more competitive agro-territorial development in Mongolia. Areas for potential vulnerability reduction will be covered, including (i) livestock resilience building and productivity enhancement; (ii) greater input toward rangeland sustainability and subsequent productivity; (iii) increased food production (and security) while fighting against climate change; (iv) conflict resolution and bringing social harmony (extension of the PUG model and peaceful resource sharing); and (v) where the right pre-conditions exist, outputs from afforestation and/or rangeland agroforestry (sequestration from afforestation and/or rangeland agroforestry). It will develop institutions, policies, and capacity for program implementation, and to formulate and implement integrated policies that will guide and contribute to building the revised National Mongolian Livestock Program (output 4, activity 5); inform on low-carbon and climate-resilient rangeland management and urban development; and implement measurement, reporting, and verification and monitoring and evaluation systems supported by the smart land management center (output 1, activity 3). The preparation of knowledge fed into the policy dialogue, and the formulation of lessons learned, program evaluation, practices sharing, and efforts coordination are meant to achieve maximum replication of the program.

## II. IMPLEMENTATION PLANS

### A. Program Readiness Activities

**Table 1: Program Readiness Activities**

Indicative Activities	2022			2023						Responsible Individual/Unit/Agency/Government
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Establish program implementation arrangements										Executing and implementing agencies
Advance procurement										Executing and implementing agencies
ADB Board approval										ADB
Loans and grants signing										ADB, MOF, and executing and implementing agencies
Government legal opinion provided										MOF and executing agency
Loans and grants effectiveness										ADB and MOF

ADB = Asian Development Bank, MOF = Ministry of Finance.

Source: ADB.

**Table 2: Program Implementation Plan (Tranches 1–3)**

[illegible]

Source: Asian Development Bank.

Table 3: Tranche 1 Implementation Plan

COMPONENTS/OUTPUTS	2023				2024				2025				2026				2027				2028				2029	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6					
Approval, Effectiveness and readiness																										
Advance Contracting																										
<b>Output 1</b>																										
<b>1.1 Urban Infrastructure and Services</b>																										
1.1a Complete infrastructure and architectural detailed design																										
1.1b Complete resettlement																										
1.1c Procure goods and work																										
1.1d Construct, supervise, and commission infrastructure, housing units, social facilities, and public space																										
<b>1.2 Ger Areas Street Re-development</b>																										
1.2a Survey and community engagement																										
1.2b Voluntary street development participation plan																										
1.2d Detailed Design																										
1.2e Procurement																										
1.2f Construction																										
1.2g Housing handover to TOSK and Renting																										
<b>Output 2</b>																										
<b>2.1 Herders and PUGs capacity building</b>																										
2.1a Consultation, capacity building and project awareness																										
2.1b Revised RUA and PIHMP signed																										
2.1c Desocking Plan implementation																										
<b>2.2 Community Participation in Procurement (CPP)</b>																										
2.2a CPP preparation																										
2.2b Procurement																										
2.2c Training and construction and supervision																										
<b>2.3 Establishment and financing of Cooperatives</b>																										
2.3a Consultation, capacity building and project awareness																										
2.3b Soum Coops established or upgradeded																										
2.3c Inter-soum and Aimag Cooperatives established or upgradeded																										
<b>2.4 irrigated perimeters, water conservancy, and disease free establishments</b>																										
2.4a Complete infrastructure and architectural detailed design																										
2.4b Complete resettlement																										
2.4c Procure goods and work																										
2.4d Construct, supervise, and commission infrastructure and facilities																										
<b>2.5 Veterinary services, traceability, and certification system</b>																										
2.5a Consultation, capacity building and project awareness																										
2.5b Traceability system established																										
2.5c Certification system established																										
<b>Output 3</b>																										
<b>3.1 Establish the GIRAF</b>																										
3.1a Develop standard, guidelines, and regulations for the GIRAF																										
3.1b Develop the agri-business value chain																										
3.1c Develop business plan for each investment identified																										
<b>3.2 GIRAF lending</b>																										
3.2a Process Window 1 sub-loans																										
3.2b Process Window 2 sub-loans																										
3.2c Process Window 3 sub-loans																										
3.2d Process green agri-business innovation grant																										
<b>Output 4</b>																										
<b>4.1 Establishment of the PMO</b>																										
4.1a Establishment of PMO/PIU, and Aimag and Intersoum offices																										
4.1b Selection of Consulting services																										
<b>4.2 Consulting Services for project management</b>																										
4.2a Train and increase capacity of PMO staff and targeted institutions																										
4.2b Implement capacity building and policy reforms																										
4.2c Tranche 2 feasibility study/detailed design																										
4.2d Tranche 3 feasibility study/detailed design																										
	T1 Approved												T2 Approved								T3 Approved					

Source: Asian Development Bank.

### III. PROGRAM MANAGEMENT ARRANGEMENTS

#### A. Program Implementation Organizations: Roles and Responsibilities

**Table 4: Program Implementation Organizations: Roles and Responsibilities**

Program Implementation Organizations	Management Roles and Responsibilities
<b>Steering Committee</b>	<p>A projects steering committee (PSC) chaired by the Ministry of Economy and Development (MED), vice-chaired by the Ministry of Construction and Urban Development (MCUD) and Ministry of Food, Agriculture and Light Industry (MOFALI) will be established to oversee the program implementation and provide strategic and policy guidance. It will comprise representatives from the Ministry of Finance (MOF), Ministry of Environment and Tourism (MET), the European Union, and targeted <i>aimag</i> governments. The steering committee will, among others,</p> <ul style="list-style-type: none"> <li>(i) provide policy guidance to facilitate, complete, and achieve the program objectives specified in underlying agreements in a timely manner;</li> <li>(ii) provide coordination and cohesiveness between sectors to ensure effectiveness and efficiency of program activities;</li> <li>(iii) review and approve midterm implementation plan, detailed annual implementation plan, as well as procurement and financial plans of each project under the program;</li> <li>(iv) review and evaluate, on a semiannual basis, the implementation plans and related monitoring and evaluation reports;</li> <li>(v) review and evaluate annual project progress assessment report during the meeting to be held in the first quarter of the following year, and provide recommendations on remedial actions to MED, MCUD, MOFALI, and <i>aimag</i> governments, if required, and oversee implementation of such recommendations;</li> <li>(vi) if implementation of recommendations is considered not satisfactory, advise MED, MCUD, and MOFALI to impose disciplinary measures on responsible staff;</li> <li>(vii) as needed, provide advice or resolve any environmental issue with project implementation;</li> <li>(viii) review quarterly project progress reports from the project implementation unit (PIU) and meet quarterly with the PIU director, coordinator, and deputy coordinators;</li> <li>(ix) review and approve the pipeline of subprojects to be prepared, financed, and implemented; and</li> <li>(x) develop action plans to address challenges that are relevant to each ministry.</li> </ul>
<b>Executing Agency</b> MED	<p>MED, headed by the Minister, will be responsible for formulating, appraising, approving, and overseeing the implementation of the program in accordance with technical, financial, and economic appraisal criteria, including social and environmental criteria, as agreed with the Asian Development Bank (ADB). Its main responsibilities are as follows:</p> <ul style="list-style-type: none"> <li>(i) program implementation oversight, administration, and financial management in coordination with the implementing agencies and in coordination with ADB;</li> <li>(ii) ensure that each project is implemented in accordance with the detailed arrangements stipulated in the facility administration manual (FAM);</li> <li>(iii) set up a multisector coordination committee and monitoring of the program;</li> <li>(iv) oversee the implementation of the program policy framework;</li> <li>(v) submit progress and other relevant reports to the working group and steering committee for information and/or decision-making;</li> <li>(vi) be accountable and responsible for the proper use of advance accounts and funds from ADB loans, European Investment Bank (EIB) loan and grant, and Green Climate Fund (GCF) loan and grant;</li> <li>(vii) endorse and submit withdrawal applications;</li> <li>(viii) ensure compliance with program undertaking and project covenants;</li> <li>(ix) holds quarterly tripartite meetings with the PIU and program <i>aimag</i> offices.</li> <li>(x) hold quarterly meetings with the PSC, the PIU, and green and inclusive agribusiness fund (GIRAF) manager;</li> <li>(xi) monitor cooperation among related government and development assistance-funded projects;</li> <li>(xii) ensure the coordination, support and necessary inputs from all relevant departments and agencies within MED, MOF, MCUD, and MOFALI, both at the central and <i>aimags</i> levels;</li> </ul>

Program Implementation Organizations	Management Roles and Responsibilities
	<p>(xiii) send official request to ADB and/or the government regarding project changes in scope, procurement plan, institutional or financial arrangements; and</p> <p>(xiv) with assistance from PIU, take overall responsibility for successful implementation of <i>aimag</i> environmental management plans (EMPs) and the <i>aimag</i> grievance redress mechanisms (GRMs).</p>
Implementing Agency MCUD	<p>The MCUD will act as a program implementing agency, providing overall coordination and support to the PIU for output 1. Its main responsibilities are to</p> <ul style="list-style-type: none"> <li>(i) provide support to facilitate, complete, and achieve the program objectives specified in project agreements;</li> <li>(ii) ensure the coordination, support and necessary inputs from all relevant departments and agencies within MCUD both at central level and <i>aimag</i> governments;</li> <li>(iii) make sure that program activities and implementation is in line with MCUD policies, norm and standard toward urban infrastructure, urban services, housing and land management;</li> <li>(iv) make sure that program activities and implementation is in line with MCUD and MOFALI policies toward rangeland management, animal breeding and health, fodder production, livestock and agriculture, and agri-value chain;</li> <li>(v) provide coordination and cohesiveness within the sector and between subsectors to ensure effectiveness and efficiency of project activities;</li> <li>(vi) provide technical support to the PIU and ensure it has enough capacity to implement output 1;</li> <li>(vii) ensure that the program is implemented in accordance with the detailed arrangements set forth in the FAM;</li> <li>(viii) ensure compliance with program covenants related to output 1;</li> <li>(ix) review and comment on progress reports related to output 1</li> <li>(x) provide support to undertake detailed architectural and infrastructure design, construction supervision and performance audit of the infrastructure and the facilities;</li> <li>(xi) responsible for procurement and provide support for supervision of infrastructure and facilities construction.</li> <li>(xii) be responsible under the oversight of MED for the procurement of works and goods for infrastructure and facilities;</li> <li>(xiii) hold quarterly meetings with the program coordinator and deputy coordinator to review and guide the implementation of output 1; and</li> <li>(xiv) select output 1 consulting services support;</li> </ul>
MOFALI	<p>The MOFALI will act as a program implementing agency, providing overall coordination and support to the PIU for output 2 and to the GIRAF Manager in the delivery of output 3 and agribusiness-related activities. Its main responsibilities are to</p> <ul style="list-style-type: none"> <li>(i) provide support to facilitate, complete, and achieve the program objectives specified in project agreements;</li> <li>(ii) ensure the coordination, support and necessary inputs from all relevant departments and agencies within MOFALI both at central level and <i>aimag</i> governments;</li> <li>(iii) make sure that program activities and implementation is in line with MOFALI, MCUD, and MET policies toward rangeland management, animal breeding and health, fodder production, livestock and agriculture, and agri-value chain;</li> <li>(iv) provide coordination and cohesiveness within the sector and between subsectors to ensure effectiveness and efficiency of project activities;</li> <li>(v) provide technical support to the PIU and ensure it has enough capacity to implement output 2;</li> <li>(vi) ensure that the program is implemented in accordance with the detailed arrangements set forth in the FAM;</li> <li>(vii) responsible for procurement and provide support for supervision of activities under output 2;</li> <li>(viii) ensure compliance with program covenants related to output 2;</li> <li>(ix) review and comment on progress reports related to output 2 and 3</li> <li>(x) coordinate with the General Authority for Veterinary Services (GAVS);</li> <li>(xi) be part of the traceability system management led by the GAVS;</li> <li>(xii) be part of the certification system management led by an independent body;</li> </ul>

Program Implementation Organizations	Management Roles and Responsibilities
	<p>(xiii) coordinate with the National Federation of Pasture User Group (NFPUG) for all rangeland management activities as well as implementation of community-based investment program which is led by NFPUG;</p> <p>(xiv) hold quarterly meetings with the program coordinator and deputy coordinator to review and guide the implementation of output 3;</p> <p>(xv) select output 2 consulting services support; and</p> <p>(xvi) provide the Agency for Land Management and Administration, Geodesy and Cartography (ALAMGAC) and/or MCUD with agro-technical support advice as needed, and with ALAMGAC ensure successful implementation of <i>aimag</i> EMPs and <i>aimag</i> GRMs.</p>
<b>Implementing Agency</b> <b>MOF</b>	<p>MOF will act as the program implementing agency, providing overall support to the green and inclusive regional agribusiness fund (GIRAF) manager in its establishment and management of GIRAF. Its main responsibilities are to:</p> <ul style="list-style-type: none"> <li>(i) act as a major shareholder of the GIRAF. More specifically, the MOF will provide necessary guidance to the GIRAF manager on the establishment and management of the GIRAF and enter into an asset management agreement with GIRAF manager;</li> <li>(ii) provide support to facilitate, complete, and achieve the project objectives specified in underlying agreements in a timely manner;</li> <li>(iii) provide coordination and cohesiveness within the sector and between subsectors to ensure effectiveness and efficiency of program activities;</li> <li>(iv) provide technical and financial support to the PIU and ensure that the GIRAF manager has sufficient capacity to manage the GIRAF;</li> <li>(v) ensure that the project is implemented in accordance with the detailed financing arrangements set forth in the FAM;</li> <li>(vi) ensure that GIRAF manager receives capacity building support by facilitating training of GIRAF manager staff on ADB's disbursement policies and procedures, and project administration and accounting to manage the GIRAF;</li> <li>(vii) ensure compliance with program covenants;</li> <li>(viii) ensure program policies and guidelines affecting the structure and operations of the GIRAF are formulated and approved by the projects steering committee promptly;</li> <li>(ix) ensure that GIRAF manager is always compliant with the prudential regulations of Mongolia's Financial Regulatory Commission including the requirements against anticorruption, anti-money laundering and counter financing of terrorism; and</li> <li>(x) provide support to GIRAF manager for successful implementation of an environmental and social management system (ESMS).</li> </ul>
<b>Implementation Unit (Project 1)</b> <b>at the Regional Policy Department of MED</b>	<p>The PIU will be established at Regional Policy Department (RPD), under MED. The MED State Secretary will be the director of the projects under the program. The PIU coordinator will be responsible for the implementation of the program. The PIU's main responsibilities are:</p> <p><b>General</b></p> <ul style="list-style-type: none"> <li>(i) perform day-to-day management work during projects preparation, implementation, and supervision periods;</li> <li>(ii) coordinate with government agencies, <i>aimag</i> governments and other involved parties for program implementation;</li> <li>(iii) communicate and coordinate with ADB for program management and implementation;</li> <li>(iv) ensure due diligence and compliance with ADB safeguard policies;</li> <li>(v) report program and projects implementation progress, and safeguards and due diligence compliance to ADB;</li> <li>(vi) ensure the coordination, support and necessary inputs from all relevant departments and agencies within MCUD and MOFALI both at central level and <i>aimag</i> governments and <i>soum</i> administration;</li> <li>(vii) carry out the procurement for all works and equipment under the public sector component for outputs 1 and 2;</li> <li>(viii) select project management consulting services and select consulting services and PIU staff recruitment in coordination and with the support of MCUD and MOFALI, with endorsement by ADB;</li> <li>(ix) engage external resettlement, environmental, and social monitors;</li> </ul>

Program Implementation Organizations	Management Roles and Responsibilities
	<p>(x) prepare and submit bidding documents, lead the bidding process, prepare bid evaluation reports, sign the contract with the winning firm, and other necessary documentation for ADB approval;</p> <p>(xi) oversee commissioning, acceptance and turnover of completed projects;</p> <p>(xii) coordinate with local governments to ensure that operation and maintenance resources are developed;</p> <p>(xiii) use of advance accounts' funds, disbursement coordination, withdrawal applications, monitors budget allocations, counterpart funding;</p> <p>(xiv) submit required annual audit reports and financial statements of project account to ADB complying with international accounting standards;</p> <p>(xv) undertake all the measuring, reporting, and verifying activities;</p> <p>(xvi) submits progress and safeguards monitoring reports to ADB and the EIB;</p> <p>(xvii) provide technical guidance and support to project <i>aimag</i> and inter-<i>soum</i> offices;</p> <p>(xviii) prepare the project completion report; and</p> <p>(xix) arrange and support ADB, GCF, and EIB review missions; and</p> <p>(xx) liaise with each targeted <i>aimag</i> government and collect progress reports.</p> <p><b>Urban Development and Construction</b> In coordination with MCUD and the <i>aimag</i> project implementation units (APIU), it will</p> <p>(i) undertake detailed architectural and infrastructure design, construction supervision and performance audit of the infrastructure and the facilities such as urban basic infrastructures and services (drinking water distribution, wastewater collection and treatment, heating, power production and distribution, roads and drainage, dumpsite cleaning), community centers, sports playgrounds and public spaces, housing (apartment) development, agro-industrial park development and training centers;</p> <p>(ii) be responsible for community engagement, voluntary participation process and land readjustment process;</p> <p>(iii) coordinate with land department for delivery of new land titles;</p> <p>(iv) take responsibility for technical unit delivery;</p> <p>(v) prepare land use plans for redeveloped ger areas;</p> <p>(vi) carry out the procurement for all works and equipment under the urban development component;</p> <p>(vii) assess technical needs to connect existing houses to the technical house and improve housing conditions (insulation);</p> <p>(viii) undertake construction supervision and performance audit of all infrastructures, buildings and improved houses; and</p> <p>(ix) manage the financing mechanism to support individual connections and improved housing.</p> <p><b>Livestock and Rangeland Management</b> In coordination with MOFALI and APIU, it will</p> <p>(i) guide, in coordination with the <i>soum</i> governments and ALAMGAC, the preparation of the (a) <i>soum</i> territorial development plan, that includes the local agribusiness; development plan; and of the (b) participatory and inclusive herd management plan;</p> <p>(ii) undertake detailed architectural and infrastructure design</p> <p>(iii) carry out the procurement for all works and equipment under the regional agribusiness development component such as for the animal breed and veterinary laboratories, the disease-free establishments, and primary works for large, irrigated perimeters;</p> <p>(iv) prepare technical specifications in coordination with GIRAF manager and jointly guide bidding process to develop irrigated perimeters and fodder farms, meat processing facilities, and targeted agribusinesses;</p> <p>(v) undertake construction supervision and performance audit of all infrastructures and buildings;</p> <p>(vi) carry out training of <i>aimag</i> and <i>soum</i> veterinarians and community-based animal health workers (CAHWs) in association with the veterinary school and Mongolian Life Science University;</p> <p>(vii) implement water conservancy and sustainable water management solutions in western <i>aimags</i> in collaboration with MET;</p> <p>(viii) assess existing primary and secondary cooperatives to be supported by the project and support or establish one cooperative in each targeted <i>soum</i>;</p>

Program Implementation Organizations	Management Roles and Responsibilities
At GIRAF manager	<p>(ix) work in collaboration with GIRAF manager to build the private sector investment pipeline and to develop technical specification on agribusiness investments for output 3; and</p> <p>(x) provide support as needed for successful implementation of <i>aimag</i> EMPs, and <i>aimag</i> GRMs.</p> <p><b>Management of the GIRAF</b> Reporting to the PIU coordinator GIRAF manager will manage the GIRAF in coordination with MOF. Its main responsibilities are:</p> <p>(i) under the direction of MOF, establish the GIRAF in accordance with the relevant laws and regulations of the government;</p> <p>(ii) develop and secure approval from the MOF and/or shareholders for the guidelines, criteria, and procedures to be followed by participating commercial banks in accessing and using loan proceeds from the GIRAF;</p> <p>(iii) provide support and inputs to output 2 in developing the agribusiness lending portfolio;</p> <p>(iv) consolidate and manage the agribusiness lending portfolio;</p> <p>(v) develop annual agribusiness lending pipelines to be submitted to the working group for approval;</p> <p>(vi) prequalification, selection and training of participating commercial banks;</p> <p>(vii) conduct briefings for commercial banks and the targeted agribusinesses on the program and GIRAF's policies and procedures;</p> <p>(viii) responsible for the financial evaluation and the final selection of agribusiness small and medium-sized enterprises' (SMEs') proposals under output 3, ensuring consistency with local agribusiness development plans and undertaking appraisal of the proposed business plan and social and environmental safeguards;</p> <p>(ix) conduct preliminary due diligence of agribusiness SMEs for the project;</p> <p>(x) undertake financial and integrity due diligence of commercial banks borrowing from GIRAF, and prepare short list of eligible commercial banks for the program;</p> <p>(xi) based on the participating commercial banks due diligence reports on proposed subprojects and subloans, prepare an appraisal report for submission to ADB for compliance check and once approved by ADB, endorse the proposed sub-loan to the GIRAF credit committee for review and approval;</p> <p>(xii) establish the credit guarantee facility of the GIRAF, prepare relevant guidelines and procedure for guarantee enrolment and call approval process; and implement accordingly;</p> <p>(xiii) establish the innovation grants facility of the GIRAF, prepare relevant guidelines and procedures for availing of grants and conditions for reimbursement; and implement accordingly;</p> <p>(xiv) provide relevant inputs for preparing the project completion report;</p> <p>(xv) enter into a debt financing agreement with the respective commercial banks and sub-borrowers;</p> <p>(xvi) manage GIRAF's onlending activities to qualified commercial banks and sub-borrowers in accordance with the program's approved guidelines, criteria, and procedures;</p> <p>(xvii) manage the GIRAF advance account for the GCF concessional lending;</p> <p>(xviii) monitor the utilization of GIRAF loans for agribusiness SMEs and herders or herder cooperatives (as appropriate) and prepare the necessary periodic progress reports for submission to steering committee, and MOF;</p> <p>(xix) prepare financial management reports on the GIRAF and other reports required by MOF and the program;</p> <p>(xx) facilitate the preparation and timely submission of GIRAF audit reports;</p> <p>(xxi) under the program, prepare and implement a strategic plan for sector capacity development and institutional strengthening in green banking for green and inclusive regional agribusiness development;</p> <p>(xxii) through an appointed qualified NGO, assess capacities of existing savings and credit cooperatives (SCCs) in the three targeted <i>aimags</i> and select a limited number of SCCs to pilot financial intermediation through SCCs to support microenterprises and home-based business and provide soft loans to certified herders;</p> <p>(xxiii) comply with ADB requirements for participating commercial banks related to social and environmental due diligence;</p>

Program Implementation Organizations	Management Roles and Responsibilities
At targeted <i>aimags</i>	<p>(xxiv) allow GIRAF manager, PIU, and ADB to conduct periodic or random audits to assess the assess the documentary status and financial viability of subloans; and</p> <p>(xxv) complete and effective implementation of ESMS.</p> <p><b>Aimag Project Implementation Units</b></p> <p>The APIU will benefit from the PIU technical support to prepare, implement, and monitor all groundwork and community level activities. They will be established at each <i>aimag</i> and inter-<i>soum</i> centers targeted by the project, will report to the PIU, and liaise and coordinate with <i>aimag</i> government and <i>soum</i> administration the implementation of the program, and benefit from consulting services support. The APIU will</p> <ul style="list-style-type: none"> <li>(i) work with the <i>aimag</i> government related departments and agencies, and the PIU to produce infrastructure and facilities detailed design;</li> <li>(ii) undertake involuntary resettlement and environmental safeguard consultations;</li> <li>(iii) provide inputs to finalize and implement the operational framework, principles, and process for <i>ger</i> areas street development;</li> <li>(iv) provide inputs on procurement plan and bidding documents;</li> <li>(v) assist the PIU in updating and submission of final land acquisition and resettlement plan, if any, and EMP for ADB approval prior to award of contracts and implements all required measures;</li> <li>(vi) assist the PIU in preparing voluntary participation plans in line with the framework for voluntary participation for the <i>ger</i> areas street redevelopment projects, for ADB approval prior to award of contracts and implements all required measures;</li> <li>(vii) assist the PIU in finalizing and implementing the <i>ger</i> areas street redevelopment;</li> <li>(viii) assists PIU in procurement of goods and works for open competitive bidding advertised nationally, request for quotations, and community participation in procurement contract packages;</li> <li>(ix) assist the PIU with work supervision and inspections, and quality assurance of civil works and equipment installation;</li> <li>(x) facilitate communications between the PIU and local infrastructure operating organizations;</li> <li>(xi) ensures safeguards monitoring and grievance redress mechanism;</li> <li>(xii) endorses claims from the contractors and supplying companies;</li> <li>(xiii) form street development councils to support community mobilization;</li> <li>(xiv) provide inputs to finalize and implement the operational framework, principles, and process for herder groups' engagement;</li> <li>(xv) coordinate with governors and land officers of affiliated <i>soums</i> to get the rangeland use agreements (RUAs) signed, recognized, and registered by ALAMGAC;</li> <li>(xvi) consolidate agreements on rangeland management already signed with governors of the three targeted <i>aimags</i>;</li> <li>(xvii) supervise the herds reduction and livestock commercialization, and recommend financial incentives and/or awards for reduction of herds;</li> <li>(xviii) guide, promote and supervise fodder production;</li> <li>(xix) work with the PIU to implement the certification mechanism;</li> <li>(xx) assess existing primary and secondary cooperatives to be supported by the project and support or establish one cooperative in each targeted <i>soum</i>;</li> <li>(xxi) establish an association of cooperatives in each inter-<i>soum</i> and <i>aimag</i> center;</li> <li>(xxii) support preparation of structure and development of cooperatives and association of cooperatives; ensure attractiveness of the model and regular inclusion of certified pasture user group (PUG);</li> <li>(xxiii) formulate, establish, and implement the community participation in procurement (CPP);</li> <li>(xxiv) implement the rangeland management process in coordination with the PIU;</li> <li>(xxv) organize herders, cooperative, private sector outreach and provide inputs to the inter-<i>soum</i> and <i>aimag</i> centers agribusiness plan regrouping all the affiliated <i>soums</i>;</li> <li>(xxvi) prepare in coordination with the PIU <i>aimag</i> level agribusiness plan and portfolio pipeline to be supported by the project;</li> <li>(xxvii) with technical input and support from the PIU and the GIRAF manager identify through consultation and local/regional context analysis the agribusiness pipeline to be supported by the GIRAF;</li> </ul>

Program Implementation Organizations	Management Roles and Responsibilities
	<p>(xxviii) support the PIU in reaching local SME or regional/national/international investor to benefit from the GIRAF for the identified agribusiness investment;</p> <p>(xxix) assist the PIU in formulating the inter-<i>soum</i> and <i>aimag</i> center agribusiness plan regrouping all the affiliated <i>soums</i>;</p> <p>(xxx) prepare <i>aimag</i> level agribusiness plan and portfolio pipeline to be supported by the project;</p> <p>(xxxi) at each <i>soum</i> and herder groups level the APIU will work with the <i>soum</i> and <i>bagh</i> government to establish the project governance and implementation mechanism for each step of the rangeland agreement, such as establish local governance; mechanism, organize group discussion and herders outreach, make a first assessment on PUGs or herder groups, check the existing RUAs, provide capacity building to all targeted PUGs or herder groups, elaborate a stocking adjustment plan, and prepare a participatory and inclusive herd management plan; and</p> <p>(xxxii) day-to-day implementation of <i>aimag</i> EMP including oversight of contractor implementation of contractor EMP, and implementation of GRM.</p>
<b>Participating Commercial Banks</b>	<p>A commercial bank deemed eligible for the program and subsequently selected to develop an agribusiness subproject in partnership with an agribusiness SME, including qualified agricultural cooperatives, will be referred to in the project as a participating commercial bank. A participating commercial bank will</p> <ul style="list-style-type: none"> <li>(i) submit to the GIRAF all necessary documents and reports to be considered eligible for the program, initially, and periodically as required to maintain program accreditation;</li> <li>(ii) enter into a sub-loan agreement with the GIRAF to provide debt financing to agribusiness SMEs for the development of green, inclusive agribusiness subprojects;</li> <li>(iii) manage end-borrowers in accordance with prudent banking principles;</li> <li>(iv) prepare and submit financial management reports to the GIRAF on its sub-borrowing(s) for the project in accordance with the project requirements;</li> <li>(v) in accordance with the relending and onlending guidelines of the GIRAF, provide information to SMEs on loan availability and loan conditions;</li> <li>(vi) in coordination with GIRAF manager, provide training and templates for elaboration of business plans and partnership agreements with cooperatives and other associations with herder organizations; and</li> <li>(vii) complete and effective implementation of ESMS.</li> </ul>
<b>State Housing Corporation (TOSK)</b>	<p>TOSK will be in-charge of operating and maintaining the housing units (i.e., the estate management function) built by the program. More specifically, TOSK will</p> <ul style="list-style-type: none"> <li>(i) set design requirements and provide inputs for detailed architectural design of the housing units in coordination with the PIU;</li> <li>(ii) support housing units construction supervision in coordination with the PIU;</li> <li>(iii) screen the eligibility criteria of the household to access the program's social housing;</li> <li>(iv) manage the rent and rent-to-own scheme and collect rents;</li> <li>(v) maintain the facilities; and</li> <li>(vi) manage the public sector homeowner associations.</li> </ul>
<b>MET</b>	<p>MET will act as the GCF focal point for the program and guide the program on related environmental policies and regulations. More specifically the MET will</p> <ul style="list-style-type: none"> <li>(i) provide necessary guidance on the preparation and implementation of the water conservancy and harvesting components;</li> <li>(ii) provide necessary guidance on the sustainable rangeland management activities;</li> <li>(iii) advise and contribute on sustainable water management policies and regulations; and</li> <li>(iv) contribute to the water management awareness activities and practices dissemination.</li> </ul>
<b>Aimag Governments</b>	<p>The targeted <i>aimag</i> government will be in-charge of overseeing the program implementation in each <i>aimag</i> and coordinate with the <i>aimag</i> project implementation units. More specifically <i>aimag</i> governments will</p> <ul style="list-style-type: none"> <li>(i) ensure that the investment and activities are in line with local <i>aimag</i> development plan</li> <li>(ii) provide support to project implementation and ensure coordination with urban services provider, and <i>aimag</i> and <i>soum</i> governments department and offices.</li> <li>(iii) ensure timely availability of data and information; and</li> <li>(iv) ensure the coordination between all stakeholders at the <i>aimag</i> level and support of each <i>soum</i> and <i>bagh</i> government;</li> </ul>

Program Implementation Organizations	Management Roles and Responsibilities
<b>NFPUG</b>	<p>Will work closely with MOFALI to implement the sustainable rangeland management activities of the program. MOFALI will enter into an agreement with the NFPUG to directly contract NFPUG as PIU staff responsible for pasture user group support activities.</p> <p>It includes the following activities, that will be led and implemented by NFPUG:</p> <ul style="list-style-type: none"> <li>(i) herder communities' engagement to form PUGs;</li> <li>(ii) support to PUGs and local governments to prepare RUAs to the standards set by the project;</li> <li>(iii) monitoring of rangeland use agreements;</li> <li>(iv) training activities to PUG to improve rangeland management and herding practices (including reduction of herds' sizes to the carrying capacities);</li> <li>(v) implementation of community-based investment projects: selection of eligible PUG, support to the PUG for the preparation of applications for community-based investment projects, selection of eligible community-based investment projects, procurement and monitoring;</li> <li>(vi) monitoring and rating of PUG practices and community-based investment projects;</li> <li>(vii) implementation of the certification system at the PUG level: participation to the design of the selection criteria of the certification system for the PUG, training activities to the PUG to explain and follow the certification system, rating of each PUG against the selection criteria and monitoring of the certified PUG;</li> <li>(viii) implementation of the rewards for best PUG for rangeland management, fodder production, improved quality of livestock, and reduction of herds' sizes: yearly selection of best PUG and prize giving;</li> <li>(ix) coordination with GAVS and the University of Life Sciences for the training and implementation of the community-based animal health workers;</li> <li>(x) implementation of the traceability system in coordination with GAVS;</li> <li>(xi) selection of eligible PUG that can supply and work with cooperatives supported by the project;</li> <li>(xii) coordination with MOFALI local departments regarding the implementation of the support to herders' cooperatives;</li> <li>(xiii) lead the preparation of the participatory and inclusive herd and pasture land management plan; and</li> <li>(xiv) be responsible for the rangeland management part of all local planning documents to be prepared: <i>soum</i> territorial development plan and local agribusiness development plan.</li> </ul>
<b>United Nations Development Program (UNDP)</b>	<p>UNDP will closely cooperate, and share knowledge and experience, with the program during the implementation of the Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia (see below). It will</p> <ul style="list-style-type: none"> <li>(i) together with ADB, establish a working group, chaired by the MED, MOFALI, and MCUD, to coordinate both programs herders' capacity and organization building for sustainable rangeland management, and capacity to access markets for sustainably sourced climate-resilient livestock products and sustainable water resources management;</li> <li>(ii) facilitate the implementation of program tranche 2 and 3 activities in the <i>aimags</i> targeted by the UNDP project;</li> <li>(iii) enter into an implementation memorandum of understanding to ensure the coordination, knowledge sharing and the close partnership with the program; and</li> <li>(iv) work closely with NFPUG for pasture user group development activities.</li> </ul>
<b>ADB</b>	<p>ADB will oversee the project administration, monitor the project implementation, and will ensure project compliance with ADB safeguards and relevant policies. ADB will review the execution of subprojects, monitor the capability and performance of MED and implementing agencies, and assess any change in circumstances that may have a bearing on the sectors development plan in general and on the implementation and operation of the sector subprojects in particular. More specifically, ADB will</p> <ul style="list-style-type: none"> <li>(i) conduct review missions;</li> <li>(ii) monitor the government's compliance with loan effectiveness conditions;</li> <li>(iii) update the FAM;</li> <li>(iv) monitor the procurement of goods, works, and consulting services;</li> <li>(v) monitor implementation and development performance, using the elements of the project performance management system, design monitoring framework, and the FAM;</li> </ul>

Program Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> <li>(vi) analyze progress reports;</li> <li>(vii) disburse loan proceeds, and monitor each project cash flows, both from ADB and other financing sources;</li> <li>(viii) review audited project accounts and agency financial statements;</li> <li>(ix) monitor the government's compliance with applicable ADB policies as set out in the legal agreements;</li> <li>(x) monitor project compliance with environmental and social safeguards, social dimensions, and gender development;</li> <li>(xi) monitor functioning of grievance redress mechanism including timely redressal of grievances and complaints from affected persons on environment and social safeguards;</li> <li>(xii) monitor physical works progress, sector policy changes, sector restructuring, and tariff reform;</li> <li>(xiii) monitor the government's and MED's compliance with covenants;</li> <li>(xiv) strengthen MED's and implementing agencies' financial management and develop their capacity;</li> <li>(xv) closely cooperate, and share knowledge and experience, with the UNDP Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia Project;</li> <li>(xvi) Enter into an implementation memorandum of understanding with UNDP to ensure the coordination, knowledge sharing and the close partnership between the two program activities;</li> <li>(xvii) prepare project completion reports;</li> <li>(xviii) assess the achievement of the program outcome and outputs, and the contribution to achieving the development impact;</li> <li>(xix) review updated EMPs at detailed design phases of tranches, and environmental monitoring reports (EMR) during implementation of tranches; and</li> <li>(xx) review land acquisition and resettlement plans and voluntary participation plans based on detailed designs prior to contract awards, and review of semiannual resettlement and social monitoring reports during implementation.</li> </ul>
<b>EIB</b>	<p>EIB will cofinance the project's output 1. More specifically, EIB will</p> <ul style="list-style-type: none"> <li>(i) coordinate with ADB;</li> <li>(ii) check compliance of the Promoter with the Financing Contract provisions;</li> <li>(iii) review loan disbursement applications and process disbursements;</li> <li>(iv) review allocation requests, process allocation, and issue allocation letters;</li> <li>(v) review environmental and social compliance documents;</li> <li>(vi) perform selective review of procured contracts;</li> <li>(vii) review project progress reports;</li> <li>(viii) carry out consultations with the PIU and the project implementation consultants as to EIB requirements;</li> <li>(ix) coordinate with the European Union delegation on project- and sector-specific issues; and</li> <li>(x) conduct review missions.</li> </ul>
<b>The European Union</b>	<p>The European Union delegation will:</p> <ul style="list-style-type: none"> <li>(i) coordinate with ADB and EIB;</li> <li>(ii) participate as member in the meetings of projects steering committee;</li> <li>(iii) monitor physical works progress, sector policy changes, sector restructuring, and tariff reform;</li> <li>(iv) assess the achievement of the program outcome and outputs, and the contribution to achieving the development impact; and</li> <li>(v) conduct review missions.</li> </ul>
<b>Civil Society Organizations</b>	<p>Civil society organizations will:</p> <ul style="list-style-type: none"> <li>(i) be formed and trained to facilitate community engagement and form street development councils, community development councils, PUGs, and cooperatives;</li> <li>(ii) have a direct role in the project design, implementation, and post-operation and maintenance of infrastructure and equipment provided under the program especially through <i>ger</i> area street development councils, PUGs, and their umbrella organizations (with nongovernment organization status), and cooperatives;</li> <li>(iii) participate in formulating the participatory inclusive herd management plan and CPP, as well as the low-carbon and climate-resilient agribusiness development plan. PUGs and</li> </ul>

Program Implementation Organizations	Management Roles and Responsibilities
	<p>herder groups will be part of the decision-making in regional agribusiness development, and in the set up of cooperatives; and</p> <p>(iv) be part of the agribusiness council (comprising of representatives of associations or federations to produce meat, wool, cashmere, skin, and hide products; Mongolian National Chamber of Commerce and Industry; herder organizations; and cooperatives) to be established to provide economic and value chain development guidance and support to the PSC and the PIU.</p>

Source: ADB.

46. The comprehensive scope and crosscutting issues of development and climate change in Mongolia require integrated institutional arrangements, both vertically among the various levels of government (national, provincial, and local) and horizontally across inter-ministerial and intergovernmental agencies, combined with financial institutions, private sector groups, and civil society organizations. The program will be coordinated, monitored, and overseen by MED which will ensure the inter-ministries and inter-agencies coordination, as well as the policy and strategic roadmap. MED will be the executing agency for the program.

47. A projects steering committee, comprised of representatives from the MED (Chair); MCUD (vice chair); MOFALI (vice chair); Ministry of Finance (MOF); MET; targeted *aimag* governments; and the European Union will be established to oversee program implementation, provide strategic and policy guidance, and coordinate efforts among ministries and agencies. The program executing agency will be the MED representing the government for program implementation oversight.

48. The projects director will be the MED State Secretary. A project implementation unit (PIU) will be established under MED. The PIU will be managed by a PIU coordinator who will report to the projects director. A deputy coordinator will be appointed to oversee construction, supervision, and urban development activities of the program in close coordination with MCUD. MCUD will be responsible for output 1 procurement (at least at the first stage of project implementation) and will provide design, implementation, and policy guidance. A deputy coordinator will be appointed to oversee livestock, agriculture, and rangeland management component in close coordination with MOFALI. MOFALI will be responsible for output 2 procurement (at least at the first stage of project implementation) and will provide design, implementation, and policy guidance. A deputy coordinator/fund manager will be appointed to manage GIRAF and the financial intermediation loan (FIL) component of the program. MOF will act as a major shareholder of the GIRAF and provide necessary guidance to GIRAF manager on the establishment and management of the GIRAF. The deputy coordinator/fund manager will report to the PIU coordinator. At the *aimag* level, an *aimag* project implementation unit (APIU) will be established under the PIU in *aimags* targeted by the program. Each will be managed by a monitoring and evaluation (M&E) officer who will lead the team of urban development, rangeland management, agribusiness, and safeguard and due diligence officers. The APIU will closely coordinate with the *aimag* governor's office and each targeted *soum* governor's office.

49. The roles and responsibilities of the PIU will be sent for no-objection or approval by the EIB. The official documents establishing the PIU will be shared with the EIB.

50. The key positions such as PIU coordinator, deputy coordinators, finance officers, procurement officers, and M&E officers will be selected and appointed based on competitive selection procedures in compliance with ADB procurement policies with the MOF regulations

approved by the Minister's order No. 4.<sup>65</sup> Other key positions in the PIU such as urban development specialist, chief engineer, rangeland management specialist, and cooperative specialist, will be selected and appointed based on competitive selection procedures following ADB procurement policies of the executing and implementing agencies (ADB will oversee and will provide no-objection). Other positions in the PIU will be selected and appointed based on competitive selection procedures by the executing and/or implementing agencies with ADB's endorsement.

51. Because of NFPUG's extensive experience, its long-term cooperation with the Swiss Agency for Development and Cooperation, and its role and network in establishing RUAs and organizing herder groups especially in the western *aimags*; it will have an important role during program implementation and will provide PIU staff to implement rangeland management activities. This represents about 796 person-months for project 1. A memorandum of understanding between the MED, MOFALI, and NFPUG will be signed to define the extent of the NFPUG participation in the program. Consulting services recruitment will be led by MED together with MCUD for output 1 related consultants, and MOFALI for output 2 related consultants, and will be led by the GIRAF manager together with MOF for output 3 related consultants. Support for the establishment and operation of cooperatives and PUGs will be done through civil works and equipment investment - as indicated in the procurement plan. It will also be done through support for O&M, operation cost, working capital and incentives for herds reduction representing a total estimated at \$4.9 million for establishment and operation of cooperatives. As well as through O&M support for *Soum* and *Aimag* PUG Organizations, estimated at \$720,000. Details are provided in Appendix 1 of this FAM.

52. An agribusiness council, comprising of representatives of associations or federations for producing meat, wool, cashmere, skin, and hide products; Mongolian National Chamber of Commerce and Industry; herder organizations; representatives from all professional associations in the agriculture sector; and cooperatives will be established to provide economic and value chain development guidance and support to the PIU.

## **B. Key Persons Involved in Implementation (to be updated during Loan Negotiations)**

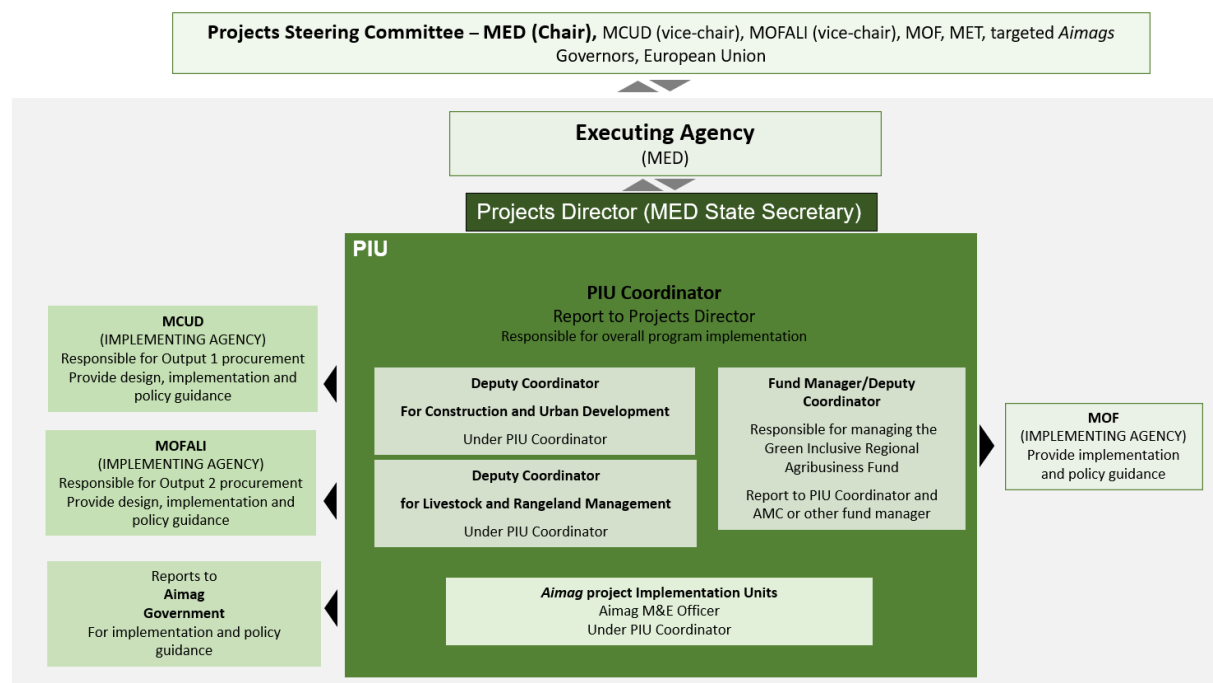
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<sup>65</sup> Regulation on the utilization of Government foreign loan proceeds, implementation, administration, financing, monitoring and evaluation of projects funded by these proceeds as approved by the Finance Minister's Order number 4 dated 11 January 2021.

<b>Project Implementing Agency</b>	
Ministry of Construction and Urban Development	<p><b>Mr. Gunbold Baatar</b> Director General of Policy and Planning Department (PPD) Tel: 976-98098098 Email: <a href="mailto:mn98098098@gmail.com">mn98098098@gmail.com</a></p> <p><b>Mr. Altaibaatar Batsaikhan</b> Director of Foreign Cooperation Division, PPD Tel: 976-88117164 Email: <a href="mailto:ag.altaibaatar@gmail.com">ag.altaibaatar@gmail.com</a></p> <p><b>Mr. Ankh-Orgil Bayardalai</b> Senior Researcher of Foreign Cooperation Division, PPD Tel: 976-94004433 Email: <a href="mailto:ankhorgil@mcud.gov.mn">ankhorgil@mcud.gov.mn</a></p>
Ministry of Food, Agriculture and Light Industry	<p><b>Mr. Bolorchuluun Tsendgombo,</b> Director General of Policy and Planning Department (PPD) Tel: 976-99105090 Email: <a href="mailto:boohvy_69@yahoo.com">boohvy_69@yahoo.com</a></p> <p><b>Mr. Anar Enkhbold</b> Acting Director of International Cooperation Tel: 976-88156666 Email: <a href="mailto:anar@mofa.gov.mn">anar@mofa.gov.mn</a></p> <p><b>Ms. Tumenbayar Purev</b> Specialist of PPD Tel: 976-99032932 Email: <a href="mailto:tumenbayar.p@mofa.gov.mn">tumenbayar.p@mofa.gov.mn</a></p>
Ministry of Finance	<p><b>Ms. Odontuya Baigalmaa</b> Director of Debt Management Division of Ministry of Finance Tel: 9191-8565 Email: <a href="mailto:odontuya_b@mof.gov.mn">odontuya_b@mof.gov.mn</a></p> <p><b>Mr. Tulga Solongo</b> Director of Financial Asset Management Division of Ministry of Finance Tel: 9811-0000 Email: <a href="mailto:tulga_s@mof.gov.mn">tulga_s@mof.gov.mn</a></p> <p><b>Ms. Maral Ulambayar</b> Specialist of Debt Management Division of Ministry of Finance Tel: 9191-0739 Email: <a href="mailto:maral_u@mof.gov.mn">maral_u@mof.gov.mn</a></p>
<b>Asian Development Bank</b>	
Urban and Social Sectors Division, East Asia Department	<p><b>Mr. Asif Cheema</b> Director Tel: +63 2 632 5340 Fax : +63 2 636 2407 Email: <a href="mailto:acheema@adb.org">acheema@adb.org</a></p>
Mission Leader	<p><b>Mr. Arnaud Heckmann</b> Principal Portfolio Management Specialist Tel: +976 11 329 836 Fax: + 976 11 311 795 Email: <a href="mailto:aheckmann@adb.org">aheckmann@adb.org</a></p>

## C. Project Organization Structure

**Figure 5: Implementation Arrangements**



AMC = Development Bank of Mongolia Asset Management SC LLC; GIRAF = Green and inclusive regional agribusiness fund; M&E = monitoring and evaluation; MCUD = Ministry of Construction and Urban Development; MET = Ministry of Environment and Tourism; MOF = Ministry of Finance; MOFALI = Ministry of Food, Agriculture and Light Industry; PIU = project implementation unit.

Source: Asian Development Bank.

## IV. COSTS AND FINANCING

53. The program is estimated to cost \$735.0 million. The investment component of the program, comprising outputs 1, 2, and 4, will cost \$617.4 million (Table 5). Output 3, which will be delivered through a financial intermediation loan (FIL) component will require an estimated \$117.6 million. The investment component will cover civil works, equipment, support to PUGs and cooperatives, design and construction supervision, project implementation and management support, safeguards and due diligence, and consulting services.

**Table 5: Summary Cost Estimates**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Costs<sup>b</sup></b>	
1. Output 1: Climate-resilient, low-carbon, and attractive <i>aimag</i> and <i>soum</i> centers developed	395.7
2. Output 2: Climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented	99.2
3. Output 4: Institutional capacity and policies for low-carbon and climate-resilient agro-territorial development strengthened	38.5
<b>Subtotal (A)</b>	<b>533.4</b>
<b>B. Contingencies<sup>c</sup></b>	<b>59.3</b>
<b>C. Financial Charges During Implementation<sup>d</sup></b>	<b>24.7</b>
<b>Total (A+B+C)</b>	<b>617.4</b>

<sup>a</sup> Includes taxes and duties estimated at \$48.0 million for the investment program and \$16.2 million for tranche 1. Such amount does not represent an excessive share of the investment program cost. The government will finance taxes and duties through tax exemptions.

<sup>b</sup> In 2023 prices as of 17 January 2023.

<sup>c</sup> Physical and price contingencies, and a provision for exchange rate fluctuation are included.

<sup>d</sup> Includes service fees, interest, commitment, and other charges on all sources of financing.

Source: Asian Development Bank estimates.

54. **Financing plan.** The government has requested an MFF in an amount of up to \$448 million from a blend of regular loans (\$135 million), concessional loans (\$135 million) from ADB's ordinary capital resources, a grant (\$3 million) from ADB's Special Funds resources (Asian Development Fund [ADF]), and cofinanced loan (\$130 million) and grant (\$45 million) from the Green Climate Fund (GCF) to be administered by ADB, to help finance a part of the investment program. The EIB will provide cofinancing (non-ADB-administered) comprising a loan of up to \$150 million equivalent and a grant of up to \$30 million equivalent from the Asia Investment Facility of the European Union (administered by the European Investment Bank). The government will finance \$75.3 million, including taxes and duties, resettlement, civil works, equipment, consulting services, project management, and other miscellaneous costs. The investment project component comprises outputs 1, 2, and 4 and will cost \$617.4 million. Output 3 will be delivered through an FIL component for which the government will invest \$87.6 million of the GCF loan proceeds into the GIRAF. In addition, the \$5.0 million GCF grant will be passed on to the government's green innovation grants facility as reimbursable grants to qualified investors to promote innovations in green and inclusive agribusiness. The GIRAF will serve as the apex financial institution for the program funds to be channeled through financial intermediaries based on eligibility and selection criteria.<sup>66</sup> The GCF loan proceeds will leverage financial contributions from private entrepreneurs and other participating commercial banks estimated at \$25.0 million. The contribution from beneficiary households is estimated at \$6.7 million. The MFF will consist of three tranches, subject to the government's submission of related periodic financing requests, execution of the related loan and project agreements for each tranche, and fulfillment of terms and conditions and undertakings set forth in the framework financing agreement.

55. The total cost for tranche 1 is estimated at \$270 million, of which \$214.3 million is the investment cost and \$55.7 million is the financial intermediation loan component cost. The government requested ADB to finance \$93.0 million or 43.4% of the total investment requirement for tranche 1, which comprises a regular loan (\$45.0 million) and a concessional loan (\$45.0 million) from ADB's ordinary capital resources; and a grant (\$3.0 million) from ADB's Special Funds resources (Asian Development Fund). The regular loan will have a 25-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's Flexible

<sup>66</sup> Apex mechanisms usually involve financial institutions through which development partner-funded FILs are channeled to a second layer of financial intermediaries, which in turn onlend such loan proceeds to sub-borrowers.

Loan Product, a commitment charge of 0.15% per year (the interest and other charges during construction to be capitalized in the loan), and such other terms and conditions set forth in the draft loan and project agreements. Based on the straight-line method, the average maturity is 15.25 years, and the maturity premium payable to ADB is 0.10% per year. The concessional loan will have a 25-year term, including a grace period of 5 years, an interest rate of 2.0% per year during the grace period and thereafter (the interest and other charges during construction to be capitalized in the loan), and such other terms and conditions set forth in the draft loan and project agreements.

56. For Tranche 1, GCF will provide cofinancing of \$50.2 million loan and \$25.0 million grant, to be administered by ADB. The GCF loan will have a 40-year term, including a 10-year grace period, annual principal repayments from year 11 to year 20 equivalent to 2% of the initial principal, and from year 21 to year 40 equivalent to 4% (the interest and commitment charges during construction to be capitalized in the loan), and such other terms and conditions set forth in the GCF loan agreement.

57. The EIB will provide cofinancing (non-ADB-administered) of up to \$52.9 million loan and \$10.5 million grant.<sup>67</sup> The EIB loan will have a 20-year term including a grace period of 5 years and an interest rate in accordance with its LIBOR-based lending facility. The portion of such cofinancing will be limited to urban infrastructure and urban services individual connection and housing improvement. Waste management-related investment will not be financed from the EIB loan resources. The government will finance \$20.7 million, including taxes and duties, resettlement, civil works, equipment, consulting services, project management, and other miscellaneous costs. The contribution from the beneficiaries is estimated at \$3.4 million, while the contribution from private entrepreneurs, Development Bank of Mongolia, and other participating commercial banks is estimated at \$14.3 million.

**Table 6: Summary Financing Plan (\$ million)**

Table 6: Summary Financing Plan (\$ million)					
Source	Tranche (estimated year of PFR submission)			Amount	Share of Total (%)
	1 (2023)	2 (2025)	3 (2028)		
<b>A. Investment Project Component</b>					
1. Asian Development Bank					
(i) Ordinary capital resources (regular loan)	45.0	50.0	40.0	135.0	18.4
(ii) Ordinary capital resources (concessional loan)	45.0	52.2	37.8	135.0	18.4
(iii) Special Funds resources (ADF grant)	3.0	0.0	0.0	3.0	0.4
2. Green Climate Fund (loan) <sup>a</sup>	11.8	18.4	12.2	42.4	5.8
3. Green Climate Fund (grant) <sup>a</sup>	22.0	10.8	7.2	40.0	5.4
4. European Investment Bank (loan) <sup>b</sup>	52.9	59.4	37.7	150.0	20.4
5. European Investment Bank (grant) <sup>b</sup>	10.5	11.4	8.1	30.0	4.1
6. Government of Mongolia	20.7	33.5	21.1	75.3	10.2
7. Beneficiaries	3.4	2.0	1.3	6.7	0.9
<b>Subtotal (A)</b>	<b>214.3</b>	<b>237.7</b>	<b>165.4</b>	<b>617.4</b>	<b>84.0</b>
<b>B. Financial Intermediation Loan Component</b>					
1. Green Climate Fund (loan) <sup>a</sup>	38.4	29.6	19.6	87.6	11.9
2. Green Climate Fund (grant) <sup>a</sup>	3.0	1.2	0.8	5.0	0.7
2. Commercial banks/Private sector <sup>c</sup>	14.3	7.5	3.2	25.0	3.4
<b>Subtotal (B)</b>	<b>55.7</b>	<b>38.3</b>	<b>23.6</b>	<b>117.6</b>	<b>16.0</b>
<b>Total (A+B)</b>	<b>270.0</b>	<b>276.0</b>	<b>189.0</b>	<b>735.0</b>	<b>100.0</b>

ADF = Asian Development Fund, PFR = periodic financing request.

<sup>a</sup> Administered by the Asian Development Bank.

<sup>b</sup> Parallel cofinancing, not administered by the Asian Development Bank.

<sup>c</sup> Equity from private sector investors and agribusiness small and medium-sized enterprises.

Source: Asian Development Bank estimates.

<sup>67</sup> The grant from the Asia Investment Facility of the European Union is administered by the EIB.

58. Climate mitigation is estimated to cost \$114.2 million and climate adaptation is estimated to cost \$113.8 million under the MFF from ADB and ADB-administered funds.<sup>68</sup> The use of ADF grant resources from the ADF 13 thematic pool will produce a catalytic effect to implement output 2 and deliver the adaptation outcome for vulnerable herders. Extra grants from the ADF 13 will be used to implement capacity building and awareness raising program, and improve the regulatory and institutional framework for, among others, (i) inclusive, sustainable, resilient, and low-carbon, healthy rangeland management; (ii) pastureland user group and herder organizations including elaboration of participatory and inclusive herd management plans; (iii) community-based animal health worker, animal breeding and health control, and veterinary services; (iv) operation, maintenance, and improved water management of irrigation systems and water conservancy and harvesting solution; and (v) local green agribusiness development plan and fodder production. The whole investment program builds on a comprehensive climate risk assessment and support from the ADF 13 will build resilience focusing on vulnerable populations and ecosystem. It will pilot innovative solutions which include agro-territorial development, ecosystem-based solutions, and high-level technology.

### **A. Cost Estimates Preparation and Revisions**

59. The project base cost estimates incorporating taxes and duties, physical and price contingencies, and financial charges during implementation were calculated in accordance with ADB's guidelines on project cost estimation.<sup>69</sup> The program preparation under the project transaction technical assistance<sup>70</sup> has developed all relevant feasibility studies, due diligence, and safeguards for the first tranche. In addition, in accordance with the MFF modality, base cost estimates from feasibility studies prepared for project 1 were used to derive the standards, as well as unit costs, applicable to scaling up to pre-defined activities will be like tranche 1 to the subsequent tranches.<sup>71</sup> The unit costs were based on 2022 prices for materials, equipment, and civil works for similar types of projects in Mongolia. Cost estimates were prepared by the technical assistance consultants in accordance with global best practices, local knowledge, and the relevant costs prevailing in Mongolia. The costs were revised several times to reviewed and allow for changes in configuration, scope, and standards throughout the project preparation process and because of consultations with the various project stakeholders. For each subsequent tranche, feasibility will be formulated to define the scope and develop the cost for each activity under each tranche.

60. Technical due diligence has been carried out on each proposed component for the first tranche of the program. Infrastructure designs are in line with Mongolian norms and standards and are compatible with existing urban systems. O&M for the new systems will be provided by the program to ensure that enough capacity is built at the *soum* and *aimag* levels. The project design is compatible with local conditions of livestock herders and other actors along the livestock value chain. Technical solutions for improving livestock production are adopting practices and processes that have been successful in improving grazing management and reducing livestock

<sup>68</sup> Details are in section VII. Safeguards of this FAM.

<sup>69</sup> ADB. 2014. *Financial Management Technical Guidance Note: Preparing and Presenting Cost Estimates for Projects and Programs Financed by the Asian Development Bank*. Manila.

<sup>70</sup> Financed by the Japan Fund for Prosperous Asia and the Pacific.

<sup>71</sup> For example, each building should reach an energy efficiency performance guaranteeing an energy consumption of 50 kilowatt hours per square meter per year and should comply with the Mongolian Norm and Regulation BnDB 23-02-09 "Thermal Performance of Buildings" as amended from time to time and as complemented by the Green Building Regulation.

numbers. Design and scope of the agro-industrial parks are based on local economic development potential and objectives, LCLVC analysis, and consultation with local businesses.<sup>72</sup>

## B. Key Assumptions

61. The following key assumptions underpin the cost estimates and financing plan:
- (i) Exchange rate: MNT3,461 = \$1.00 (as of 17 January 2023)
  - (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 7: Escalation Rates for Price Contingency Calculation**

Item	2022	2023	2024	2025	2026	2027	2028	Average
Foreign rate of price inflation	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8
Domestic rate of price inflation	12.4	9.3	6.0	6.0	6.0	6.0	6.0	8.0

Source: Asian Development Bank estimates.

<sup>72</sup> Planned area are about 10 hectares in *aimag* centers and 3–5 hectares in inter-*soums*.

### C. Detailed Cost Estimates by Expenditure Category

**Table 8: Tranche 1 Investment Component—Outputs 1, 2, and 4**

Item	(MNT million)			(\$ million)			% of Total Base Cost
	Foreign	Local	Total Cost	Foreign	Local	Total Cost	
<b>I. Investment Costs</b>							
<b>A. Land acquisition</b>		<b>1,941.28</b>	<b>1,941.28</b>		<b>0.56</b>	<b>0.56</b>	<b>0.31</b>
<b>B. Civil works</b>							
1. Roads and street upgrading pilot	38,582.12	67,510.06	106,092.18	11.15	19.51	30.65	16.81
2. Public amenities	1,245.96	2,180.43	3,426.39	0.36	0.63	0.99	0.54
3. Water supply system	4,870.05	8,522.59	13,392.64	1.41	2.46	3.87	2.12
4. Wastewater system	19,664.86	34,413.50	54,078.36	5.68	9.94	15.63	8.57
5. Heating	14,890.55	26,058.46	40,949.00	4.30	7.53	11.83	6.49
6. Urban and agro-industrial parks flood protection and drainage	15,924.70	27,868.23	43,792.93	4.60	8.05	12.65	6.94
7. Waste management preliminary works	3,077.18	5,385.06	8,462.23	0.89	1.56	2.45	1.34
8. Other infrastructure	6,198.32	10,847.06	17,045.38	1.79	3.13	4.92	2.70
9. Community facilities	6,370.46	11,148.30	17,518.75	1.84	3.22	5.06	2.78
10. Incubator	3,170.28	5,547.98	8,718.26	0.92	1.60	2.52	1.38
11. Water conservancy	3,045.68	5,329.94	8,375.62	0.88	1.54	2.42	1.33
12. Detailed design and supervision	10,040.22	17,570.38	27,610.59	2.90	5.08	7.98	4.38
<b>Subtotal (B)</b>	<b>127,080.38</b>	<b>222,381.98</b>	<b>349,462.37</b>	<b>36.72</b>	<b>64.25</b>	<b>100.97</b>	<b>55.38</b>
<b>C. Equipment</b>							
1. Urban infrastructure	2,657.70	1,518.69	4,176.39	0.77	0.44	1.21	0.66
2. Sustainable rangeland and agricultural management	3,375.04	1,928.60	5,303.64	0.98	0.56	1.53	0.84
3. Smart land management	7,389.24	4,222.42	11,611.66	2.14	1.22	3.36	1.84
<b>Subtotal (C)</b>	<b>13,421.98</b>	<b>7,669.70</b>	<b>21,091.69</b>	<b>3.88</b>	<b>2.22</b>	<b>6.09</b>	<b>3.34</b>
<b>D. Energy efficiency</b>							
1. Renewable energy	6,315.11	3,608.63	9,923.74	1.82	1.04	2.87	1.57
2. Climate change mitigation	7,629.08	4,359.48	11,988.56	2.20	1.26	3.46	1.90
<b>Subtotal (D)</b>	<b>13,944.19</b>	<b>7,968.11</b>	<b>21,912.30</b>	<b>4.03</b>	<b>2.30</b>	<b>6.33</b>	<b>3.47</b>
<b>E. Community-based investments</b>	<b>8,742.83</b>	<b>39,342.74</b>	<b>48,085.58</b>	<b>2.53</b>	<b>11.37</b>	<b>13.89</b>	<b>7.62</b>
<b>F. Support to pasture user groups and cooperatives</b>	<b>4,543.44</b>	<b>20,445.49</b>	<b>24,988.94</b>	<b>1.31</b>	<b>5.91</b>	<b>7.22</b>	<b>3.96</b>
<b>G. Primary works for irrigated perimeters</b>	<b>2,960.14</b>	<b>13,320.63</b>	<b>16,280.77</b>	<b>0.86</b>	<b>3.85</b>	<b>4.70</b>	<b>2.58</b>
<b>H. Reduction of herd sizes</b>	<b>760.04</b>	<b>3,420.16</b>	<b>4,180.20</b>	<b>0.22</b>	<b>0.99</b>	<b>1.21</b>	<b>0.66</b>
<b>I. Animal health services</b>	<b>3,709.21</b>	<b>16,691.45</b>	<b>20,400.67</b>	<b>1.07</b>	<b>4.82</b>	<b>5.89</b>	<b>3.23</b>
<b>J. Consulting services</b>							
1. Project implementation and management support	9,820.38	8,183.65	18,004.03	2.84	2.36	5.20	2.85
2. Support for green and inclusive regional agribusiness finance	5,606.82	4,672.35	10,279.17	1.62	1.35	2.97	1.63
3. Pilot demonstration finance for GIRAF Window 3	3,737.88	3,114.90	6,852.78	1.08	0.90	1.98	1.09
4. Sustainable rangeland and agricultural management	8,280.98	6,900.81	15,181.79	2.39	1.99	4.39	2.41
5. Monitoring and evaluation support	3,281.03	2,734.19	6,015.22	0.95	0.79	1.74	0.95

Item	(MNT million)			(\$ million)			% of Total Base Cost
	Foreign	Local	Total Cost	Foreign	Local	Total Cost	
6. Capacity development for policy reforms and implementation	1,887.82	1,573.18	3,461.00	0.55	0.45	1.00	0.55
<b>Subtotal (J)</b>	<b>32,614.90</b>	<b>27,179.09</b>	<b>59,793.99</b>	<b>9.42</b>	<b>7.85</b>	<b>17.28</b>	<b>9.48</b>
<b>Total investment costs (I)</b>	<b>207,777.10</b>	<b>360,360.64</b>	<b>568,137.74</b>	<b>60.03</b>	<b>104.12</b>	<b>164.15</b>	<b>90.04</b>
<b>II. Recurrent costs</b>							
<b>A. PIU incremental administration</b>							
1. Implementation and management	-	24,077.93	24,077.93	-	6.96	6.96	3.82
2. Monitoring and evaluation	-	6,019.48	6,019.48	-	1.74	1.74	0.95
<b>Subtotal (A)</b>	-	<b>30,097.41</b>	<b>30,097.41</b>	-	<b>8.70</b>	<b>8.70</b>	<b>4.77</b>
<b>B. Operation and maintenance</b>	<b>5,956.66</b>	<b>26,804.98</b>	<b>32,761.64</b>	<b>1.72</b>	<b>7.74</b>	<b>9.47</b>	<b>5.19</b>
<b>Total recurrent costs (II)</b>	<b>5,956.66</b>	<b>56,902.39</b>	<b>62,859.05</b>	<b>1.72</b>	<b>16.44</b>	<b>18.16</b>	<b>9.96</b>
<b>Total base costs (I+II)</b>	<b>213,733.76</b>	<b>417,263.03</b>	<b>630,996.79</b>	<b>61.75</b>	<b>120.56</b>	<b>182.32</b>	<b>100.00</b>
<b>III. Contingencies</b>							
<b>A. Physical</b>	<b>8,683.00</b>	<b>15,059.46</b>	<b>23,742.46</b>	<b>2.51</b>	<b>4.35</b>	<b>6.86</b>	<b>3.76</b>
<b>B. Price</b>	<b>21,639.15</b>	<b>37,530.11</b>	<b>59,169.26</b>	<b>6.25</b>	<b>10.84</b>	<b>17.10</b>	<b>9.32</b>
<b>Total contingencies (III)</b>	<b>30,322.15</b>	<b>52,589.57</b>	<b>82,911.72</b>	<b>8.76</b>	<b>15.19</b>	<b>23.96</b>	<b>13.14</b>
<b>IV. Financial charges during implementation</b>	<b>10,251.53</b>	<b>17,779.86</b>	<b>28,031.39</b>	<b>2.96</b>	<b>5.14</b>	<b>8.10</b>	<b>4.44</b>
<b>Total Project Cost (I+II+III+IV)</b>	<b>254,307.44</b>	<b>487,632.46</b>	<b>741,939.90</b>	<b>73.48</b>	<b>140.89</b>	<b>214.37</b>	<b>117.58</b>

GIRAF = Green and Inclusive Regional Agribusiness Fund, PIU = project implementation unit.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

# **D. Allocation and Withdrawal of Loan and Grant Proceeds**

**Table 9: Allocation and Withdrawal of Loan Proceeds (Tranche 1)**  
**ADB Concessional Ordinary Capital Resources**

<b>Number</b>	<b>Item</b>	<b>Total Amount Allocated for ADB Financing (\$)</b>	<b>Basis for Withdrawal from the Loan Account</b>
1	Civil works (community facilities); equipment and consulting services (except for sustainable rangeland and agricultural management); primary works for irrigated perimeters; PIU incremental administration costs	29,600,000	100.00% of total expenditure claimed <sup>a</sup>
2	Equipment for sustainable rangeland and agricultural management	1,090,000	78.68% of total expenditure claimed <sup>a</sup>
3	Animal health services	4,360,000	81.33% of total expenditure claimed <sup>a</sup>
4	Consulting services for sustainable rangeland and agricultural management	1,130,000	28.32% of total expenditure claimed <sup>a</sup>
5	Interest Charge	2,620,000	100.00% of total amount due
6	Unallocated	6,200,000	
<b>Total</b>		<b>45,000,000</b>	

ADB = Asian Development Bank, PIU = project implementation unit.

<sup>a</sup> Exclusive of taxes and duties imposed within the territory of the Borrower.

Source: ADB estimates.

**Table 10: Allocation and Withdrawal of Loan Proceeds (Tranche 1)**  
**ADB Ordinary Capital Resources**

<b>Number</b>	<b>Item</b>	<b>Total Amount Allocated for ADB Financing (\$)</b>	<b>Basis for Withdrawal from the Loan Account</b>
1	Civil Works		
	1A Roads and street upgrading pilot	10,250,000	36.78% of total expenditure claimed <sup>a</sup>
	1B Heating, waste management preliminary works, other infrastructure, incubator, and detailed engineering design	27,000,000	100.00% of total expenditure claimed <sup>a</sup>
2	Interest and commitment charges	2,530,000	100.00% of total amount due
3	Unallocated	5,220,000	
	<b>Total</b>	<b>45,000,000</b>	

ADB = Asian Development Bank.

<sup>a</sup> Exclusive of taxes and duties imposed within the territory of the Borrower.

Source: ADB estimates.

**Table 11: Allocation and Withdrawal of Grant Proceeds (Tranche 1)**  
**ADB Special Funds Resources (Asian Development Fund)**

<b>Number</b>	<b>Item</b>	<b>Total Amount Allocated for ADB Financing (\$)</b>	<b>Basis for Withdrawal from the Grant Account</b>
1	Consulting services (sustainable rangeland and agricultural management) and contingency	3,000,000	71.68% of total expenditure claimed <sup>a</sup>
	<b>Total</b>	<b>3,000,000</b>	

ADB = Asian Development Bank.

<sup>a</sup> Exclusive of taxes and duties imposed within the territory of the Recipient.

Source: ADB estimates.

**Table 12: Allocation and Withdrawal of Grant Proceeds (Tranche 1)**

<b>Green Climate Fund</b>			
<b>Number</b>	<b>Item</b>	<b>Total Amount Allocated for GCF Financing (\$)</b>	<b>Basis for Withdrawal from the Grant Account</b>
<b>Output 2</b>			
1	Civil Works (water conservancy); reduction of herd sizes	3,300,000	100.00% of total expenditure claimed <sup>a</sup>
2	Equipment (sustainable rangeland and agricultural management)	300,000	21.32% of total expenditure claimed <sup>a</sup>
3	Community-based investments	9,630,000	76.25% of total expenditure claimed <sup>a</sup>
4	Support to pasture groups and cooperatives	6,190,000	94.36% of total expenditure claimed <sup>a</sup>
5	Animal health services	1,000,000	22.95% of total expenditure claimed <sup>a</sup>
6	Unallocated	1,580,000	
	<b>Subtotal (Output 2)</b>	<b>22,000,000</b>	
<b>Output 3</b>			
7	Green innovation grants <sup>b</sup>	3,000,000	100.00% of total expenditure claimed <sup>a</sup>
	<b>Subtotal (Output 3)</b>	<b>3,000,000</b>	
	<b>Total</b>	<b>25,000,000</b>	

GCF = Green Climate Fund.

<sup>a</sup> Exclusive of taxes and duties imposed within the territory of the Recipient.

<sup>b</sup> Condition for withdrawals from grant account: Notwithstanding any other provision of the Grant Agreement, no withdrawals shall be made from the Grant Account until the (i) green and inclusive regional agribusiness fund (GIRAF) has been duly established under the governing law; (ii) GIRAF Manager has been engaged as the fund manager of GIRAF pursuant to the GIRAF fund documentation; (iii) GIRAF Operations Manual has been duly approved by the Asian Development Bank (ADB); and (iv) recipient has delivered to GCF (a) fully authorized and executed copies of the GIRAF fund documentation (including the establishment documents and Asset Management Agreement between GIRAF manager and Ministry of Finance); and (b) a legal opinion or opinions issued by the Ministry of Finance, in form and substance satisfactory to ADB, confirming that GIRAF has been duly established and that the obligations undertaken by GIRAF manager, the Recipient, and GIRAF under the GIRAF fund documentation are valid and enforceable in accordance with the governing law.

Source: ADB estimates.

**Table 13: Allocation and Withdrawal of Loan Proceeds (Tranche 1)**  
**Green Climate Fund**

<b>Number</b>	<b>Item</b>	<b>Total Amount Allocated for GCF Financing (\$)</b>	<b>Basis for Withdrawal from the Loan Account</b>
<b>Outputs 1 and 2</b>			
1	Energy efficiency (renewable energy); recurrent costs (operation and maintenance)	11,220,000	100.00% of total expenditure claimed <sup>a</sup>
2	Service charges and commitment charges <sup>b</sup>	1,080,000	100.00% of total amount due
3	Contingencies	390,000	
	<b>Subtotal (outputs 1 and 2)</b>	<b>12,690,000</b>	
<b>Output 3</b>			
4	Financial Intermediation Loan Component <sup>c</sup>	37,510,000	100.00% of total expenditure claimed <sup>a</sup>
	<b>Total</b>	<b>50,200,000</b>	

GCF = Green Climate Fund.

<sup>a</sup> Exclusive of taxes and duties imposed within the territory of the Borrower.

<sup>b</sup> Inclusive of financing charges for the financial intermediation loan component.

<sup>c</sup> Condition for withdrawals from grant account: Notwithstanding any other provision of the Grant Agreement, no withdrawals shall be made from the Grant Account until the (i) green and inclusive regional agribusiness fund (GIRAF) has been duly established under the governing law; (ii) GIRAF Manager has been engaged as the fund manager of GIRAF pursuant to the GIRAF fund documentation; (iii) GIRAF Operations Manual has been duly approved by the Asian Development Bank (ADB); and (iv) recipient has delivered to GCF (a) fully authorized and executed copies of the GIRAF fund documentation (including the establishment documents and Asset Management Agreement between GIRAF manager and Ministry of Finance); and (b) a legal opinion or opinions issued by the Ministry of Finance, in form and substance satisfactory to ADB, confirming that GIRAF has been duly established and that the obligations undertaken by GIRAF manager, the Recipient, and GIRAF under the GIRAF fund documentation are valid and enforceable in accordance with the governing law.

Source: ADB estimates.

## E. Detailed Cost Estimates by Financier

**Table 14: Tranche 1 Investment Component—Outputs 1, 2, and 4**  
(\$ million)

Item	ADB COL		ADB OCR		ADB Grant		GCF Grant		GCF LOAN		European Union Grant		European Investment Bank Loan		Banks/ Private Sector		Beneficiaries		Government of Mongolia		Total Cost	
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amounts and Tax	
<b>I. Investment Costs</b>																						
<b>A. Land acquisition</b>	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.56	100.00%	0.56	0.05
<b>B. Civil works</b>																						
1. Roads and street upgrading pilot	-	0.00%	10.25	33.44%	-	0.00%	-	0.00%	-	0.00%	2.12	6.93%	14.33	46.76%	-	0.00%	-	0.00%	3.95	12.87%	3.65	2.86
2. Public amenities	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.90	90.91%	-	0.00%	-	0.00%	-	0.00%	0.09	9.09%	0.99	0.09
3. Water supply system	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	3.52	90.91%	-	0.00%	-	0.00%	0.35	9.09%	3.87	0.35
4. Wastewater system	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	14.20	90.91%	-	0.00%	-	0.00%	1.42	9.09%	15.63	1.42
5. Heating	-	0.00%	10.76	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1.08	9.09%	11.83	1.08
6. Urban and agro-industrial parks flood protection and drainage	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	11.50	90.91%	-	0.00%	-	0.00%	1.15	9.09%	12.65	1.15
7. Waste management preliminary works	-	0.00%	2.22	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.22	9.09%	2.45	0.22
8. Other infrastructure	-	100.00%	4.48	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.45	9.09%	4.92	0.45
9. Community facilities	4.60	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.46	9.09%	5.06	0.46
10. Incubator	-	0.00%	2.29	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.23	9.09%	2.52	0.23
11. Water conservancy	-	0.00%	-	0.00%	-	0.00%	2.20	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.22	9.09%	2.42	0.22
12. Detailed design and supervision	-	0.00%	7.25	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.73	9.09%	7.98	0.73
<b>Subtotal (B)</b>	<b>4.60</b>	<b>4.56%</b>	<b>37.25</b>	<b>36.89%</b>	-	<b>0.00%</b>	<b>2.20</b>	<b>2.18%</b>	-	<b>0.00%</b>	<b>3.02</b>	<b>3.00%</b>	<b>43.56</b>	<b>43.14%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>10.34</b>	<b>10.24%</b>	<b>100.97</b>	<b>8.78</b>
<b>C. Equipment</b>																						
1. Urban infrastructure	1.10	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.11	9.09%	1.21	0.11
2. Sustainable rangeland and agricultural management	1.10	71.52%	-	0.00%	-	0.00%	0.30	19.38%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.14	9.10%	1.53	0.14
3. Smart land management	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	3.05	90.91%	-	0.00%	-	0.00%	-	0.00%	0.31	9.09%	3.36	0.31
<b>Subtotal (C)</b>	<b>2.19</b>	<b>35.98%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>0.30</b>	<b>4.87%</b>	-	<b>0.00%</b>	<b>3.05</b>	<b>50.06%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>0.55</b>	<b>9.09%</b>	<b>6.09</b>	<b>0.55</b>
<b>D. Energy efficiency</b>																						
1. Renewable energy	-	0.00%	-	0.00%	-	0.00%	-	0.00%	2.61	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.26	9.09%	2.87	0.26
2. Climate change mitigation	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	3.15	90.91%	-	0.00%	-	0.00%	-	0.00%	0.31	9.09%	3.46	0.31
<b>Subtotal (D)</b>	<b>0.00%</b>	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>2.61</b>	<b>41.17%</b>	<b>3.15</b>	<b>49.74%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>0.58</b>	<b>9.09%</b>	<b>6.33</b>	<b>0.58</b>
<b>E. Community-based investments</b>	-	0.00%	-	0.00%	-	0.00%	-	0.00%	<b>2.61</b>	<b>41.17%</b>	<b>3.15</b>	<b>49.74%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>0.58</b>	<b>9.09%</b>	<b>6.33</b>	<b>0.58</b>
<b>F. Support to pasture user groups and cooperatives</b>	-	0.00%	-	0.00%	-	0.00%	9.63	69.32%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	3.00	21.59%	1.26	9.09%	13.89	1.26
<b>G. Primary works for irrigated perimeters</b>	-	0.00%	-	0.00%	-	0.00%	6.19	85.78%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1.03	14.22%	7.22	0.66
<b>H. Reduction of herd sizes</b>	<b>4.28</b>	<b>90.91%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>0.43</b>	<b>9.09%</b>	<b>4.70</b>	<b>0.43</b>
<b>I. Animal health services</b>	<b>4.36</b>	<b>73.94%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	1.00	20.86%	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>0.54</b>	<b>9.09%</b>	<b>4.79</b>	<b>0.54</b>
<b>J. Consulting services</b>																						
1. Project implementation and management support	4.73	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.47	9.09%	5.20	0.47
2. Support for green and inclusive regional agribusiness finance	2.70	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.27	9.09%	2.97	0.27
3. Pilot demonstration finance for GIRAF Window 3	1.80	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.18	9.09%	1.98	0.18
4. Sustainable rangeland and agricultural management	1.13	38.81%	-	0.00%	2.86	52.11%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.50	9.09%	5.49	0.50
5. Monitoring and evaluation support	1.58	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.16	9.09%	1.74	0.16
6. Capacity development for policy reforms and implementation	0.91	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.09	9.09%	1.00	0.09
<b>Subtotal (J)</b>	<b>12.85</b>	<b>74.36%</b>	-	<b>0.00%</b>	<b>2.86</b>	<b>15.56%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>1.57</b>	<b>9.09%</b>	<b>18.38</b>	<b>1.57</b>
<b>Total investment costs (I)</b>	<b>28.28</b>	<b>17.23%</b>	<b>37.25</b>	<b>22.69%</b>	<b>2.86</b>	<b>1.74%</b>	<b>20.42</b>	<b>12.44%</b>	<b>2.61</b>	<b>1.59%</b>	<b>9.22</b>	<b>5.62%</b>	<b>43.56</b>	<b>26.54%</b>	-	<b>0.00%</b>	<b>3.00</b>	<b>1.83%</b>	<b>16.96</b>	<b>10.33%</b>	<b>164.16</b>	<b>14.10</b>
<b>II. Recurrent costs</b>																						
<b>A. PIU incremental administration</b>																						
1. Implementation and management	6.32	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.63	9.09%	6.96	0.63
2. Monitoring and evaluation	1.58	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.16	9.09%	1.74	0.16
<b>Subtotal (A)</b>	<b>7.91</b>	<b>90.91%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>0.79</b>	<b>9.09%</b>	<b>8.70</b>	<b>0.79</b>
<b>B. Operation and maintenance</b>	-	0.00%	-	0.00%	-	0.00%	-	0.00%	8.61	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.86	9.09%	9.47	0.86
<b>Total recurrent costs (II)</b>	<b>7.91</b>	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>8.61</b>	<b>47.38%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	-	<b>0.00%</b>	<b>1.65</b>	<b>9.09%</b>	<b>18.16</b>	<b>1.65</b>
<b>Total base costs (I + II)</b>	<b>36.18</b>	<b>19.85%</b>	<b>37.25</b>	<b>20.43%</b>	<b>2.86</b>	<b>1.57%</b>	<b>20.42</b>	<b>11.20%</b>	<b>11.21</b>	<b>6.15%</b>	<b>9.22</b>	<b>5.06%</b>	<b>43.56</b>	<b>26.54%</b>	<b>0.00</b>	<b>0.00%</b>	<b>3.00</b>	<b>1.65%</b>	<b>18.61</b>	<b>10.21%</b>	<b>182.32</b>	<b>16.15</b>
<b>III. Contingencies</b>																						
<b>A. Physical</b>	1.16	16.93%	1.46	21.23%	0.14	2.09%	0.86	12.55%	0.11	1.60%	0.39	5.67%	1.90	27.66%	-	0.00%	0.13	1.84%	0.72	10.43%	6.86	-
<b>B. Price</b>	5.04	29.45%	3.76	22.00%	-	0.00%	0.72	4.19%	0.28	1.62%	0.92	5.41%	4.75	27.75%	-	0.00%	0.31	1.79%	1.33	7.80%	17.10	-
<b>Total contingencies (III)</b>	<b>6.20</b>	<b>25.86%</b>	<b>5.22</b>	<b>21.78%</b>	<b>0.14</b>	<b>0.60%</b>	<b>1.58</b>	<b>6.59%</b>	<b>0.39</b>	<b>1.61%</b>	<b>1.31</b>	<b>5.48%</b>	<b>6.64</b>	<b>55.41%</b>	-	<b>0.00%</b>	<b>0.43</b>	<b>1.80%</b>	<b>2.05</b>	<b>8.55%</b>	<b>23.96</b>	-
<b>IV. Financial charges during implementation</b>	2.62	32.31%	2.53	31.30%	-	0.00%	-	0.00%	0.25	3.10%	-	0.00%	2.70	0.00%	-	0.00%	-	0.00%	-	0.00%	8.10	-
<b>Total Project Cost (I+II+III+IV)</b>	<b>45.00</b>	<b>20.99%</b>	<b>45.00</b>	<b>20.99%</b>	<b>3.00</b>	<b>1.40%</b>	<b>22.00</b>	<b>10.26%</b>	<b>11.85</b>	<b>5.53%</b>	<b>10.54</b>	<b>4.92%</b>	<b>52.90</b>	<b>81.94%</b>	-	<b>0.00%</b>	<b>3.43</b>	<b>1.60%</b>	<b>20.66</b>	<b>9.64%</b>	<b>214.37</b>	<b>16.15</b>

ADB = Asian Development Bank, COL = concessional ordinary capital resources, GCF = Green Climate Fund, GIRAF = Green and Inclusive Regional Agribusiness Fund, OCR = ordinary capital resources, PIU = project implementation unit.

Note: Numbers may not sum precisely because of rounding.

Source: ADB estimates.

## F. Detailed Cost Estimates by Outputs

**Table 15: Tranche 1 Investment Component—Outputs 1, 2, and 4**  
(\$ million)

Item	Total Cost	Output 1		Output 2		Output 4	
		Amount	% of Cost	Amount	% of Cost	Amount	% of Cost
<b>I. Investment Costs</b>							
<b>A. Land acquisition</b>	<b>0.56</b>	<b>0.56</b>	<b>100.0</b>	-	<b>0.0</b>	-	<b>0.0</b>
<b>B. Civil works</b>							
1. Roads and street upgrading pilot	30.65	30.65	100.0	-	0.0	-	0.0
2. Public amenities	0.99	0.99	100.0	-	0.0	-	0.0
3. Water supply system	3.87	3.87	100.0	-	0.0	-	0.0
4. Wastewater system	15.63	15.63	100.0	-	0.0	-	0.0
5. Heating	11.83	11.83	100.0	-	0.0	-	0.0
6. Urban and agro-industrial parks flood protection and drainage	12.65	12.65	100.0	-	0.0	-	0.0
7. Waste management preliminary works	2.45	2.45	100.0	-	0.0	-	0.0
8. Other infrastructure	4.92	4.92	100.0	-	0.0	-	0.0
9. Community facilities	5.06	5.06	100.0	-	0.0	-	0.0
10. Incubator	2.52	2.52	100.0	-	0.0	-	0.0
11. Water conservancy	2.42	0.00	0.0	2.42	100.0	-	0.0
12. Detailed design and supervision	7.98	7.35	92.1	0.63	7.9	-	0.0
<b>Subtotal (B)</b>	<b>100.97</b>	<b>97.92</b>	<b>97.0</b>	<b>3.05</b>	<b>3.0</b>	-	<b>0.0</b>
<b>C. Equipment</b>							
1. Urban infrastructure	1.21	1.21	100.0	-	0.0	-	0.0
2. Sustainable rangeland and agricultural management	1.53	-	0.0	1.53	100.0	-	0.0
3. Smart land management	3.36	3.36	100.0	-	0.0	-	0.0
<b>Subtotal (C)</b>	<b>6.09</b>	<b>4.56</b>	<b>74.9</b>	<b>1.53</b>	<b>25.1</b>	-	<b>0.0</b>
<b>D. Energy efficiency</b>							
1. Renewable energy	2.87	2.87	100.0	-	0.0	-	0.0
2. Climate change mitigation	3.46	3.46	100.0	-	0.0	-	0.0
<b>Subtotal (D)</b>	<b>6.33</b>	<b>6.33</b>	<b>100.0</b>	-	<b>0.0</b>	-	<b>0.0</b>
<b>E. Community-based investments</b>	<b>13.89</b>	-	<b>0.0</b>	<b>13.89</b>	<b>100.0</b>	-	<b>0.0</b>
<b>F. Support to pasture user groups and cooperatives</b>	<b>7.22</b>	-	<b>0.0</b>	<b>7.22</b>	<b>100.0</b>	-	<b>0.0</b>
<b>G. Primary works for irrigated perimeters</b>	<b>4.70</b>	-	<b>0.0</b>	<b>4.70</b>	<b>100.0</b>	-	<b>0.0</b>
<b>H. Reduction of herd sizes</b>	<b>1.21</b>	-	<b>0.0</b>	<b>1.21</b>	<b>100.0</b>	-	<b>0.0</b>
<b>I. Animal health services</b>	<b>5.89</b>	-	<b>0.0</b>	<b>5.89</b>	<b>100.0</b>	-	<b>0.0</b>
<b>J. Consulting services</b>							
1. Project implementation and management support	5.20	-	0.0	-	0.0	5.20	100.0
2. Support for green and inclusive regional agribusiness finance	2.97	-	0.0	-	0.0	2.97	100.0

Item	Total Cost	Output 1		Output 2		Output 4	
		Amount	% of Cost	Amount	% of Cost	Amount	% of Cost
3. Pilot demonstration finance for GIRAF Window 3	1.98	-	0.0	-	0.0	1.98	100.0
4. Sustainable rangeland and agricultural management	4.39	-	0.0	-	0.0	4.39	100.0
5. Monitoring and evaluation support	1.74	-	0.0	-	0.0	1.74	100.0
6. Capacity development for policy reforms and implementation	1.00	-	0.0	-	0.0	1.00	100.0
<b>Subtotal (J)</b>	<b>18.38</b>	<b>-</b>	<b>0.0</b>	<b>-</b>	<b>0.0</b>	<b>18.38</b>	<b>100.0</b>
<b>Total investment costs (I)</b>	<b>164.16</b>	<b>109.38</b>	<b>66.6</b>	<b>37.50</b>	<b>22.80</b>	<b>17.28</b>	<b>10.50</b>
<b>II. Recurrent costs</b>							
<b>A. PIU incremental administration</b>							
1. Implementation and management	6.96	-	0.0	-	0.0	6.96	100.0
2. Monitoring and evaluation	1.74	-	0.0	-	0.0	1.74	100.0
<b>Subtotal (A)</b>	<b>8.70</b>	<b>-</b>	<b>0.0</b>	<b>-</b>	<b>0.0</b>	<b>8.70</b>	<b>100.0</b>
<b>B. Operation and maintenance</b>	<b>9.47</b>	<b>-</b>	<b>0.0</b>	<b>9.47</b>	<b>100.0</b>	<b>-</b>	<b>0.0</b>
<b>Total recurrent costs (II)</b>	<b>18.16</b>	<b>-</b>	<b>-</b>	<b>9.47</b>	<b>52.1</b>	<b>8.70</b>	<b>47.9</b>
<b>Total base costs (I+II)</b>	<b>182.32</b>	<b>109.38</b>	<b>60.0</b>	<b>46.97</b>	<b>25.80</b>	<b>25.97</b>	<b>14.20</b>
<b>III. Contingencies</b>							
<b>A. Physical</b>	<b>6.86</b>	<b>4.25</b>	<b>62.0</b>	<b>1.41</b>	<b>21.20</b>	<b>1.20</b>	<b>17.5</b>
<b>B. Price</b>	<b>17.10</b>	<b>12.73</b>	<b>74.50</b>	<b>4.36</b>	<b>25.50</b>	<b>-</b>	<b>0.0</b>
<b>Total contingencies (III)</b>	<b>23.96</b>	<b>16.98</b>	<b>70.90</b>	<b>5.82</b>	<b>24.30</b>	<b>1.20</b>	<b>5.0</b>
<b>IV. Financial charges during implementation</b>	<b>8.10</b>	<b>5.40</b>	<b>66.6</b>	<b>1.85</b>	<b>22.80</b>	<b>0.85</b>	<b>10.50</b>
<b>Total Project Cost (I+II+III+IV)</b>	<b>214.37</b>	<b>131.76</b>	<b>61.50</b>	<b>54.64</b>	<b>25.50</b>	<b>28.03</b>	<b>13.10</b>

GIRAF = Green and Inclusive Regional Agribusiness Fund, PIU = project implementation unit.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

**G. Detailed Cost Estimates by Year**

**Table 16: Tranche 1 Investment Component—Outputs 1, 2, and 4**  
(\$ million)

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
<b>I. Investment Costs</b>							
<b>A. Land acquisition</b>	-	-	<b>0.56</b>	-	-	-	<b>0.56</b>
<b>B. Civil works</b>							
1. Roads and street upgrading pilot	-	-	6.36	13.21	11.09	-	30.65
2. Public amenities	-	-	0.30	0.40	0.30	-	0.99
3. Water supply system	-	-	1.16	1.55	1.16	-	3.87
4. Wastewater system	-	-	4.69	6.25	4.69	-	15.63
5. Heating	-	-	3.55	4.73	3.55	-	11.83
6. Urban and agro-industrial parks flood protection and drainage	-	-	3.80	5.06	3.80	-	12.65
7. Waste management preliminary works	-	-	0.73	0.98	0.73	-	2.45
8. Other infrastructure	-	-	1.48	1.97	1.48	-	4.92
9. Community facilities	-	-	1.52	2.02	1.52	-	5.06
10. Incubator	-	-	-	1.26	1.26	-	2.52
11. Water conservancy	-	-	0.73	0.97	0.73	-	2.42
12. Detailed design and supervision	-	1.60	2.39	2.39	1.60	-	7.98
<b>Subtotal (B)</b>	-	<b>1.60</b>	<b>26.70</b>	<b>40.79</b>	<b>31.89</b>	-	<b>100.97</b>
<b>C. Equipment</b>							
1. Urban infrastructure	-	-	0.60	0.60	-	-	1.21
2. Sustainable rangeland and agricultural management	-	-	0.77	0.77	-	-	1.53
3. Smart land management	-	-	1.68	1.68	-	-	3.36
<b>Subtotal (C)</b>	-	-	<b>3.05</b>	<b>3.05</b>	-	-	<b>6.09</b>
<b>D. Energy efficiency</b>							
1. Renewable energy	-	-	0.86	1.15	0.86	-	2.87
2. Climate change mitigation	-	-	1.04	1.39	1.04	-	3.46
<b>Subtotal (D)</b>	-	-	<b>1.90</b>	<b>2.53</b>	<b>1.90</b>	-	<b>6.33</b>
<b>E. Community-based investments</b>	-	<b>1.39</b>	<b>2.08</b>	<b>3.47</b>	<b>4.17</b>	<b>2.78</b>	<b>13.89</b>
<b>F. Support to pasture user groups and cooperatives</b>	-	<b>0.72</b>	<b>1.08</b>	<b>1.81</b>	<b>2.07</b>	<b>1.54</b>	<b>7.22</b>
<b>G. Primary works for irrigated perimeters</b>	-	-	<b>1.41</b>	<b>1.88</b>	<b>1.41</b>	-	<b>4.70</b>
<b>H. Reduction of herd sizes</b>	-	<b>0.24</b>	<b>0.24</b>	<b>0.24</b>	<b>0.24</b>	<b>0.24</b>	<b>1.21</b>
<b>I. Animal health services</b>	-	<b>0.59</b>	<b>1.77</b>	<b>2.36</b>	<b>1.18</b>	<b>0.00</b>	<b>5.89</b>
<b>J. Consulting services</b>							
1. Project implementation and management support	0.52	0.78	1.30	1.56	1.04	-	5.20
2. Support for green and inclusive regional agribusiness finance	-	0.74	0.74	0.74	0.74	-	2.97
3. Pilot demonstration finance for GIRAF Window 3	-	0.50	0.50	0.50	0.50	-	1.98
4. Sustainable rangeland and agricultural management	0.39	0.66	0.92	0.92	0.88	0.61	4.39
5. Monitoring and evaluation support	0.10	0.32	0.41	0.44	0.38	0.09	1.74

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
6. Capacity development for policy reforms and implementation	0.10	0.15	0.25	0.30	0.20	-	1.00
<b>Subtotal (J)</b>	<b>1.12</b>	<b>3.15</b>	<b>4.12</b>	<b>4.46</b>	<b>3.73</b>	<b>0.70</b>	<b>17.28</b>
<b>Total investment costs (I)</b>	<b>1.12</b>	<b>7.69</b>	<b>42.82</b>	<b>60.58</b>	<b>46.58</b>	<b>5.26</b>	<b>164.16</b>
<b>II. Recurrent costs</b>							
<b>A. PIU incremental administration</b>							
1. Implementation and management	0.70	1.04	1.74	2.09	1.39	-	6.96
2. Monitoring and evaluation	0.17	0.26	0.43	0.52	0.35	-	1.74
<b>Subtotal (A)</b>	<b>0.87</b>	<b>1.30</b>	<b>2.17</b>	<b>2.61</b>	<b>1.74</b>	<b>-</b>	<b>8.70</b>
<b>B. Operation and maintenance</b>	<b>-</b>	<b>0.95</b>	<b>1.42</b>	<b>2.37</b>	<b>2.84</b>	<b>1.89</b>	<b>9.47</b>
<b>Total recurrent costs (II)</b>	<b>0.87</b>	<b>2.25</b>	<b>3.59</b>	<b>4.98</b>	<b>4.58</b>	<b>1.89</b>	<b>18.16</b>
<b>Total base costs (I + II)</b>	<b>1.99</b>	<b>9.94</b>	<b>46.51</b>	<b>65.56</b>	<b>51.16</b>	<b>7.16</b>	<b>182.32</b>
<b>III. Contingencies</b>							
<b>A. Physical</b>	<b>0.03</b>	<b>0.38</b>	<b>2.11</b>	<b>2.48</b>	<b>1.62</b>	<b>0.24</b>	<b>6.86</b>
<b>B. Price</b>	<b>0.07</b>	<b>0.95</b>	<b>5.25</b>	<b>6.18</b>	<b>4.04</b>	<b>0.60</b>	<b>17.10</b>
<b>Total contingencies (III)</b>	<b>0.10</b>	<b>1.33</b>	<b>7.36</b>	<b>8.67</b>	<b>5.67</b>	<b>0.84</b>	<b>23.96</b>
<b>IV. Financial charges during implementation</b>	<b>0.13</b>	<b>0.44</b>	<b>2.03</b>	<b>2.81</b>	<b>2.30</b>	<b>0.39</b>	<b>8.10</b>
<b>Total Project Cost (I+II+III+IV)</b>	<b>2.22</b>	<b>11.71</b>	<b>55.90</b>	<b>77.04</b>	<b>59.13</b>	<b>8.39</b>	<b>214.37</b>
<b>% of Total Project Cost</b>	<b>1%</b>	<b>5%</b>	<b>26%</b>	<b>36%</b>	<b>28%</b>	<b>4%</b>	<b>100%</b>

GIRAF = Green and Inclusive Regional Agribusiness Fund, PIU = project implementation unit.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

## H. Indicative Detailed Cost Estimates by Outputs and by Financier

**Table 17: Tranche 1 Investment Components—Outputs 1, 2, 3, and 4**

Item	ADB COL		ADB OCR		ADB Grant		GCF Grant		GCF LOAN		European Union Grant		European Investment Bank LOAN		Banks/ Private Sector		Beneficiaries		Government of Mongolia		Total Cost	
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	Duties & Taxes
<b>I. A. Output 1: Climate-resilient, low-carbon, and attractive aimag and soum centers developed</b>																						
1. Low-carbon and climate-resilient infrastructure and services upgrade in aimag centers	0.45	0.51%	34.02	39.22%	-	0.00%	-	0.00%	1.53	1.76%	5.45	6.29%	36.20	41.74%	-	0.00%	-	0.00%	9.08	10.47%	86.73	6.98
2. Low-carbon and climate-resilient infrastructure and services upgrade in inter-soum centers	5.25	27.41%	2.53	13.23%	-	0.00%	-	0.00%	1.08	5.62%	0.72	3.75%	7.36	38.41%	-	0.00%	-	0.00%	2.22	11.58%	19.15	2.22
3. Implementation of smart land management system	-	0.00%	0.13	3.72%	-	0.00%	-	0.00%	-	0.00%	3.05	87.19%	-	0.00%	-	0.00%	-	0.00%	0.32	9.09%	3.50	0.32
<b>Subtotal (A)</b>	<b>5.69</b>	<b>5.21%</b>	<b>36.68</b>	<b>33.53%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>2.61</b>	<b>2.38%</b>	<b>9.22</b>	<b>8.43%</b>	<b>43.56</b>	<b>39.82%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>11.62</b>	<b>10.62%</b>	<b>109.38</b>	<b>9.52</b>
<b>B. Output 2: Climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented</b>																						
1. Implementation of community-based low-carbon and climate-resilient investments	-	0.00%	-	0.00%	-	0.00%	9.63	57.76%	2.53	15.15%	-	0.00%	-	0.00%	-	0.00%	3.00	17.99%	1.52	9.09%	16.67	1.52
2. Support to low-carbon and climate-resilient pasture user groups and cooperatives	-	0.00%	-	0.00%	-	0.00%	7.29	86.51%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1.14	13.49%	8.43	0.77
3. Implementation of water efficient irrigation systems for fodder production	4.85	44.21%	0.57	5.20%	-	0.00%	2.20	20.07%	2.35	21.43%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1.00	9.10%	10.96	1.00
4. Improvement of animal health	4.88	44.80%	-	0.00%	-	0.00%	1.30	13.23%	3.73	38.05%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.99	9.09%	10.90	0.99
<b>Subtotal (B)</b>	<b>9.73</b>	<b>20.72%</b>	<b>0.57</b>	<b>1.21%</b>	<b>-</b>	<b>0.00%</b>	<b>20.42</b>	<b>43.48%</b>	<b>8.61</b>	<b>18.32%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>3.00</b>	<b>6.39%</b>	<b>4.64</b>	<b>9.90%</b>	<b>45.87</b>	<b>4.27</b>
<b>C. Output 3: Accessible financing for low-carbon and climate-resilient livestock and agrobusiness value chains created (financial intermediation loan component)</b>																						
1. Provision of accessible low-carbon and climate-resilient agribusiness loans and credit guarantees to herders' cooperatives and SMEs through GIRAF	-	0.00%	-	0.00%	-	0.00%	-	0.00%	37.51	100.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	37.51	-
2. Parallel low-carbon and climate-resilient agribusiness loans and equity financing from banks and private developers	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	13.98	100.00%	-	0.00%	-	0.00%	13.98	-
3. Provision of innovation grants for low-carbon and climate-resilient livestock value chains to qualified herders and SMEs through GIRAF	-	0.00%	-	0.00%	-	0.00%	3.00	100.00%	-	0.00%	-	0.00%	-	0.00%	0.00	0.00%	-	0.00%	-	0.00%	3.30	-
4. Matching contributions of qualified herders and SMEs for innovation grants on low-carbon and climate-resilient livestock chains	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.30	100.00%	-	0.00%	-	0.00%	0.30	-
<b>Subtotal (C)</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>3.00</b>	<b>5.48%</b>	<b>37.51</b>	<b>68.46%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>14.28</b>	<b>26.06%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>54.79</b>	<b>-</b>

**D. Output 4: Institutional capacity and policies for low-carbon and climate-resilient agro-territorial development strengthened**

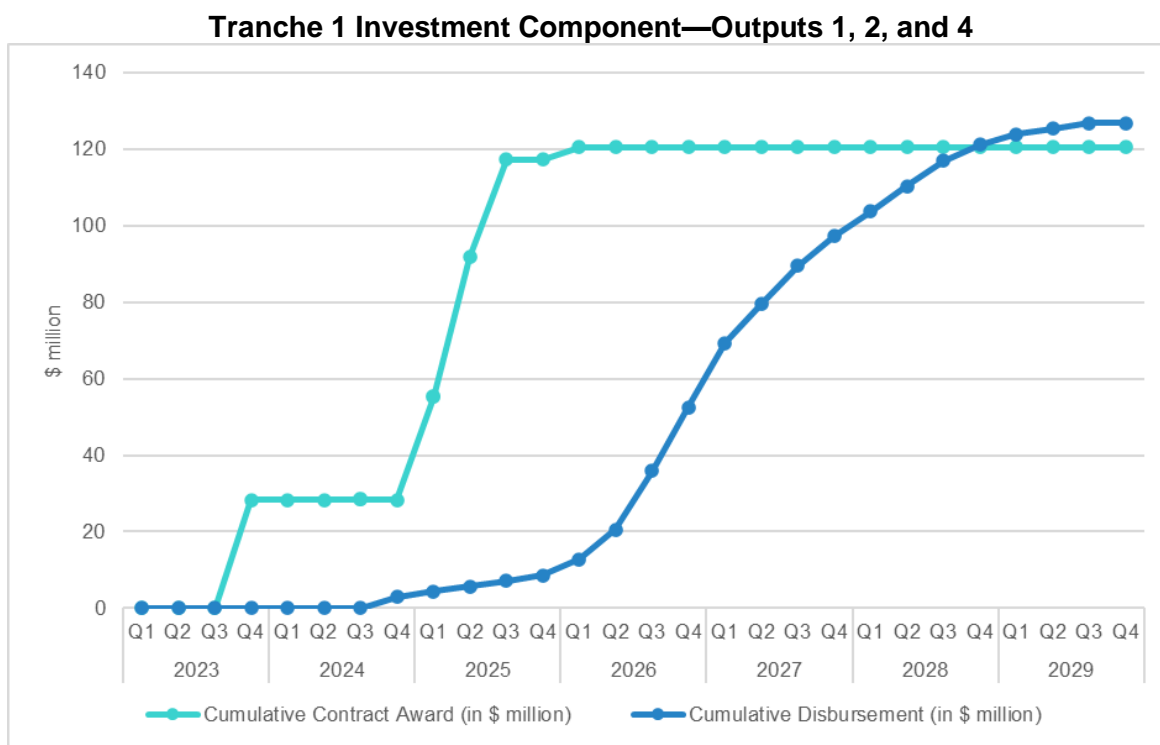
Item	ADB COL		ADB OCR		ADB Grant		GCF Grant		GCF LOAN		European Union Grant		European Investment Bank LOAN		Banks/ Private Sector		Beneficiaries		Government of Mongolia		Total Cost	
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	Duties & Taxes
1. Project management and implementation support	11.05	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1.11	9.09%	12.16	1.11
2. Support for low-carbon and climate-resilient rangeland management	1.13	25.75%	-	0.00%	2.86	65.17%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.40	9.09%	5.49	0.40
3. Improvement of the capacity for low-carbon and climate-resilient agribusiness finance	4.50	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	.45	9.09%	4.95	0.45
4. Implementation of M&E and MRV system	3.16	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.32	9.09%	3.48	0.32
5. Enhancement of the capacity for policy formulation, implementation, and enforcement	0.91	90.91%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.09	9.09%	1.00	0.09
<b>Subtotal (D)</b>	<b>20.75</b>	<b>79.90%</b>	<b>-</b>	<b>0.00%</b>	<b>2.86</b>	<b>11.01%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>-</b>	<b>0.00%</b>	<b>2.36</b>	<b>9.09%</b>	<b>27.07</b>	<b>2.36</b>
<b>Total base costs (Outputs 1-4)</b>	<b>36.18</b>	<b>15.26%</b>	<b>37.25</b>	<b>15.71%</b>	<b>2.86</b>	<b>1.21%</b>	<b>23.42</b>	<b>9.88%</b>	<b>48.72</b>	<b>20.55%</b>	<b>9.22</b>	<b>3.89%</b>	<b>43.56</b>	<b>18.37%</b>	<b>14.28</b>	<b>6.02%</b>	<b>3.00</b>	<b>1.27%</b>	<b>18.62</b>	<b>7.85%</b>	<b>237.10</b>	<b>16.15</b>
<b>II. Contingencies</b>																						
<b>A. Physical</b>	1.16	17.01%	1.46	21.28%	0.14	2.09%	0.86	12.59%	0.11	1.61%	0.39	5.69%	1.88	27.43%	-	0.00%	0.13	1.85%	0.72	10.46%	6.84	-
<b>B. Price</b>	5.04	29.42%	3.76	21.98%	-	0.00%	0.72	4.19%	0.28	1.62%	0.92	5.40%	4.77	27.84%	-	0.00%	0.31	1.78%	1.33	7.79%	-	-
<b>Total contingencies</b>	<b>6.20</b>	<b>25.88%</b>	<b>5.22</b>	<b>21.78%</b>	<b>0.14</b>	<b>0.60%</b>	<b>1.58</b>	<b>6.59%</b>	<b>0.39</b>	<b>1.61%</b>	<b>1.31</b>	<b>5.48%</b>	<b>6.64</b>	<b>27.73%</b>	<b>-</b>	<b>0.00%</b>	<b>0.43</b>	<b>1.80%</b>	<b>2.05</b>	<b>8.55%</b>	<b>23.96</b>	<b>-</b>
<b>III. Financial charges during implementation</b>	2.62	29.28%	2.53	28.36%	-	0.00%	-	0.00%	1.09	12.20%	-	0.00%	2.70	30.16%	-	0.00%	-	0.00%	-	0.00%	8.94	-
<b>Total Project Cost</b>	<b>45.00</b>	<b>16.66%</b>	<b>45.00</b>	<b>16.67%</b>	<b>3.00</b>	<b>1.11%</b>	<b>25.00</b>	<b>9.26%</b>	<b>50.20</b>	<b>18.59%</b>	<b>10.54</b>	<b>3.90%</b>	<b>52.90</b>	<b>19.59%</b>	<b>14.28</b>	<b>5.29%</b>	<b>3.43</b>	<b>1.27%</b>	<b>20.67</b>	<b>7.65%</b>	<b>270.00</b>	<b>16.15</b>

ADB = Asian Development Bank, COL = concessional ordinary capital resources loan, GCF = Green Climate Fund, M&E = monitoring and evaluation, MRV = measurement, reporting, and verification, OCR = ordinary capital resources, SMEs = small and medium-sized enterprises.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

## I. Contract and Disbursement S-Curve



Contract Awards (\$ million)						Disbursements (\$ million)					
Year	Q1	Q2	Q3	Q4	Total	Year	Q1	Q2	Q3	Q4	Total
2023	0.00	0.00	0.00	28.23	28.23	2023	0.00	0.00	0.00	0.00	0.00
2024	0.00	0.00	0.00	0.00	0.00	2024	0.00	0.00	0.00	2.97	2.97
2025	26.82	36.79	25.55	0.00	89.16	2025	1.39	1.39	1.39	1.46	5.62
2026	3.18	0.00	0.00	0.00	3.18	2026	4.21	7.79	15.31	16.61	43.93
2027	0.00	0.00	0.00	0.00	0.00	2027	16.88	10.09	10.09	7.67	44.73
2028	0.00	0.00	0.00	0.00	0.00	2028	6.59	6.59	6.59	4.13	23.90
2029	0.00	0.00	0.00	0.00	0.00	2029	2.81	1.39	1.46	0.00	5.65
<b>Total</b>	<b>29.99</b>	<b>36.79</b>	<b>25.55</b>	<b>28.23</b>	<b>120.56</b>	<b>Total</b>	<b>31.87</b>	<b>27.25</b>	<b>34.84</b>	<b>32.84</b>	<b>126.80</b>

Total Interest During Construction (IDC) Amount: \$6.24 million.

Source: Asian Development Bank.

## J. Fund Flow Diagram

**Figure 6: Funds Flow for Outputs 1, 2, and 4**

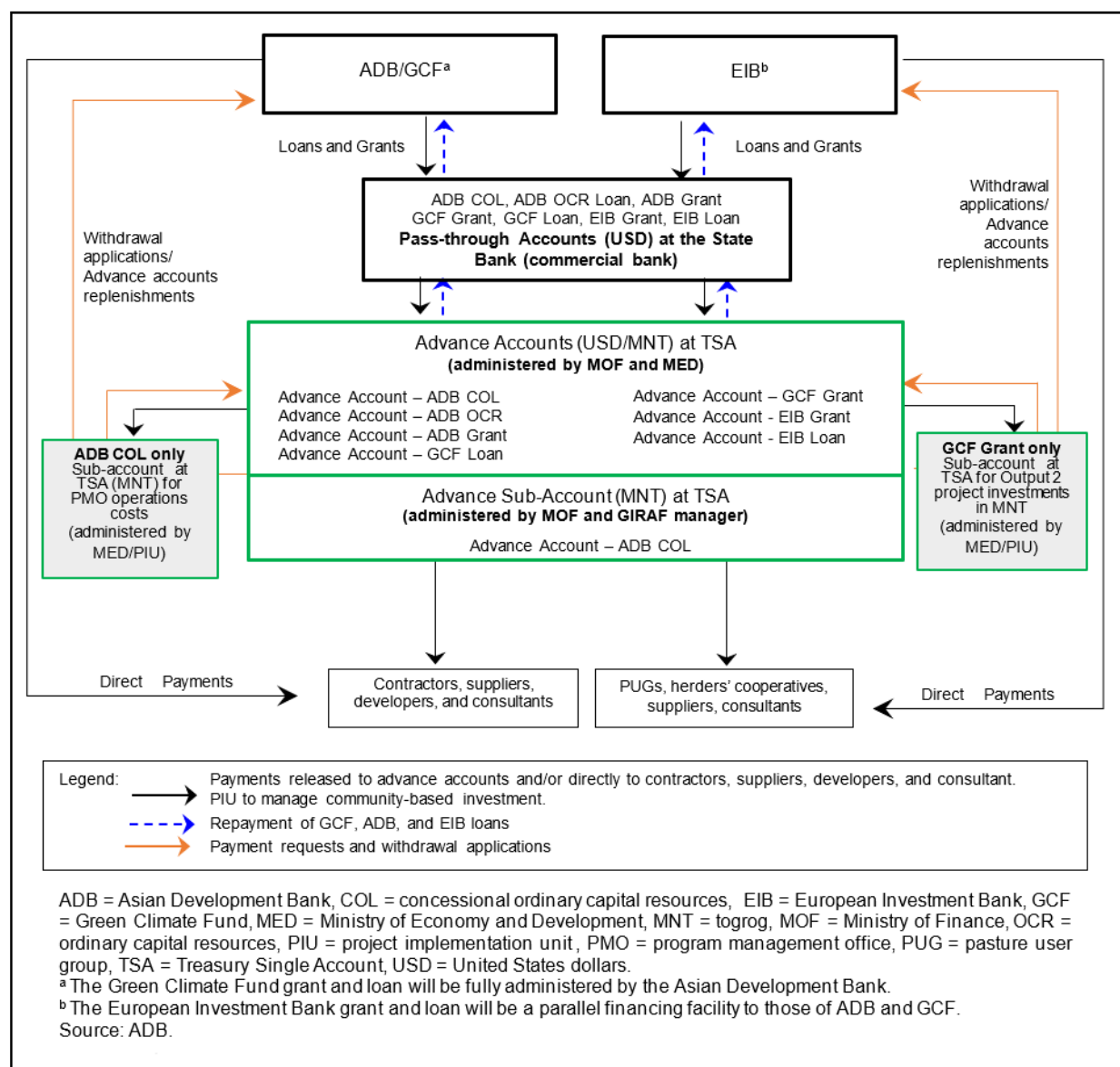
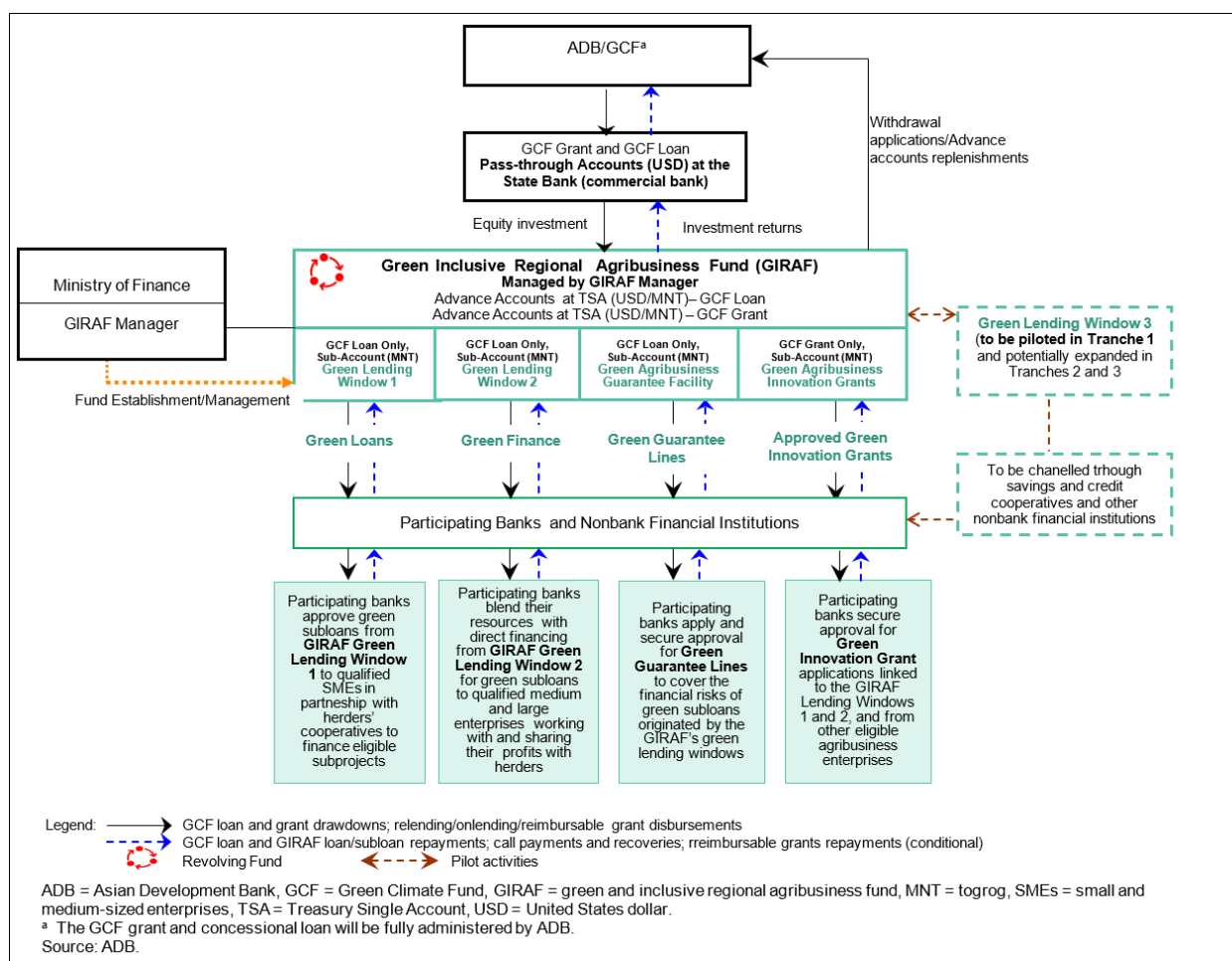


Figure 7: Funds Flow – Output 3



## V. FINANCIAL MANAGEMENT

62. The financial management assessment (FMA) was conducted during September to November 2019. The FMA was subsequently updated with the latest available information for the proposed *Aimags* and *Soums* Green Regional Development Investment Program of Mongolia in April 2021, in November 2022, and in February 2023 due to the request of the Government to consider the newly established MED as the executing agency and the Ministry of Finance (MOF) as one of the implementing agencies for the proposed program. The FMA was conducted in accordance with ADB's Financial Management Technical Guidance Note (2015). The FMA considered the capacity of the executing and implementing agencies, including funds flow arrangements, staffing, accounting, and financial reporting systems, financial information systems, and internal and external auditing arrangements. The financial management risks and risk mitigation measures of the executing and implementing agencies will be reviewed and updated throughout the life of the project.

63. The FMA assessed the financial management capacity of MED, the executing agency, and its project implementation unit (PIU) to be set up under the Regional and Industrial Policy Department (RIPD). A full-time projects director will lead the PIU, and a team comprising technical and non-technical staff will assist him. The PIU will have considerable experience in handling

large-scale, donor-funded development projects. It will be responsible for the overall implementation of outputs 1, 2, and 4. Its key tasks include the following: (i) day-to-day program management covering preparation, implementation, and supervision of projects; (ii) coordination with government agencies, *aimag* governments, ADB, and other concerned parties for smooth and effective program implementation; (iii) procurement of all works and equipment for outputs 1 and 2; (iv) selection of project management consulting services and selection of output 1 support consulting services; (v) ensuring the proper use of the program's advance accounts, efficient and timely disbursement of loans and grants proceeds, and the prompt submission of budget requests for the government's counterpart funding; and the (vi) submission of the required annual audit reports and financial statements for project accounts to ADB in compliance with international accounting standards.

64. The FMA also assessed the financial management capacity of the program's implementing agencies. The Ministry of Construction and Urban Development (MCUD) will act as a program implementing agency, providing overall coordination and support to the PIU for urban development-related activities. The Ministry of Food, Agriculture and Light Industry (MOFALI) will act as a program implementing agency, providing overall coordination and support to the PIU for output 2 and delivering output 3 and agribusiness-related activities. For this purpose, MOFALI will enter into an agreement with the National Federation of Pasture User Groups (NFPUG) who will provide qualified staff to the PIU. MOFALI will open and manage an advance account to finance, as necessary, the activities of the NFPUG.

65. The MOF will provide overall support and guidance to the GIRAF manager to be engaged as the fund manager of the GIRAF in the implementation of FIL component under output 3.

## **A. Financial Management Assessment**

### **1. Ministry of Economy and Development**

66. The FMA focused mainly on fund flows, organization and staffing, accounting policies and procedures, internal controls, financial reporting and monitoring, internal and external audits, and information systems. The FMA drew upon lessons learned during the implementation of ADB-funded projects and the FMA questionnaire results, discussions with officials of the executing agency, implementing agencies, and other information available through various reports. Table 18 sets out the actions that ADB and MED agreed as an action plan to address the identified financial management risks.

**Table 18: Financial Management Improvement Action Plan for the Ministry of Economy and Development**

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsibility</b>
The absence of the IPSAS-compliant government accounting software may cause delays in the preparation of project financial statements and issues of non-compliance with international accounting standards.	Substantial	MED uses the Acolous Accounting software, one of the six that is locally available and recommended for use of Mongolia budget institutions by the Ministry of Finance. MED will grant access and user rights for the PIU to use the software for the project financial recording and reporting.	Upon establishment of the PIU	MED, PIU

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsibility</b>
Various stand-alone financial monitoring and transparency systems and the related manual interventions to integrate data from one to another is error prone.	Substantial	PIU will ensure reconciliation of financial data and information in the various stand-alone systems.  MED and ADB to initiate discussion with MOF on its action plan to integrate these financial information and transparency systems.	At least monthly during project implementation  During project and portfolio review missions	MED, PIU  MED, PIU, ADB
MED's Finance and Investment Division and Monitoring, Evaluation, and Internal Audit Department do not have the capacity to directly implement projects financed by multilateral development banks.	Substantial	Establish PIU which includes financial specialist, accountant, and internal audit specialist, with qualifications and experience in managing ADB- and/or other MDB-funded projects.  PIU Internal Audit Specialist will report to the Director General of Monitoring, Evaluation, and Internal Audit Department.	Initiate establishment of PIU after loan signing by both parties	MOF, MED
Risk of late payments and disbursements of project funds as MED does not have its own Treasury Division. All approved disbursement vouchers go to Ministry of Finance Treasury Department for payment.	High	MED will send a request to MOF for the creation and staffing of MED Treasury Unit under the Finance and Investment Department.	Before loan effectiveness	MED, MOF
The program is complex and entails multisector and multi-donor transactions requiring MED to manage 6 advance accounts and voluminous loan withdrawal applications.  MED does not have any experience in implementing projects and programs financed by multilateral development banks.	Moderate	The MED Chief Accountant will work closely with the PIU Financial Management Specialist to develop and make operational an efficient program/project financial management system and document this in the program financial management manual.  Training to be conducted for MED and PIU staff on financial management and ADB and EIB loans and grants disbursements policies and procedures.	6 months after loan effectiveness  6 months after loan effectiveness	MED, PIU  ADB
The risk of error as the recording, approval of accounting entries, and the preparation of bank reconciliation statements is being done by one accounting staff.	Substantial	Assign the (i) recording of financial transactions, and corresponding (ii) review and approval to two different staff. The chief accountant may approve the accounting entries made by the senior	Before loan effectiveness	MED

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsibility</b>
		accountant. Senior accountant may approve the financial transactions recorded by the chief accountant.		
Risk of errors, fraud or misappropriation may remain undetected due to weak internal audit activities conducted by MED.	Substantial	Internal Audit staff should be provided with capacity building trainings about ADB policies, financial management, project management, and disbursement procedures to detect project risk of errors, fraud, or misappropriation.  Develop internal audit program which includes audit of the project's compliance to agreements, policies, and procedures; internal control; and program targets monitoring.	3 months after loan effectiveness	MED, ADB

ADB = Asian Development Bank, IPSAS = International Public Sector Accounting Standards, MED = Ministry of Economy and Development, MOF = Ministry of Finance, PIU = project implementation unit.  
Source: ADB.

67. The overall pre-mitigation financial management risk rating of MED is *substantial* considering (i) limited staff capacity especially in its Finance and Investment as well as Internal Audit Divisions, (ii) MED's lack of experience in implementing projects and programs financed by multilateral development banks, (iii) the absence of a Treasury Division in MED resulting to all payments processed by MOF's Treasury Department, (iv) the absence of the review procedure in the recording of financial transactions mainly due to the limited number of MED's accounting staff. and (v) observed weaknesses in the internal audit activities conducted by MED.

## **2. Ministry of Construction and Urban Development; and Agency for Land Management and Administration, Geodesy and Cartography**

68. Table 19 sets out the actions discussed and agreed with MCUD to address the issues identified during the FMA.

**Table 19: Financial Management Improvement Action Plan for the Ministry of Construction and Urban Development**

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsible Agency</b>
Inadequate accounting staff in the MCUD, may affect the timely and effective program implementation	Moderate	If necessary, recruit additional qualified staff for accounting and finance positions to ensure an efficient program implementation.	Within 4 months after engagement of O4A3 consultants	MCUD
Newly recruited staff in MCUD may not be familiar with ADB's financial management policies, guidelines, and procedures, causing delays in the day-to-day financial management of ASDIP	Moderate	Conduct training on financial management and loans and grants disbursement with support from the PMIS consultants to strengthen the financial management capacity of MCUD.	Within 3 months after loans and grants effectiveness	ADB, MCUD
Lack of a program financial management manual, including loans and grants disbursement guidelines, may slow down project implementation	Moderate	Formulate and secure approval for a program financial management manual including loans and grants disbursement guidelines, with help from the financial management specialists of the PMIS consultants. Conduct the necessary training on manual and guidelines.	Within 6 months after loans and grants effectiveness	MCUD, ADB
Delays in external audit of MCUD and APFS submission.	Moderate	Ensure the timely audit of APFS by engaging an external auditor. For the MCUD, forge an agreement with NAO to prioritize the preparation of the AEFS.	Within 9 months after loans and grants effectiveness	MOF, MCUD
Inefficient financial monitoring of project and program activities, particularly rangeland management with herders and the local government units	Moderate	Formulate and make operational a program/project electronic monitoring system with the support of the PMIS consultants.	Within 6 months after engagement of O4A3 consultants	MCUD, local offices in participating <i>aimags</i> and <i>soums</i>

ADB = Asian Development Bank; AEFS = audited entity financial statement; APFS = audited project financial statement; APFS = audited project financial statements; ASDIP = Aimags and Soums Green Regional Development Investment Program MCUD = Ministry of Construction and Urban Development; MOF = Ministry of Finance; NAO = National Audit Office; O4A1 = Output 4, Activity 1 of the program; PIU = project implementation unit; PMIS = project management and implementation support.

Source: ADB.

69. The overall pre-mitigation financial management risk rating of MCUD is *moderate* considering (i) that it adheres to the country's public financial management system, which by itself poses a moderate financial management inherent risk, and (ii) its financial management system will still require enhancement and a more customized approach to adapt to the program and project requirements of ASDIP. The PMIS consultants to be engaged under output 4 of ASDIP will work with MCUD to develop and fully operationalize an efficient financial management system for ASDIP.

### 3. Ministry of Food, Agriculture and Light Industry

70. Table 20 summarizes the risks determined from the FMA questionnaire's responses, meetings with the MOFALI (implementing agency) and NFPUG officials, and their project staff for their experience in implementing donor-funded projects involving herders and cooperatives.

**Table 20: Financial Management Improvement Action Plan for the Ministry of Food, Agriculture and Light Industry**

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsible Agency</b>
Inadequate staff in the accounting and finance sections of MOFALI may affect the timely and effective implementation of the program	Moderate	Recruitment of additional qualified staff for accounting and finance positions as necessary	As necessary	MOFALI
Newly recruited staff in MOFALI may not be familiar with ADB's financial management requirements. This may cause delays in the day-to-day financial management of the project/program	Moderate	Conduct training on financial management and loans and grants disbursement with support from the PMIS to strengthen the financial management capacity of MOFALI	As necessary	MED RIPD PIU in collaboration with MOFALI, NFPUG
Lack of a project financial management manual including loans and grants disbursement guidelines and procedures may slow down output 2 implementation	Moderate	Provide inputs to the MED RIPD PIU in the preparation of a program financial management manual and participate in the training to be conducted	Within 6 months after loans and grants effectiveness	MED RIPD PIU in collaboration with MOFALI, NFPUG
Delays in external audit of MOFALI and AFPS submission	Moderate	Ensure a timely audit of AFPS by engaging an external auditor with the agreement of NAO	Within 9 months after loans and grants effectiveness	MED RIPD PIU in collaboration with MOFALI
Inefficient financial monitoring of project and program activities, specifically community-based investments, incentives for NFPUGs and herders' cooperatives, animal health, and fodder production	Moderate	Formulate and make operational a program/project electronic monitoring system with the support of PMIS	Within 6 months after engagement of O4A3 consultants	MED RIPD PIU, MOFALI, NFPUG

ADB = Asian Development Bank; ALAMGAC = Agency for Land Administration and Management Geodesy and Cartography; APFS = audited project financial statements; MCUD = Ministry of Construction and Urban Development; MOFALI = Ministry of Food, Agriculture and Light Industry; NAO = National Audit Office; NFPUG = National Federation of Pasture User Groups; O4A2 = Output 4, Activity 2 of the program; PIU = project implementation unit; PMIS = project management and implementation support; PUG = pasture user group.

Source: ADB.

71. The overall financial management risk rating of MOFALI is *moderate*. MOFALI, as a general government sector unit, adheres to the MOF-imposed rules for accounting and financial reporting, such as the International Financial Reporting Standards and International Accounting Standards. In addition, it is highly experienced in the implementation of international donor-funded projects such as (i) the Green Gold and Animal Health Project funded by the Swiss Agency for Development and Cooperation, and (ii) the Small- and Medium-Sized Enterprise Fund Facility, which has several financiers, including ADB.

#### 4. Ministry of Finance

72. Table 21 summarizes the risks determined from the responses provided during the interviews held at MOF office in Ulaanbaatar in February 2023 and July 2022 and the FMA questionnaire.

**Table 21: Financial Management Improvement Action Plan for the Ministry of Finance**

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsible Agency</b>
<b>Implementing Entity:</b> Project financial management policies and procedures are not in place	Moderate	The PIU shall recruit a qualified and experienced finance specialist who has worked for ADB projects at the beginning of the project.	Within 1 month of loan effectiveness	MOF and PIU
		The project will adopt IPSAS-accrual basis. The project will adopt generally accepted accounting principles, specifically Accounting Methods for Projects Financed by the ADB.	After recruitment of PIU finance specialist within one month	PIU finance specialist
		The PIU will set up the project accounts.	Upon PIU establishment	PIU finance specialist
		Necessary training will be provided	Within 2 months of loan effectiveness	ADB
<b>Staffing:</b> No accounting staff that have experience with ADB requirements	Moderate	The PIU shall recruit a qualified and experienced finance specialist for project implementation.	Within 1 month of loan effectiveness	MOF and PIU
		Training on ADB's disbursement procedures and project accounting to be provided to executing and implementing agencies and PIU	Within 2 months of loan effectiveness	ADB
		Guidance and support from loan implementation consultants where necessary.	During the project implementation	ADB and loan implementation consultants

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsible Agency</b>
<b>Reporting and Monitoring:</b> Financial reports may not meet ADB requirements	Moderate	An appropriate financial reporting software for project financial reporting that meets ADB requirements will be purchased and used for the project's accounting and financial reports	Within 2 months of recruitment of PIU finance specialist	PIU

ADB = Asian Development Bank, MOF = Ministry of Finance, PIU = project implementation unit.

Source: ADB.

## 5. Asset Management Company of the Development Bank of Mongolia

73. Table 22 summarizes the proposed financial management improvement plan for the proposed GIRAF manager to mitigate the identified financial management risks.

**Table 22: Financial Management Improvement Action Plan for the Asset Management Company of the Development Bank of Mongolia**

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsible Agency</b>
Relatively weak financial management capacity of AMC to manage the GIRAF	Substantial	Assign qualified and experienced staff from DBM finance, investments, accounting, and reporting divisions to support the operation of AMC until its capacity is developed and as needed, thereafter	Within 3 months after loans and grants effectiveness and as necessary	MOF, AMC/PIU
		Conduct initial and periodic in-house training of AMC /PIU staff in accounting, reporting, and other aspects of financial management to ensure compliance with the requirements of MOF, FRC, and ADB	Within 3 months after loans and grants effectiveness and periodically thereafter as needed	MOF, AMC/PIU, ADB
Limited experience of AMC with ADB's loan and grant disbursement procedures and policies	Substantial	Conduct training on program financial management and loans and grants disbursement with support from the PMC to strengthen the financial management capacity of AMC	Within 3 months of loans and grants effectiveness	MOF, AMC/PIU, ADB
Delay in release of funds to participating commercial banks and sub-borrowers due to unclear funds flow and lending and onlending	Substantial	Develop the GIRAF's lending and onlending funds flow arrangements, policies, and guidelines for Lending Windows 1 and 2 and secure approval from ADB and MOF	Within 3 months after loans and grants effectiveness	MOF, AMC/PIU, MOF, ADB

<b>Risk</b>	<b>Risk Assessment</b>	<b>Action</b>	<b>Period</b>	<b>Responsible Agency</b>
policies and guidelines				
Delay in release of funds to participating commercial banks and sub-borrowers and grantees due to unclear funds flow, policies and procedures on green credit guarantees, and innovation grants	Substantial	Develop the GIRAF's funds flow arrangements, policies, and guidelines for the Green Credit Guarantee and Green Innovation Grants Facilities and secure the necessary approval from ADB and MOF	Within 3 months of loans and grants effectiveness	MOF, AMC/PIU, MOF, ADB
Possible non-adherence to international financial reporting and accounting standards and regulations (IFRS and IAS) and delayed preparation and submission of reports	Moderate	Develop and make operational an electronic accounting system for the GIRAF covering all financial transactions (lending, credit guarantee fees and call payments, and grants) and the loans/grants withdrawals from ADB/GCF; the electronic accounting system must comply with all the financial reporting requirements of MOF, FRC, Bank of Mongolia, PIU, and ADB	Within 6 months after loans and grants effectiveness	MOF, AMC/PIU, MOF, ADB
Lack of internal audit capacity of AMC	Low	Formalize arrangements for DBM's internal audit department to cover AMC's requirements, including helping to set up a separate unit at AMC as warranted by the volume of transactions	Within 3 months of loans and grants effectiveness	MOF, AMC/PIU
Delayed audit process and submission of audited statement of utilization of funds in accordance with the loan agreements	Moderate	Use the enhanced electronic accounting system to produce improved and timely financial reports to facilitate submission and plan and formulate timetable with the engaged external auditor	Agreed annual timetable and coordination	MOF, AMC/PIU, NAO, external auditor
Inadequate management information system to meet the project's reporting requirements	Moderate	Generate prompt and accurate reports for the GIRAF loans, credit guarantees, and grants approved and disbursed through a safe and secure	Within 3 months from the engagement of O4A3 consultants	AMC/PIU, DBM, MOF

Risk	Risk Assessment	Action	Period	Responsible Agency
		electronic accounting system		

ADB = Asian Development Bank; AEFS = audited entity financial statement; AUFS = audited utilization financial statements; AMC = Development Bank of Mongolia Asset Management SC LLC; FRC = Financial Regulatory Commission; GIRAF = Green and Inclusive Regional Agribusiness Fund; MOF = Ministry of Finance, Government of Mongolia; IAS = International Accounting Standards; IFRS = International Financial Reporting Standards; NAO = National Audit Office; O4A3 = Output 4, Activity 3 of the program financing plan; PIU = project implementation unit. Source: ADB.

74. The overall pre-mitigation financial management risk rating of Development Bank of Mongolia Asset Management SC LLC (AMC) is *substantial* mainly due to AMC being a relatively new legal entity just starting to implement the FIL component of the ADB-funded Ulaanbaatar Green Affordable Housing and Resilient Urban Renewal Sector Project. To mitigate this risk, MOF will assign relevant staff to closely supervise the AMC's program financial management activities until it is sufficiently staffed and fully capable. This approach is fully integrated into the financial management improvement action plan discussed and agreed with DBM and AMC.

75. The financial management assessment conducted confirmed that MED, MCUD, MOFALI, and AMC have the financial management capacity to administer the advance accounts and implement the SOE procedure required for the project.

## B. Disbursement

### 1. Disbursement Arrangements for ADB and ADB-Administered Cofinancier Funds

76. The loans and grants proceeds including ADB-administered GCF cofinancing will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2022, as amended from time to time),<sup>73</sup> and detailed arrangements agreed upon between the government and ADB. Online training for project staff on the disbursement policies and procedures of ADB is available.<sup>74</sup> Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

77. MED will be responsible for (i) submitting a request to MOF to establish a pass-through account at the State Bank at the Treasury Single Account for the ADB COL, ADB OCR loan, ADB grant, GCF loan, and GCF grant. Subsequently, MED and MOF/GIRAF manager will submit requests to establish their advance accounts at the Treasury Single Account and to transfer money from the pass-through account to their advance accounts. The PIU will prepare the withdrawal applications, including the statement of expenditure (SOE) and relevant documents for MED. The PIU will also prepare the withdrawal application including the SOE for MOF. MOF with MED will approve the withdrawal applications for submission to ADB.

78. **Advance fund procedure.** After effectiveness of ADB's and GCF's loan and grant, to facilitate project implementation and timely release of ADB's and GCF's loans and grants proceeds, the separate pass-through account for the ADB COL, ADB OCR loan, ADB Grant, GCF Loan and GCF Grant will be established in the State Bank for transferring funds immediately to the advance accounts, in US dollar, at the Treasury Single Account, which will be established by

<sup>73</sup> The handbook is available electronically from the ADB website: <https://www.adb.org/documents/loan-disbursement-handbook>.

<sup>74</sup> Disbursement eLearning. [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning)

the Government of Mongolia through MOF and MED for each financing source. For each advance account a local currency account will be opened in MNT. The advance accounts are to be used exclusively for ADB's and GCF's share of eligible expenditures. MOF jointly with MED will be accountable and responsible for the proper use of advances to the advance accounts. For Outputs 1, 2 and 4, the following advance accounts will be established and administered by MOF and MED through its PIU: (i) advance account for ADB COL, (ii) advance account for ADB OCR, (iii) advance account for ADB Grant, (iv) advance account for GCF Grant, and (v) advance account GCF Loan.

79. To facilitate project implementation and allow for payment of invoices in local currency, the MOF with MED will also establish MNT sub-accounts under the advance accounts. The following sub-accounts will be established and administered by MED for Outputs 2 and 4: (i) ADB COL only sub-account in MNT for PIU operations costs to be administered by MED; (ii) ADB COL and ADB Grant sub-accounts in MNT to be administered by MOFALI for consulting services; and (iii) ADB COL only sub-account in MNT to be administered by MOF/GIRAF manager for consulting services. For Output 3, MOF/GIRAF manager will establish GCF Loan sub-accounts for the Green Lending Windows 1 and 2 and the Green Agribusiness Guaranty Facility and GCF Grant sub-account for the Green Innovations Grants Facility.

80. The total outstanding advance to the respective advance account should not exceed the estimate of ADB's and GCF's share of expenditures to be paid through the respective advance account for the forthcoming 6 months. MOF jointly with MED and GIRAF manager may request for initial and additional advances to the respective advance account based on an Estimate of Expenditure Sheet<sup>75</sup> setting out the estimated expenditures to be financed through the accounts for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the borrower in accordance with ADB's *Loan Disbursement Handbook* (2022, as amended from time to time) when liquidating or replenishing the advance accounts.

81. **Statement of expenditure procedure.**<sup>76</sup> The statement of expenditure (SOE) procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance accounts. The ceiling of the SOE procedure is the equivalent of \$100,000 per individual payment. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

82. Before the submission of the first withdrawal application, the borrower 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. The minimum value per withdrawal application is stipulated in the *Loan Disbursement Handbook* (2022, as amended from time to time). Individual payments below such amount should be paid (i) by the MCUD and GIRAF manager 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

<sup>75</sup> Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2022, as amended from time to time).

<sup>76</sup> Statement of expenditure forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2022, as amended from time to time).

disbursements. Use of ADB's Client Portal for Disbursements (CPD)<sup>77</sup> system is encouraged for submission of withdrawal applications to ADB.

83. Other than in relation to the first disbursement, MED and GIRAF manager should submit to ADB and GCF evidence that (i) at least 70% of the GCF Non-Reimbursable Funds previously disbursed by the fund have been cumulatively committed by the MED and/or DBM for the implementation of the project based on 6 months disbursement projection from the MED PIU and GIRAF manager; and (ii) at least 70% of the GCF Reimbursable Funds previously disbursed by the Fund have been cumulatively committed (a) by the GIRAF manager to the participating commercial banks for the implementation of the Project based on loan agreements between the MOF and the participating commercial banks, and/or (b) by the MED for the implementation of the program based on 6 months' disbursement projection from the MED PIU. Condition for withdrawals from the grant account: Notwithstanding any other provision of the Grant Agreement, no withdrawals shall be made from the Grant Account for the implementation of output 3 until (i) GIRAF has been duly established under the governing law; (ii) GIRAF manager has been engaged as the fund manager of GIRAF pursuant to the GIRAF fund documentation; (iii) the GIRAF Operations Manual has been duly approved by ADB; and (iv) ADB has delivered to GCF (a) fully authorized and executed copies of the GIRAF fund documentation (including the establishment documents and Asset Management Agreement between GIRAF manager and MOF); and (b) a legal opinion or opinions issued by MOF, in form and substance satisfactory to ADB, confirming that GIRAF has been duly established and that the obligations undertaken by MOF, GIRAF manager, the Recipient, and GIRAF under the GIRAF fund documentation are valid and enforceable in accordance with the governing law. Condition for Withdrawal from Loan Account: Notwithstanding any other provision of the Loan Agreement, no withdrawals shall be made from the Loan Account for the implementation of output 3 until (i) GIRAF has been duly established under the governing law; (ii) GIRAF manager has been engaged as the fund manager of GIRAF pursuant to the GIRAF fund documentation; (iii) the GIRAF Operations Manual has been duly approved by ADB; and (iv) ADB has delivered to GCF (a) fully authorized and executed copies of the GIRAF fund documentation (including the establishment documents and Asset Management Agreement between GIRAF manager and MOF); and (b) a legal opinion or opinions issued by MOF, in form and substance satisfactory to ADB, confirming that GIRAF has been duly established and that the obligations undertaken by MOF, GIRAF manager, the Recipient, and GIRAF under the GIRAF fund documentation are valid and enforceable in accordance with the governing law.

## **2. Disbursement Arrangements for Counterpart Fund**

84. The government disbursement and liquidation procedures are regulated in the Budget Law 2011 (Chapter 6) and its corresponding updates. Taxes and duties will be financed by the government through exemption.

## **3. Disbursement Arrangements for Non-ADB-Administered Cofinancier Funds (European Investment Bank)**

85. The EIB will disburse the loan in installments according to the following principles.

- (i) First Disbursement
  - Maximum amount of first disbursement – 10% of the signed loan amount.

<sup>77</sup> 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>.

- The proceeds of first disbursement shall be used solely to finance technical advisory services related to preparation and implementation of the Project and any costs, other than construction works, if in the sole opinion of the Bank they are justified as preparatory expenditures. Only when the Conditions Precedent to Subsequent Disbursements are met, the proceeds from the first disbursement can be used to finance works contracts.
- (ii) Subsequent Disbursements
  - Single disbursement – maximum 20% of signed loan amount, until the total disbursed amount reaches 90% of the signed loan amount.
  - The disbursement is possible when at least 80% of the previously disbursed amounts have been allocated to eligible projects.
- (iii) Last Disbursement
  - Final disbursement of the 10% of the signed loan amount can only be carried out if the entire signed loan amount is allocated and the Conditions Precedent to Subsequent Disbursement are met.

86. The disbursements are conditional on Promoter meeting of the following conditions.

#### **Conditions Precedent to First Disbursement**

- (i) An exchange of letters between the EIB and ADB concerning the inclusion of EIB social, environmental, and procurement requirements in the advisory work of consultants procured by ADB.
- (ii) The Promoter shall confirm to the Bank in writing that that the project implementation structure has been created and staffed with a reasonable number of employees. The project implementation structure means that all of the below have been achieved:
  - the projects' steering committee has been duly created and members of this body have been nominated; and
  - the PIU has been created according to a terms of reference (or equivalent document) acceptable to the Bank and that the PIU as well as the *aimag* and inter-*soum* project implementation offices have been created and staffed with reasonable minimum of key staff, including at least procurement, social, environmental, and financial management specialists and with the *aimag* and inter-*soum* project implementation offices operating according to the terms of reference agreed with the PIU.

#### **Conditions Precedent to Subsequent Disbursements**

- (i) All of the Conditions Precedent to first disbursement continue to be met.
- (ii) The project implementation consultants contracted according to the terms of reference acceptable to the Bank have been retained by the PIU for the period of project implementation.
- (iii) The Promoter submitted and the Bank approved the updated Procurement Plan.
- (iv) The project implementation manual (ADB's FAM), covering EIB procurement, environmental, social, reporting, allocation, and financial management requirements, has been formally introduced for the use by the PIU.
- (v) All other standard requirements for framework loans.

87. The funds disbursed by the EIB will subsequently be allocated by the Promoter to eligible<sup>78</sup> schemes (subprojects), according to the following procedure.

<sup>78</sup> EIB defines eligibility of schemes (subproject) in the technical description of the project (Appendix 13).

- (i) All subproject allocations will be subject to ex-ante appraisal and approval by the Bank's services. The Bank's loan will be allocated to the eligible subprojects, satisfying the technical description with procedures commensurate with the subproject size and in line with applicable framework loan procedures.
- (ii) The Promoter should provide together with an allocation request the following documentation supporting environmental and social compliance of the schemes concerned:
  - For schemes with a potential to affect a site of nature conservation importance that is protected under national or international legislation or agreements, the Promoter shall obtain a confirmation from the competent nature conservation authority, or an equivalent assessment satisfactory to the Bank, that the scheme does not have a significant negative impact on the site of nature conservation importance that is protected under national or international legislation or agreements.
  - The Promoter shall screen the schemes against the criteria proposed in the ESMF.
  - Submit, if required in accordance with the ESMF, and to the satisfaction of the Bank:
    - An Environmental Report (Environmental Impact Assessment (EIA) or Initial Environmental Examination (IEE) as required by Mongolia competent authorities;
    - An Environmental and Social Management Plan (ESMP);
    - A written confirmation that the subproject does not lead to loss or damage to cultural property and has no significant impact on protected nature areas;
    - An ethnic group engagement plan/due diligence report or indigenous peoples plan and documentation of the application of free, prior, and informed consent (FPIC), in case the subproject has impacts on indigenous groups;
    - Resettlement documents as defined in the EMSF (e.g., land acquisition and compensation plan [LACP], resettlement action plan [RAP], etc.) and a confirmation that the Promoter has all funds necessary to implement the compensations as indicated in the resettlement documents;
    - Any environmental or building permits required in connection with the subproject;
    - Evidence that the ESMP is integrated in the work contracts;
  - As part of the civil works contracts awarded by the Promoter:
    - Environmental and social covenant for contractors (to be signed as well as covenant of integrity)
    - Inclusion of provisions for code of conducts and accessibility of a grievance mechanism (for workers) and against gender-based violence, in general terms of contracts.
- (iii) Before submission of the first subproject allocation, the Promoter shall submit to the Bank:
  - An ESMF including screening and due diligence system, resettlement policy framework, indigenous peoples planning framework, stakeholder engagement framework, grievance mechanism, labor and occupational health and safety provisions to be prepared by the Promoter and endorsed

- by the competent authorities. The ESMF should be made available to the public in the area where the project is being implemented; and
- An updated project implementation manual (ADB's FAM) incorporating EIB eligibility requirements, standards, and Guide to Procurement.
- (iv) Before submission of all subproject allocations, the Promoter shall submit to the Bank:
  - All the documentation requested by the Bank as listed in the subproject fiche and allocation template and its annexes, including the required environmental approvals by the competent authorities.
  - A feasibility study of the scheme linked to the subproject allocation, including different technical options (i.e., taking into account design of works for the ADB-financed share of the scheme) if not already covered under the program's feasibility study.
  - Schemes with value over \$50 million are not permitted for allocation under this Project.
- (v) The Promoter shall store and keep the relevant documents updated (including environmental studies related to the EIA, and Nature/Biodiversity Assessments) to be provided to the Bank upon request. In case the EIB requires such documentation, the Promoter shall provide all documents requested promptly from receipt of the request from the Bank.
- (vi) Appropriate tables for allocation request and specific sector tables will be attached to the financial contract or agreed between the Bank and the Promoter prior to the first allocation request.
- (vii) All information shall be provided in English to the Bank in an electronic form, tables in spreadsheets.
- (viii) The Bank reserves the right to review at midterm the allocation procedures in view of the development of the Project with the Promoter.

### **C. Accounting**

88. The MED, MCUD, MOFALI, MOF and GIRAF manager will maintain, through the PIU, or cause to be maintained separate books and records by funding source for all expenditures incurred for Outputs 1, 2, and 4 of each project following accrual-based accounting consistent with the national accounting standards. For Output 3, which constitutes the FIL component of the program, MOF/ GIRAF manager through the PIU will cause to be maintained separate books and records from which statements of fund utilization will be prepared for the Green and Inclusive Regional Agribusiness Fund (GIRAF) and by each participating commercial bank. The MED, with submissions from MCUD, MOFALI, and MOF/ GIRAF manager, will prepare the consolidated project financial statements for all outputs in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

### **D. Auditing and Public Disclosure**

89. The MED will cause the detailed consolidated project financial statements for all expenditures by funding sources of all outputs of the program to be audited in accordance with International Standards on Auditing and government's audit regulations, by an independent auditor acceptable to ADB. The audited consolidated project financial statements (APFS) together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by MED.

90. The audit report for the project financial statements will include a 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; (ii) whether the proceeds of the loan and grant were used only for the purpose(s) of the project; and (iii) whether the borrower or executing agency was in compliance with the financial covenants contained in the legal agreements (where applicable).

91. 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.

92. The government, MED, MCUD, MOFALI, and MOF/GIRAF manager have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>79</sup> ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), 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.

93. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Access to Information Policy.<sup>80</sup> After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.<sup>81</sup>

## VI. PROCUREMENT AND CONSULTING SERVICES

94. A project procurement risk assessment was carried out for the project in Q4 2019 and updated in Q2 2021, and Q1 2023.<sup>82</sup> Procurement risk was considered *high* because of the (i) complexities of the financing arrangements and project activities, (ii) large number of stakeholders involved in the implementation of the project, (iii) large number of contracts to be procured, (iv) wide geographic spread of project sites, (v) limited experience of MED as executing agency, and (vi) unknown capacity of the PIU, which has yet to be established. To mitigate these risks, (i) a

<sup>79</sup> 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 (a) 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; (b) withhold the extension of the loan closing date; and (c) defer negotiation or Board presentation of new loan proposals. ADB will inform the executing agency of ADB's actions; and (b) advise that the loan 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 or cancel the loan.

<sup>80</sup> Available at: <https://www.adb.org/sites/default/files/institutional-document/450636/access-information-policy.pdf>

<sup>81</sup> This type of information would generally fall under Access to Information Policy exceptions to disclosure. ADB. 2018. *Access to Information Policy*. Paragraph 17(iv)–(vi).

<sup>82</sup> A four-level risk scale was used: extreme, high, medium, and low.

full-time procurement specialist will be recruited for the PIU; (ii) the project implementation and management support consulting firm will provide capacity building support in procurement and project implementation to the executing and implementing agencies and PIU; (iii) ADB will provide procurement training to the executing and implementing agencies and PIU at the start of the project and on a regular basis; and (iv) manuals will be developed to guide implementation of community-based investment projects and FIL component.

#### **A. Advance Contracting and Retroactive Financing**

95. Pursuant to the Amendment to the Mongolia Public Procurement Law that has become effective on 1 June 2019, the government has requested advance procurement actions to expedite project implementation. The executing agency in accordance with the government regulation on advance procurement shall submit a request to MOF and acquire necessary endorsements. Specifically, the government has requested ADB's approval of advance procurement actions for hiring of PIU staff and to engage consulting firms for (i) project implementation and management support for outputs 1 and 2; (ii) detailed design and supervision; and (iii) sustainable green agribusiness finance consulting service packages. All advance procurement actions will be undertaken in conformity with ADB's Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The advance action will be subject to ADB approval and will include (i) preparation of the request for proposals, (ii) advertisement, (iii) shortlisting of consultants, (iv) issuance of the request for proposals, and (v) technical and financial proposal evaluation. Contracts will be signed after the loan has become effective. The borrower, MED, MOF, MCUD, MOFALI, and GIRAF manager have been advised that ADB's support for advance procurement does not commit ADB to approve the project or to finance the recruitment costs. The project will undertake retroactive financing.

## **B. Procurement of Goods, Works, and Consulting Services**

96. **Procurement for outputs 1, 2, and 4.** All procurement of goods, works, and services will be undertaken in accordance with ADB's Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). Relevant sections of the ADB Anticorruption Policy (1998, as amended to date) will be included in all procurement documents and contracts.

97. A procurement plan for tranche 1 indicating procurement methods and review procedures for goods, works, and consulting services is in Section C. Open competitive bidding (OCB) advertised internationally will be used for civil works contracts estimated to cost \$5 million or more and goods contracts valued at \$1.5 million or higher; and to the contract for high mountain water storage (HMWS) which is estimated at less than \$5 million but due to nature may attract international bidders. Open competitive bidding (OCB) advertised nationally will be used for civil works contracts estimated to cost less than \$5 million and goods contracts valued at less than \$1.5 million. Request for quotations (RFQ) will be used for procurement of works and goods contracts valued at \$100,000 and below. CPP will be used for community-based investment projects, estimated to be less than \$30,000 per contract. Experiences from similar projects suggest that the local supply market is mature and capable to participate in most of goods and civil works packages under the project.

98. Considering that a new PIU will be established and its capacity is unknown, the following contracts will be subject to ADB prior review: (i) all OCB contracts advertised internationally for goods and civil works, (ii) the first three OCB contracts advertised nationally for goods regardless of value; (iii) the first three OCB contracts advertised nationally for civil works regardless of value; (iv) all OCB contracts advertised nationally for civil works of \$3 million or more; and (v) the first 5 contracts of each year procured through the CPP method. The remaining contracts will be subject to ADB post review (sampling). These review arrangements will be revisited and updated, as appropriate, during review missions; and adjustments will be made based on the capacity of the executing and implementing agencies and PIU, and the risks identified during implementation. The post review (sampling) size and methodology will follow ADB's Procurement Review: Guidance Note on Procurement (June 2018),<sup>83</sup> and will be communicated with the executing and implementing agencies and PIU during review missions.

99. Given the amount and number of contracts to be procured under the CPP method, a Community Participation in Procurement Manual will be developed by the project implementation and management support consultant. Such a manual will cover procurement, contract management, and financial management aspects of community-based investment projects.

100. All consulting firms will be recruited according to ADB's Procurement Policy and Regulations. The outline terms of reference for all consulting services are provided in Section D.

101. An estimated 4,124 person-months (817 international, 3,307 national) of consulting services are required to (i) facilitate project management and implementation; (ii) strengthen the institutional and operational capacity of the executing agency; (iii) provide external monitoring; and (iv) carry out feasibility study, detailed design, and supervision. Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a quality-cost ratio of

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<sup>83</sup> Available at: <https://www.adb.org/sites/default/files/procurement-review.pdf>.

90:10, and quality-based selection (QBS) method. ADB prior review is required for all consulting services packages.

102. The government e-procurement system (tender.gov.mn) will be used for publication of procurement notices of OCB (national advertisement) and RFQ contracts. Subject to further discussion with the executing and implementing agencies and PIU, the system will also be used for bidding of OCB (national advertisement) and RFQ contracts on a pilot basis.

103. Value-for-money in procurement will be achieved by (i) designing appropriate procurement packages, taking into account the nature, location, and delivery schedule of goods, works, and services to be procured, capacity of potential bidders, as well as capacity of the executing and implementing agencies and PIU; and (ii) applying the most suitable procurement method, bidding procedure, and evaluation methodology and criteria to each procurement contract.

104. **Procurement for output 3.** For agribusiness investments under the FIL component, commercial practices acceptable to ADB will be followed. An implementation manual will be developed for the FIL component with the support of the project implementation and management support consultant.

## C. Procurement Plan

### Basic Data

<b>Project Name:</b> <i>Aimags and Soums</i> Green Regional Development Investment Program - Tranche 1		
<b>Project Number:</b> 49430-005	<b>Approval Number:</b>	
<b>Country:</b> Mongolia	<b>Executing Agency:</b> Ministry of Economy and Development	
<b>Project Procurement Risk:</b> High  <b>Project Financing Amount:</b> \$270,000,000 <b>ADB Financing:</b> \$93,000,000 <b>Cofinancing (ADB Administered):</b> \$75,200,000 <b>Non-ADB Financing:</b> \$101,800,000	<b>Implementing Agency:</b> Ministry of Construction and Urban Development Ministry of Finance Ministry of Food, Agriculture and Light Industry	
	<b>Project Closing Date:</b> 22 March 2029	
<b>Date of First Procurement Plan:</b> 3 February 2023	<b>Date of this Procurement Plan:</b> 3 February 2023	
<b>Procurement Plan Duration (in months):</b> 18	<b>Advance Contracting:</b> Yes	<b>e-GP:</b> Yes <a href="http://www.tender.gov.mn/">http://www.tender.gov.mn/</a>

### 1. Methods, Review and Procurement Plan

105. Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods, works, and consulting services.

Procurement of Goods and Works	
Method	Comments
Open Competitive Bidding (OCB) for Goods	Packages estimated to cost \$1,500,000 and above will be advertised internationally and subject to prior review. Packages estimated to cost between \$100,001 and \$1,499,999 will be advertised nationally. The first three nationally advertised goods packages are subject to prior review; thereafter, post review (sampling)
Request for Quotation for Goods	Up to \$100,000; post review (sampling)
Open Competitive Bidding (OCB) for Works	Packages estimated to cost \$5,000,000 and above and high mountain water storage (HMWS) package will be advertised internationally and subject to prior review. Packages estimated to cost between \$100,001 and \$4,999,999 million will be advertised nationally. The first three nationally advertised works packages and all packages above \$3,000,00 are subject to prior review; thereafter, post review (sampling)
Request for Quotation for Works	Up to \$100,000; post review (sampling)
Community Participation in Procurement for Works	Up to \$30,000; the first five contracts of <b>each year</b> will be subject to prior review; thereafter, post review (sampling)

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection for Consulting Firm	Prior review; 90:10 quality–cost ratio
Quality-Based Selection for Consulting Firm	Prior review

### 2. Lists of Active Procurement Packages (Contracts)

106. The following table lists goods, works, non-consulting, and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan duration.

<b>Goods and Works</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
BUUH	Ulgii heating supply efficiency and improvement for city and agro-industrial park	2,265,210	OCB	Prior	1S1E	Q3 / 2024	Non-Consulting Services: No Advertising: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No  e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments: Includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan
BURH	Ulgii urban: road, utility connections, affordable housing units, community center, and agro-industrial park incubator	1,315,400	OCB	Prior	1S1E	Q3 / 2024	Non-Consulting Services: No  Advertising: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic

Goods and Works							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No e-GP: Yes  e-GP Type: e-Publication COVID-19 Response? No  Comments: Includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan
KKUH	Khovd heating supply efficiency and improvement for city and agro-industrial park	3,486,924	OCB	Prior	1S1E	Q3 / 2024	Non-Consulting Services: No  Advertising: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No  e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments:

Goods and Works							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan
KKRH	Khovd road: road, utility connections, affordable housing units, community center, and agro-industrial park incubator	3,734,800	OCB	Prior	1S1E	Q3 / 2024	Non-Consulting Services: No  Advertising: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No  e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments: Includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan
UUHM	Ulaangom heating metering	340,824	OCB	Post (Sampling)	1S1E	Q3 / 2024	Non-Consulting Services: No  Advertising: National  No. of Contracts: 1

Goods and Works							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No  e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments: ADB loan
UUUH	Ulaangom heating supply efficiency and improvement for city and agro-industrial park	3,929,327	OCB	Prior	1S1E	Q3 / 2024	Non-Consulting Services: No  Advertising: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments: Includes the network

Goods and Works							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan
UURH	Ulaangom - road: road, connections, affordable housing units, community center, and agro-industrial park incubator	2,261,900	OCB	Prior	1S1E	Q3 / 2024	Non-Consulting Services: No  Advertising: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No  e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments: Includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan

1S1E = single-stage one envelope, ADB = Asian Development Bank, COVID-19 = coronavirus disease, OCB = open competitive bidding.

Consulting Services							
Package Number	General Description	Estimated Value (in \$)	Selection Method	Review	Type of Proposal	Advertisement Date (quarter/year)	Comments
DDS1	Detailed design and supervision for tranche 1	7,035,395	QCBS	Prior	FTP	Q3 / 2023	Non-Consulting Services: No

Consulting Services							
Package Number	General Description	Estimated Value (in \$)	Selection Method	Review	Type of Proposal	Advertisement Date (quarter/year)	Comments
							Type: Firm Assignment: International Quality–Cost Ratio: 90:10 e-GP: Yes e-GP Type: e-Publication COVID-19 Response? No Comments: ADB loan
PIO1	Project implementation and management support and policy improvement	4,346,000	QCBS	Prior	FTP	Q3 / 2023	Non-Consulting Services: No Type: Firm Assignment: International Quality–Cost Ratio: 90:10 e-GP: Yes e-GP Type: e-Publication COVID-19 Response? No Comments: ADB loan
PIO2	Project implementation technical assistance for output 2 (including rangeland management, irrigation scheme, animal breeding and veterinary services, traceability and certification	8,450,472.00	QCBS	Prior	FTP	Q3 / 2023	Non-Consulting Services: No Type: Firm Assignment: International Quality–Cost Ratio: 90:10 e-GP: Yes e-GP Type: e-Publication

<b>Consulting Services</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in \$)</b>	<b>Selection Method</b>	<b>Review</b>	<b>Type of Proposal</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
	support, and policy improvement)						COVID-19 Response? No  Comments: ADB loan and grant from ADF 13 thematic pool
PIO3	Project implementation and management support for output 3 (financial intermediation loan for green agribusiness)	3,000,000.00	QCBS	Prior	FTP	Q3 / 2023	Non-Consulting Services: No  Type: Firm  Assignment: International  Quality–Cost Ratio: 90:10  e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments: ADB loan
REEM	Resettlement and environment external monitoring	300,000.00	QBS	Prior	BTP	Q3 / 2023	Non-Consulting Services: No  Type: Firm  Assignment: National  e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments: ADB loan

ADB = Asian Development Bank, ADF = Asian Development Fund, BTP = biodata technical proposal, COVID-19 = coronavirus disease, FTP = full technical proposal, QBS = quality-based selection, QCBS = quality- and cost-based selection.

### **3. List of Indicative Packages (Contracts) Required Under the Project**

107. The following table lists goods, works, non-consulting, and consulting services contracts for which procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e., those expected beyond the current procurement plan duration).

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
ALCP	Ulaangom-Umnugovi Ulgii-Deluun Khovd community-based investment projects	12,630,500	CPP	Prior		Non-Consulting Services: No  No. of Contracts: Multiple  e-GP: Yes  COVID-19 Response? No  Comments: Multiple contracts; prior first 5 contracts each year, then post (sampling); Q1 2025; GCF grant
ALCW	All locations: communications  Lot 1: Ulaangom/Umnugovi  Lot 2: Ulgii/Deluun  Lot 3: Khovd	818,820  584,104  123,530  111,186	OCB	Post (Sampling)	1S1E	Non-Consulting Services: No  Advertising Type: National  No. of Contracts: 3  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No  Comments: Q1 2025; includes the network connections of the first 4 agribusiness

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
						plots developed in each agro-industrial park; ADB loan
ALEW	<p>All locations: electrical</p> <p>Lot 1: Ulaangom/Umnugovi</p> <p>Lot 2: Ulgii/Deluun</p> <p>Lot 3: Khovd</p>	<p>3,558,442</p> <p>2,024,357</p> <p>844,960</p> <p>689,125</p>	OCB	Prior	1S1E	<p>Non-Consulting Services: No</p> <p>Advertising Type: National</p> <p>No. of Contracts: 3</p> <p>Prequalification of Bidders: No</p> <p>Domestic Preference Applicable: No</p> <p>Bidding Document: Small Works</p> <p>e-GP: Yes</p> <p>COVID-19 Response? No</p> <p>Comments: Q1 2025; includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan</p>
ALIE	Equipment for incubators/all buildings in inter-soums	1,097,000.00	OCB	Prior	1S1E	<p>Non-Consulting Services: No</p> <p>Advertising Type: National</p> <p>No. of Contracts: 1</p> <p>Prequalification of Bidders: No</p> <p>Domestic Preference Applicable: No</p> <p>Bidding Document: Goods</p>

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
						e-GP: Yes  COVID-19 Response? No Comments: Q1 2025; ADB loan
ALSW	All locations: waste management	2,222,750	OCB	Post (Sampling)	1S1E	Non-Consulting Services: No  Advertising Type: National  No. of Contracts: 3 Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No  Comments: Q1 2025; ADB loan
	Lot 1: Ulaangom/ Umnugovi	822,250				
	Lot 2: Ulgii/Deluun	684,500				
	Lot 3: Khovd	716,000				
ALVE	Ulaangom-Umnugovi Ulgii-Deluun Khovd equipment veterinary services/disease-free establishment	823,012	OCB	Prior	1S1E	Non-Consulting Services: No  Advertising Type: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Goods  e-GP: Yes  COVID-19 Response? No  Comments: Q1 2025; ADB loan

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
BDSF	Deluun inter- <i>soum</i> public buildings: staff housing, sanitary units, dormitories, multi-purpose building, sport complex, incubator, rehabilitation works	3,286,400	OCB	Prior	1S1E	and GCF Grant Non-Consulting Services: No Advertising Type: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No Comments: Q1 2025; ADB loan
BKVD	Ulgii-Deluun-Khovd disease-free establishment	2,432,219	OCB	Post (Sampling)	1S1E	Non-Consulting Services: No  Advertising Type: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No  Comments: Q1 2025; ADB loan
BPCE	Bayan-Ulgii PUGs and cooperatives equipment	394,080	RFQ	Post (Sampling)		Non-Consulting Services: No  No. of Contracts: 1

<b>Goods and Works</b>						
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in \$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Comments</b>
						e-GP: Yes  COVID-19 Response? No  Comments: Multiple contracts; Q4 2024; GCF grant; includes office, storage, and testing equipment
BPCF	Bayan-Ulgii PUGs and cooperatives facilities	259,149	RFQ	Post (Sampling)		Non-Consulting Services: No  No. of Contracts: 1  e-GP: Yes  COVID-19 Response? No  Comments: Multiple contracts; Q4 2024; GCF grant; includes small facilities (warehouse, office, training center)
HMWS	High mountain water storage – Tarialan old irrigation system renovation	2,200,000	OCB	Prior	1S1E	Non-Consulting Services: No  Advertising Type: International  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
						Comments: Q1 2025; GCF grant
KPCE	Khovd PUGs and cooperatives equipment	265,688	RFQ	Post (Sampling)		Non-Consulting Services: No No. of Contracts: 1  e-GP: Yes  COVID-19 Response? No  Comments: Multiple contracts; Q4 2024; GCF grant; includes office, storage, and testing equipment
KPCF	Khovd PUGs and cooperatives facilities	184,440	RFQ	Post (Sampling)		Non-Consulting Services: No  No. of Contracts: 1  e-GP: Yes  COVID-19 Response? No  Comments: Multiple contracts; Q4 2024; GCF grant; includes small facilities (warehouse, office, training center)
ODFE	Ulaangom-Umnugovi Ulgii-Deluun farm equipment for cropping	570,080	OCB	Prior	1S1E	Non-Consulting Services: No  Advertising Type: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document:

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
						Goods  e-GP: Yes COVID-19 Response? No  Comments: Q4 2024; ADB loan
UDIH	Ulgii-Deluun irrigation headworks	1,869,766	OCB	Post (Sampling)	1S1E	Non-Consulting Services: No  Advertising Type: National No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No  Comments: Q1 2025; GCF loan
UOIH	Ulaangom-Umnugovi irrigation headworks	2,406,656	OCB	Post (Sampling)	1S1E	Non-Consulting Services: No  Advertising Type: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
						Comments: Q1 2025; GCF loan
UOSF	Umnugovi inter-soum public buildings staff housing, sanitary units, dormitories, multi-purpose building, sport complex, incubator, rehabilitation	1,875,200	OCB	Post (Sampling)	1S1E	Non-Consulting Services: No  Advertising Type: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No  Comments: Q1 2025; ADB loan
UOVD	Ulaangom-Umnugovi veterinary services/disease-free establishment	1,420,145	OCB	Post (Sampling)	1S1E	Non-Consulting Services: No  Advertising Type: National  No. of Contracts: 1  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  e-GP: Yes  COVID-19 Response? No  Comments: Q1 2025; GCF grant
UPCE	Uvs PUGs and cooperatives	336,488	RFQ	Post (Sampling)		Non-Consulting Services: No

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
	equipment					No. of Contracts: 1 e-GP: Yes  COVID-19 Response? No  Comments: Multiple contracts; Q4 2024; GCF grant; includes office equipment, storage, testing equipment
UPCF	Uvs PUGs and cooperatives facilities	221,794	RFQ	Post (Sampling)		Non-Consulting Services: No  No. of Contracts: 1  e-GP: Yes  COVID-19 Response? No  Comments: Multiple contracts; Q4 2024; GCF grant; includes small facilities (warehouse, office, training center)
BURH2	Ulgii road: road, connections, affordable housing units, community center, and agro-industrial park incubator	719,600	OCB	Prior	1S1E	Non-Consulting Services: No  Advertising: National  No. of Contracts: 2  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No

Goods and Works						
Package Number	General Description	Estimated Value (in \$)	Procurement Method	Review	Bidding Procedure	Comments
						e-GP: Yes  e-GP Type: e-Publication COVID-19 Response? No  Comments: Q3 2025; includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan
UURH2	Ulaangom - road: road, connections, affordable housing units, community center, and agro-industrial park incubator	3,400,500	OCB	Prior	1S1E	Non-Consulting Services: No  Advertising: National  No. of Contracts: 2  Prequalification of Bidders: No  Domestic Preference Applicable: No  Bidding Document: Small Works  High Risk Contract: No  e-GP: Yes  e-GP Type: e-Publication  COVID-19 Response? No  Comments: Q3 2025; includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park; ADB loan

1S1E = single-stage one envelope, ADB = Asian Development Bank, COVID-19 = coronavirus disease, CPP =

community participation in procurement, GCF = Green Climate Fund, OCB = open competitive bidding, PUG = pasture user group, RFQ = request for quotations.

Consulting Services						
Package Number	General Description	Estimated Value (in \$)	Selection Method	Review	Type of Proposal	Comments
FDS2	Feasibility study, detailed design, and supervision for Tranche 2	8,275,411	QCBS	Prior	FTP	Non-Consulting Services: No  Type: Firm  Advertising: International  Quality–Cost Ratio: 90:10  e-GP: Yes  COVID-19 Response? No  Comments: Q1 2025; ADB loan

ADB = Asian Development Bank, COVID-19 = coronavirus disease, FTP = full technical proposal, QCBS = quality- and cost-based selection.

#### 4. Non-ADB Financing (Specific Requirements for Procurement by the European Investment Bank)

108. The following table lists goods, works, non-consulting, and consulting services contracts over the life of the project, financed by non-ADB sources.

109. EIB requirements to procurement are defined in the "Guide to Procurement" which is available at: [https://www.eib.org/attachments/strategies/guide\\_to\\_procurement\\_en.pdf](https://www.eib.org/attachments/strategies/guide_to_procurement_en.pdf)

110. No provision of this FAM or any other document issued in connection with this project shall supersede the provisions of the "Guide to Procurement." It is the responsibility of the Promoter and its consultants to use the "Guide to Procurement" to determine adequate procurement policies for the Project.

111. Notwithstanding the above, the EIB team wishes to point out the following aspects of EIB "Guide to Procurement" which, based on experience to date, seem to differ from the typical ADB procurement:

- (i) The EIB will require the Promoter to manage and ensure that the implementing agencies are managing the procurement of the contracts financed by the EIB (including under the European Union grant) in accordance with EIB "Guide to Procurement." The EIB funding will finance the procurement of construction works for municipal infrastructure components (utility networks, water and wastewater treatment plants, as well as urban and regional roads). The procurement notices for contracts above EUR5 million for works, EUR200,000 for goods and non-consultancy services (except electricity, gas, water and transport where it is EUR400,000 and telecommunications where it is EUR600,000) and the contracts

- equal to or above EUR200,000 for consulting services will be published in the Official Journal of the European Union.
- (ii) The EIB will require submission of the updated procurement plan, prepared by the PIU with the assistance of project implementation consultant. The procurement plan shall be prepared taking into account principles of efficiency and competition. If justified, smaller components may be grouped into larger contract packages and divided in lots, to increase competition.
  - (iii) The EIB carries out ex-ante review of tender document in case of works contracts above EUR5 million. In case of works contracts below EUR5 million, the contract is awarded within national competitive bidding procedure, with ex-post review by the EIB.
  - (iv) No local content provisions and no local preference provisions are allowed for contracts financed by the EIB.<sup>84</sup>
  - (v) The responsibility of dealing with complaints against Promoter's actions and deciding on them lies with Promoters. While the EIB is committed to ensuring that only contracts procured in line with its "Guide to Procurement" will be eligible to be financed by its loans, the role of the EIB is limited to verifying whether the conditions attached to its financing are met. In the event that the EIB determines that the procurement process has not been compliant with its "Guide to Procurement," it may decide to withdraw its financing and apply any other possible contractual remedies, as applicable. Complainants who wish to challenge Promoters' actions or decisions should address their concerns to Promoters and/or the relevant review bodies (normally national remedy mechanisms), in line with applicable provisions. Tenderers are encouraged to make use of these recourses to raise their concerns in a timely manner, and may copy the EIB in such complaints.
  - (vi) Procurement-related complaints against EIB's actions may be addressed to the EIB's Procurement Complaints Committee.
  - (vii) It is important to note difference in exclusions lists applied by ADB and EIB.
  - (viii) It is important to note that the EIB requires environmental and social covenant as well as covenant of integrity applicable to the general contractor and any subcontractor.

<b>Goods and Works</b>				
<b>General Description</b>	<b>Estimated Value (cumulative)</b>	<b>Estimated Number of Contracts</b>	<b>Procurement Method</b>	<b>Comments</b>
Ulaangom water supply and wastewater networks: renewal, reinforcement at city and agro-industrial park- level	2,282,503	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan; includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park
Ulgii water supply and wastewater networks: renewal, reinforcement at city and agro-industrial park	1,771,557	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan; includes the network connections of the first 4 agribusiness plots developed in each

<sup>84</sup> It is understood by the EIB that the provisions of the Framework Agreement between Mongolia and the EIB dated 24 November 1997 allow application of the EIB procurement rules.

<b>Goods and Works</b>				
<b>General Description</b>	<b>Estimated Value (cumulative)</b>	<b>Estimated Number of Contracts</b>	<b>Procurement Method</b>	<b>Comments</b>
				agro-industrial park
Ulgii wastewater treatment plants included agro-industrial park	3,873,406	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan
Ulgii flood protection: as planned at city level	4,939,062	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan
Ulgii - pilot road, road, networks, connections and technical units, pedestrian lanes, playground	1,374,500	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan and grant
Ulgii infrastructure: roads, drainage, river embankment for city and agro-industrial park	3,743,645	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan
Ulgii - road, networks, connections and technical units, and playground	1,438,000	1	OCB	COVID-19 Response? No  National; Q4 2025; Small Works; EIB loan and grant
Khovd water supply and wastewater networks: renewal, reinforcement at city and agro-industrial park	1,474,594	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan; includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park
Ulaangom wastewater treatment plants included agro-industrial park	4,269,564	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan
Khovd wastewater treatment plants included agro-industrial park	1,944,311	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan
Khovd – road, networks, connections and technical units, pedestrian lanes, playground	1,760,500	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan and grant
Khovd infrastructure: roads, drainage, flood protection, irrigation for city and agro-industrial park	3,681,763	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan
Umnugovi inter-soum infrastructures: roads, networks, plant	1,564,564	1	OCB	COVID-19 Response? No  National; Q4 2025; Small Works; EIB loan; includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park
Umnugovi-Olgii/Tarialan-NR/road improvement	5,250,000	1	OCB	COVID-19 Response? No

<b>Goods and Works</b>				
<b>General Description</b>	<b>Estimated Value (cumulative)</b>	<b>Estimated Number of Contracts</b>	<b>Procurement Method</b>	<b>Comments</b>
				International; Q4 2025; Small Works; EIB loan
Deluun inter-soum infrastructures: roads, networks, plant	1,275,588	1	OCB	COVID-19 Response? No  National; Q4 2025; Small Works; EIB loan; includes the network connections of the first 4 agribusiness plots developed in each agro-industrial park
Uvs - mitigation works: reinforced buildings' insulation	1,603,000	1	OCB	COVID-19 Response? No  International; Q4 2025; Goods; EIB grant
Bayan-Ulgii mitigation works: reinforced buildings' insulation	674,000	1	OCB	COVID-19 Response? No  International; Q4 2025; Goods; EIB grant
Khovd - mitigation works: reinforced buildings' insulation	872,000	1	OCB	COVID-19 Response? No  International; Q4 2025; Goods; EIB grant
Uvs - renewable energy: photovoltaic solar panels with or without batteries	1,256,560	1	OCB	COVID-19 Response? No  International; Q4 2025; Goods; EIB grant
Bayan-Ulgii renewable energy: photovoltaic solar panels with or without batteries	820,160	1	OCB	COVID-19 Response? No  International; Q4 2025; Goods; EIB grant
Khovd - renewable energy: photovoltaic solar panels with or without batteries	529,920	1	OCB	COVID-19 Response? No  International; Q4 2025; Goods; EIB grant
Smart land management and climate responsive digital center	3,050,000	1	OCB	COVID-19 Response? No  International; Q4 2025; Plant; EIB grant
Ulaangom - road, networks, connections and technical units, pedestrian lanes, playground	1,725,000	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan and grant
Ulaangom infrastructure: roads, drainage, flood protection, solid waste: city and agro-industrial park	3,578,494	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan
Ulaangom - pilot road: road, networks, connections and technical units, pedestrian lanes, playground	2,361,000	1	OCB	COVID-19 Response? No  National; Q1 2025; Small Works; EIB loan and grant

COVID-19 = coronavirus disease, EIB = European Investment Bank, OCB = open competitive bidding.

<b>Consulting Services</b>				
<b>General Description</b>	<b>Estimated Value</b>	<b>Estimated Number</b>	<b>Recruitment Method</b>	<b>Comments</b>

	(cumulative)	of Contracts		
None				

#### D. Consultant's Terms of Reference

112. **Project implementation and management support and policy improvement.** A consulting firm will be engaged using quality- and cost-based selection (QCBS) method and full technical proposal procedure, with a quality–cost ratio of 90:10, for an estimated 483 person-months (151 international, 332 national) of consulting services. The consultant will support the PIU on overall implementation coordination and management, financial management, compliance with ADB's Safeguard Policy Statement (2009) and Mongolia's safeguard requirements, institutional strengthening and reporting, capacity building support, ADB and GCF reporting and monitoring requirements, monitoring and evaluation and sector road map implementation, procurement, community participation action plan, and other activities as appropriate. The terms of reference for this consultant will be agreed with the EIB and eventually will have direct access to the consultants.

113. The project implementation and management support will more specifically:
- (i) provide procurement capacity support for works, goods, and consulting services;
  - (ii) establish detailed work schedules and the workload distribution for the PIU;
  - (iii) provide on-the-job and formal training to PIU staff on all aspects of project management;
  - (iv) provide financial management training to handle different withdrawal allocations;
  - (v) develop financial management and accounting system for the project;
  - (vi) monitor and ensure the affordability of apartments developed by technical units and housing units (TOSK), and ensure the inclusion of community centers in TOSK housing programs;
  - (vii) act as resource persons for training and development activities;
  - (viii) provide procurement assistance, bidding document review, contract bid review and evaluation, and contract management and disbursement, taking note of specific requirements of ADB, EIB, and other cofinanciers;
  - (ix) provide on-the-job and formal training to PIU staff on social, gender, participation, and community participation aspects of the project;
  - (x) training of PIU and APIU staff, in particular on ADB and EIB safeguards (including environmental, social, core labor standards and procurement), due diligence, procurement, and financial management;
  - (xi) monitor and ensure the effective implementation of the voluntary participation framework for ger area development, and social and gender action plan;
  - (xii) support land valuation activities and carry out voluntary participation process during feasibility study, detailed design, and implementation for TOSK;
  - (xiii) monitor and evaluate the voluntary participation process;
  - (xiv) support, monitor, and evaluate housing improvement activities, including assessment of the needs, and technical assistance to beneficiaries;
  - (xv) support land management activities, and update cadastral plan;
  - (xvi) support the technical units' implementation process, including selection of the providers and individual technical assessment of each beneficiary for connection of the technical unit;
  - (xvii) update, finalize, and monitor safeguards documents, including the land acquisition and resettlement plan and voluntary participation plan, initial environment examination or environment impact assessment, and environment

- management plan in compliance with ADB and EIB guidelines and the relevant frameworks agreed between ADB and the Government of Mongolia;
- (xviii) capacity building for sustainable urban development, energy-efficient housing, efficient service delivery and utility management:
    - (a) training to the PIU, Ministry of Construction and Urban Development, *aimag* and *soum* governments to support the implementation of Output 1 and change practices toward more sustainable urban planning and resource management through on-the-job training; and in particular:
    - (b) development of a model based on the pilot *ger* areas redevelopment of tranche 1: inclusive, participative and green *ger* areas' street redevelopment framework completed based on the tranche 1 pilot and replicated on tranches 2 and 3;
    - (c) capacity building for effective management of solid waste collection and transport, using recycling programs and financially stable;
    - (d) specific advisory services for energy-efficient housing improvements (insulation and connection) of *ger* areas housing units;
    - (e) introduction of heat metering, now only in Ulaangom, with appropriate tariff restructuring to incentivize energy efficiency;
  - (xix) support policy development and reforms in the following sectors: urban utilities (in particular tariffs, collection system, and governance/performance of utility companies, construction standards and performance of new infrastructures), housing construction standards, and affordable housing; and
  - (xx) enhancement of institutional capacity for policy reforms formulation, implementation and enforcement related to the promotion of climate-resilient, low-carbon, and attractive *aimag* and *soum* centers and green territorial development; and
  - (xxi) prepare the draft project completion report on behalf of the government.

114. **Project implementation technical assistance for output 2.** Project implementation technical assistance for output 2, including rangeland management (to be carried out by specialized NGO), irrigation scheme, veterinary services, traceability and certification support, and livestock and rangeland management policy improvement. A consulting firm will be engaged using quality- and cost-based selection (QCBS) method and full technical proposal procedure, with a quality–cost ratio of 90:10, for an estimated 751 person-months (188 international and 563 national). Some of the consulting services are expected to be performed by NGOs with 80% of the consulting time to be spent in the *aimags*. The consultants will support the PIU on overall Output 2 implementation coordination and management, financial management, compliance with ADB's Safeguard Policy Statement and Mongolia's safeguard requirements,<sup>85</sup> institutional strengthening and reporting, capacity building support, ADB and GCF reporting and monitoring requirements, monitoring and evaluation and sector road map implementation, procurement, community participation action plan, and other activities as appropriate.

- (i) **Capacity building for land use and agro-territorial development.** Includes
  - (a) capacity building to ALAMGAC and land officers for improved rangeland health monitoring and registration and monitoring of rangeland use agreements (RUAs);
  - (b) preparation of the low-carbon climate-resilient agribusiness development plan

<sup>85</sup> While the primary responsibility of preparation and supervision of safeguard compliance in line with ADB Safeguard Policy Statement requirements will be that of the project implementation and management support and policy improvement consultants, the project implementation and management support consultants for output 2 are expected to provide the required information on safeguard issues and support to ensure timely preparation of safeguard documentation and support the PIU during implementation.

(LCADP) and low-carbon climate-resilient livestock value chain (LCLVC) together with Project implementation and management support for output 3 and of related pre-feasibility studies, business plans and technical specifications for the priority investments; and (c) support the formulation of policies on rangeland and land use management, *soum* territorial development plan, pastoralism and livestock management (including the formulation and dissemination of knowledge products and lessons learned and contributions to the formulation of the successor of the NMLP).

- (ii) **Support the National Federation of Pasture User Groups (NFPUG) and the Ministry of Food, Agriculture and Light Industry (MOFALI) to implement all rangeland management activities and herders' organizations (PUG and cooperative),** including: set up of the PUG where necessary, preparation of the rangeland use agreement (RUA) including destocking plan and animal number reduction yearly targets, monitoring of the RUA and yearly targets, preparation of the participatory and inclusive herd management plan, preparation of proposal for community-based investments, distribution of awards for herders who have best performed, set up of *soum* cooperatives, technical and financial support to cooperatives, and coordination of subsequent activities 2, 3, and 4. This activity will be performed by an NGO, with 80% of the consulting time to be spent in the *aimags*. List of envisioned specialists:
  - (a) International: value chain specialist, agronomist, agro-environmentalist, herders' organization and certification expert, and marketing expert.
  - (b) National: value chain specialist (one per *aimag*), agronomist, hydrologist (one per *aimag*), veterinary, herders' organization and certification expert, and marketing expert.
- (iii) **Support to the PIU to implement irrigation systems, including large, irrigated perimeters in *aimag* and inter-*soum* centers, and small irrigated hay fields, at the level of the PUGs (including in the community investments program).** This support will include training (training of hay/fodder producers, training of trainers, training of MOFALI local staff, training for O&M and low environment impact practices), technical design of the irrigation schemes, institutional support (set up of water user associations and tariffs).
- (iv) **Animal health.** (a) Strengthening of veterinary services at each level of the agribusiness chain; (b) support to CAHWs will include training, and awareness raising and communication activities: training of *soum* veterinaries, training on vet materials and theory and on veterinarian organization at *soum* level (role of CAHW and *soum* vets), spot TV and radio, bus DVD, leaflets, and flyers; and (c) support for operation of disease-free establishment.
- (v) **Implement certification system and support to NFPUG traceability system.** The consultant will develop, through a participative guarantee scheme (PGS) a set of good practices at three levels: herder level (herding practices, quality management, participation to herder organizations), PUG level (as the pastures cannot be well managed out of the whole users' level) and the cooperative level (fair price, redistribution of the profits, sustainable investments, respect of laws and cooperative governance). The consultant will (i) set up certification strategies at the upstream of the value chain as well as related commercial and marketing strategies, and an indicative business plan; (ii) at the downstream with related commercial and marketing strategies set up; and (iii) develop sustainable certification registration and information.

115. **Project implementation and management support for output 3 (FIL component).** An internationally qualified firm will be engaged using the QCBS method and full technical proposal procedure, with a quality–cost ratio of 90:10, for an estimated 516 person-months (120 international, 396 national) of consulting services. The NGO will assist the GIRAF manager in undertaking a pilot demonstration for the GIRAF's lending window 3 which will provide the financing to certified herders for their low-carbon and climate-resilient microenterprises and home-based businesses. The appointed qualified NGO will assess the capacities of existing savings and credit cooperatives (SCCs) and other eligible nonbank financial institutions in the three targeted *aimags* and select a limited number of SCCs to implement and learn from the pilot demonstration. The consultants will support the GIRAF manager to:

- (i) establish and make operational the GIRAF in accordance with the relevant laws and regulations of the government;
- (ii) set up the low-carbon, climate-resilient lending windows 1 and 2 of the GIRAF and develop the necessary lending and onlending policies, guidelines and procedures for each window;
- (iii) establish the low-carbon and climate-resilient credit guarantee facility of the GIRAF and prepare the relevant policies, guidelines and procedures for guarantee enrolment and call approvals, payments, and recoveries;
- (iv) establish the low-carbon and climate-resilient innovation grants facility of the GIRAF and prepare the relevant policies, guidelines and procedures;
- (v) provide financial transaction advice and support to output 2 and the PIU and *aimag* project implementation units in developing low-carbon, climate-resilient agribusiness financing portfolio;
- (vi) conduct briefings for commercial banks and the targeted herder groups, and agribusinesses on the program and the GIRAF's policies, procedures, and templates;
- (vii) undertake financial, environment and social safeguards and integrity due diligence of commercial banks borrowing from the GIRAF, and prepare a short list of eligible commercial banks for the program;
- (viii) based on the participating commercial banks due diligence reports on proposed subprojects, subloans, credit guarantee lines and innovation grants, prepare appraisal reports;
- (ix) prepare and operationalize a monitoring and evaluation system for the GIRAF that takes into account the various reporting requirements of DBM, MOF, Bank of Mongolia, Financial Regulatory Commission, and ADB/GCF;
- (x) provide support to the participating commercial banks in establishing and adoption of their ESMS, in line with ADB Safeguard Policy Statement and Mongolia national requirements;
- (xi) Support the commercial banks in strengthening capacities of environment and social personnel in ESMS implementation; Support the preparation of the low-carbon climate-resilient agribusiness development plan (LCADP) and low-carbon climate-resilient livestock value chain (LCLVC) together with project implementation technical assistance for output 2 and of related pre-feasibility studies, business plans and technical specifications for the priority investments;
- (xii) formulate for business investment and financial plans for each LVLVC component identified and to be supported by the GIRAF;
- (xiii) formulate and facilitate the adoption, through the GIRAF, of innovative and less onerous agriculture financial instruments that incorporate features such as more reasonable lower-than-market interest rates made possible by the concessional GCF financing, longer terms and grace periods, higher loan values, adjustable

- repayment period that takes into account the production cycle and its seasonality; and acceptable collateral substitutes;
- (xiv) formulate and adopt financially inclusive and legally enforceable partnership agreements between certified livestock herders, PUGs, and cooperatives for increased access to GIRAF loans, guarantees, and innovation grants;
- (xv) comply with ADB's financial reporting, audit, and environmental and social management system (ESMS) requirements; and
- (xvi) assist GIRAF manager in undertaking a pilot demonstration for the GIRAF's lending window 3 which will provide the financing to certified herders for their low-carbon and climate-resilient microenterprises and home-based businesses. The firm will assess the capacities of existing savings and credit cooperatives (SCCs) and other eligible nonbank financial institutions in the three targeted *aimags* and select a limited number of SCCs to implement and learn from the pilot demonstration. For this activity, the international firm will be strongly encouraged to associate with an internationally qualified NGO if it does not have the internal capacity or demonstrated track record in microfinance and microenterprise development.

116. **Detailed design and supervision for tranche 1.** Consulting firms will be engaged using QCBS method and full technical proposal procedure, with a quality–cost ratio of 90:10, for an estimated 1,065 person-months (165 international, 900 national) of consulting services. The consultants will have expertise in architectural, renewable energy and engineering design, and construction supervision of low-carbon, resilient, and energy-efficient (i) residential buildings; (ii) public facilities; (iii) urban services and networks; (iv) urban roads and drainage; (v) public amenities; (vi) urban design, greenhouse, and landscaping; (vii) large, irrigated perimeters; (viii) disease-free establishments; and (ix) laboratories. In *aimag* centers and inter-*soum* centers this will include energy-efficient, low-carbon heating, water supply, wastewater, electricity, communication, flood protection, drainage, roads, solid waste, and agribusiness park infrastructures and services, social infrastructures (such as sports complex, multi-purpose building, dormitory), and inter-*soum* centers road development. *Aimag* centers' *ger* areas street upgrading will include access to basic urban services (heating, water, sanitation, road) through technical units, and support housing improvement and urban land rationalization (including public and green spaces), based on a voluntary land swapping process. An affordable housing program will also be implemented in these selected *ger* areas with the State Housing Corporation (TOSK), this housing program will include community centers for the *ger* areas' residents.

117. The consultants will

- (i) carry out all surveys, field verification, studies, collection of data, and analyses needed to prepare the preliminary and detailed architectural and engineering designs and contract documents;
- (ii) develop solutions for an energy-efficient, low-carbon heating system;
- (iii) based on the feasibility studies, prepare the preliminary and detailed architectural and engineering designs, technical specifications, bill of quantities, cost estimates, and tender documents;
- (iv) provide support to the PIU for the supervision of construction in compliance with project designs and specifications;
- (v) develop the project risk management procedures; and
- (vi) act as resource persons for technical training and development activities.

118. **Resettlement and environment external monitoring.** A consulting firm will be engaged using quality-based selection method for an estimated 63 national person-months national of consulting services. The external monitor will:

- (i) assess compliance with government laws and regulations, the ADB Safeguard Policy Statement on environment, involuntary resettlement, and policy requirements outlined in the land acquisition and resettlement plans, the initial environmental examination, and environmental management plans;
- (ii) assess the effectiveness, impacts of the implementation of voluntary participation plans in *ger* areas development;
- (iii) assess the effectiveness of implementation of the ESMS by the participating commercial banks as part of the FIL component of the loan;
- (iv) determine whether the project activities have met the social and environmental safeguard requirements of the project; and
- (v) extract and highlight lessons for future environment and social safeguard policy formulation and project planning.

119. All data and analysis will be disaggregated by gender and ethnicity, if applicable. The external monitoring process will include the following activities:

- (i) review and verification of internal monitoring reports, as well as resettlement and voluntary participation in *ger* areas development completion reports of the PIU;
- (ii) impact assessment (e.g., restoration of incomes and living conditions) through quantitative and qualitative studies;
- (iii) gender-sensitive consultations with affected persons;
- (iv) recommendations on the land acquisition and voluntary participation process modification and adaptation measures;
- (vi) monitor effectiveness of the grievance redress mechanism (GRM); and
- (vii) recognize good practice and lessons learned.

120. **Feasibility study, detailed design, and supervision tranche 2.** Consulting firms will be engaged using QCBS method and full technical proposal procedure, with a quality–cost ratio of 90:10, for an estimated 1,246 person-months (193 international, 1,053 national) of consulting services.

## VII. SAFEGUARDS

121. In compliance with ADB's Safeguard Policy Statement (2009), the safeguard categories of project 1 are as follows.<sup>86</sup>

122. **Environment (category B).** The initial environmental examination and environmental management plans of project 1 were prepared in conjunction with the domestic general environmental impact assessment pursuant to the Mongolian Law on Environmental Impact Assessment (2012). An environmental assessment and review framework was prepared for the Program that will guide the screening and categorization, environmental assessment, and preparation and implementation of environmental safeguards for projects 2 and 3, pursuant to ADB's Safeguard Policy Statement and the Mongolian Law on Environmental Impact Assessment (2012). The initial environmental examination and comprehensive *aimag* environmental management plans were prepared based on the feasibility design of project 1. A detailed hydrological assessment will be undertaken during tranche 1 under the detailed design to ensure sustainable extraction and use of surface and ground water resources. The IEE and EMPs will be

<sup>86</sup> ADB. Safeguard Categories. <https://www.adb.org/site/safeguards/safeguard-categories>.

updated as required during the detailed designs. Potential environmental impacts will be site-specific. Short-term disturbances that will arise from the construction of the different project subcomponents are insignificant and reversible. Construction-related disturbances such as noise, dust, soil erosion, surface water sedimentation, solid and liquid waste pollution, worker camp disturbances, reduced local access, traffic safety, and worker and public safety can be managed with standard construction practices and guidelines. To ensure effective implementation, a capacity building program for government implementing agencies, Project implementation unit (PIU), and *aimag* level PIUs will be developed. The IEE, EARF, and ESMS have been disclosed on ADB's website.

123. **Climate change.** The program is expected to contribute significantly to the government's adaptation and mitigation agenda by (i) addressing climate change vulnerabilities of *aimag* and *soum* centers through improved climate-resilient infrastructure provision (adaptation); (ii) providing measures to support the animal husbandry sector to cope with the expected reduction in productivity of Mongolian rangelands due to climate change (adaptation); (iii) expanding carbon sequestration resulting from restored rangelands and avoided methane emissions (mitigation); (iv) better management of water resources (mitigation); and (v) supporting the urban sector through improved energy efficiency and the uptake of renewable energy in *aimag* and *soum* centers (mitigation). The specific impacts from the program are as follows (Climate Change Assessment and Climate Finance is in **Appendix 5**):

- (i) **Climate mitigation impact.** Through the program, 117.4 million tCO<sub>2</sub>e in net GHG emissions will be reduced,<sup>87</sup> of which 94.0 million tCO<sub>2</sub> in direct emission reductions from enhanced soil carbon sequestration, 17.2 million tCO<sub>2</sub>e in direct emission reductions from reduced methane and nitrous oxide emissions resulting from a reduction in herd sizes, 9.7 million tCO<sub>2</sub> in direct emission reductions from urban energy efficiency and renewable energy, 0.5 million tCO<sub>2</sub>e emission reductions from avoided transport and avoided methane emissions in wastewater treatment plants, and 4.0 million tCO<sub>2</sub> leakage emissions.
- (ii) **Adaptation beneficiaries.** Direct beneficiaries are 550,000 people, including about 54,000 vulnerable herder households, from improved climate resilience and environmental conditions in the targeted *aimags*; indirect beneficiaries 3.2 million.
- (iii) **Ecosystem restoration.** The program will support sustainable low-carbon management of an estimated 28.8 million hectares of rangeland in Mongolia.

124. The climate change assessment (Appendix 5) provides the calculation based on Intergovernmental Panel on Climate Change methodology,<sup>88</sup> and establish the climate change rationale for tranche 1 targeted *aimags*.

125. **Involuntary resettlement (category B).** A resettlement framework was prepared for the program to guide screening and categorization, assessment of impacts, and preparation and implementation of land acquisition and resettlement plans (LARPs) pursuant to ADB's Safeguard Policy Statement and Mongolia's national requirements on land acquisition and resettlement. A LARP for project 1 was prepared based on the feasibility designs and in line with the resettlement framework. The LARP will be updated upon completion of the detailed design of the project and submitted to ADB for review and concurrence prior to any land acquisition and resettlement

<sup>87</sup> The 40-year totals are 121,426,585 tCO<sub>2</sub>e (total emission reduction), 3,980,176 tCO<sub>2</sub>e (leakage emissions), and 117,446,409 tCO<sub>2</sub>e (net emission reduction). Leakage emissions were estimated at the request of GCF during the process of GCF approval.

<sup>88</sup> The calculations are very conservative. The program's estimate is equal to 4 tCO<sub>2</sub>/ha over the project's lifetime. The recently approved GCF project in Kyrgyz Republic (FP116) also contained a rangeland management component, with an estimated mitigation of more than 23 tCO<sub>2</sub>/ha over the project's lifetime.

implementation and award of civil works contract. Project 1 will impact 26 residential households and three business entities. The total affected land area is 2,181 square meters in 21 land parcels of which 20 would be partially affected and 1 fully affected. The institutional arrangements and grievance redress mechanisms for resettlement implementation established under project 1 will be continued for the subsequent projects. The PIU and *aimag* level project implementation units will be supported by consultants in the preparation and implementation of LARPs. MED is committed to work closely with ADB to ensure compliance with ADB requirements on involuntary resettlement.

**126. Framework for voluntary participation in *ger* area development.** The *ger* areas that lack basic urban infrastructure and adequate streets, will be developed street by street, in line with overall urban development planning of the *aimag* centers. Project 1 will provide access to urban services and better neighborhood living conditions through household connections and adequate street development. The *ger* area development will be based on the key principle that participation of beneficiary households will be purely on a voluntary basis, without forced participation. A framework for voluntary participation has been prepared consistent with ADB's Safeguard Policy Statement requirements on negotiated land acquisition and national requirements. Voluntary participation plans will be prepared and implemented for each of the street development subprojects to be taken up in the *aimag* centers and submitted to ADB for review and concurrence prior to award of civil works contract.

**127. Indigenous peoples (category C).** The transaction technical assistance conducted an analysis of ethnic minority issues, focusing on the cases of Kazakh, Khoton, Tuva, and other ethnic groups.<sup>89</sup> The analysis found that no differentiated impact is expected on the ethnic groups in project 1. They will all equally benefit from the project provided sufficient communication and community engagement activities are put in place, as detailed in the social development action plan, project consultation and participation plan, and stakeholder communication strategy. An indigenous peoples planning framework was prepared for the MFF to guide the preparation of future subprojects.

**128.** An environmental and social management system (ESMS) compliant with the Safeguard Policy Statement and the national requirements of Mongolia will be adopted, prior to loan disbursement, by each participating bank. The ESMS arrangement, prepared based on a due diligence of the financial intermediaries outlines the (i) procedures to screen, assess, and address environment and social impacts from the FIL component, including provisions for core labor standards adherences; (ii) institutional capacities required for implementing ESMS provisions; (iii) capacity building and training requirements; and (iv) monitoring and reporting requirements to ensure effective implementation of ESMS. The participating financial intermediaries will ensure that the FIL component will exclude any subproject classified as category A for environment safeguards, and any subproject classified as category A or B for involuntary resettlement and indigenous peoples safeguards.

**129. Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement, ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

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<sup>89</sup> ADB. [Mongolia: Preparing the Aimag and Soum Centers Regional Development Investment Program.](#)

130. ADB projects are required to be compliant with ADB's Safeguards Policy Statement and ADB's Social Protection Strategy (2001). Given reports alleging the possibility that certain solar PV modules may contain polysilicon associated with concerns of unacceptable labor practices, ADB is, in coordination with development finance institution partners, in the process of undertaking certain of the following additional measures, which while not eliminating all risks, will help to provide some practicable mitigation: (i) application of enhanced due diligence; (ii) contractors and suppliers to make clear attestations and/or representations that, to their knowledge, their supply chains do not involve forced labor; (iii) work to develop a positive list of contractors and suppliers that ADB has confirmed, in coordination with ADB's development finance institution partners, are appropriate to be named on such positive list; and (iv) for specific projects or subprojects, require that all solar modules are to be sourced from said positive list or require their attestations as described in (ii) (and require the same from sub-contractors and suppliers and the right to audit through the review of procurement documentation and, if considered necessary, physical inspection of installed solar systems of the project).

### VIII. GENDER AND SOCIAL DIMENSIONS

131. **Social impacts.** Project 1 under output 1 will pilot a street redevelopment model in *ger* areas of Bayan-Ulgii, Khovd, and Uvs *aimag* centers to improve *ger* areas households' access to urban service, public amenities, and affordable housing. The replication of project 1 pilots over the program in six *aimag* centers (including project 1 three *aimag* centers) will improve the quality of life and health of about 8,500 households – that is around 30% of the total *ger* area population of the six targeted *aimag* centers. Urban interventions in the inter-*soum* centers also include positive social impacts such as (i) improved health of *soum* center residents with the provision of WASH facilities, (ii) improved dormitory environment and learning conditions for all children leading to: (i) improved enrolment of herders' children, (ii) prevention of family separation during the school year-which also causes workforce scarcity in the livestock breeding sector (increasing herders' vulnerability), and leads to increased unemployment in the settlement, (ii) savings in the household budget previously spent on housing and transportation, and (iii) development of sports and other activities. The MFF will target six inter-*soum* centers; each inter-*soum* has a population of 5,000 inhabitants in average and interventions in these inter-*soum* centers will both benefit the urban population (*soum* center residents) and the surrounding rural population using the inter-*soum* centers' services.

132. Outputs 2 and 3 are expected to lead to (i) reduction in land disputes and social conflicts between herders through improved rangeland management, and protection of PUGs from mining operations and other land uses, through the signing of long-term RUAs between PUGs and *soum* government; (ii) improved herders' participation in local governance;<sup>90</sup> (iii) provide access to basic community needs and improved resilience to extreme events, through the financing of facilities and equipment, for PUGs to engage in sustainable rangeland management; (iv) improved livelihoods of herders, through support to herder cooperatives and improved product quality (training, product certification systems, and activities related to animal health), for improved marketing of products at higher prices;<sup>91</sup> and (v) creation of new job opportunities in the agro-industrial park industries, irrigated perimeters, and support to the development of SME agribusiness through construction of incubators in *aimag* and inter-*soum* centers. These components will highly benefit herder households of Bayan-Ulgii, Khovd, and Uvs (total of 17,607

<sup>90</sup> The Green Gold program has demonstrated that the PUG system is serving as an institutional platform which enabled herders to influence local government's decision-making, resulted in higher herder's representation in the local citizens' *khural* and improved local and *soum* development funds access, or land access for rangeland management.

<sup>91</sup> The new marketing opportunities and increased value-added by animal will at least compensate for the loss of revenue from reduction in herd size.

herder households), of which today, two-thirds earn below the subsistence level income in the three targeted *aimags*.<sup>92</sup> They will also create employment in the inter-*soum* and *aimag* centers where unemployment is high. It is estimated that over the program output 3 will support the creation of 11,400 green jobs through its three lending windows and guarantee component, creating in return more than 155,000 indirect jobs.<sup>93</sup>

133. **Gender.** The project is classified as *effective gender mainstreaming*. The output 1 will highly contribute to gender equality and women's empowerment through enhancing women's access to basic rural and urban infrastructure and services, economic and financial resources, and enhancing women's voices and rights. Outputs 2 and 3 will lead to (i) improved rangeland management that empowers women and protects their rights over pastureland; (ii) elaboration of participatory and inclusive herd management plan including a plan for improved female participation and financing of female herders' needs through CPP; (iii) female herders' social and political empowerment through participation in PUGs, cooperatives, and SCCs; and (iv) creation of job opportunities benefiting women in the *aimag* and *soum* centers.

134. **European Investment Bank's environmental and social standards**

- (i) implement and operate the project in compliance with environmental and social standards, and procure that the contracts, which it signs with contractors, will contain provisions that require contractors to comply with the ILO standards, as well as with occupational health and safety standards;
- (ii) actively monitor for its own construction sites the respect by its contractors of the provisions mentioned in Article (e)(i) above;
- (iii) The grievance mechanism on labor issues and occupational health and safety is available to contractor's staff;
- (iv) Ensure that the occupational health and safety and labor standard issues as well as the grievance mechanisms are independently reviewed at least on annual basis;
- (v) obtain, maintain, and comply with requisite environmental or social approvals for the project;
- (vi) not use the Bank's funding for subprojects that require an Environmental and Social Impact Assessment Study according to national or the European Union legislation without/prior to such study being finalized and approved by the competent authority; and
- (vii) not use the Bank's funding of a subproject for program components that have a potential to affect a site of nature conservation importance that is protected under national legislation or international agreements, until the time the competent authority confirms, or an equivalent assessment satisfactory to the Bank is provided, that the component does not have a significant negative impact on the site and such evaluation is included in an EIA report.

<sup>92</sup> National Statistical Office of Mongolia. 2018. *Mongolian Statistical Yearbook 2017*. Ulaanbaatar.

<sup>93</sup> Based on International Finance Corporation, indirect jobs ranged from seven times as many direct jobs which mostly benefited the unskilled and the poor. International Finance Corporation. 2013. [IFC Jobs Study: Assessing Private Sector Contributions to Job Creation and Poverty Reduction](#). World Bank, Washington, DC.

### SOCIAL AND GENDER ACTION PLAN OF TRANCHE 1

Objectives and Activities	Targets and Indicators	Responsible Agencies	Timeframe	Budget
<b>Output 1: Climate-resilient, low-carbon, and attractive <i>aimag</i> and <i>soum</i> centers developed</b>				
1.1 Introduce eco-friendly solutions for heating, water, and sanitation systems for streets redevelopment pilots, including female-headed households	1.1.1. 80% of residents of the targeted pilot streets with improved water, sanitation, and heating systems (2021 baseline: 0) 1.1.2. 80% of female-headed households with improved water, sanitation, and heating systems (2021 baseline: 0) 1.1.3 100% of secondary occupants of plots of targeted streets and 100% of female-headed households are given priority to apply for rent/rent-to-own/purchase of housing units (2021 baseline: 0) 1.1.4 100% households buying an apartment receive information on women's rights to register their name on the asset property right certificate (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• MED</li> <li>• MCUD</li> <li>• Social, gender, and community engagement specialists</li> </ul>	2025–2029 2026: 0% 2027: 20% 2028: 50% 2029: 100% <ul style="list-style-type: none"> <li>• Information campaign in 2025–2029</li> <li>• Female ownership target to be assessed in 2028</li> </ul>	Project construction and operation funds
1.2 Introduce IEC campaign on eco-friendly technology to ensure appropriate use of technologies and optimize project benefits	1.2.1 Conduct an IEC campaign with all beneficiary households; at least 35% of recipients are low-income households <sup>a</sup> (2021 baseline: 0) and 50% are women (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• MED</li> <li>• MCUD</li> <li>• Social, gender, and community engagement specialists</li> </ul>	2025–2029	Project management support contract <sup>b</sup>
1.3 Ensure participation of low-income households, ethnic groups, and women in urban the planning	1.3.1. Ensure no less than 50% of participants are women in all mixed consultations and conduct at least two women-only workshops and/or focus group discussions on the design of the street pilots (2021 baseline: 0) 1.3.2. Information flyers in Mongolian and other ethnic group languages spoken in the local area prepared and distributed where necessary (2021 baseline: 0) <sup>c</sup> 1.3.3 Consultations with 80% of ethnic minority groups households in Ulgii (2021 baseline: 0) 1.3.4. Gender-sensitive public space and facilities constructed <sup>d</sup> (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• MED</li> <li>• MCUD</li> <li>• Social, gender, and community engagement specialists</li> </ul>	2025–2029 2026: 25% 2027: 50% 2028: 75% 2029: 100%	Project construction and operation funds and project management support contract <sup>b</sup>
1.4 Ensure participation of low-income households,	1.4.1. Consultation and information sharing to all households on the constitution of street development councils, including low-income households and ethnic groups (particularly minority ethnic groups present in both Ulgii and	<ul style="list-style-type: none"> <li>• MED</li> <li>• MCUD</li> <li>• Social, gender, and</li> </ul>	2025–2029	Project management support contract <sup>b</sup>

Objectives and Activities	Targets and Indicators	Responsible Agencies	Timeframe	Budget
ethnic groups, and women in street development councils and in the planning and management of the community center	<p>Khovd) with at least 65% of households participating low-income (2021 baseline: 0)</p> <p>1.4.2. Information flyers in Mongolian and other ethnic group languages spoken in the local area prepared and distributed where necessary (2021 baseline: 0)</p> <p>1.4.3. At least 30% of primary groups' leaders forming the street development councils are from low-income households<sup>e</sup> (2021 baseline: 0)</p> <p>1.4.4. At least 50% of chairperson or vice-chairperson of street development councils are women (2021 baseline: 0)</p> <p>1.4.5. At least 45% of trained members of street development councils are women (2021 baseline: 0)</p> <p>1.4.6. Street development councils consult at least 80% of low-income households and 80% of minority ethnic groups in Ulgii on planning and management of the community center (2021 baseline: 0)</p>	community engagement specialists		
1.5 All social amenities, rehabilitation works, and WASH facilities, include gender-, age-, and disability-responsive features	1.5.1. All WASH facilities implemented are responsive to gender, early age, and special needs which includes separate male and female facilities, ramps and facilities adapted to wheelchairs, and toilets and washbasins adapted to early age for kindergartens (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• Social, gender, and community engagement specialists</li> <li>• Engineering firm and/or architectural engineers</li> </ul>	<ul style="list-style-type: none"> <li>• 2025: detailed design completed</li> <li>• 2029: 100% of works completed</li> </ul>	Project construction and operation funds and project management support contract <sup>b</sup>
<b>• Output 2: Climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented</b>				
2.1 Communication and consultations with low-income and/or vulnerable households to ensure their inclusion in PUGs and RUAs and protect their right to pastureland	<p>2.1.1. 100% of herder households of targeted <i>soums</i> (subunits of an <i>aimag</i>) remain included within PUGs (2021 baseline: 100%)<sup>f</sup></p> <p>2.1.2. 25% of PUGs of Bayan-Ulgii, Khovd, and Uvs sign updated RUAs recognized by the Agency for Land Management and Administration, Geodesy and Cartography to protect the rights to pastureland of all herder households, particularly the low-income herder households (2021 baseline: 17.5% of PUGs)</p> <p>2.1.3. Information flyers on the PUG/RUA/PIHMP/PPP approach and steps in Mongolian and other ethnic group languages spoken in the local area prepared and distributed, where necessary. (2021 baseline: 0)</p>	<ul style="list-style-type: none"> <li>• MED</li> <li>• MOFALI</li> <li>• PIU</li> <li>• Social, gender, and community engagement specialists</li> <li>• PUGs</li> </ul>	<ul style="list-style-type: none"> <li>• Information flyers by 2025</li> <li>• Other targets by 2029</li> </ul>	Project management support contract <sup>b</sup>
2.2 Identify female-headed households in each PUG area	2.2.1. 100% of RUA updated and/or signed under the project include an annex where both spouses of signatory households sign the RUA (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• MED</li> <li>• MOFALI</li> <li>• PIU</li> </ul>	2029	Project management support contract <sup>b</sup>

Objectives and Activities	Targets and Indicators	Responsible Agencies	Timeframe	Budget
and ensure they receive sufficient information on benefits of PUG and RUA, inform women on PUG and RUA importance and increase women participation and leadership in the PUG system, and ensure both spouses of all herder households sign RUAs	2.2.2. At least 20% female leadership in PUG system (2021 baseline: 14.4% in Green Gold registered PUGs) <sup>g</sup>	<ul style="list-style-type: none"> <li>• Social, gender, and community engagement specialists</li> <li>• PUGs</li> </ul>		
2.3 Communication and consultations with women, low-income and/or vulnerable households, and ethnic groups for the elaboration of the PIHMP	2.3.1. 60% of PUG households are consulted for the elaboration of PIHMP, including 60% of low-income households and 60% of ethnic groups, where relevant (2021 baseline: 0) 2.3.2. 40% of participants in awareness sessions, workshops, and training related to elaboration of PIHMP are women; or at least one women-only consultation in each PUG (2021 baseline: 0) 2.3.3. 100% of PIHMPs include specific sections on needs of women and low-income households and list priority projects for these populations (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• MED</li> <li>• MOFALI</li> <li>• PIU</li> <li>• Social, gender, and community engagement specialists</li> <li>• PUGs</li> </ul>	2029	Project management support contract <sup>b</sup>
2.4 Projects financed through CPP benefit women and low-income households	2.4.1. At least 60% of CPP-financed projects benefit low-income households <sup>h</sup> (2021 baseline: 0) 2.4.2. At least 50% of CPP-financed projects benefit women <sup>h</sup> (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• MED</li> <li>• MOFALI</li> <li>• PIU</li> <li>• Social, gender, and community engagement specialists</li> <li>• PUGs</li> </ul>	2025–2029	Project management support contract <sup>b</sup>
2.5 Sustainable and PUG-based cooperatives are inclusive of low-income herder	2.5.1. Sustainable and PUG-based cooperatives include 70% of herder households of complying PUGs <sup>i</sup> (2021 baseline: 0) 2.5.2. At least 40% of women in cooperatives' annual all members meeting <sup>j</sup> 2.5.3. 30 PUG and/or herder group-based cooperatives established (5 <i>aimag</i> /inter- <i>soum</i> centers; 3 <i>aimag</i> cooperative organization; and 1	<ul style="list-style-type: none"> <li>• MED</li> <li>• MOFALI</li> <li>• PIU</li> <li>• Social, gender, and</li> </ul>	<ul style="list-style-type: none"> <li>• Participation of women in annual all members meeting to</li> </ul>	Project management support contract <sup>b</sup>

Objectives and Activities	Targets and Indicators	Responsible Agencies	Timeframe	Budget
households and women	regional cooperative organization) (2021 baseline: 0) with at least 30% of female leadership in cooperatives (2021 baseline: 23% in the cooperatives registered by the Green Gold Project) <sup>9</sup>	community engagement specialists	be assessed in 2025–2029 • Female leadership in cooperatives to be assessed in 2025–2029	
<b>• Output 3: Accessible financing for low-carbon and climate-resilient livestock and agrobusiness value chains created (financial intermediation loan component)</b>				
3.1 Financial intermediary is designed to foster socioeconomic development of local communities	3.1.1. One environmental and social management system developed and approved for the three financial intermediaries of the program (2021 baseline: 0) 3.1.2. 100% of participating enterprises in the livestock sector established a form of cooperation with sustainable herder organizations (partnership agreements or sales and purchase agreements) (2021 baseline: 0) 3.1.3. Criteria to prioritize proposals of enterprises include commitment/measures to hire local workforce (2021 baseline: 0)	• MED • GIRAF manager	2025–2029	Project management support contract <sup>b</sup>
3.2 Gender analysis included in assessment of private sector proposals in response to requests for proposals for targeted loans	3.2.1. Criteria for assessing and prioritizing private sector proposals include (i) enhancement of employment opportunities for women—action plan for female recruitment; (ii) gender-responsive physical facilities, including separate toilet and changing facilities for female and male employees; and (iii) other gender and social benefits, such as gender-sensitive and gender-friendly working environments (2021 baseline: 0) 3.2.2. 40% of SMEs investing in pre-processing facilities are led by women (2021 baseline: 0)	• MED • GIRAF manager • PIU • Social, gender, and community engagement specialists	2025  Female leadership in SMEs to be assessed in 2024–2028	Project management support contract <sup>b</sup>
3.3 All policies and practices of participating enterprises are consistent with national legislations and Law on Promotion of Gender Equality of Mongolia	3.3.1. Commitment to respect national legislations and Law on Promotion of Gender Equality of Mongolia signed and is part of participating enterprises' proposals (2021 baseline: 0) 3.3.2. Training conducted for participating enterprises on respective workplace free of sexual harassment and gender-based violence (2021 baseline: 0) 3.3.3. No court case against participating enterprises related to gender issues (2021 baseline: 0)	• MED • GIRAF manager • Participating enterprises • Social, gender, and community engagement specialists	2024–2028	Project management support contract <sup>b</sup>
<b>• Output 4. Institutional capacity and policies for low-carbon and climate-resilient agro-territorial development strengthened</b>				

Objectives and Activities	Targets and Indicators	Responsible Agencies	Timeframe	Budget
4.1 Gender-responsive capacity building and institutional strengthening	4.1.1. By 2022, sex-disaggregated project performance management system established (2021 baseline: 0) 4.1.2. By 2023 pre-feasibility, business plan, and technical specification template and training (of which 40% are attended by women) for investments supported by the GIRAF are developed (2021 baseline: 0) 4.1.3. At least 35% of PIU staff are female (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• ADB</li> <li>• Implementing agencies</li> <li>• PIU</li> </ul>	2025–2029	Project management support contract <sup>b</sup>
<b>• For outputs 1–3: Generating job opportunities</b>				
5.1aGenerate 300,000 person-months, including 100,000 person-months of skilled employment, at the construction stage and for operation and maintenance, and ensure women benefit from employment opportunities  5.1bEnsure timely advertisement of job vacancies; contractors give priority to local people (pilot street and/or <i>soum</i> center residents), women, ethnic groups, and low-income people for hiring in civil works	5.1.1. 20% of jobs at construction phase are first made available to women, and 20% of jobs are actually filled by women (2021 baseline: 17.2%) 5.1.2. 20% of jobs are first made available to low-income people (2021 baseline: 0) 5.1.3. 60% of projects financed under CPP use local workforce, of which 60% are from low-income households (2021 baseline: 0) 5.1.4. Type of publicity and/or job advertisement done by contractors (i.e., posters, bulletin boards, and/or public boards notices in the pilot streets areas and/or <i>soum</i> centers) (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• Implementing agencies</li> <li>• Social, gender, and community engagement specialists</li> </ul>	2024–2029	Project construction and operation funds
5.2 Ensure provision of new jobs to local workforce including low-	5.2.1. 176 businesses and 250 microenterprises benefit from the GIRAF support creating 3,850 direct green jobs, of which 300 are skilled jobs; 40% of both skilled and unskilled jobs are filled by women, 40% of unskilled jobs are filled by low-income households (2021 baseline: 0)	<ul style="list-style-type: none"> <li>• Implementing agencies</li> <li>• Participating enterprises</li> </ul>	2024–2029 GIRAF-generated	Project management support contract <sup>b</sup>

Objectives and Activities	Targets and Indicators	Responsible Agencies	Timeframe	Budget
income households and women, and skills and knowledge of low-income households and women increased at operation phase	5.2.2. 3 incubators constructed in <i>aimag</i> centers and 2 incubators in inter- <i>soum</i> centers with a total of 80 workspaces and 40% of workspaces provided to women-led businesses (2021 baseline: 0) 5.2.3. At least 30% of recipients of training programs for entrepreneurs in <i>soum</i> cooperatives and SMEs are women (2021 baseline: 0) 5.2.4. 1,400 hectares of irrigated perimeters generating 80 jobs of which 20% go to women (2021 baseline: 0)		jobs: 2025: 0% 2026: 10% 2027: 30% 2028: 65% 2029: 100%  • Incubators constructed and filled at 50% in 2025 and 100% in 2026 • 25% of irrigated perimeters built in 2026, 50% in 2027, and 100% in 2028	
• <b>For outputs 1–3: Measures to reduce potential risks, and strengthen management</b>				
6.1 Appoint a social and gender specialist at PIU level	6.1.1. Social and gender specialist engaged in the PIU with 102 person-months, and in each <i>aimag</i> PIU with 25.5 person-months (2021 baseline: 0) 6.1.2. All PIU staff trained by the social and gender specialist on gender-specific needs and priorities, and sex-disaggregated data collection and reporting (2021 baseline: 0)	• Implementing agencies • PIU	2024	Project management support contract <sup>b</sup>
6.2a Conduct IEC campaign on HIV/AIDS/STI, sexual harassment, drugs, and human trafficking to contractors and workers 6.2b Public health and HIV prevention awareness conducted to	6.2.1. 100% of contractors and workers provided awareness training on HIV/AIDS/STI, drugs, and human trafficking prevention (2021 baseline: 0%) 6.2.2. Public health and HIV/AIDS/STI prevention awareness participants (disaggregated by sex), 50% women, 20% low-income people (2021 baseline: 0%) 6.2.3 Core labor standards are included in all civil works contracts (2021 baseline: 0)	• PIU • Implementing agencies and contractors • Social, gender, and community engagement specialists	2026–2029	Project management support contract <sup>b</sup>

Objectives and Activities	Targets and Indicators	Responsible Agencies	Timeframe	Budget
community residents 6.2c Ensure implementation of core labor standards (i.e., equal pay for equal work, no child labor, etc.), and safety guidelines are stated in the contracts				
6.3 GRM and monitoring system to track possible complaints established	6.3.1. Women are appropriately informed about the mechanism (45% minimum female attendance to any meeting related to presentation of GRM) (2021 baseline: 0)	• PIU	GRM system put in place in 2024	PIU

ADB = Asian Development Bank; CPP = community participation in procurement; GIRAF = Green and Inclusive Regional Agribusiness Fund; GRM = grievance redress mechanism; IEC = information, education, and communication; m<sup>2</sup> = square meter; MCUD = Ministry of Construction and Urban Development; MED = Ministry of Economy and Development; PIHMP = participatory and inclusive herd management plan; PIU = project implementation unit; PUG = pasture user group; RUA = rangeland use agreement; SMEs = small and medium-sized enterprises; STI = sexually transmitted infection; TOSK = State Housing Corporation; WASH = water, sanitation, and hygiene.

<sup>a</sup> According to a socioeconomic survey conducted in September 2019—in Ulgii *bagh* (subdistrict) 13 targeted street, 40.7% of households do not reach the minimum standard of living; in Khovd *bagh* targeted street, 31.4%; and in Uvs *bagh* 4 targeted street, 37.7%. Per Decree No. A/12 of 22 January 2019, the minimum standard of living in 2019 is MNT190,700 for the western region, including Bayan-Ulgii, Khovd, Uvs *aimags*.

<sup>b</sup> Project consultants will support the MCUD, implementing agencies, and PIU to conduct the proposed actions and monitor the indicator. An allocation of \$341,700 will be included in the consulting contract to fund the social and gender action plan activities.

<sup>c</sup> The list of ethnic groups are in Part IV, Section B of Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents of the report and recommendation of the President).

<sup>d</sup> Gender-sensitive public space refers to urban designs where women feel comfortable to use the public space and is adapted to both genders' needs and demands, in a specific societal context. Given the cultural aspects (women of a certain country may be comfortable in a type of urban design, while the same design may be excluding women in another society); women are to be consulted at design stage. For instance, in France, a gender-sensitive urban design guidebook published by Paris Municipality identifies specific features related to topics such as mobility, appropriation of public space, or sense of security to promote designs adapted to women's needs. Examples of gender-sensitive urban designs in the French context include larger sidewalks (for people walking with strollers or with dependent elderly people, who are more often women), quality public lighting and signage, and well-thought design of bus stops for women to feel comfortable waiting, benches in squares, etc. Consultation is key to identify design priorities for women in the targeted *aimags* and *soums*.

<sup>e</sup> According to a socioeconomic survey conducted in September 2019—in Ulgii *bagh* (subdistrict) 13 targeted street, 40.7% of households do not reach the minimum standard of living; in Khovd *bagh* targeted street, 31.4%; and in Uvs *bagh* 4 targeted street, 37.7%. Per Decree No. A/12 of 22 January 2019, the minimum standard of living in 2019 is MNT190,700 for the western region, including Bayan-Ulgii, Khovd, Uvs *aimags*.

<sup>f</sup> According to the National Federation of Pasture User Groups statistics, 100% of herder households are included in the PUGs of the targeted *soums* of Tranche 1. However, qualitative interviews indicate these results may be overestimated. Data will be collected and checked by the National Federation of Pasture User Groups at the beginning of the project.

<sup>g</sup> Swiss Agency for Development and Cooperation. 2021. [\*Sustainably Managed Pastures and Healthy Animals: Mongolia's 'Green Gold'\*](#).

<sup>h</sup> Based on what is indicated in the CPP project sheets (requests for financing) and validated by the project consultants.

Source: ADB.

## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

### A. Program Design and Monitoring Framework

**Table 16: Design and Monitoring Framework for the Investment Program**

Impact the Investment Program is Aligned with Green development, regional development sustainability, quality of life, and human development achieved (Vision 2050: Long-Term Development Policy of Mongolia) <sup>a</sup>			
Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
<b>Outcome</b> Green and inclusive agro-territorial development advanced	<b>By 2034</b> a. 3.036 million tons of carbon dioxide equivalent per annum avoided through soil carbon sequestration and methane, nitrous oxide, and carbon dioxide emissions reduced (2021 baseline: 0) (OP 3.1) b. 28.8 million ha of rangeland improved and more sustainably managed (2021 baseline: 0) (OP 3.3.3) c. Climate and disaster resilience of 550,000 people strengthened (2021 baseline: 0) (OP 3.2, 3.3, 4.1) d. 500 SMEs or cooperatives and 1,000 microenterprises established under the GIRAF (2021 baseline: 0) (OP 1.2, 2.1, 5.2.3) e. 11,400 direct green jobs created, of which 40% are filled by women (2021 baseline: 0) (OP 1.2, 2.1) f. Number of livestock heads in targeted areas decreased by 2.5% per annum (2021 baseline: 2.5% per annum growth) g. Wastewater treatment efficiency in targeted <i>aimag</i> and <i>soum</i> centers improved to 90% (2021 baseline: 50% in targeted <i>aimag</i> centers and 0% in targeted <i>soum</i> centers) (OP 4.3)	a–b. ALAMGAC and National Agency for Meteorology and Environmental Monitoring externally verified MRV report, and MOFALI annual report on livestock and land use c. ALAMGAC local land officer and <i>soum</i> government report d–e. Audited financial and operational reports from beneficiary enterprise or qualified commercial bank, and oversight reports from FRC f. National Statistics Office annual data on livestock g. <i>Aimag</i> water and wastewater operating companies' measurement of biological oxygen demand removal in the effluent discharge in compliance with Mongolian standards MNS 4943:2011	R: Changed government priorities shift resources away from supporting <i>aimag</i> development A: EIB inputs and outputs timely delivered
<b>Outputs</b> 1. Climate-resilient, low-carbon, and attractive <i>aimag</i> and <i>soum</i> centers developed	<b>By 2033</b> 1a. 35 km of urban roads built and 215.9 km of connection roads improved; water supply capacity increased by 3,000 cubic meters per hour; 25 km of water supply pipes laid; 35 km of sewerage network laid; 16 km of district heating pipes laid; 135 km of power lines built; 20 km of drainage built; 173.5 km of optical cable laid; 10.2 megawatts from solar panels installed; 10 km flood protection infrastructure built; and 1,230 ha of solid waste dump site cleared (2021 baseline: 0) <sup>b</sup> (OP 4.1.2) 1b. Existing open dump site cleaned and closed, and municipal as well as agrobusiness solid waste segregated and safely disposed of at new landfills (that includes recycling facilities for livestock and	1a–h. Mongolia state special inspection monitoring report, and <i>aimag</i> and <i>soum</i> governments' report on urban construction	R: Reduced cooperation and coordination among the project key stakeholders R: Rising world prices of energy and construction materials significantly increase the project's investment and operation and

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	<p>agricultural waste) in 12 <i>aimag</i> and <i>soum</i> centers (2021 baseline: 0) (OP 4.1.1)</p> <p>1c. Pilot for <i>ger</i> area streets upgrading implemented and replicated (2021 baseline: 0) (OP 3.1.3, 4.1.2)</p> <p>1d. 150 ha of agro-industrial parks<sup>c</sup> developed and 12 agribusiness incubators operating in targeted locations, with at least 40% of workspaces allocated to women-led and/or owned businesses (2021 baseline: 0) (OP 5.2.3)</p> <p>1e. 12 domestic WWTPs with a total capacity of 30,000 m<sup>3</sup>/d meet Mongolian standards; and 12 agro-industrial park WWTPs with a total capacity of 12,500 m<sup>3</sup>/d constructed and/or upgraded (2021 baseline: 0) (OP 4.1.2, 4.3.1)</p> <p>1f. Heat metering and associated consumption-based tariffs implemented in targeted <i>aimag</i> and <i>soum</i> centers (2021 baseline: 0) (OP 4.1.1, 6.2)</p> <p>1g. Smart land management and climate-responsive digital center built (2021 baseline: 0) (OP 3.3.3, 4.2)</p> <p>1h. At least 6 education facilities improved with gender-sensitive<sup>d</sup> WASH facilities<sup>e</sup> (2021 baseline: 0) (OP 2.4.1, 4.1.2)</p> <p>1i. 300,000 person-months of employment opportunities during project construction created, of which 20.0% are filled by women (2021 baseline: 17.2% of women in the construction sector) (OP 1.2, 2.1)</p>	<p>1i. Contractors' annual employment records</p>	<p>maintenance costs</p> <p>A: Significant interest from herders' cooperatives and private sector to participate in project activities</p> <p>A: Compliance with the program road map</p> <p>A: Timely delivery of EIB inputs and outputs</p>
2. Climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented	<p><b>By 2033</b></p> <p>2a. At least 180 PUGs and herder groups signed (by both spouses) the updated RUA and sustainable and inclusive pasture management plan and benefited from CPP activities, with 45% female participation (2021 baseline: 0) (OP 5.1, 6.2.4)</p> <p>2b. 60 PUG-based cooperatives established, with at least 30% led by women;<sup>f</sup> and 12 <i>aimag</i> and inter-<i>soum</i> centers, 6 <i>aimags</i>, and 1 regional cooperative organized (2021 baseline: 23%) (OP 2.3, 5.1)</p> <p>2c. 10 disease-free establishments and 12 <i>aimag</i>-, and inter-<i>soum</i>-level veterinary laboratories built (2021 baseline: 0) (OP 5.2.4)</p> <p>2d. Primary works for the irrigated perimeter of at least 2,500-ha fodder and crop farms built, including ecosystem-based water harvesting and conservancy solutions (2021 baseline: 0) (OP 3.3.2, 3.3.5, 5.1.1)</p> <p>2e. 45,000 person-months of employment opportunities during project construction created, of which 20% are filled by women (2021 baseline: 0)</p>	<p>2a. <i>Aimag</i> and <i>soum</i> governments' monitoring data on land management, and ALAMGAC RUA registration data system</p> <p>2b. <i>Aimag</i> and <i>soum</i> governments' reports, and MOFALI annual reports on cooperatives</p> <p>2c–d. <i>Aimag</i> and <i>soum</i> governments' reports on livestock and rural development, and Mongolia State Special Inspection monitoring reports</p> <p>2e. Contractors' annual employment records</p>	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	(OP 1.2)		
3. Accessible financing for low-carbon and climate-resilient livestock and agrobusiness value chains created (financial intermediation loan component)	<p><b>By 2033</b></p> <p>3a. Under window 1, loans, subloans, or loans plus credit risk guarantees of at least \$50 million provided for SME investments, of which at least 30% led by women, in targeted <i>aimag</i> and inter-<i>soum</i> centers, through PUGs and herder groups (2021 baseline: 0)<sup>g</sup> (OP 1.3.2, 5.2.3)<sup>h</sup></p> <p>3b. Under window 2, loans, subloans, or loans plus credit risk guarantee of at least \$60 million provided for medium and large investments in targeted <i>aimag</i> and inter-<i>soum</i> centers, through PUGs and herder groups (2021 baseline: 0) (OP 1.3.2, 5.2.3)<sup>i</sup></p> <p>3c. Under window 3, 1,000 micro green loans approved (2021 baseline: 0) (OP 1.3.2)</p> <p>3d. 100 partnership agreements signed with SMEs, of which at least 30% led by women, investing in pre-processing facilities (2021 baseline: 0) (OP 2.1.3, 5.2.3)</p> <p>3e. At least \$5 million reimbursable grants from Green Innovation Grant Facility provided to qualified investors to promote green and inclusive innovations in agribusiness (2021 baseline: 0) (OP 5.2.3)</p>	3a–e. Audited financial and operational reports from beneficiary enterprises or qualified commercial banks, and oversight reports from FRC	
4. Institutional capacity and policies for low-carbon and climate-resilient agro-territorial development strengthened	<p><b>By 2032</b></p> <p>4a. By 2032, at least 180 (PUG-level) PIHMPs and at least 60 (<i>soum</i>-level) low-carbon and climate-resilient agribusiness development plans developed and consolidated into at least 10 <i>aimag level</i> and 3 regional-level agro-territorial development plans (2021 baseline: 0) (OP 6.1.2)</p> <p>4b. By 2025, traceability and certification systems at herder-, PUG-, and cooperative-levels operational, with 40% of targeted herder groups and PUGs certified (2021 baseline: 0) (OP 5.2.4)</p> <p>4c. By 2032, at least 180 community-based animal health workers trained, of which 95% report improved knowledge and skills on veterinary services and 50% are women (2021 baseline: 0) (OP 5.3.1)</p> <p>4d. By 2032, 6 national policies for rangeland and agricultural management and green territorial development prepared and implemented, and 2 policy recommendations included in the Mongolian Livestock 2 program (2021 baseline: 0) (OP 3.3.2, 6.1.2)<sup>j</sup></p> <p>4e. By 2025, business plan and technical specification template for investments supported by GIRAF developed; and training programs for agribusiness development held, of which 40% are women (2021 baseline: 0) (OP 2.1.1)</p>	<p>4a–d. MOFALI policy department reports, and local governments' reports on urban construction and economic development</p> <p>4e. FRC and project implementation reports</p>	

A = assumption; ADB = Asian Development Bank, ALAMGAC = Agency for Land Management and Administration, Geodesy and Cartography; CPP = community participation in procurement; EIB = European Investment Bank; FRC = Financial Regulatory Commission; GIRAF = green and inclusive regional agribusiness fund; ha = hectare; km = kilometer; m<sup>2</sup> = square meter; m<sup>3</sup>/d = cubic meter per day; MOFALI = Ministry of Food, Agriculture and Light Industry; MRV = measurement, reporting, and verification; OP = operational priority; PIHMP = participatory and inclusive herd management plan; PIU = project implementation unit; PUG = pasture user group; R = risk; RUA = rangeland use agreement; SMEs = small and medium-sized enterprises; WASH = water, sanitation, and hygiene; WWTP = wastewater treatment plant.

<sup>a</sup> State Great Khural. 2020. *Vision 2050: Long-Term Development Policy of Mongolia*. Ulaanbaatar.

<sup>b</sup> Excludes agro-industrial park infrastructure.

<sup>c</sup> Agro-industrial park is a comprehensive complex with full provision of engineering infrastructure for transportation, logistics, trading, processing, and manufacturing services to support the transformation and the trade of green livestock and agricultural raw materials, and promote green food manufacturing and food safety.

<sup>d</sup> A gender-sensitive public space refers to urban designs where women feel comfortable using the public space and is adapted to the needs and demands of both women and men.

<sup>e</sup> Gender-sensitive WASH facilities as defined in footnote (e) of the DMF for the investment program in the Facility Administration Manual (accessible in Appendix 2 of the report and recommendation of the President).

<sup>f</sup> Cooperatives "led by women" must have (i) at least 51% female representation on the board, or (ii) a female executive director or board president and at least 30% female representation on the board. Swiss Agency for Development and Cooperation. 2021. [Sustainably Managed Pastures and Healthy Animals: Mongolia's 'Green Gold'](#).

<sup>g</sup> SMEs led by women refer to those owned and managed by women. Proxy baseline was from the results of 2019 World Bank Mongolia Enterprise Surveys: (i) 43.7% of firms have female participation in ownership, of which 45.9% are small, 40.0% are medium, and 32.4% are large firms; and (ii) 38.9% of firms have a female top manager, of which 44.4% are small, 26.9% are medium, and 24.4% are large firms. Men are predominant in large-scale business operations while women lead small businesses. Women are predominant in service-oriented industries and retailing and less involved in livestock agribusiness operations targeted by the program. Survey results by sector are not available.

<sup>h</sup> Window 1 will support SMEs processing livestock products, commercial and logistic investments for retail and exports, and other forms of economic diversification.

<sup>i</sup> Window 2 will support qualified medium- and large-scale enterprises involved in livestock production, processing, distribution, and marketing, and engaged in international trade.

<sup>j</sup> MOFALI Minister Order No A/177, June 2022, following the Mongolian National Livestock Program.

#### **Contribution to Strategy 2030 Operational Priorities**

The expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President). In addition to the OP indicators tagged in the design and monitoring framework, this operation will contribute results for:

OP 1.3 Poor and vulnerable people with improved standards of living (number)

OP 7.3.1 Measures to improve shared capacity of developing member countries to mitigate or adapt to climate change supported in implementation (number)

OP 7.3.3 Measures to improve regional public health and education services supported in implementation (number)

Source: ADB.

Table 17: Design and Monitoring Framework for Project 1

Impact the Project is Aligned with Green development, regional development sustainability, quality of life, and human development achieved (Vision 2050: Long-Term Development Policy of Mongolia) <sup>a</sup>			
Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
<b>Outcome</b> Green and inclusive agro-territorial development advanced	<b>By 2029</b> a. 563,000 tons of carbon dioxide equivalent per annum avoided through soil carbon sequestration and methane, nitrous oxide, and carbon dioxide emissions reduced (2021 baseline: 0) (OP 3.1) b. 15 million ha of rangeland improved and more sustainably managed (2021 baseline: 0) (OP 3.3.3) c. Climate and disaster resilience of 227,000 people strengthened (2021 baseline: 0) (OP 3.2, 3.3, 4.1) d. 176 SMEs or cooperatives and 250 microenterprises established under the GIRAF (2021 baseline: 0) (OP 1.2, 2.1, 5.2.3) e. 3,850 direct green jobs created, of which 40% are filled by women (2021 baseline: 0) (OP 1.2, 2.1) f. Number of livestock heads in the targeted areas decreased by 2.5% per annum (2021 baseline: 2.5% per annum growth) g. Wastewater treatment efficiency in targeted <i>aimag</i> and <i>soum</i> centers improved to 90% (2021 baseline: 50% in targeted <i>aimag</i> centers and 0% in targeted <i>soum</i> centers) (OP 4.3)	a–b. ALAMGAC and National Agency for Meteorology and Environmental Monitoring externally verified MRV report, and MOFALI annual report on livestock and land use c. ALAMGAC local land officer and <i>soum</i> government report d–e. Audited financial and operational reports from beneficiary enterprise or qualified commercial bank, and oversight reports from FRC f. National Statistics Office-annual data on livestock g. <i>Aimag</i> water and wastewater operating companies' measurement of biological oxygen demand removal in the effluent discharge in compliance with Mongolian standards MNS 4943:2011	R: Changed government priorities shift resources away from supporting <i>aimag</i> development A: EIB inputs and outputs timely delivered
<b>Outputs</b> 1. Climate-resilient, low-carbon, and attractive <i>aimag</i> and <i>soum</i> centers developed	<b>By 2028</b> 1a. 9.1 km of urban roads built and 35.4 km of connection roads improved; water supply capacity increased by 450 cubic meters per hour; 17.4 km of water supply pipes laid; 24.4 km of sewerage network laid; 10 km of district heating pipes laid; 88 km of power lines built; 14 km of drainage built; 173.5 km of optical cable laid; and 1.86 megawatts from solar panel installed; 10 km flood protection infrastructure built; and 584 ha of solid waste dump site cleared (2021 baseline: 0) <sup>b</sup> (OP 4.1.2) 1b. 5.4 km of <i>ger</i> area streets pilot upgraded, 420 affordable housing units built (with 50% female ownership), and 400 low-carbon streetlights installed (2021 baseline: 0) (OP 3.1.3, 4.1.2) 1c. 18,900 m <sup>2</sup> of public space and green areas, and 9,000 m <sup>2</sup> of public facilities constructed with gender-sensitive design features <sup>c</sup> (2021 baseline: 0) (OP 4.1.2)	1a–g. Mongolia state special inspection monitoring report, and <i>aimag</i> and <i>soum</i> governments' report on urban construction	R: Reduced cooperation and coordination among the project key stakeholders R: Rising world prices of energy and construction materials significantly increase the project's investment and operation and maintenance costs

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	<p>1d. 50 ha of agro-industrial parks<sup>c</sup> developed and 5 agribusiness incubators operating (with a total of 80 workspaces for SMEs, with at least 40% of workspaces allocated to women-led and/or owned businesses) in targeted locations (2021 baseline: 0) (OP 5.2.3)</p> <p>1e. 5 domestic WWTPs with a total capacity of 10,400 m<sup>3</sup>/d meet Mongolian standards; and 5 agro-industrial park WWTPs with a total capacity of 850 m<sup>3</sup>/d constructed and/or upgraded (2021 baseline: 0) (OP 4.1.2, 4.3.1)</p> <p>1f. First phase of the smart land management and climate responsive digital center built (2021 baseline: 0) (OP 3.3.3, 4.2)</p> <p>1g. 2 education facilities improved with gender-sensitive<sup>d</sup> WASH facilities,<sup>e</sup> (2021 baseline: 0) (OP 2.4.1, 4.1.2)</p> <p>1h. 100,000 person-months of employment opportunities during project construction created, of which 20.0% are filled by women (2021 baseline: 17.2% of women in the construction sector) (OP 1.2, 2.1)</p>	1h. Contractors' annual employment records	<p>A: Significant interest from herders' cooperatives and private sector to participate in project activities</p> <p>A: Compliance with the program road map</p> <p>A: Timely delivery of EIB inputs and outputs</p>
2. Climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented	<p><b>By 2028</b></p> <p>2a. 90 PUGs and herder groups signed (by both spouses) the updated RUA and sustainable and inclusive pasture management plan and benefited from CPP activities, with 45% female participation (2021 baseline: 0) (OP 2.3, 5.1, 6.2.4)</p> <p>2b. 30 PUG-based cooperatives established, with at least 30% led by women;<sup>f</sup> 5 <i>aimag</i> and inter-<i>soum</i> centers, 3 <i>aimags</i>, and 1 regional cooperative organized (2021 baseline: 0) (OP 2.3, 5.1)</p> <p>2c. 5 disease-free establishments, 3 <i>aimag</i>-, and 2 inter-<i>soum</i> level veterinary laboratories built (2021 baseline: 0) (OP 5.2.4)</p> <p>2d. Primary works for the irrigated perimeter of a 1,400-ha fodder and crop farms built, including ecosystem-based water harvesting and conservancy solutions (2021 baseline: 0) (OP 3.3.5, 5.1.1)</p> <p>2e. 20,000 person-months of employment opportunities during project construction created, of which 20% are filled by women (2021 baseline: 0) (OP 1.2)</p>	<p>2a. <i>Aimag</i> and <i>soum</i> governments' monitoring data on land management, and ALAMGAC RUA registration data system</p> <p>2b. <i>Aimag</i> and <i>soum</i> governments' reports, and MOFALI annual reports on cooperatives</p> <p>2c–d. <i>Aimag</i> and <i>soum</i> governments' reports on livestock and rural development, and Mongolia State Special Inspection monitoring report</p> <p>2e. Contractors' annual employment records</p>	
3. Accessible financing for low-carbon and climate-resilient livestock and	<p><b>By 2028</b></p> <p>3a. Under window 1, loans, subloans, or loans plus credit risk guarantees of at least \$20 million provided for SME investments, of which at least 30% led by women, in targeted <i>aimag</i> and inter-</p>	3a–e. Audited financial and operational reports from beneficiary enterprises or	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
agro-business value chains created (financial intermediation loan component)	<p><i>soum</i> centers, through PUGs and herder groups (2021 baseline: 0)<sup>g</sup> (OP 1.3.2, 5.2.3)<sup>h</sup></p> <p>3b. Under window 2, loans, subloans, or loans plus credit risk guarantee of at least \$20 million provided for medium and large investments in targeted <i>aimag</i> and inter-<i>soum</i> centers, through PUGs and herder groups (2021 baseline: 0) (OP 1.3.2, 5.2.3)<sup>i</sup></p> <p>3c. Under window 3, 250 micro green loans approved (2021 baseline: 0) (OP 1.3.2)</p> <p>3d. 20 partnership agreements signed with SMEs, of which at least 30% led by women, investing in pre-processing facilities (2021 baseline: 0) (OP 2.1.3, 5.2.3)</p> <p>3e. At least \$3 million reimbursable grants from Green Innovation Grant Facility provided to qualified investors to promote green and inclusive innovations in agribusiness (2021 baseline: 0) (OP 5.2.3)</p>	qualified commercial banks, and oversight reports from FRC	
4. Institutional capacity and policies on low-carbon and climate-resilient agro-territorial development strengthened	<p><b>By 2028</b></p> <p>4a. By 2028, at least 90 (PUG level) PIHMPs and at least 30 (<i>soum</i>-level) low-carbon and climate-resilient agribusiness development plans developed and consolidated into 6 <i>aimag</i>-level and 2 regional-level agro-territorial development plans (2021 baseline: 0) (OP 6.1.2)</p> <p>4b. By 2025, traceability and certification systems at herder-, PUG-, and cooperative-levels operational; with 40% of targeted herder groups and PUGs certified (2021 baseline: 0) (OP 5.2.4)</p> <p>4c. By 2028, at least 90 community-based animal health workers trained, of which 95% report improved knowledge and skills on veterinary and animal breeding services and 50% are women (2021 baseline: 0) (OP 5.3.1)</p> <p>4d. By 2028, 3 national policies for rangeland and agricultural management and green territorial development prepared and implemented, and 2 policy recommendations included in the Mongolian Livestock 2 program<sup>j</sup> (2021 baseline: 0) (OP 3.3.2, 6.1.2)</p> <p>4e. By 2024, business plan and technical specification template for investments supported by GIRAF developed; and training programs for agribusiness development held, of which 40% are women (2021 baseline: 0) (OP 2.1.1)</p>	<p>4a–d. MOFALI policy department reports, and local governments' reports on urban construction and economic development</p> <p>4e. FRC and project implementation reports</p>	

### Key Activities with Milestones

#### 1. Climate-resilient, low-carbon, and attractive *aimag* and *soum* centers developed

- 1.1 Complete infrastructure and detailed architectural design (2024–2025)
- 1.2 Pilot the *ger* area street development voluntary participation (2024–2025)
- 1.3 Procure goods and works (2024–2025)
- 1.4 Construct, supervise, and commission infrastructure, and socioeconomic facilities (2026–2028)

#### 2. Climate-resilient, high-carbon sequestration, and sustainable rangeland and agricultural management implemented

- 2.1 Engage and consult with herders, PUGs, and herder groups to ensure their participation (2024–2028)
- 2.2 Complete detailed design for irrigated perimeters and storage facilities (2024–2028)
- 2.3 Prepare and sign PUG and herder groups' RUA including PIHMP (2024–2028)
- 2.4 Establish or upgrade cooperatives (2025–2028)
- 2.5 Procure goods and works (2025–2028)
- 2.6 Procure and implement CPP (2025–2028)
- 2.7 Construct, supervise, and commission infrastructure (2026–2028)

#### 3. Accessible financing for low-carbon and climate-resilient livestock and agrobusiness value chains created (financial intermediation loan component)

- 3.1 Establish the GIRAF (2024–2025)
- 3.2 Finalize the green and inclusive agri-value chain development plan (2024–2025)
- 3.3 Reach out to local businesses and receive bidding proposals for financing (2025–2026)
- 3.4 Short list commercial banks (2025)
- 3.5 Establish and implement environmental and social management system for each commercial bank (2025–2028)
- 3.6 Select proposals for financing (2025–2027)
- 3.7 Construct production and logistic facilities or establish businesses (2025–2028)

#### 4. Institutional capacity and policies on low-carbon and climate-resilient agro-territorial development strengthened

##### 4.1 Capacity building and policy reforms

- 4.1a Train and increase capacity of PIU staff; and targeted institutions, and all related stakeholders in the agriculture sector on project implementation safeguards and due diligence (2024–2025)
- 4.1b Implement policy and sector reforms (2024–2028)

##### 4.2 Detailed design and supervision

- 4.2a Hire detailed design and supervision consulting services (2023)
- 4.2b Prepare feasibility study for tranche 2 (2026)
- 4.2c Complete detailed design of all civil works under project 1 and update safeguard documents, including the initial environmental examination, land acquisition and resettlement plans, and voluntary participation plans (2025)
- 4.2d Supervise civil works construction and monitor implementation of safeguard provisions (2025–2027)
- 4.2e Implement policy and sector reforms (2025–2028)

##### 4.3 Rangeland management

- 4.3a Hire consulting services (2023)
- 4.3b Engage with herders, herder groups, and PUGs (2024–2028)
- 4.3c Complete detailed design of irrigated perimeters and disease-free facilities (2024)
- 4.3d Train PUGs and herder groups and implement CPP activities (2023–2028)
- 4.3e Train cooperatives (2025–2028)
- 4.3f Implement policy and sector reforms (2025–2028)

##### 4.4. Green agribusiness finance

- 4.4a Hire consulting services (2023)
- 4.4b Develop standard, guidelines, and regulations for GIRAF (2024)
- 4.4c Implement policy and sector reforms (2025–2028)

### Project 1 Program Management Activities

Establish and fully staff the PIU.

Hire project implementation and management support consulting services.

Fully train PIU staff on ADB safeguards, due diligence, procurement, and financial management.

Perform day-to-day management and supervision during program implementation.

Coordinate with government agencies, *aimag* governments, and other involved parties for program implementation.

Manage consulting services, monitor deadlines for procurement packages, and implement key procurement activities.

Monitor civil works and infrastructure implementation.

Meet targets in the design and monitoring framework, social and gender action plan, consultation and participation plan, stakeholder communication strategy, and facility administration manual.

Complete and operate sex-disaggregated project performance management system and comprehensive MRV system.

Prepare and submit ADB, EIB, and Green Climate Fund relevant progress, safeguards, and financial audit reports.

Conduct inception, annual, midterm, and final review missions.

Prepare tranche 2 including due diligence (2024).

**Inputs**

ADB ordinary capital resources: \$45.0 million (regular loan)  
 ADB ordinary capital resources: \$45.0 million (concessional loan)  
 ADB Special Funds Resources (Asian Development Fund): \$3.0 million (grant)  
 Green Climate Fund: \$50.2 million (loan)  
 Green Climate Fund: \$25.0 million (grant)  
 European Investment Bank: \$52.9 million (loan)  
 European Investment Bank: \$10.5 million (grant)  
 Government of Mongolia: \$20.7 million  
 Commercial banks/Private sector: \$14.3 million  
 Beneficiaries: \$3.4 million

A = assumption; ADB = Asian Development Bank, ALAMGAC = Agency for Land Management and Administration, Geodesy and Cartography; CPP = community participation in procurement; EIB = European Investment Bank; FRC = Financial Regulatory Commission; GIRAF = green and inclusive regional agribusiness fund; ha = hectare; km = kilometer; m<sup>2</sup> = square meter; m<sup>3</sup>/d = cubic meter per day; MOFALI = Ministry of Food, Agriculture and Light Industry; MRV = measurement, reporting, and verification; OP = operational priority; PIHMP = participatory and inclusive herd management plan; PIU = project implementation unit; PUG = pasture user group; R = risk; RUA = rangeland use agreement; SMEs = small and medium-sized enterprises; WASH = water, sanitation, and hygiene; WWTP = wastewater treatment plant.

- a State Great Khural. 2020. *Vision 2050: Long-Term Development Policy of Mongolia*. Ulaanbaatar.
- b Excludes agro-industrial park infrastructure.
- c Agro-industrial park is a comprehensive complex with full provision of engineering infrastructure for transportation, logistics, trading, processing, and manufacturing services to support the transformation and the trade of green livestock and agricultural raw materials, and promote green food manufacturing and food safety.
- d A gender-sensitive public space refers to urban designs where women feel comfortable using the public space and is adapted to the needs and demands of both women and men.
- e Gender-sensitive WASH facilities have at least the following characteristics: separate male and female toilets with separate washbasins and bins, adequate lighting and privacy, and facilities adapted to young women/girls, including those with disabilities.
- f Cooperatives "led by women" must have (i) at least 51% female representation on the board, or (ii) a female executive director or board president and at least 30% female representation on the board. Swiss Agency for Development and Cooperation. 2021. [Sustainably Managed Pastures and Healthy Animals: Mongolia's 'Green Gold'](#).
- g SMEs led by women refer to those owned and managed by women. Proxy baseline was from the results of 2019 World Bank Mongolia Enterprise Surveys: (i) 43.7% of firms have female participation in ownership, of which 45.9% are small, 40.0% are medium, and 32.4% are large firms; and (ii) 38.9% of firms have a female top manager, of which 44.4% are small, 26.9% are medium, and 24.4% are large firms. Men are predominant in large-scale business operations while women lead small businesses. Women are predominant in service-oriented industries and retailing and less involved in livestock agribusiness operations targeted by the program. Survey results by sector are not available.
- h Window 1 will support SMEs processing livestock products, commercial and logistic investments for retail and exports, and other forms of economic diversification.
- i Window 2 will support qualified medium- and large-scale enterprises involved in livestock production, processing, distribution, and marketing, and engaged in international trade.
- j MOFALI Minister order No A/177, June 2022, following the Mongolian National Livestock Program.

**Contribution to Strategy 2030 Operational Priorities**

The expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President). In addition to the OP indicators tagged in the design and monitoring framework, this operation will contribute results for:

OP 1.3 Poor and vulnerable people with improved standards of living (number)

OP 7.3.1 Measures to improve shared capacity of developing member countries to mitigate or adapt to climate change supported in implementation (number)

OP 7.3.3 Measures to improve regional public health and education services supported in implementation (number)

Source: ADB.

## B. Monitoring

135. **Program performance monitoring.** The program performance management system (PPMS) indicators, their relevance, and monitoring practices will be discussed with the executing and implementing agencies and program beneficiaries during program implementation. Disaggregated baseline data for output and outcome indicators gathered during program processing will be updated and reported through quarterly and annual progress reports prepared by the PIU and GIRAF manager, and after each ADB review mission. The annual reports will provide information necessary to update ADB's program performance reporting system. At the start of program implementation, the PIU and GIRAF manager, with project 1 consulting services, will develop integrated PPMS procedures to generate data systematically on the inputs and outputs of the components, as well as the indicators to be used to measure the program's impact and outcome. The PIU and AMC will be responsible for monitoring and reporting on program performance. The basis for performance monitoring will be the design and monitoring framework and the GCF funding proposal logic framework, which identify performance targets for the impact, outcome, and outputs of the program. By collecting data from the sources identified in the design and monitoring framework and GCF funding proposal logic framework, the PIU and GIRAF manager will report the performance of the program on an annual basis. Specific reporting requirements will be set out in the agreement between ADB and the government. The MED and GIRAF manager will collect the data, calculate the indicators, analyze the results, and prepare a brief report describing the extent to which the program is generating the intended outputs and outcome, as well as the overall impact of the program. Meanwhile, the agreed socioeconomic and environmental indicators to be used will be further enhanced to measure program impacts. The PIU and GIRAF manager will (i) refine and integrate the PPMS framework at the start of program implementation; (ii) confirm that targets are achievable; (iii) develop recording, monitoring, and reporting arrangements; and (iv) establish systems and procedures no later than 6 months after program inception.

136. The MED will be assisted by the projects steering committee, composed of representatives from MED (chair), MCUD (vice chair), MOFALI (vice chair), MOF, MET, targeted *aimag* governments, and the European Union that will be established to oversee program implementation, provide strategic and policy guidance, and coordinate efforts among ministries and agencies.

137. ADB will regularly field review missions to monitor project performance during implementation. ADB and MED will (i) monitor the project's achievements using PPMS through the use of indicators and targets covering both macro and micro issues; and (ii) review the institutional, administrative, technical, economic, and other relevant aspects that may have an impact on the performance of the project. The review will examine implementation progress and compliance with assurances in the legal agreements. The MCUD and MOFALI will report to MED who will conduct a general oversight of project implementation.

138. **Compliance monitoring.** The compliance status of loan and program covenants will be reported and assessed through the semiannual progress reports and verified during ADB review missions.

139. **Safeguards monitoring.** The government and MED, and GIRAF manager will ensure that laws and regulations of Mongolia governing safeguards, as well as ADB's Safeguard Policy Statement (2009) are followed. MED will ensure that all works contracts under the project incorporate provisions and budgets for safeguards plans implementation.

140. **Involuntary resettlement.** The government, through MED, will (i) engage qualified and experienced external social safeguards experts under a selection process and terms of reference acceptable to ADB, to verify information produced through the social safeguards monitoring process, and facilitate the carrying out of any verification activities by such external experts; (ii) submit semiannual safeguards monitoring reports to ADB in respect of implementation of and compliance with involuntary resettlement safeguards including implementation of voluntary participation plans for *ger* areas redevelopment and implementation of ESMS as part of the FIL component; and (iii) disclose relevant information from such reports to the respective affected people. The external experts will submit semiannual monitoring reports during implementation to MED and ADB and a completion report within 6 months after completion of all resettlement and voluntary participation activities.

141. **Environmental and social management system.** The government, through the MOF/GIRAF manager, will require each qualified commercial bank to submit semiannual ESMS monitoring reports to GIRAF manager for compilation and timely submission to ADB.

142. **Environmental management plan.** During construction, contractors will develop contractor EMPs with environmental management and internal monitoring systems based on the updated subproject EMP, undertake self-check activities, and fully cooperate with the environmental inspectors of the municipal specialized inspection department and/or specialized inspection divisions of the districts. Contractors will submit monthly contractor EMPs implementation reports to the PIU. Subprojects EMP implementation coordination and verification for the construction and operation periods will be carried out routinely by the PIU with the support of the services of environment consultants. Periodic environmental impact monitoring will be carried out by the PIU through the services of a licensed institute or consultant. The results of subprojects EMP implementation and environmental impact monitoring will be communicated to ADB through the annual project EMP monitoring and progress reports and summarized in the quarterly project implementation reports.<sup>94</sup> The annual project EMP monitoring, and progress reports will be disclosed on the ADB website.

143. **Gender and social dimensions monitoring.** Monitoring indicators for the social and gender action plan (SGAP) have been incorporated into the PPMS. Clear targets and indicators have been established and some indicators, such as those on employment, are also captured in the design and monitoring framework. The regular project progress reports to ADB will include, at least semiannually, reporting on those indicators. Assistance will be provided for the PIU and project implementation unit by the social development and gender consultants who will help to set up effective monitoring systems and work with the focal points in the PIU to ensure implementation of the SGAP. The SGAP will be monitored semiannually and reported via the quarterly project progress reports and during ADB review missions. The external monitoring agency will also monitor the implementation progress of SGAP and report through the semiannual external monitoring reports.

## C. Evaluation

144. ADB, MED, MCUD, and MOFALI will jointly review implementation of the project once a year, covering a detailed evaluation of the scope, implementation arrangements, institutional, administrative, technical, economic, financial, achievement of scheduled targets, and other relevant aspects that may have an impact on project performance. To ensure the financial sustainability of the heating operators the following covenanted financial ratios will be reviewed:

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<sup>94</sup> As and when necessary to report significant progress, implementation issues, or status of earlier identified problems.

(i) debt service coverage ratio of at least 1.1 beginning January 2025 and every financial year thereafter; (ii) operating ratio of at least 1.1 commencing January 2023 and every financial year thereafter; and (iii) current ratio of at least 1 beginning 31 December 2023 and every financial year end thereafter. The review will examine implementation progress and compliance with assurances in the legal agreements. Feedback from the PPMS activities will be analyzed. Within 3 months of physical completion, the PIU will submit a project completion report to ADB.<sup>95</sup>

## D. Reporting

145. The MED and PIU will provide ADB with (i) quarterly 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, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 3 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and audited financial statements together with the associated auditor's report, should be adequately reviewed.

146. The PIU, supported by GIRAF manager, will prepare semiannual progress reports on GIRAF management, in a format acceptable to ADB and submit these reports within 30 days of the end of each semiannual period. The second half-year report will serve as the annual report for the year concerned. These reports will provide

- (i) a narrative description of progress in project implementation,
- (ii) any changes to the subproject implementation schedule,
- (iii) problems or difficulties encountered,
- (iv) work to be carried out in the next 6 months with respect to each component and subproject, and
- (v) compliance with ESMS and environmental monitoring plans prepared for the subprojects.

147. The PIU, supported by GIRAF manager, will prepare the following reports for GCF: (i) inception report, (ii) interim evaluation report, and (iii) project completion report. The reports will be compiled by the PIU.

148. The progress report will also provide a summary statement of dedicated MNT account, reflow account, and any new subloans approved. Table 18 summarizes the key reporting requirements during project implementation. Project performance will be monitored through the PPMS.

**Table 18: Summary of Key Reporting Requirements During Implementation**

Name of Report/Document	Timing of Reporting	Remarks
Semiannual progress reports on FIL implementation, with the second half year reports serving as the annual reports for the year concerned	Every 6 months until loan completion; thereafter, only the annual report is needed	First report to cover the half year ending 31 December 2023 (if advance action was recorded)
Audited financial statements and audited project accounts	Before 30 June of each year auditing the previous year	First report due by 30 June 2024

<sup>95</sup> Project completion report format available at: <http://adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>.

Name of Report/Document	Timing of Reporting	Remarks
Auditor's report (including auditor's opinion on statement of expenditures)	throughout the loan implementation period	
Subproject selection report	As and when each subproject under the FIL is selected during the loan implementation period	Outside of the core subprojects
Environmental and social due diligence reports of host facilities as required by the ESMS	As and when each subproject under the FIL is selected during the loan implementation period	
Annual ESMS implementation report	Once a year covering all subprojects until loan completion, including compliance with ESMS requirements	First report due by 30 June 2024 (if advance action was recorded)
Annual project progress reports	1 month after end of previous year	
Quarterly project progress reports	1 month after end of each quarter	
Environment monitoring reports	Semiannual	
Resettlement monitoring reports	Semiannual	The report includes voluntary participation plan activities
Social and gender monitoring reports	Semiannual	
Interim evaluation report	Before the end of year four after GCF framework financing agreement effective date	To prepare GCF independent interim evaluation report
Project completion report	Within 3 months of physical completion	Satisfactory to both ADB and GCF reporting requirements

ADB = Asian Development Bank, ESMS = environmental and social management system, FIL = financial intermediation loan, GCF = Green Climate Fund, PIU = project implementation unit.

Source: ADB staff estimates.

149. **GCF reporting.** The reporting period for the program is from Funded Activity Agreement effective date to program. The APRs and Financial Information shall be submitted pursuant to the Accreditation Master Agreement within the Reporting Period.

Milestones	Expected Dates
Inception report	Within 6 months after Funded Activity Agreement effective date
Annual Performance Report (APR)	Annually after Inception report
Independent interim evaluation report (interim APR)	Within 6 months after end of Year 5
Program Completion Report (Final APR)	Within 15 months after completion date
Independent Final Evaluation Report	Within 33 months after the completion date
End of Green Climate Fund Loan Repayment Reporting Period	Upon the full repayment of the loan provided with the Green Climate Fund Reimbursable Funds

150. Each APR, should combine PIU and GIRAF manager activities, compiled by the PIU, and should include

- (i) "Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia" project from UNDP and implemented by the MET is under implementation, each APR under the program shall include narrative report on synergies and complementarity between the program and the UNDP Project, which shall highlight progress toward collective targets of the program and the UNDP Project, as well as indicate areas for improvement or need for adjustment to activities or timing, provided however that the program incur any additional liability or obligations related to the execution or implementation of the UNDP Project as a result of such reporting or otherwise; and
- (ii) provide a performance report on GIRAF which shall include, as and when available, at minimum: (a) report on the performance of each financing window against the respective Eligibility Criteria including number of loans approved, loan disbursement amounts, interest rates, other fees if any, and financial terms at GIRAF level and at portfolio of PFIs, and (b) methodology used to determine the GCF concessionality used by GIRAF.

## E. Stakeholder Communication Strategy

151. The PIU and GIRAF manager, with support from consultants, will undertake consultations with key stakeholders. Communication with stakeholders will be managed by the PIU and GIRAF manager environmental and/or social safeguards specialists. The PIU and GIRAF manager will ensure local stakeholders are consulted, that information on the project is disseminated, and that questions and complaints are addressed quickly and effectively. The community participation component builds off the participation process initiated under the project preparatory stage and has a focus on community-based planning. During implementation, the development of a framework with a transparent mechanism to regulate urban and land redevelopment will support continuous dialogue with the communities and will ensure the integration of the current residence into the urban redevelopment process. The program will also engage with the Mongolian National Human Rights Commission.

152. **Public disclosure.** Public disclosure of all project documents will be undertaken through the PIU, GIRAF manager, and on the ADB website, including the project data sheet, design and monitoring framework, SGAP, and the report and recommendation of the President. Disclosure of social and environmental monitoring reports will be undertaken during project implementation.

153. **Social and gender action plan.** Consultations with *ger* area residents of Khovd, Ulgii, and Ulaangom *Aimag* centers, have taken place during preparation of the voluntary participation plan and SGAP, and will continue at different points in the implementation of the voluntary participation plan and SGAP; and will be designed not only to inform people about the components or specific activities related to its preparation and implementation, but also to enable people in the communities to ask questions, make suggestions, state preferences, and express concerns. Special attention will be paid to the participation of women and any other vulnerable groups, such as the poor. During the project preparatory phase, a consultation and participation plan was developed to guide community mobilization and consultation during project processing and implementation.

154. The stakeholder communication strategy presented in the following table outlines the communication objectives, risks, key messages, and the proposed communication channels which will engage the target stakeholders. It complements the consultation and participation plan in Appendix 7.

Table 19: Stakeholder Communication Strategy

Objective	Stakeholder Groups	Messages/ Information	Means of communication	Timing	Responsible Channels	Resources/ Materials	Expected Outcomes	Risks/ Challenges
Establish a regular flow of information about the project and its specific details	All: Beneficiary communities and their organizations Government: steering committee and PIU, <i>aimag</i> governors Private sector Khovd Polytechnic Institute Swiss Agency for Development and Cooperation	Program goal/objectives, design and components, target beneficiaries, key program benefits, implementation process and arrangements, schedule of civil works, limitations of scope of the project Main program impacts (positive and negative) Planned mitigation measures (including resettlement plan, gender action plan, community participation in procurement, social action plan, and environmental management plan) and means of sharing concerns and/or problems	Media (i.e., radio, TV, newspaper, web) Print materials (i.e., FAQs and/or brochures, posters, or notices) Consultative public meetings Working group meetings Focus group discussions Periodic progress reports (i.e., monthly, biannual, annual progress reports) Awareness campaigns and/or public campaigns  <i>Focus certain channels/activities for reaching particular stakeholders</i>	From outset of project Regular scheduled events to update on developments Monthly program progress update meetings with steering committee (throughout program implementation) based on Monthly Progress Reports	Executing Agency Respective consultancy services	Costs and materials for: -Preparation of content on program information (i.e., FAQs, PowerPoint materials, posters, etc.) -Printing and dissemination of materials -Logistical requirements for meetings (venue, refreshment)	Understanding of program goal/objectives, approach, components, benefits, impacts, related safeguards concerns among affected population, limitations of scope of project and other project- related information	Complex technical terminologies with difficulties to make the project understood by <i>ger</i> area residents and/or herders Language – for Kazakh and Tuva communities Culture (e.g., reaching and informing herder women in Kazakh areas) Literacy of the target stakeholders (however illiteracy is very low) Managing expectations of target stakeholders Low interest and participation of target stakeholders (due to work schedules)

Objective	Stakeholder Groups	Messages/ Information	Means of communication	Timing	Responsible Channels	Resources/ Materials	Expected Outcomes	Risks/ Challenges
		<i>Adapt for different stakeholders</i>						and other commitments)
Establish a system of two-way information sharing/feedback mechanism between the project executing agencies and the target stakeholders	All: Beneficiary communities and their organizations Government: steering committee and PIU, <i>aimag</i> governors Private sector Khovd polytechnic institute Swiss Agency for Development and Cooperation	Importance of dialogue, incorporation of stakeholder views into the project: explain feedback process and how feedback is used Integrating stakeholder inputs in the design and implementation of the project Discuss social and environment mitigation plans including resettlement plan, gender action plan, community participation in procurement, social action plan, and environmental management plan <i>Adapt for different stakeholders</i>	Projects steering committee meetings Technical working group meetings NFPUG/APUG/PUG structure National cooperative association and <i>aimag</i> cooperative association structure once established <i>Bagh</i> residents of targeted areas Street community councils Focus group discussions and/or workshops with ger area residents Existing civil society organizations operating in the <i>bagh</i> areas, women councils operating in rural areas	From outset of the project throughout implementation Monthly program progress update meetings with steering committee (throughout program implementation) based on monthly progress reports	Executing agency Projects steering committee Technical working group NFPUG for consultation with APUG and PUG Street community councils for feedback from residents	Costs and materials for: -Preparation of content on program information (i.e., FAQs, PowerPoint materials, posters, etc.) -Printing and dissemination of materials -Logistical requirements for meetings (venue, refreshment)	Community-specific and gender-specific inputs into project design or implementation Early identification and resolution of conflicts or issues related to project design or implementation Immediate identification of areas for improvement in project components and implementation arrangements	Language – for Kazakh and Tuva communities Risk to rely on Kazakh leaders to dialogue with Tuva population Culture (e.g., reaching and informing herder women in Kazakh areas) Systematic grievance redress system quick response to issues Low interest and participation of stakeholders (due to work schedules and other commitments)

ALAMGAC = Agency for Land Management and Administration, Geodesy and Cartography; APUG = Association of Pasture User Groups (*soum* level); FAQs = frequently asked questions; NFPUG = National Federation of Pasture User Groups; PUG = pasture user group.  
Source: Asian Development Bank.

## **X. ANTICORRUPTION POLICY**

155. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>96</sup> 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. Individuals and/or 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.<sup>97</sup>

156. To support these efforts, relevant provisions of ADB's Anticorruption Policy are included in the legal agreements and bidding documents for the project. In particular, all contracts financed by ADB in connection with the project shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the project. In relation to the project, the executing agency will ensure that (i) a supervisory body is established for prevention of undue interference in business practices, and adequate resources are made available for its effective operation; (ii) a leading group of officials from the supervision division of the executing agency is located in offices involved in bidding, installation, and other operational activities under the project; and (iii) periodic inspections on the contractor's activities related to fund withdrawals and settlements are carried out. The executing agency shall also initiate liaison meetings with the Prosecutor's Office, as needed, to discuss any warnings about, or information on, alleged corrupt, fraudulent, collusive, or coercive practices relating to the project.

157. The MED, MCUD, MOFALI, and GIRAF manager will update annually and disclose to the public the status of the project and how the loan proceeds are used. For each contract financed under the project, MED, MCUD, MOFALI, and GIRAF manager will disclose on their respective websites information on, among others, the (i) list of participating bidders; (ii) name of the winning bidder; (iii) basic details on bidding procedures and procurement methods adopted; (iv) amount of contract awarded; (v) list of goods and works, including consulting services procured; and (vi) intended and actual utilization of the loan proceeds.

158. The EIB Anti-Fraud Policy<sup>98</sup> underpins and guides EIB in its work to prevent, investigate, and sanction Prohibited Conduct. The EIB Anti-Fraud Policy is aligned with relevant European Union legislation, international practice, as well as with the principles enshrined in the United Nations Convention Against Corruption. The EIB is also a signatory of the International Financial Institutions' Uniform Framework for Preventing and Combating Fraud and Corruption.

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<sup>96</sup> Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>97</sup> ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

<sup>98</sup> Available at: [https://www.eib.org/attachments/strategies/anti\\_fraud\\_policy\\_20130917\\_en.pdf](https://www.eib.org/attachments/strategies/anti_fraud_policy_20130917_en.pdf)

## **XI. ACCOUNTABILITY MECHANISM**

159. 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. 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.<sup>99</sup>

160. In case of EIB financing, complaints can be lodged in any of the official languages of the European Union, by letter or fax addressed to the EIB's Secretary General, by e-mail to [complaints@eib.org](mailto:complaints@eib.org) or via the complaints form. Complaints in non-European Union languages spoken by those affected by EIB projects will also be considered although processing times may need to be extended for the translation of documents.

161. Complainants need to identify themselves, clearly state the subject of the complaint and what he/she expects to achieve. The complainant should provide as much detailed and relevant information as possible about the complaint.

162. Complaints must be lodged within 1 year from the date on which the facts upon which the allegation is grounded could be reasonably known by the complainant.

163. Unless full confidentiality has been requested by the complainant, each admissible complaint will be published on the EIB website together with a summary of the case, the EIB-CM conclusions and the relevant reports. The identity of the complainant will only be published if the complainant has given consent.

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<sup>99</sup> Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

**XII. RECORD OF CHANGES TO THE FACILITY ADMINISTRATION MANUAL**

164. All revisions and/or updates during implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the FAM, including revision to contract awards and disbursement s-curves.