

Provision of Technical Assistance for Enhancing Climate Resilience and Economic Sustainability of Livestock Farming in a Rural Community of Mongolia

Deliverables:

- 2.1 Report on the kick-off meeting, stakeholder consultations and site visit
- 2.2 Participants List Key stakeholders' description

Submitted to: The United Nations



Accepted and approved for payment Bangkok, 13 June 2022 Clara Landeiro Regional Manager, Asia-Pacific

About the project

The project will strengthen climate-resilient livestock farming while deriving the economic sustainability for vulnerable herding communities in Bayantümen soum and contributing to the Nationally Determined Contributions (NDC) and national climate change adaptation and mitigation priorities for Mongolia. Alinea implements this project with the Alberta Biodiversity Monitoring Institute (ABMI) and the R&D Center for Climate Change and Sustainable Development (CCSD) in Mongolia (www.climatechange.mn).





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Acronyms

BCK Bagh's Citizen's Khural

CC Climate Change

CCSD Climate Change and Sustainable Development CCVA Climate Change Vulnerability Assessment

CSA Climate Smart Agriculture
CSO Civil Society Organizations

CTCN Climate Technology Centre and Network

EIA Environment Impact Assessments FAO Food and Agriculture Organization

GCF Green Climate Fund

GGAHP Green Gold Animal Health Project

GoM Government of Mongolia

HACCP Hazard Analysis and Critical Control Points

ISO Organization for Standardization

M&E Monitoring and Evaluation

MET Ministry of Environment and Tourism

MOFALI Ministry of Food Agriculture and Light Industry

NDC Nationally Determined Contributions

NDE National Designated Entity

NEARC North-East Asia Environmental and Agricultural Research Center

NFPUG National Federation of Pasture User Groups

NSO National Statistical Office
PPT Power Point Presentation
PUG Pasture User Groups

SDC Swiss Agency for Development and Cooperation

SOE State Owned Entities

UN United Nations

WWF World Wide Fund for Nature



Deliverable 2.1: Report on the Kick-Off Meeting, Stakeholder Consultations and Site Visit





1 Description of the Deliverables

This report contains Deliverables 2.1 and 2.2 associated with Output 2. These are directly related to the Start-up Mission (Mission 1) site visit to Bayantümen *soum* in Activity 2.1 and the identification of Key Stakeholders in Activity 2.2.

- Output 2: Stakeholder consultations and climate change (CC) vulnerability assessment of livestock farming in Bayantümen *soum*.
- **Deliverables:** 2.1 Report on the kick-off meeting, stakeholder consultations and site visit
 - 2.2 Participants List Key stakeholders' description (name, contact, inst., gender, etc.)

The final two Deliverables associated with Output 2 will be completed during the Assessment Mission (Mission 2) to be conducted approximately May 31 to June 14, 2022. These are:

- 2.3 Report CC vulnerability assessment, with gender and vulnerable groups analysis
- 2.4 Minutes Key stakeholder meeting (participants list by gender, materials, discussions summary)



2 Mission Objectives and Activities

The Start-Up Mission (Mission 1) was carried out between April 2 and 10, 2022 by the Project Manager (I1 Rasmussen), the National Gender Specialist (N1 Tumendelger) and the National Agriculture Engineer (N2 Byambadorj). The Mission included meetings in Ulaanbaatar and a site visit to Bayantumen soum in Dornod aimag which was held from April 2 – 7. The core team was accompanied by the Alinea/Climate Change and Sustainable Development (CCSD) National Focal Point (Surakhbayar) and supported by Punsalmaa (translator). Meeting arrangements in Dornod were made by Mr. Lhagvasuren of North-East Asia Environmental and Agricultural Research Center (NEARC). Mr. Lhagvasuren accompanied the team to all meetings and participated as Project Proponent/Initiator and key stakeholder.

The Objectives of the mission were to:

- i) Inform local leaders and stakeholders about the project, expected outputs and the activities to be undertaken.
- ii) Identify current and previous programs, projects and research and any results and lessons learnt that should be captured.
- iii) Prepare stakeholders and local government for the assessments and project planning to follow.

The Mission related to Activities 2.1 and 2.2 of the Project Work Plan:

Activity 2.1: Stakeholder meetings and site visit (Lead N1, N2 with I1) (Mission 1)

A series of kick-off meetings were held with aimag official, soum officials and bagh representatives.

Meetings were held with:

- Relevant aimag leaders and agencies
- Soum officials
- Bagh and herder representatives
- Relevant donor projects
- Private sector meat companies Khaan Khuns LLC and Dornod meat LLC.

The methods used during the mission included:

- Formal meetings at the aimag and soum
- Face-to-face interviews with various officials, projects, private sector and stakeholders
- Group discussion with key stakeholders
- Team discussions to review and summarize findings.

Representation of women and youth was sought in all meetings.

After the formal introductions at the *aimag, soum* and *bagh* meetings, a Mongolian Power Point Presentation (PPT) was used by the National Experts to introduce the project. The PPT included:

• project summary information and expected deliverables



2. Mission Objectives and Activities

- introduction to the team including the Project Proponent and the International and National consultants
- the different assessments and methods to be used:
 - CC vulnerability assessment
 - gender assessment
 - o pasture assessment
 - o feasibility study and business models
- approach to capacity building
- timelines

Open discussion followed the presentation.

In addition to the formal meetings, several individual meetings were held with government officials, other groups and stakeholders. At these meetings, the project brochure in Mongolian language was used to introduce the project. During the individual meetings, the discussion focussed on understanding the current situation and attitudes to CC and pasture conditions, the status of Pasture User Groups (PUG), general market conditions and competition in the meat industry, gender and vulnerable groups information as well as gathering specific technical information needed to support the upcoming assessments.

Before and after the site visit to Bayantumen soum, meetings were held with national organizations, donor projects and private sector representatives in Ulaanbaatar. These meetings included:

- Briefing and debriefing meetings (2) with the National Designated Entity (NDE) at the Ministry of Environment and Tourism (MET), Ms. Narangaravuu
- Green Gold Animal Health Project (GGAHP) and National Federation of Pasture User Groups (NFPUG), World Wide Fund for Nature (WWF) and Food and Agriculture Organization (FAO) project "Promoting Dryland Sustainable Landscapes and Biodiversity Conservation in the Eastern Steppe of Mongolia"
- Bayandelger Meat Company
- Mongolian Meat Association

During the mission, the team did not meet with the National Agency for Meteorology and Environmental Monitoring. This meeting will be planned for next mission when the Expert in Climate Change Vulnerability Assessment (CCVA) (I2 Irani) visits Mongolia. Likewise, meetings with the Ministry of Food Agriculture and Light Industry (MOFALI) will be organized during the second mission when the Expert in Agricultural Technology and Management (I3 Miller) is in Mongolia.

The minutes of the meetings are provided in Chapter 3 and the names and contact information of participants are provided in the Annexes.



Activity 2.2: Organization of the key stakeholders (Lead N1, N2 with I1)

A key stakeholder group of 11 soum and bagh representatives was established at the end of the Bagh meeting on April 6. This group will be the lead working group to provide technical overview and a guidance throughout the project. They will be directly involved in the assessment and planning through the participatory planning process. The group members will take key decisions with regards to identification of the appropriate **CC** adaptation and pastureland management options and guide the development and selection of community-scale business models for climate-resilient livestock farming. The group represents various soum and bagh technical and governance bodies as well as representative organizations for the poor, the elderly, women and youth. The group is 36% women. A number of the group members are herders.

The first meeting of the key stakeholder group will be held at the end of the Assessment Mission (M2) where they will be debriefed on the results of the mission, verify findings, and provide recommendations for next steps. During the second mission, additional potential members might be identified and invited to join the group.



3.1 NDE and Project Proponent

- Saturday, April 2 Briefing: The Project Manager and National Agriculture Engineer met with Ms.
 Narangaravuu, of the NDE. She was briefed on the schedule and activities of the Start-up Mission.
 Discussion included:
 - NDE platform (http://ndc.mne.gov.mn/) is being launched. It will contain all i) CC policy, data and reports, ii) national communications, iii) assessments and, iv) other news and materials. The NDE will provide information regarding access and log-in. The project will be expected to update its reports, communications, and training materials to the site.
 - The gender assessment is a very important output of the project since there are few studies available that link gender roles and issues to **CC**.
 - Project findings on pasture management can be shared with the other two **CC** projects: GCF National Adaptation Planning Project which is finishing soon and the new GCF Improving Rural Communities Adaptive Capacity project which started in 2021 and will run for seven years in Dornod, Hovd, Zavkhan and Sukhbataar and pasture management and animal husbandry as a central theme.
 - Capacity building activities should improve the ability of national and local government officials to manage CC issues. The NDE can provide some examples of existing handbooks for capacity building. These will be placed on the NDE platform.
- b. Friday, April 8, Debriefing: The Project Manager met with Ms. Naragaravuu to debrief her on the Start-up Mission. Discussion included:
 - Overview of field trip, meetings, findings, media coverage and establishment of the Key Stakeholders Group.
 - Discussion of the framework issues that have made progress in pasture management difficult, including the policy environment and ability to enforce regulation, the nascent commercial setting for livestock value chains, and high levels of poverty in the herding sector and the lack of viable off-farm employment, amongst others.

c. Project Proponent

The Project Proponent, Mr. Lhagvasuren of the NEARC, is the initiator of the project, its main beneficiary and a key stakeholder. As such, he and the NEARC play a very special role in project vision, planning and implementation, especially in liaison with all local government and stakeholder groups; NEARC arranged the formal meetings with the aimag, soum and bagh governments and representatives. The consulting team worked closely with the NEARC to plan, prepare and carry out the mission. The consulting team worked with NEARC continuously throughout the mission in both the formal and individual meetings as well as the team debriefing and planning sessions.



3.2 Aimag Meetings

3.2.1 Aimag Officials Kick-Off Meeting

The Kick-Off meeting was held at the Aimag government office on the morning of Monday, April 4, 2022. The following is a summary of the discussion:

Mr L.Lkhagva, Project Proponent:

Opening speech.

Ch.Ganbat, Vice Governor of Dornod aimag:

Dornod aimag has five border ports, an airport and some intensive farmers. Dornod aimag provides about 700 billion tugriks to State budget of which 23 percent is from the animal husbandry industry. Most livestock are raised traditionally causing problems with the pastures, especially with **CC**. There has been a constant increase in animal numbers and a decrease in available pasture. Therefore, there is a need for better pasture management and environmental protection. Pasture capacity related risks are increasing year by year and include "steppe mouse" population, fire risk, and immigrants from other soum and aimags and others.

The United Nations-Climate Technology Centre and Network (UN-CTCN) feasibility study is very beneficial to the aimag and the timing is right. The main purpose of the project is in line with the Mongolian government's "New Restoration Policy" and the Billion Trees program. The resulting feasibility study by internationally recognized team will be very valuable in their planning and they expect highly qualified documentation. The aimag has worked with several international projects successfully in the past and expects to work closely with this project as well. He expects the team to work closely with the government specialists and Departments.

This project differs from other international projects because the local ownership is clear. This will be necessary if the resulting project is to be successful. Therefore, we will constantly support it at the aimag, soum and bagh levels. Herders need to jointly collaborate on this small project. We are expecting from this project that herder's income will be constantly increased and that the environment and pasture will be improved and rehabilitated. 50% of herders have more than 200 head of livestock. The project needs to work with these herders and communities to resolve the environmental problem. On April 20, the aimag will host a consultation with 500 herders and Mr. Lhagva and the Bayantumen herders should participate to share information about the feasibility study.

We also have to think about animal health and food safety issues related to the aimags' 1.4 million sheep and 0.35 million cattle as a main starting point.

Summary agriculture statistics:

- Dornod has 24 intensive farms, although they are not exactly 100 percent intensified farm.
- Dornod has 7 operational slaughterhouses and meat factories.

Consultant team introduction topics:



- Introduction of project.
- CCVA
- Gender assessment
- Pasture/livestock and cropland management assessment
- Meat processing business model

Note: This meeting was covered by Dornod aimag local Jaran TV and was aired on local and Ulaanbaatar TV and Facebook groups.

3.2.2 Veterinary Department

This meeting was conducted immediately after the kick-off meeting on April 4 with Ms. Ayushmaa, Head of the Veterinary Department.

Veterinary Data System: Dornod participates in MOFALI's Integrated veterinary system and track all interactions with herders. Data is gender disaggregated. However, herders use veterinary medications themselves without any veterinarian support (*ed. this use would not be in the system*).

Meat and Food Security/Safety: There is only one veterinary laboratory in Dornod established in 1969 by Russia. It has a capacity of testing 40-50 samples per day, limited by the small staff of four to five lab technicians. Bayantumen soum has 4 veterinary entities analyzing medical residues in livestock carcasses under the agreement with aimag levels laboratory.

Live Animal Testing: When testing for disease, they isolate 200 animals in a pen and test for various diseases. One carcass sample before the slaughtering process (one sample means under 200 heads of sheep or cattle), cost is 50,000 MNT. Aimag laboratory capacity is 13,000 livestock per year, mostly male breeding stock.

Slaughterhouse inspection: Seven slaughterhouses are inspected once per month. Several slaughterhouses do their own sampling.

Gender: In the soums, most herders are women. More information is available.

The main challenges for the veterinary service are:

- Human resources. The working conditions (*work-life balance*) are challenging and parents who are vets are not encouraging their children to enter the occupation.
- Laboratory capacity, techniques and technology to conduct testing and analyses
- Inventory of drugs
- Establishment of a compartment/quarantine zone for livestock. To establish such a zone, the area must be a disease-free zone for at least three years.

On April 5th, the aimag is hosting a conference on animal health issues with 120 people. Recommendations will be developed.



> The 2021 Veterinary Department Report was requested

3.2.3 Environment and Tourism Department

The meeting was held on the afternoon of April 5 with Mr. Gantulga, Head of the Environment and Tourism Department.

Policy and Department Responsibilities: The national **CC** policy is for 2018-2024. Dornod has a sub-policy to decrease air pollution. The aimag Environmental Department deals with water, livestock, pollution and environment impact assessments (EIA)s.

EIAs: EIA response is provided within 14 days. According to the Environmental Assessment law, a water use assessment must be done before construction. For small projects like a gas station or meat plant, this is simplified. For large plants and projects, an Environmental General Impact Assessment is required. Assessments are conducted on-site to determine if the project is feasible. A summary of the project has to be submitted to the Department and it is decided what type of assessment is required. Assessments of agricultural projects are simpler than mining projects.

Irrigation projects require EIAs. If the water is drawn from a river basin, the Ministry of Environment (Ulaanbaatar) conducts the EIA.

> A copy of the EIA requirements was obtained.

Pasture management: Livestock and related information is collected on soil and pasture. The detailed numbers can be obtained directly from the soum.

Climate Change: They have not done any **CC** impact assessments.

Water Use: Any plant using less than 50 m³ /day can be permitted by the aimag. Wastewater has no specific procedure.

Waste management: Slaughterhouse wastes are to be disposed of at the soum waste collection point. There are no manure management regulations for traditional livestock production. Otherwise, it could be mixed with other waste and go to the landfill.

Composting: Under the Billion Trees program, composting is being established. State Owned Entities (SOEs) will produce compost and work collaboratively with forest companies and professional associations and organizations. Two entities in Dornod will import composting technology in 2022.

3.2.4 Advisor of the Aimag Governor

This meeting was conducted with Mr. Kh. Enkh-Otgon after the kick-off meeting on April 4.



The aimag government office has started to cooperate effectively with local professional associations. The professional associations are divided to four categories including the Associations of Agriculture and Vegetable Plants. Meat slaughterhouses and meat plants can cooperate with the local government office through this association. This is considered be a more effective structure for cooperation between the local government and the professional associations. They are seeking to incorporate the professional associations' suggestions and intentions into the aimag's annual socio-economic development direction.

PetroChina Dachin Tamsag LLC spent 300 million MNT for building the bagh's complex center including bagh school and center of production as a part of its social responsibility program in Matad soum. The school would be for the children of employee and herders in the bagh. This example shows that mining can be fit the local herders' interests.

Livestock of rich Mongolian households prefer to place their horses in Dornod because of pasture degradation in other aimags over the last 10 years. This negatively impacts local households. Those with few livestock are losing their pasture and facing economic challenges. The local herders and soum or bagh administration are protesting against the in-migration but those with influence, including MPs and Minsters, are getting permission from the soum governor to use pasture. In addition to this, pasture rentals are done secretly between local herders and the in-migrated wealthy households. This is leading to increased livestock numbers in Dornod. Because the pasture looks better than other aimags, overgrazing is neglected by herders.

3.2.5 Social Development Department

The meeting was held on the afternoon of April 5 with Specialists Ms. Otgontuya (Gender) and Mr. Tumurchuluun (Employment).

According to the Law on Promoting Gender Equality in Mongolia, each aimag has a Sub-Committee for gender equality chaired by the aimag Governor. Ms. Otgontuya, Specialist of the Social Development Department is Gender Focal Point and Secretary of the Sub-Committee. The Sub-Committee consists of the aimag Deputy Governor, heads of the local government agencies and representatives of the local Civil Society Organizations (CSOs). In addition, there is a Gender Club consisting of gender specialist of the local agencies and soum government officials responsible for the implementation and reporting of the planned activities for gender equality at local level.

The aimag's sub-program to promote gender equality expired in 2021. Recently, the Sub-Committee approved the Annual Action Plan for Gender Equality 2022. However, the Action Plan does not address herders' gender related problems and **CC** issues. The forms approved by the National Statistical Office (NSO) limits gender disaggregated data at aimag and soum level.

A restocking program for herders and a program for contracting with herders were approved by the National Council for Employment Promotion but there is no gender disaggregated data on this program at the target soum.



3.3 Minutes of Meeting with Soum Officials

The meeting was held in the Wedding Ger at the Soum Government Office on April 5.

Mr L. Lkhagva:

Opening speech.

E. Narangarav: Soum Governor:

Soum population is 2300. There are 250,000 head of livestock. The soum was established to provide agricultural products such as meat and vegetables. The main economic is animal husbandry.

The Governor expressed her gratitude to Mr. Lkhagva for his contribution to initiating the project and the willingness of the soum to collaborate.

Consultant team introduction topics:

- Overview of the project.
- CCVA approach and activities
- Gender assessment approach and activities
- Pasture/livestock and cropland management assessment approach and activities
- Meat processing business model approach and activities

Discussion Period:

Question D. Tumentsetseg: What is the plan beef to export?

Answer L. Lkhagvasuren: The cattle is digesting 15 kg grass into 1 kg meat, a sheep is 2 kg grass

into 1 kg meat. Therefore, I would like to establish only for sheep.

Question Kh. Enkhkherlen: What is the main area to be involved?

Answer P. Byambadorj: We are focusing on whole Bayantumen soum.

Comment Kh. Enkhkherlen: In Bayantumen soum, there are 24 herder groups, which were

established by MCA and seem to be active. They must have a herder group's pasture map. The 24 groups are about to be registered with the Land Affairs Agency. There are 6 PUGs, which are operational only based on the community trust fund. The PUGs have more animals than they are supposed to have. Two of the PUGs have a savings/credit

coop.

Every bagh has monitoring points. The Environmental Officer and another woman wrote

the initial draft of a handbook on how to identify pasture capacity which includes

pasture informative data for 5 years. But this data is not matched with metrological data and may use a different methodology. Meteorological Agency has only one spot in soum for photo-monitoring 24 plots. In addition, the herder groups (24) and PUGs (6) maps

overlap. Khotont bagh has only one herder's cooperative.

Comment Carbon sequestration capacity of the steppe was mentioned.

Comment Over the past two years, people at bagh meetings have expressed their desire to start

intensive agriculture (i.e., improved breeding vs use of more inputs).



Comment

D. Tumentsetseg: The soum has a breeding unit with high quality breeding males (goat-14, sheep "barga" and 'uzemchin'-65). Herders like to get those breeders. One breeder "rental" fee is 100,000 MNT per year.

The Soum Development Fund provided 8 million MNT in 2021 and 15 million MNT in 2022 for high quality breeders. The Soum Agricultural Unit is buying them and renting to herders for improving their livestock quality. Herders are paying money for rental cost to soum agricultural unit. The unit does not have connections with the agricultural university for breeding program information or support.

Comment

Families from other soums and aimags are moving in. We need higher taxes on horses and goats which degrade the pasture more. The maximum allowable tax is 2000 MNT/head. We are charging 1500/horse.

Herders with less than 200 head of livestock are tax exempt. (note: this means that about 50% of households are not taxed and will dilute the impact of the tax program) The Local Development Plan reflects how the livestock taxes will be used.

Comment

E.Narangarav: The livestock TAX will be spent for the establishment of Dipping Bath for livestock.

Comment

M.Battugs: Only middleman can buy livestock. Herders are always going to the aimag center because Bayantumen soum is close to the aimag center and selling their livestock to middle mans. Herders do not jointly go to aimag to sell livestock.

Comment

Dornod – average price of a sheep is minimum 150,000 MNT liveweight. The retail price is 10,000 MNT/kg. Herders usually sell to the black-market meat sellers in the aimag center. There is no organized system for selling livestock.

Comment

E.Narangarav: Herders do not believe each other.

Comment:

Herders don't collaborate because they don't trust each other. Therefore, the joint funds are not well used or equitable in their use. Family-based PUGs are actually less active than multi-family PUGs. The MCA land use contracts have not been well implemented.

Comment

Kh.Enkhkherlen: Herders do not have joint feedlot. They are feeding livestock just for themselves, but not for market purposes.

Comment

M.Battugs: In the cropland areas, farmers are planting wheat, barley, oats and rapeseed. Very rarely do they plant corn and alfalfa. In our soum, there is no irrigated cropland; all the old irrigation systems are broken. There are no fertilizer factories.



Comment Machinery is owned by families; nothing is shared. The local flour mill produces flour

and some animal fodder (nb. likely bran). Wheat usually goes to Ulaanbaatar. There are

no livestock forage crops produced in the soum and no intensive farming.

Comment

The Data Center collects all the soum level data. This is sent to the aimag and from there to Ulaanbaatar. Most of the information is for the veterinary info system. Social data is submitted at the end of June. 20 families/bagh are selected for statistics and research. Official and actual numbers may vary.

3.4 Minutes of Meeting with Bagh Officials

The meeting was held at the NEARC on Wednesday, April 6.

Mr L.Lkhagva: Opening speech.

Consultant team introduction topics:

- Introduction of project.
- CCVA
- Gender assessment
- Pasture/livestock and cropland management assessment
- Meat processing business model

Discussion Period

Question P.Byambadorj: How do you feel the **CC** negative impact?

Answer Herders:

- Pasture condition is getting worse.
- Drought and dzud frequency is increasing
- Livestock productivity is getting worse
- Livestock number is too much
- We do not have any solutions
- When we face the real challenges, we will develop the intensive farming
- We cannot estimate how many grasses have been eaten by livestock? Herders do know how to estimate grass fee but still consider grass to be a free resource.
- The market cannot buy young livestock.

Comment

O. Gantumur: We are not herding only sheep and goat but horses and cattle, as well. If we work together, we have chance to herd and manage pasture together.

Comment

Mr. Gantulga: Next time we have to give more complete information about the project at all bagh meetings. We need a handbook for the herders.



Comment Kh. Enkhbaatar: Not limited to bagh meeting but also inform whole families.

Comment L. Lkhagvasuren: I will inform those people who comes in herders meeting.

Comment Kh. Enkhbaatar: Let's keep in touch in Facebook group.

Note A Facebook group has been created for the project:

https://www.facebook.com/groups/1035325303849597

3.5 Meetings with Projects

3.5.1 NFPUGs and former Green Gold Project – National Office

There is confusion about the state of rangeland health stemming from the use of different definitions. Decision makers using different methodologies and getting different results and percentage of degradation. Green Gold provided clarification of degradation terminology based on the need for standardization (degraded; recoverable; etc). Green Gold worked on standardizing monitoring methodology across Mongolia using long term monitoring on standard plots in baghs. The project developed key concepts and a model around ecological potential.

The monitoring systems is functioning at the national and local level and includes ecological site descriptions. Thirty-three different ecological site groups based on ecological potential and resilience.

- Forest steppe, meadow steppe
- Desert steppe
- Dry steppe
- Semi-desert steppe, desert steppe
- o etc.

Each ecological site has a baseline and productivity information. Key species of a healthy site; carrying capacity in sheep unites. Three stages of degradation are used: productive (reference state; baseline); grass thinned; degraded. This was developed using Russian info, local knowledge and current research. Reports are prepared in two formats for technical people and for end users.

A recovery class concept for Mongolia has been introduced. Recovery is based on lowered stocking numbers and pasture rest. The classes are:

- Class 1 1-3 growing seasons for recovery
- Class 2 3 -5 years
- Class 3 5 to 10 years

Rangeland health monitoring systems in Mongolia are at the national level with kocal land use and impact monitoring. The system was standardized in 2017. Based on findings more than 90% of altered rangelands can be recovered in 10 years.'



Herders' mobilization for responsible rangeland management through group management was undertaken. Group management of pastures is based on the Pasture Users Group (PUG) soum level association. PUGs are found in 18 aimags and 180 soums representing 1500 pugs and 91,000 families. Western Mongolia fully covered. In Eastern Mongolia, PUGs are found in 4 or 5 soums per aimag. A Pastureland Use Agreement signed with local government allows for group management of land (note: this is pragmatic work-around created by the MCA project in the absence tenure rights via a Pasture Land Law). It formalizes the traditional user rights of the local area and assigns responsibility to properly manage the rangeland. The agreements are officially recognized by the Government of Mongolia (GoM). To date, 1200 PUGs have this type of agreement registered in the state-level database.

Resilience-based rangeland management starts from community organization into PUGs. Grazing boundary are then created. The carrying capacity is established (mapping of ecological potential) and stocking rate can be set followed by planning with local herders and officials.

Herders are motivated to form PUGs and use pasture agreements for various reasons:

- Access to matching funds. Herder families would contribute 25,000 to 50,000 MNT and Swiss
 Agency for Development and Cooperation (SDC) would match it. Funds were used for family
 health needs, school fees etc. It was a revolving fund with very small interest. For some groups,
 this evolved to credit and savings groups.
- Security of land use: Once herders have a land use agreement, they could not lose their land to mining companies or to other businesses that would exploit their natural resources (water, medicinal plants).
- Responsible nomads branding system: This system for meat and milk provided the opportunity
 to sell into a stable marketing channel and, sometimes, a premium price. The end users might
 also pay advances before Tsagaan Sar. Several overseas buyers are sourcing through
 Responsible Nomads. certification uses 6 different indicators:
 - Pasture certified by the land agency; can produce
 - o Animal health MOFALI database for vet animal health
 - Animal welfare MOFALI
 - Environmentally healthy MET
 - Responsible herder need to be part of a PUG and PUG has an implemented grazing plan

Herd Reduction: Green Gold worked with PUGs to do herd classification (registry) of existing herds. They would then develop a 5- to 10-year herd reduction plan for to get down to carrying capacity. They recognize the need to work with breeders and animal health specialists to improve productivity when trying to reduce animal numbers. They worked on lamb fattening and castration to get faster growth rates and be able to sell in fall. This has been done in four aimags with good results.

The influence of a slaughterhouse and improved breeding depends on the target market. Without an export market, it is difficult to market premium product in Mongolia. The Chinese were building slaughterhouses to Chinese criteria for export purposes.



Forage and Fodder Production: Green Good conducted pilots on green forage growing in spring and winter camps. They also made handmade fodder with grass/salt for emergency fodder.

Reserve Pasture: In dry years, have used a fenced reserve pasture to give natural pasture a rest

Water access: Access to water also influences mobility and tendency to overgrazing.

Pilot project in carbon market: One group of herders have the task of slowing decreasing herd size. Once certified and true, a University in England would pay a carbon offset to the PUGs common fund.

Dornod: Green Gold had PUGs in Bayantumen, Bulgan, Tsagaan Ova and other soums. Dornod is a distant location with sandy soils that are fragile and erodible. The aimag has limited water supplies. Because Dornod is 700 or 800 km from Ulaanbaatar, sales of hay, meat and fibers are to China versus the rest of Mongolia.

Lots of herders and animals have migrated into Bayantumen soum and are not registered with the local government. Therefore, the official livestock numbers do not reflect the real number of livestock in the soum. Dornod has said they are not allowing in-migration anymore, but this is difficult to enforce. Recently there is a very big business in hayfield operations in Dornod for hay exports. People see the grass in Dornod as an unlimited resource, but the species make up has changed. Hay companies are cutting the grass very low, making grass recovery more difficult.

> NFPUG recommended to put a monitoring plot in the hay field to monitor health.

3.5.2 AFPUGS and former Green Gold Project – Aimag Office

The meeting was held on April 4 with Ms. Gerelee, formerly of Green Gold and starting as the Dornod Aimag Federation of PUGs representative.

Green Gold was active in five soums where PUGs were created. Four PUGs were created in Bayantumen soum. The Bayanbulog PUG had 31 member families. Most of the PUG leaders are women. The introduction of PUGs to herders was difficult and some older men opposed them. Establishing a new PUG can be difficult because people tend not to trust each other, and the groups are not active. In contrast to this, Buryat families seem to easily make a team and work together for better results. There's no specific information available regarding the percentage of PUGs that are active/inactive. Pasture use is based on the Land Use Contracts. PUG pasture user contracts would be with the Land Affairs Agency, which has the contract template. Pasture users' contracts are approved by a Bagh Citizens meeting. She can contract a person from bagh 4 to provide a copy of the contract and other policy documents.

The contracts were introduced about two years ago. Several were done but there was no follow-up or photo monitoring because of COVID. They are planning to do the follow-up and monitoring this year as well as conclusions on how well the contracts were fulfilled. Gerelee had been hired to oversee the contracts, but the project ended in August with no follow-up, conclusions or recommendations.



Activities included:

- Forage monitoring in each PUG using six monitoring points/PUG and 24 in total. Data collected usually goes to the Land Affairs Agency. The data could be made available for analysis under this project. Monitoring starts in August each year. Dornod looks green but photo monitoring and site visits show overuse. Green Gold sent a draft manual on pasture management including guidelines and procedures to the government, but it has not been approved, yet.
- Organized a small workshop for women. There no PUGs specifically for women.
- Tsagaan Ovo was selected as model soum having herder-shared funds. They are now discussing having similar herder-shared funds for herders in another soum that would be used as a revolving fund. There are issues with the size of the funds. A typical fund would have 35 million MNT but there is no impact on pasture quality. The amount is not enough to dig a well or make other investments, so it gets used for social purposes (medical expenses and school fees). If any PUG fund reaches 50 million MNT, they are assisted to form an official credit union (non-bank institution).

Working towards livestock reduction and better pasture management is very challenging. The concept of decreasing animal numbers and increasing quality was suggested, but it was very difficult to move from concept to application. Likewise, the concept of carrying capacity and suggested maximum numbers of animals was very difficult. Additional pressures come from large herd owners and newcomers. Horse racers may have 2,000 horses moving freely through the soum and destroying pastures. This makes it very hard on the Land Affairs Agency to speak strictly with herders and enforce the Land Use contracts.

The new Livestock Head Tax is generated at the soum level and remains at the soum for local use. To date, 126 million MNT have been raised in Bayantumen soum. At the aimag level, 1 billion MNT were raised in 2021. The Citizen's Khural at the soum level sets the head tax and decides how the revenues generated will be sued. Some typical tax levels are 1500 MNT/goat and 1800/horse. The tax revenue must be used wisely for the benefit of herders if it is to improve pasture management. Implementation is not transparent, which contributes to overstocking.

Governance capacity needs to be increased. Leaders don't understand pasture management and don't support pasture management, perhaps because they get no direct benefit. Herders also need capacity building. They need to know what technology is available as well as new projects and methods.

In Dornod there are many horse racers and lifestyles have changed in the past five years. Husbands are off racing horses and the wives are not doing the traditional work. For example, they are not processing dairy products every day. Some even use purchased coffee creamer.

Note: meet with the Land Affairs Agency during the Assessment Mission.



3.5.3 WWF/FAO "Promoting Dryland Sustainable Landscapes and Biodiversity Conservation in the Eastern Steppe of Mongolia" Project

April 1 – CCSD office with Ms. Tsegee.

This is a 5-year, USD 5 Million project in 3 aimags and 9 soums which began in July 2021. The project has 4 components similar to the CTCN project seeking to decrease erosion. Two components are significant for the UN-CTCN feasibility study:

- Agriculture (livestock and pasture) managed by FAO
- Biodiversity and protected area network managed by WWF

The biodiversity component includes 9 boundary soums in Hentii, Sukhbataar and Dornod. Land Development Plans of the target soums currently don't address biodiversity. They are trying to include indicator species (gazelle, another mammal and Great Bustard and the white-naped crane) in peat lands. The project wants to include connectivity areas for migratory species and habitat. To do so, they will overlap the protected areas ad connecting areas and identify gaps.

Protected Areas have management plans and address herders in the area. There are also herders in the buffer zones. Some protected area have a buffer zone development fund (revolving fund or eco-loan) that are used as incentives to decrease livestock numbers. These loans have low interest rates. They also have breeders (improved genetics) and incentive of information and training. The Nature Conservancy manages the natural reserves which touch on part of Bayantumen soum. Local people in Bayantumen soum knew nothing about the protected area.

Project biodiversity activities include:

- 1. Protected areas ground survey of wildlife. Will be input to BIOSAN, Mongolia's wildlife database. Only wildlife now, but will/should include flora. They muse mobile phones to enter wildlife data.
- 2. Public Awareness: social media. Competitions. Contracts with T.V. in 3 aimags. They are trying to join all 3 aimags in policy of gazelle protection. There is joint work with stakeholders including Citizens' Khorel and Eco-Club students. Stakeholder engagement:
 - Social media
 - Celebrations
 - Competitions
 - Eco-clubs for kids
- 3. Introducing species in Projected Areas.
- 4. Supporting eco-friendly business bee farms.
- 5. Establish plant nursaries to use in the resestablishment of riparian forests. This is for native plants only. The Billion Trees program is very important. Local people have interest in how to establish and sell trees and will expand into fruit and landscape plants.

Their most important approach is stakeholder engagement and discussion



The FAO rangeland specialist is working with herders on pasture rotation. There are 40,000 ha of pasture on rotation in Bayanadurda (note: correct name required) soum in Hentii. Rotation is initiated through a large stakeholder meeting where the justification for pasture rotation is introduced. Herders know of degradation but don't see what actions they can take and/or don't have space to rotate to. Once they decide to do rotation, then they decide how to and where to rotate. Lack of water may be a limitation, so FAO digs a lot of wells to open up pasture areas. PUGs have a written land management agreement with the soum, so it's necessary to work with established PUGs to introduce rotational grazing. To make this successful, PUGs need leadership training and organizational strengthening training.

Bayantumen soum is included in the project. The biodiversity component is working on the rehabilitation of the riparian forest on Kherlen river where there is a species of Salix. The river areas have been heavily eroded by livestock. They already held discussions stakeholders in 3 aimags (including Bayantumen soum) about the need to have a "Riparian Forest" day to celebrate and protect these areas. It would be possible to do joint work with WWF on this.

The team consists of 6 specialists and local coordinators in each soum for a total of 18 people on the project. In addition, the Eastern Branch of WWF is involved. WWF has good management and is very fast. They are good at getting stakeholders doing the work but the budget is sometimes a problem. Pasture and biodiversity are very rich in Eastern Steppe but also many disturbers: railway, roads, mines, livestock and crop farmers. The problems are exacerbated by the many rich people, including parliamentarians, who have 1000's of animals. This is very damaging to the eco-system.

> Arrange to meet with the FAO regarding the livelihoods (livestock, pasture) component

3.5.4 United Nations Development Program-Green Climate Fund (UNDP-GCF) Project

April 4, Ms. Narangerel, Project Coordinator for Dornod. Previous experience as a banker (17 years). The project fund was established in October 2021 and activities began in 2022. The project has three components:

Component 1: Data management. UNDP HQ would buy a supercomputer to manage big data.

Local sites will link into this and use data.

Component 2: Investment in pasture management and livestock production.

Component 3: Building the capacity of herders. These are soum-level activities tied to the

investment activities.

Some of the core themes for Dornod are tree planting, wells (280 to be drilled) and springs revival. CCVAs are on the list to be done.

To initiate activities in the first year, participating soums were invited to submit project ideas. 256 requests were received and are being prioritized for year 1. Six activities will be done under pasture management:



- 1. Six (6) springs will be fenced. Selection will be done by the Governor.
- 2. Three (3) fodder storages will be built.
- 3. Twenty (20) hectares will be planted with bushes. Location to be based on site visits and need.
- 4. Three (3) water collection ponds to be constructed. Decision to be made re location.
- 5. Support one (1) slaughtering unit in Matad soum on the railway to Russia and China. Support is coming from Petro China.
- 6. Introduce new technology for combing cashmere and shearing wool.

One group has asked for fencing to protect and alfalfa field they intend to plant.

Pasture monitoring points are different from Green Gold. Data is received from the National Ecological Agency.

Gender: They are trying to balance gender roles and bring families together. A copy of the gender plan was obtained by the Gender Specialist.

3.6 Meat Value Chain Actors

3.6.1 Khaan Foods LLC (Dornod Branch)

The meeting and site visit were held on April 4. The team met with Mr. B. Baterdene, Executive Director of the Khann Foods LLC Dornod branch.

Business Structure and Capacity: Khaan Foods (Khaan Group) has multiple locations with head office/factory in Ulaanbaatar and satellite operations in Dornod and Eredenet. The Dornod plant is a branch of the Khaan Group.

- Capacity currently 1500 mt/year out of a 3,000 mt capacity
- Storage 450 mt
- Staff 41 of which 20% are office staff (finance, safety, supply chain management) and two are veterinarians working on meat procurement.

Market share: The plant supplies 10% of the meat product in Dornod. Choibalson uses 6.5 mt meat/day for a population of 46,000. 30 to 40% of the production goes to Ulaanbaatar. The plant purchases carcasses and does deboning prior to the meat being sent to the main factory in Ulaanbaatar. Supply chain 90% is sheep and goat 10% is cattle. The number of beef carcasses is less because of a smaller market and costs. The overall direction for purchasing is set by the head office in Ulaanbaatar.

There are four slaughterhouses in the aimag compared to only one 10 years ago. Open-field slaughtering is no longer allowed but remains a large source of supply. 80% of suppliers are herders. Herders used to bring carcasses with head, feet and guts but have learned to remove these.



Standards and grading: Meat is classified by their own three grades, which the manager noted would probably not match with general grading requirements. The plant operates to the requirements of GASI. They use the basic MNS standards but are aiming for International Organization for Standardization (ISO)-22000 (includes HACCP). They contract the aimag laboratory and send samples 2 to 3 times per month. Sheep carcass standard is no less than 20 kg.

Main problems:

- Seasonality. Shortage in spring so they buy in the fall and freeze carcasses which they may use until June.
- Their standard carcass size is 20 kg, but they have trouble meeting this
- Slaughtering opening areas
- Health of animals. Try to confirm vaccination. Check for residues. Herders don't do inspections because of the costs. The plant tries to provide support to herders by advancing directly payments to the vets for services and then deducting the cost from payment for the carcass.

Growth plans:

- Increase the refrigerator capacity and introduce more technology for automation
- They piloted a higher quality/safe meat product but there was not a large enough market yet to justify the increased costs, so they did not proceed.
- · They considered producing chicken feed, but the need for imported inputs was too great
- Raw material supply is not a constraint.

3.6.2 Dornod Meat LLC

The meeting and site visit was held on April 4 with Mr. T. Battur, Factory Director.

The plant is located 10kms from Choibalson in bagh 5 of Kherlen soum.

The vision and mission statements on the company website (https://dornodmeat.mn/en) declare:

"Our vision is to produce all kinds of healthy meat and meat products that are slaughtered and processed at a plant from the eastern part of Mongolia, adopt new advanced techniques and technologies, establish an internationally recognized meat complex, and export such meat and meat products to our neighboring countries and any other countries through them."

"Our mission concentrates on providing our meat processing plant with healthy livestock from the locally first livestock quarantine area and establishing ourselves as a fully-equipped ecofriendly meat and meat products complex based on the best practices and technologies in the field."

Capacity:

- Large animal (cow and horse) slaughtering lines for 150-200 head/day
- Small animal (sheep and goat) lines for 800-100 head/day using HALAL slaughter methods



- Shop to clean and sort out 5-7 tons of variety meats per day
- Butcher for 10 tons of small and large cattle meats at a time
- Freezer capacity of 80 tons of carcass and variety meats at -40C
- Six refrigerated warehouses for 1000 tons of carcass, processed and variety meats at -18-22C
- Plan to export 2000-3000 tons of meat and meat products on an annual basis

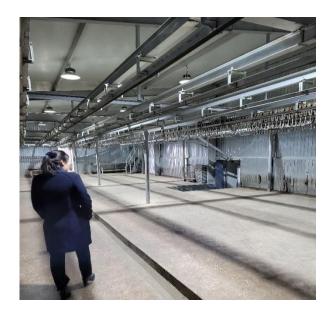
Standards: The website states that the company is "working to produce meat and meat products that comply with MNS, ISO 22000, HACCP and HALAL standards, as well as other applicable health and safety requirements".

The plant last operated in January 2022. The Director had returned from Ulaanbaatar to restart operations for the season. They are involved in slaughtering meat for the Government of Mongolia's meat reserve system. Meat exports from Mongolia have been closed for several months because of an active Foot and Mouth disease outbreak covering most of the country. They purchase animals directly from herders.

















3.6.3 Traditional Meat Outlet, Choibalson

On April 5, the team visited a tradition meat market in Choibalson. Meat is cut in the back room without any special facilities or equipment. Storage is mostly at room temperature and without any hygiene measures. Prices are 10,000 MNT/kg for mutton.







3.6.4 Dairy Cluster, Bayandelger soum, Tov aimag

On the return trip to Ulaanbaatar, a brief visit was made to a recently formed dairy cluster in Bayandelger soum of Tov aimag, 93 km east of Ulaanbaatar. The cluster was developed by the APU company, which uses the fresh milk in its dairy product lines. The cluster consists of 10 individual dairy farms of 40 cows each. Each unit has 15 ha of pasture and an additional 5 ha of land fronting the barns.

Dual-purpose (milk-meat) breeds were imported for the units. Holstein-type are also used. Pasture per cow and pasture productivity are very low. Silage and concentrates (imported and local) are fed. The silage appeared dry, long-cut and not well packed and also in limited supply. Water in the barns is available free choice. The farms are not yet reaching their production targets (I/cow/day) and hence are not yet profitable. The farm



owners feel that a local milk processing unit would allow them to capture value-added and improve the chance of profitability.









3.6.5 Bayandelger Khuns LLC (Tov)

The team met with Ms. Gantuya, Advisor of Bayandelger Khuns LLC on Saturday, April 9.

This vertically integrated company is based 93 km from Ulaanbaatar in Bayandelger soum of Tov aimag where it has a meat plant, feedlot and crop production. From there, it provides fresh meat to Emart and other clients in Ulaanbaatar. They are also piloting their own retail outlet. MCS and Tovan Bogd are also in this market segment with vertically integrated systems.

Market Specifications: Emart hypermarket requirements began with organic meat standard. This year, they will have ISO 19001 and ISO 22000 which includes HACCP standards. Emart carcass weight requirements are based on Korean standards:

- Cattle carcass 130 to 160 or 180 maximum
- Sheep 18 to 20 kg.

Pricing: Price varies depending on the general market price but emart charges a premium based on cut classification and other product specifications and standards (ISO, HACCP, traceability, cold chain etc).

Market Demand: Some customers are willing to pay for specific cuts, quality, safe-food and eco-foodd, but this is a very small niche market. Bayandelger conducted a survey with emart customers which indicated that they would pay up to 20% more for "safe, fresh" food, which is the reason they shop for meat at emart.

Business Model: The company uses a multi-faceted business model focused on partnership, sustainability and traceability:

- Quadro helix partnership model with stakeholders
- Sustainable production through cluster model
- Open platform business model for herders, suppliers, and buyers
- Compliance with world environmental standards
- Traceability first company to have. They use the Traceability APP developed by MOFALI and SDC which is complete and functioning from herders to customers.

Vertical Integration: The business has, by necessity, become vertically integrated. The farm and feedlot were established in 2014 and the meat plant in 2016. The first attempt to grow animal feed in 2016 failed and they stopped this part of the enterprise. During Covid, they had to find a way to lower their meat price, so they went back to feed production. The operations now consists of:

- Multi-species slaughterhouse: The slaughterhouse has a daily capacity of 50 head of cattle and 100 head of sheep. At this time (early spring), they are running at low capacity. Currently, carcass weights are 190 kg for cattle and 19-20 kg for sheep. The Construction Development Centre approved blueprinting/drawings of slaughterhouse. The initial vision has expanded to include cooling, freezing and cutting rooms.
- **Feedlot:** The feedlot has a capacity of 200 cattle in 5-6 pens and is located about 2 km from plant. The feedlot functions as a *quarantine zone* which adds value by providing healthy meat for



- competitive advantage. In the summertime, they feed in the quarantine zone (feedlot) for about 21 days and in the winter for up to 180 days from December until July. Feeding throughout the wintertime, with daily offtake, allows them to produce fresh meat everyday. The financial result in winter is always negative but it allows them to maintain their long-term retail contract.
- Cow-calf production: They have their own herd of Selenge cattle and source from livestock suppliers in the eastern aimags. It is necessary to collaborate with herders, which requires building trust by having something to offer. To do so, they provide improved bulls to herders and the herders provide calves based on standards from emart. Cattle should be 2 -4 years old with 2 2- and 3-year-olds preferred. In winter, there are a greater number of 4-year-olds. This is done with cattle only, not sheep.
- Crop production: Feed is vital. To keep the meat price down, they have gone into own feed production. They have their own 200 ha farm is in the same soum within 10 km of the feedlot and plant. They have developed a cluster approach with 4 or 5 other farmers in the area who have 100 ha to 500 ha each. They grow oats, barley, corn, beans and wheat for bales and a small amount of silage. They also have relationships with crop producers in Dornod. Crop production is very risky based on weather conditions and is further challenging because of the lack of human resources.

Employment: The meat plant and feedlot employ 15 staff, not including administration and management.

Comments on the project's feasibility study: Market analysis and selecting the right market and segment is critical. Export markets are an opportunity but require new, high standards, a disease-free zone and/or heat processing of meat. They see Dornod as a strategic point for export and would be open to exploring partnership.







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3.6.6 Site Visit to Emart, Ulaanbaatar

Emart charges premium prices for meat based on meat cut classifications, some traceability and handling methods (instore butcher, wrapping, chilling) that are perceived as safe by consumers.

Beef Cuts



Pork Cuts with Traceability (Farm of Origin, vet certification and QR code) and View of Butcher



Variety of Cuts



Beef Cuts: Round 19,900 MNT/kg



Beef Ribs: 15,800 MNT/kg





Beef: 19,900 MNT/kg



4 Gender and Vulnerable Groups' Issues Raised in Meetings

4.1 Stakeholders' Meetings at the Aimag Government Office

15 stakeholders at the aimag level participated in the meetings. Five of them (33.4%) were women and 10 (66.6%) were men. Two women (28.5%) and five men (71.5%) work at the managerial positions.

According to the Law on Promoting Gender Equality in Mongolia, the aimag has a Sub-Committee for gender equality; the aimag Governor is the Chair of the Sub-Committee and Ms. Otgontuya, Specialist of the Social Development Department is the Gender Focal Point and Secretary of the Sub-Committee. The Sub-Committee consists of Deputy Governor of aimag, heads of the local government agencies and representatives of the local CSOs. In addition, there is a Gender Club consisting of gender specialists of the local agencies and soum government officials that are responsible for the implementation and reporting of the planned activities for the gender equality at local level.

Although 7 meat processing plants operate regularly, they do not have a mutual, effective and consistent cooperation with the local herders. Therefore, the promotion of effective bilateral cooperation between the herders and meat factories needs to be addressed. Since more than 50% of the herders 200 head or less, it is necessary to consider introducing new channels for their equal participation and benefits from the interventions.

There is a desire to define the needs of alternative primary school for herders at *bagh* level and discover the possible options. It is crucial to define herders' challenges to educate their children, find alternative solutions and clarify efforts and achievements to solve the problems for the community development planning.

The Aimag's sub-program to promote gender equality expired in 2021. Currently, the Sub-Committee approved the Annual Action Plan for Gender Equality. However, the Action Plan 2022 does not address herders' gender related problems and **CC** issues. The forms approved by the NSO limits gender disaggregated data at aimag and soum level.

A restocking program for herders and program for contracting with herders have been approved by the National Council for Employment Promotion. Although there is no gender disaggregated data at the target soum, it is needed to consider when doing feasibility study to these issues.

4.2 Stakeholders' Meetings at the Soum Government Office

9 stakeholders participated in the meeting at the soum level. Seven (77.8%) are women and two (64.3%) are men. One woman (50%) and one man (50%) work at the managerial positions. Ms Enkhtuya, a soum's social worker oversees gender issues, and women's councils of each bagh work under Bagh's Citizen's Khural (BCK).



4. Gender and Vulnerable Groups

There are 24 herders' groups established in 2012 with the support of the Millennium Challenge Account. There are also 2 PUGs in each bagh, 6 PUGs in total. PUGs have not been done except of creating a common fund. Since the establishment of the herders' groups and PUGs, they do not work effectively. Therefore, in-depth study and analysis is useful to clarify how to build democratically from bottom up a powerful herder's group.

The soum's Citizens' Representative Khural decided to collect a livestock tax from all herders. Decision on the tax was made based on the Survey that herders were participated. But complaints were collected from the households with less than 200 livestock.

The Gender Specialist of the soum has done a Gender Study of the community. Key findings are as below:

- a. Household heads (husbands) have authority to spend majority of the household's income.
- b. Poor female herders have faced the following challenges:
 - i. Due to the small number of livestock, they could not earn income from the dairy products.
 - ii. They do not have sufficient money to purchase the necessary equipment to produce dairy products for income security.
 - iii. They are not able to get the loan, because the family properties are owned by their husbands.
 - iv. Even if they herd other people's livestock and produce dairy products, they cannot go to the market place, because they don't have their own car or motorcycle.
- c. Revised "A" form for the livestock census gives an opportunity to register herds under each household members' name, if necessary.
- d. During the school year, female herders stay with their children in aimag or soum center to educate them. This leads to the separation of the families, but not divorce. There is not a case of divorce because of the family separation.

4.3 Stakeholders' Meeting at the Bagh

Nine stakeholders participated in the meetings at the *bagh* level. Three female (33.3%) and six men (66.7%) participated. Bagh Governor and Chair of the BCK are all men. The leader of the Women's Council, who works under the BCK, attended this meeting.

The key stakeholder's team with 11 members was built from this meeting as a first meeting. The team members divided the *bagh*'s territory into 4 sub-regions and a representative of the sub region is included in the team. Out of 11 stakeholders, there are 4 females and 7 males. Four of them are representatives of the local government offices. In order to ensure real participation of various groups of herders, they decided to organize information sessions in each sub-region. Team members preferred the outreach meetings so that all members of each households including husband, wife and young members could attend.

There are few households that could not own their winter camp. Detailed information is required for the vulnerability study.



5 Summary of Findings

The project was well received by all level of government and each stakeholder group. Both the aimag and soum governments pledged their support and participation in the feasibility study activities. There is a strong desire by the members of the Key Stakeholder Group to participate in the feasibility study process and to reach out herders in the bagh to ensure their engagement. There are questions regarding market, product type and ownership, amongst other things, that need to be addressed in the study and related communications programs.

Herders and local leaders alike are aware of the impacts of overgrazing and CC related to erosion and decreased productivity of pastures. However, they are not confident that they understand what can done to combat these changes or how to implement any measures. Efforts to engage herders in pasture co-management through pasture management agreements and PUGs have had limited results. As a result, many herder groups are inactive and/or are motivated by the indirect benefits of group membership such as low interest revolving funds. There are numerous factors contributing to this including but not limited to:

- The lack of significant and consistent market signals rewarding producers for better quality livestock and underdeveloped auction and joint marketing services
- Limited ability to enforce land and pasture use regulations at the local level
- Lack of transparency in the application of regulations resulting in owners of large herds gaining inappropriate access to pastures
- In-migration of herder families who have no formal access to pasture but nonetheless are grazing their animals
- Entrenched poverty that compels small herd owners to continuously try to grow their herds to attain a minimum standard of living
- Lack of knowledge and skills and resources for intensifying livestock production through improved nutrition, genetics, animal health and forage and fodder production
- Ongoing issues of endemic livestock disease (i.e., Foot and Mouth disease) which make export markets unstable and largely unattainable.

However, as Mongolia enters its second generation of transition to a market economy, there are numerous green shoots of development that bode well for CC adaptation, pasture management and the commercialization of the livestock sector. These have emerged over the past 10 years and, though still nascent, have the potential to support a transition to a more sustainable system. These include:

- A growing market demand for higher quality and safe food based on the restaurant trade and the growing middle-class consumer market, especially in Ulaanbaatar, as evidenced by groups like emart, Bayandelger farms and Razorback/Xanadu.
- Improving systems for animal health and traceability in line with OIE standards and an improved awareness within the industry of the animal health requirements of export markets.
- A small but growing commercial forage, fodder and manufactured livestock feed sector.



- Increased awareness by national, aimag, soum leaders and herders alike regarding pasture degradation and CC issues.
- An improving policy and regulatory environment such as the locally administered animal head tax which is providing local communities the tools and resources to take action on livestock numbers, pasture rehabilitation and climate adaption.
- A robust use of social media and online information sources to promote information sharing between rural stakeholders.
- An ongoing commitment by the GoM and international donors and financiers to support CC
 adaptation, natural resource management, the commercialization of the sector and the ongoing
 development of the policy environment and supporting institutional services (market
 infrastructure, animal health, trade, extension, etc).

Translating these developments into a successful plan for Bayantumen will require careful consideration and design related to several key elements:

- Identifying the right market segment and channel for Bayantumen livestock and products that will provide an improved return to herders and provide the incentive for changes to production and marketing practices. This involves examining the market opportunities by i) location (Dornod, rest of Mongolia, export), ii) type of meat (beef, sheep, horse, goat), iii) type of processing and quality standards (basic standards for local market; premium standards for local market; highest standards for export market), iv) the profitability of the feedlot by species and feeding program accounting for seasonality, and v) potential returns to selling improved livestock (genetics, health, youthfulness).
- Identifying the appropriate plant functionality, design, technology, operational and energy
 efficiency, infrastructure and management systems given the market opportunities,
 competition, labour availability and other factors.
- Assessing feedlot programs taking into account the availability of feedstocks, water, appropriate
 mix of animals and the role of the feedlot in managing animal health, end-market contract
 fulfillment and quality specifications.
- Employing food safety, animal health and traceability throughout the value chain.
- Taking a "whole herd" approach to livestock management that addresses livestock numbers, productivity and pasture pressures related to all species in the herd.
- Developing trust-based relationships with herders supplying livestock through the provision of clear contracting and pricing based on quality specification as well as improved breeding services, animal health services, access to finance and other strategies of mutual benefit.
- Taking a staged approach to development that considers the current baseline of production standards and market opportunities and how to strategically meet a higher level of quality over time.

The engagement of stakeholders, including women, will be critical in developing an approach that herders will support long term. Income generation and access to finance is important to women herders to purchase inputs to improve production levels and quality. They also need better market access to sell their products. Consultations and the strategies developed need to consider the multiple concerns of



5. Summary of Findings

stakeholders and what motivate them to undertake change in their livestock production and marketing and to make investments in inputs, pasture improvements and climate change adaptation. These motivators include immediate economic returns as well as preserving and improving pasture and biodiversity to secure future income, access to resources and knowledge for new management approaches, the ability to provide education, health and other services to children and other family members, providing an opportunity for future generations to make a decent livelihood in the livestock sector, maintaining rural communities and preserving Mongolia' traditional culture.



6 Next Steps

It was agreed that the Assessment Mission (Mission 2) will be held in Bayantumen soum between June 4 and 12, 2022. The International team will depart from Canada and the USA on approximately May 31 and will return home on June 14.

In preparation for the Assessment Mission, the following work will be done:

- 1. Follow-up to the Kick-Off Mission will be completed (by April 22)
 - a. Deliverables 2.1 and 2.2 will be submitted to the NDE and Project Proponent (cc to UNCTCN) by April 22 th for review and approval.
 - b. Monthly update memo
 - c. Monitoring and Evaluation (M&E) update
- 2. Mission 2 Logistics will be organized
 - a. International flights booked to ensure best price and timing (April 20)
 - b. Budget revisions will be completed to determine capacity building activities (April 27) and assessment activities for CCVA, gender and pasture.
 - c. Field trip logistics to be completed (May 15)
- 3. Technical Preparation for Assessment Activities
 - a. Reporting and Analysis Standards
 - Review all CTCN format requirements
 - b. Market Analysis/Business Models
 - Literature review: market studies, prices, meat processing sector, feedlots and crop production in Dornod.
 - Development/acquisition of models
 - c. CC Vulnerability Assessment
 - CC data from various organizations and government levels collect/analyze
 - CC survey 1 initial survey of herder impressions
 - o Distributed Apr 12.
 - Analysis and share results
 - CC survey 2 detailed climate change questions
 - Prepare questions (Majid April 20)
 - develop a specific workplan and budget for meetings with key informants and stakeholders
 - d. Gender Assessment



- Step 1: Define the scope of the gender and vulnerable groups' analysis (framework). The scope of the gender and vulnerable groups' analysis will be defined based on the findings\lessons learnt from the relevant studies and projects in this field.
- Step 2: Identify the target groups to be participated in the CC vulnerability assessment based on the detailed information on stakeholders.
- Step 3. Develop assessment tools of the gender and vulnerable groups analysis aligned with the CCVA.
- develop a specific workplan and budget for meetings with key informants and stakeholders
- e. Pasture and Livestock Production Assessment
 - Pasture data
 - Literature review
 - Update of value-chain information
 - develop a specific workplan and budget for meetings with key informants and stakeholders
- 4. Projects/Orgs to meet prior to Mission 2:
 - a. WB Livestock Commercialization Project (Project Manager: Vanchin) (emailed Apr 9)
 - Market studies
 - VC studies
 - Meat plant and feedlot feasibility studies
 - Work in Dornod
 - b. FAO/WWF Project livelihoods component for work on pastures/livestock. Ask Tsegee for a contact
 - c. FAO general program in Mongolia on Climate Smart Agriculture (CSA) UB office. They have done some work on slaughterhouses. Will have CSA approaches for pasture and crops.
- 5. Identify and Organize Training/Capacity Building activities for Mission 2:
 - Type: Workshops, information sharing sessions, remote meetings integrated into the assessment mission schedule
 - Participants: Local public and private stakeholders; herders; gender/vulnerable groups
 - Number of participants: 50
 - Length: Informal activities over a ten-day period
 - Timing: Last week of February; the first week of May/June
 - Location: Soum and Aimag centers, Zoom



Assessment Mission Schedule - Draft

Day/Date			Activities				
Thursday, May 26	D. Rasmuss	en departs Canada	to Mongolia (for	ADB mission)			
Sun, May 28	Arrive Mon	golia for ADB missio	on May 29 – June	2			
Tuesday May 31	M Irani and	D. Miller depart Ca	nada and USA				
Thursday June 2	M Irani and	D. Miller arrive in N	Mongolia				
Friday June 3	Whole team	/hole team: various meetings					
Saturday June 4		To Bayantumen Soum					
	CCVA	Gender	Pasture	VC/Feasibility	Community Planning		
Sunday June 5	Prep, site visits	Prep, site visits	Prep, site visits	Prep, site visits			
Monday June 6	½ day traini	ng – topics/agenda	TBD; Meetings,	site visits			
Tuesday June 7	CCVA	Gender	Pasture	VC Analysis			
		Assessment	Assessment				
Wednesday June 8	CCVA	Gender	Pasture	VC Analysis			
		Assessment	Assessment				
Thursday June 9	CCVA	Gender	Pasture	VC Analysis			
		Assessment	Assessment				
Friday June 10		½ day comr	nunity planning v	workshop - all			
Saturday June 11	CCVA	Gender	Pasture	VC Analysis			
		Assessment	Assessment				
Sunday June 12			To UB				
Monday June 13	Wrap-up m	eetings in Ulaanbaa	tar				
Tuesday June 14	Internation	al team departs (D.	Rasmussen rema	ains in Mongolia fo	r ADB)		
Saturday June 18	D. Rasmuss	en departs Mongoli	a				



6. Next Steps

Work Schedule and Deliverables (updated April 17, 2022)

Act./		Mo. From	_																	Montl	h from	Cont	ract S	ignin	g																					
Out.	Deliverables	Contract	Resp.	0	Mo 1	1 - De	c	Mo 2 -	- Jan	N	/lo 3 - F	eb	М	o 4 - I	Mar	ı	Ио 5 - <i>I</i>	Apr		Мо 6	- May	[Mo	7 - J	un		Мо	8 - Ju	d l		Mo 9	- Au	3	N	VIo 1	LO - S	Sep		Мо	11 -	Oct		N	1o 1	2 - 1	ov
	Contract signing = Nov 25, 2021			N	1 2	3	4 1	2	3 4	1	2 3	4	1 2	3	4 5	1	2 3	3 4	1	2	3 4	5	1	2 3	4	1	2	3	4	1	2	3 4	5	1	2	3	4	1	2	3	4	5	1	2	3	4
1	Mandatory Elements						·						·								·											İ														
1.1	Implementation plan	Mo 2	All						D																																					
1.2	M&E plan and impact statement (initial; final)	Mo 2	I1, N1, N2						D																																					
1.3	Report - Technical assistance closure report	Mo. 12	I1, N1, N2																																										Γ	D
2	Stakeholder (SH) consultations and climate change v	rulnerability	assessment	of lives	stock fa	arming	g in Baya	antüme	en sum																																					
	Start-up Mission (M1), site visit, kick-off meeting	Mo 3	11, N1, N2													M1																														\perp
	Assessment Mission (M2) May 31 - Jun 14		All but 14																			Ш	M2											М3	3											$oxed{oxed}$
	Key stakeholder meeting																	\perp					:	(\perp	_				_	_	\perp					_	<u> </u>								ot
2.1	Report on site visit			$\sqcup \bot$				$\perp \perp$		\perp				\perp)	$\perp \downarrow$					_	1	-				_		_		1	1		1	1							L	lacksquare
2.2	Detailed description - Key Stakeholder (name, contact, inst,, gender, etc.)	Mo. 2-3	N1, N2					Ш		Ш		Ш		Ш)	\sqcup			Ш				L						\perp														\perp
2.3	Report - CCVA incl. gender/vul. group analysis	Mo. 2-3	12, N1, N2																						D	•																				\perp
2.4	Minutes - Key stakeholder meeting (participants, gender, materials, discussion summary)	Mo. 4	N2																						D																					
3	Identification of the pastureland management meas	ures to be in	nplemented	for clin	mate-re	esilient	t livesto	ck farm	ing in E	Bayant	tümen s	um																																		
	Key stakeholder meeting																							(_	_						<u> </u>							<u> </u>	L
3.1	Report - Pasture mgt, technologies and impacts on climate-resilient livestock farming (Dan + Nat'l).	Mo. 5-6	13, N1, N2																				M2	D	H																					
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Deliverable 2.2: Participants Lists and Description of Key Stakeholders





Annex A: Participants Lists

Official Kick-Off Meeting with Dornod Aimag Government Office: 4 April 2022

Nº	Names	Position	Email	Cell phone	Sex
1	Ch. Ganbat	Vice Governor of Dornod aimag		99076861	М
2	A. Gantulga	Head of Environment and Tourism Department		99080803	М
3	Ch. Ayushmaa	Head of Veterinary Department		99582004	F
4	N. Ariunsuvd	Specialist of State Administration and Foreign Affairs Department	Suwdaa0606@gmail.com	80892544	F
5	B. Altansukh	Head of Development Policy, Planning and Investment Division		88016113	М
6	D. Narankhuu	Head of Agriculture and Animal husbandry Department		89681990	М
7	N. Naransoyol	Officer of Public Relation		80589945	F
8	G. Bayarsaikhan	Expert of Development Policy, Planning and Investment Division	Cak_bayaraa83@yahoo.com	86643484	М
9	Kh. Enkh-Otgon	Governor Advisor	Khadankhuu9@gmail.com	99005353	М
10	T. Battur	Dornod Meat LLC branch of Dornod Makh Market		88003841	М



Individual Meetings with Aimag Level Officers, Projects and Private Sector Actors: April 4 and 5, 2022

Nº	Names	Position	Email	Cell phone	Sex
1	L.Narangerel	Dornod aimag admin assistant of "Improving adaptive capacity and risk management of rural communities in Mongolia" project (MET, GCF and UNDP)	Narangerel.l@gcf-rural.mn	99582702	F
2	Gerelee	Executive director of aimag PUG association		99584034 88304303	F
3	Kh.Otgontuya	Gender expert of Public Policy Department	Tuyak1876@gmail.com	88008924	F
4	G.Tumurchuluun	Labor expert of Public Policy Department	Gtomorchuluun55@gmail.com	7058-2055 <i>,</i> 9917-2450	M
5	B. Bat-Erdene	Executive Director of Khaan Foods LLC	baterdene@khaankhuns.mn	99098425, 91118425	М
6	T. Battur	Dornod Meat LLC branch of Dornod Makh Market		88003841	М
7	A.Gantulga	Head of Environment and Tourism Department			M
8		Retail meat shop - traditional			F



Annex A: Participants Lists

Official Meeting with Bayantumen Soum Government Office: 5 April 2022

Nº	Names	Position	Email	Cell phone	Sex
1	E. Narangarav	Governor	e.narangarav328@gmail.com	99068753	F
				88093779	
2	D. Tumentsetseg	Specialist of Agriculture Division	tumee.dondog@yahoo.com		F
3	B. Byambadelger	Gender specialist			F
4	G. Enkhtuya	Staff of Public Policy	g.enkhtuya68@gmail.com		F
			Gertsuu Enkhtuya		
5	M. Battugs	Specialist of Agriculture (cropland)	Battugs1984@gmail.com		F
6	Kh. Enkhkherlen	Environmental Inspector	Hherlen0812@yahoo.com		F
7	B. Tsetsegdulam	Expert of Metrology	barkhasdulam@yahoo.com		F
8	B. Munkhtsetseg		Munkhtsetseg@gmail.com		F
9	Gantulga	Bagh Governor (4)	Tulgaa99072518@gmail.com		М



Annex A: Participants Lists

Official meeting with Bagh (4): 6 April 2022

Nº	Names	Position	Email & Facebook	Cell phone	Sex
1	Gantulga	Bagh Governor (4)	Tulgaa99072518@gmail.com		М
2	O. Gantumur	Head of herder group	Gantumur Otgonbaatar	80287878	М
3	G. Otgon				
4	O. Ganbold	Environmental Inspector	Ganbold. otgonbaatar	88245377	М
5	M. Battugs	Specialist of Agriculture (cropland)	Battugs1984@gmail.com	88252293	M
6	Kh. Enkhkherlen	Environmental Inspector	Hherlen0812@yahoo.com Хэрлэн Хэрлэнцэцэг	99584045	F
7	Kh. Enkhbaatar	Bagh Citizen's Representative khural	Х.Энхбаатар	88597595	М
8	E. Enkhtsetseg	Member of Bagh Citizen's Representative khural, Head of women committee	Enhjargal Enhtsetseg	88641052	F
9	S. Jodovzagd	Member of Bagh Citizen's Representative khural	Jodovzagd Sumya	89779484	F



Official Meetings with International and Domestic Entities in Ulaanbaatar: 31 March - 10 April 2022

Nº	Names	Position	Email&Facebook	Cell phone	Sex
1	J.Sergelenkhuu	Pastureland expert of WWF	sergelenkhuu.j@gmail.com	9916-4564.	F
2	D.Bulgamaa	Honorary/Advisory board member of	bulgamaa@greengold.mn	9906-9116.	F
		National Federation of Pasture User			
		Groups of Herders (NFPUG)			
3	Ms.Gantuya	Advisor of Bayandelger Khuns LLC		99071704	F
4	Ms.Narangaravuu	Specialist of CC Department of MET	narangaravuu@mne.gov.mn		F
5	I.Battogtokh	Manager of Mongolian Meat	Mon.meat@yahoo.com	88080174	М
		Association			
6	Jeremy Tiessen	Director of Xanadu Razioback LLC	jeremy@xanadurazorback.com	95956908	М

Project consultant team: 2-7 Apri, 2022

Nº	Names	Position	Email & Facebook	Cell phone	Sex
1	Debra Rasmussen	Project Manager	debrar@alineainternational.com	99110297	F
2	S. Tumendelger	Gender consultant of Project	tumeesen@gmail.com	99089764	F
3	P. Byambadorj	Agricultural Engineer of Project	mongreenone@gmail.com	95898505	М
4	G. Surakhbayar	Project Coordinator	surakhbayarg@brp.mn	99109141	M
5	Ms. Punsalmaa	Translator	punsalmaa@climatechange.mn	86002070	F
6	L. Lkhagvasuren	Project proponent	dornodresearch@gmail.com	99039761	M



Annex B: Key Stakeholders List

Members of the Key Stakeholders' Working Group

Total: 11 members: April 06, 2022

Name	Position	Contact	Location	Gender
1. L.Lkhagvasuren	Herder, farmer, initiator		Lake	Male
2. E.Narangarav	Soum governor	e.narangarav328@gmail.com	Soum center	Female
3. Gantulga	Bagh governor	Tulgaa99072518@gmail.com	4 th bagh	Male
4. Kh.Enkhbaatar	Citizen's Khural's Chairman, 4 th bagh.	Х.Энхбаатар 88597595	4 th bagh	Male
5. O.Gantumur	Member of Citizen's Khural, 4 th bagh.	Gantumur Otgonbaatar 80287878	Khotont - Khulstai	Male
6. E.Enkhtsetseg	Member of Citizen's Khural, 4 th bagh. Leader of women's council.	Enhjargal Enhtsetseg 8641052	Bayanbulag	Female
7. S.Jodovzagd	Member of Citizen's Khural, 4 th bagh. Leader of senior people's council.	Jodovzagd Sumya 89779484	Gurvantsaidam, Gurvanii bulag	Female
8. Myagmar	Member of Citizen's Khural, 4 th bagh. Veterinarian.		Sharburd	Male
9. Zorigtbaatar	Member of Citizen's Khural, 4 th bagh. Leader of young people's council.		Khotont	Male
10. Kh.Enkhkherlen	Soum Civil Servant - Environment issues	Hherlen0812@yahoo.com 99584045	Soum center	Female
11. B.Battugs	Soum Civil Servant- Agricultural issues	Battugs1984@gmail.com 88252293	Soum center	Male
			% Female	36%



Additional Annexes





Annex C: Project Brochure - Mongolian













"ОРОН НУТГИЙН ФЕРМЕРИЙН МАЛ АЖ АХУЙ, ЭДИЙН ЗАСГИЙН ТОГТВОРТОЙ ХӨГЖИЛ, УУР АМЬСГАЛЫН ӨӨРЧЛӨЛТӨД ДАСАН ЗОХИЦОХОД ДЭМЖИХ" төсөл

дорнод аймаг, баянтумэн сум

(Техникийн туслалцааны төслийн дугаар: UN-CTCN TA# 2021000014)

- Теслийг санаачлагч: Зүүн хойд Азийн байгаль орчин, хөдөө аж ахуйн судалгааны төв ТББ (Монгол)
- ➤ Төслийг дэмжигч: Байгаль орчин, аялал жуулчлалын яам (БОАЖЯ)
- Төслийг санхүүжүүлэгч: НҮБ-ын Уур амьсгалын технологийн төв & сүлжээ
- Төслийн туслан гүйцэтгэгчид:
 - Алиниа Интернэшнл ХХК (Канад)
 - "Албертагийн Биологийн олон янз байдлын мониторингийн сүлжээ" ТББ (Канад)
 - Уур амьсгалын өөрчлөлт, тогтвортой хөгжлийн судалгаа хөгжлийн төв ТББ (Монгол)
- > Xyrauaa: 2021.11.01-2022.11.01 (12 cap)
- Тесев: 200,000 ам.доллар

□ ТӨСЛИЙН ЗОРИЛГО

Дорнод аймгийн Баянтүмэн сумын фермерийн мал аж ахуйн эдийн засгийн тогтвортой хөгжлийг дэмжих замаар уур амьсгалын өөрчлөлтөд дасан зохицох чадавхийг дэмжихэд оршино.

□ ТӨСЛИЙН ЗОРИЛТУУД

- "Уур амьсгалын өөрчлөлтийн эмзэг байдлын үнэлгээ", "Жендерийн үнэлгээ"-г орон нутгийн иргэдийн оролцоотойгоор гүйцэтгэх:
- Уур амьсгалын өөрчлөлтөд дасан зохицсон бэлчээрийн менежментийн боломжит арга замуудыг тодорхойлох;
- Уур амьсгалын өөрчлөлтөд дасан зохицсон орон нутгийн хэмжээний мах боловсруулах үйлдвэрлэлийн бизнес моделийг боловсруулах;
- Холбогдох төрийн байгууллагуудын уур амьсгалын өөрчлөлтөд дасан зохицох чадавхийг нэмэгдүүлэх;



Уламжлалт мал аж ахуйд малчин эмэгтэйчүүдийн оролцоо жинтэй байр суурь эзэлдэг. Орон нутгийн хэмжээний мах болоасруулах үйлдаэрийн төсөл нь малчин эмэгтэйчүүдийн хадалмар эрхлэлтийг нэмэгдүүлэх, эдийн засгийн чадавхийг сайжруулахад зерэг нөлөө үзүүлнэ. Бэлчээрийн менежментийн туршлагыг уур амьсгалын өөрчлөлтөд тэсвэртэй мал аж ахуйн дэвшилтэт технологитой уялдуулан хэрэгжүүлэх нь зорилтот бүс нутгийн эмэгтэйчүүд, эмээг бүлгийн иргэдэд байгаль орчин, нийгмийн чухал ач холбогдолтой.



төслийн хуртээмх



Төслийг санаачлагч "Зүүн хойд Азийн байгаль орчин, хөдөө аж ахуйн судалгааны төв" ТББ-ын "Нүүдэлчин монгол цахим сүлжээ" пэйж хуудас Монголын хөдөө, орон нутгийн иргэдэд

нээлттэй, өргөн цар хүрээ бүхий нийгмийн сүлжээ юм.
"Нүүдэлчин монгол цахим сүлжээ" пэйж хуудсаар дамжуулж
төслийн ололт амжилт, үр дүнг Баянтүмэн сумын иргэдэд
төдийгүй Монгол Улсын бусад аймаг, сумдын малчид, иргэдэд
хүргэх нь тус төслийн жишгээр ижил төстэй төслүүд өөр
сумдад хэрэгжихэд туршлага хуваалцах боломжийг бий
балгана.

https://www.facebook.com/enomad.mn

ТӨСЛИЙН ЗОРИЛГО - ТОГТВОРТОЙ ХӨГЖЛИЙН ЗОРИЛТУУД - ХУВЬ НЭМЭР

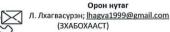


Өлсгөлөнг зогсоож, хүнсний аюулгүй байдлыг хангах, шим тэжээлийг сайжруулах, тогтвортой хөдөө аж ахуйг дэмжих;



Уур амьсгалын өөрчлөлт болон түүний үр дагавартай тэмцэх яаралтай арга хэмжээ авах, дэд зорилтуудыг хэрэгжүүлэх;

- Уур амьсгалын өөрчлөлтөөс үүдсэн аюул, байгалийн гамшигт үзэгдэлд тэсвэртэй байдал, дасан зохицох чадавхыг улс орнуудад бэхжүүлэх.
- Уур амьсгалын өөрчлөлтийн хурдыг сааруулах, түүнд дасан зохицох, сөрөг нөлөөллийг бууруулах, урьдчилан мэдээлэх тапаарх иргэдийн боловсрол, мэдлэгийг сайжруулж, байгууллагын болон иргэдийн чадавхыг дээшлүүлэх.



Улаанбаатар

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ТӨСЛИЙГ САНААЧЛАГЧ



Зүүн хойд Азийн байгаль орчин, ходоо аж ахуйн судалгааны төв ТББ-ын захирал, фермер, "Орон нутгийн фермерийн мал аж ахуй,

Зүүн хойд Азийн байгаль орчин, ходоо аж ахуйн судалгааны тов ТББ-ын захирал, фермер, "Орон нутгийн фермерийн мал аж ахуй,
здийн засгийн тогтворгой хогжил, уур амьсталын өөрчлөлгөд дасан зохицоход дамжих" тослийг санаачлагч.
Биологин, экологин маргамилэй. Байгаль, орчин, олон уксын харилцаа, ходоо аж жауй, газрын тос, орон нутгийн хогжил, уур
амьсталын өөрчлөлт, хүний хогжил, ходоөгийн малчдын болон хүүхдийн боловсрол зэрэг өргөн цар хүрээнд ажиллаж бүй,
улсынхаа хогжилд тэр бүнийн хамт жинтэй хувь намэр оруулагч үндэсний сэхээтэн, шинийг санаачлагч, тогтөөргөй хогжилийн
зовлоо, малчин. Тэрээ РТХГ, ТСТХ, ХХДЦТ-ын менежижелт, орчны бүсийн хогжил, Их мүүрүүдын хотгорт сэргээн нутагшуулах, мал сүргийн
зорлол, балжарайн даац, отор туувар, салгээ нуудал, Уйдаврэлал, Уйдамэглай, Чихингэээний чисталэээ учухал, бүй бухий олон тооны
судалгаа, шенжилгээ, эрдмийн ажил хийж гүйцэтгэсэн. АНУ-ын 21 муж, Хатад, Япон, Голланд, Герман, ОХУ, Азийн Хорсний
судалгааны хүрээлээн, Австрийн БОКУ их сургууль зэрэг улсууд, олон улсын байгууллагуудтай хамтарч ажилладгаас гадна
ТМуудэлчин Монгол Цахим Сүлжээ"-г байгуулж, Монголын өнцөг булан бүрт хурч ажиллаж буй туршлагатай. Орос, Герман, Англи
хэлний мэдлэгтэй.

зөвлөхүүд



Дебра Расмуссен

Алиниа интернэйшил ХХК, Хүнсний аюулгүй байдал, Байгалийн Нөөцийн Менежмент, Хяналт, Үнэлгээний салбар, Төслийн лиллин илтерилимил лол, лук-или англар, техник илтерилирил бандал, сангалин поецени мескемент, диналт, тиэлгэмин салоар, теслин Захирал, "Орон мутийн фермерийн мал аж ахуй, здийн засгийн тотвортой хөгжил, уур амьсгалын өөрчлөлтөд дасан зохицоход дамжих" тослийн зөвлөх багийн ахлагч. Канад улсын Онтариа мужийн GUELPH их сургуулийг хөдөө аж ахуйн эдийн засагч мэргэжлээр 1988 онд магистрын зэрэгтэй

лынад ульши онгырым жүмийн болсстт их сургуулийг ходио аж азүйн адили эдагч мэргэжлээр 1966 онд магистрын зэрэгэм отссон, жүнс жүнө аж азүй, байгалийн ноонум абисти, жендарийн этэш байдын солабар, чиглэлийн онгистрын зэргэги 40 гаруй тосон, хоталборуудийг удирдан ажиллаж байсан ажлын арвин туршалатай. Тэрээр 1996 оноос хойш Монгол Улсын жэдөө эж азуй, мал аж азүй, газэр тариалан, жимс ногоо, уңгений зоулуйг байдал, ханган нийлүүлэлийг сулаээ, байганийн нооцийн чиглэлийн тослуудад ажиллаж, Монгол Улсын мал аж азүйн салбарт хэрэгжсэн тослийн уйл ажиллаганд орон нутгийн иргад, олон нийгийн оролцог хангах арганиалын гүр дүнтай ашигласан нь Азийн Хоклиййн Банинас сайшаагаж байсан. Гана, Мали, БНХАУ (мон ӨМӨЗО), Түөд ээрэг улсуудад тогкортой хөдөө аж ахүйн чиглэлээр сургалт, судалгаа, төр, хувийн хэвшилийн хамтын ажиллагааг дэмжин ажиллаж ирсэн.



Даниел Миллер

Даниел Миллер
"Орон нутгийн фермерийн мал аж ахуй, эдийн засгийн тоггвортой хөгжил, уур амьсгалын өөрчлөлтөд дасан зохицоход дэмжих"
төслийн зөөлөх багийн олон улсын КАА-н зөөлөх.
Балба дахь Экх тайвны корпусын сайн дурын ажилтнаар ажил мэргэжлийн гараагаа эхэлсэн ба АНУ-ын Монтанагийн их
сүртүүлийг бэлчээрийн экологич, бэлчээрийн шөжлэх үхааны малкстр зэрэгтэй тогссон, АНУ-ын Монтана мүжийн Боб Маршал
байгалийн хүрээлэн, Вавомин мунийн Рэйнчинстерийн 10,000 үхрийн ферм, Хойд Америкийн олон улсын хөгжлийн тазар, Азийн
комлийн банк, НУБ-ын Үнсс, ходөө аж ахүйн байгуулага, Ходөө аж ахүйн хожлийн банк, улсын дагы банк, Канад, Шан Зеланд, АНУ-ын Олон улсын хөгжлийн агентааг, Зэрэг ан амьтдыг хамкаалах нийгэмлэг, Дэлхийн зэрэг ан амьтдыг хамкаалах
сан, Байгаль хамкаалах читалэар эрэн тослуүдэд бэлчээрийн мал аж хүй, байгаль хамкаалах читалээр эрэн тослуүдэд бэлчээрийн мал аж хүй, байгаль хамкаалах читалээр эрэн тослуүдэд бэлчээрийн мал аж хүй, байгаль хамкаалах читалээр эн тослуүдэд бэлчээрийн мал аж хүй, байгаль хамкаалах читалээр эн тослуүдэд арлиурийн хамкаалах кайсталь хамкаалах хамхаалах зэрэг улсуудад мал аж ахуй салбарыг хөгжүүлэх, нүүдэлчдийн амьжиргааг сайжруулах төслүүдэд ажилласан байна. Тэрээр бэлчээр судлалын судалгааны ажлын явцдаа Эверестын 4570 км өндөр дэх энгэр газраас цуглуулсан ургамалыг Milleri Hilgana (Noltie) хэмээн өөрийн нэрээр нэрлүүлсэн байдаг.



Мажид Ирвани

"Орон нутгийн фермерийн мэл аж ахуй, эдийн засгийн тоггвортой хогжил, уур амьсгалын өөрчлөлтөд дасан зохицоход дэмжих" тослийн Олон улсын уур амьсгалын өөрчлөлтийн зовлох.

Доктор Мажид Ирвани нь Канадын Албертын их сургуулийн Биологийн төрөл зүйлийн хяналтын хүрээлэнгийн бэлчээрийн Доктор Мажид Иравии нь Канадын Албертын их сүргүүлийн Биологийн төрөл ауйлийн хяналтын хүрээлэнгийн бэлчээрийн эмологич, газэр, биологийн төрөл ауйлийн хяналтын хүрээлэгийн балчээрийн эмологич, газэр, биологийн төрөл ауйлийн хяналтын хүрэлэлийн ландшафт, менежиментийн салбарын зөвлөх. Тэрээр хээр тал, сэрүүн бүсийн бэлчээрийн систем, үүгүүл болон тармаал бэлчээрийн хокситемийн менежимент, мал аж хауйн тогголцооны тоттвортой байдлын уур амьсгалын өөрчлөлтөд дасын зохицов, бүрүрүлэх сгратегийг дамжих чиглэлээр нарийн мэргэшсэн, өргөн цар хүрээний модлаг, туршлага бүхий "бөрчлөгдөж бүй үүр амьсгал дахы Канадын үхрийн мажны үйлдвэрлэлийн амьдарэлын мологийн биологийн олог на байдлын ининжилээ", "Зобоситемийн нүрүстөргчийн инооцод малын бүйдвэрлэлийн орулах хувьмэр, хойд сэрүүн бүсийн бэлчээрийн уур амьсгалын өөрчлөлтийг бүүрүүлэх", "бөрчлөгдөж бүй уур амьсгалын дөр Канадын үхрийн мэхин үйлдвэрлэлийн тэмэлийн үүр ашиг, уснаас үүдэлтэй эрсдэл болон боломжийг үнэлэх" ээрэг олон судалгаа, тослүүдэд ажилласын туршлагатай.



Сэнгэдоржийн Тумэндэлгэр

Сынтароржийн Түмэндэлгэр "Орон иутгийн фермерийн мэл аж азуй, здийн засгийн тогтвортой хогжил, уур амьсгалын өөрчлөлтөд дасан зохицоход дэмжих" тослийн дотоодын Жендэрийн зөвлөх. Монголын социологийдни холбоо, Жендэр судлаач эрдэмтдийн бүлгийн гишүүн, социологийн ухааны доктор. Тогтвортой ходоо ма ахуй, газар тарилаан, носо ноолуурын үйлдвэрлэл, малчдын болон зорилтот бүлгийн хуухдүүдийн сүргүүлийн омнох боловсрол, зах зээлийн шилжилтийн үеийн нүүдэлчин иргэдийн нийгэм, соёл, эрүүл мэндийн өөрчлөлт, залуу малчид, иргэдийн оролцоо, жендэрийн тэгш байдал, жүргээмж зэрэг салбар, чиглэлд судалгаа, үчэлгээ, хяналт, дүн шинжилгээний ажлуудыг тор, боловсролын байгууллага, олон улсын тосол, хотолборүүдийн хүрээнд хийн гүйцэтгэж ирсэн 25 орчим жилийн ажлын туршлагатай. Орос, англи хэлний мэдлэгтэй.



Пүрэвдоогийн Бямбадорж

"Орон нутгийн фермерийн мал аж ахуй, эдийн засгийн тогтвортой хөгжил, уур амьсгалын өөрчлөлтөд засан зохицоход дэмжих" төслийн дотоодын ХАА-н зөвлөх.

тосмого догоодия логим зовлих. Малын зам, быяческій удирдлагын мэргэжилтэй, мал аж ахуй, ходоо аж ахуй, байгаль орчин, тусгай хамгаалалттай газар нутаг, нось, ноогуурын зүүн бүсийн гинкин хэлхээ, орон нутгийн ЖДҮ, нутгийн иргадад түшиглэсэн аялал жуумчлал, тогвортой амыжиргааны читлэлээр Монгол, Казакстан, Япон улсуудад судалгааны ажил хийсэн, төр, хувийн хэвшил, олон улсын тосол, хотелборгуудэд ажиллаж буй туршлагатай. Срос, япон, анги, казак хэлний мэдлэгтэй.













Annex D: Summary Data on Dornod and Bayantumen Soum

The following is a summary of information to provide a profile of Bayantumen soum.

The research team is assembling a comprehensive data and literature set to support the feasibility study

Item	Mongolia	Dornod	Bayantumen
Location	Central Mongolia	Most Eastern	12 km from aimag
		province	center
Distance from Ulaanbaatar (km)		648	648
Administrative units	21 aimags	14 soums	4 baghs
Population (2021)	3,383,741	83,422	2,840
Capital City	Ulaanbaatar	Choibalson	Bayantumen
Capital City Population (2021)	1,466,431	47,153	
Area	1,564,100 km2	123,600 km2	832,000 (ha)
# herding households (2021)	246,302	8,687	788
			Bagh 4 = 167
Livestock (2020)			
Horse	4 093 861	324,450	34,670
Cattle	4 732 010	305,110	27,430
Camel	472 934	6,220	80
Sheep	30 049 428	1,303,060	97,660
Goat	27 720 253	810,850	6,570
Total	67 068 486	2,749,680	226,260
Meat Plants (2016)	48	5 Eastern; 1 Dornod	0
Meat Production (2020) '000 mt			
Beef	158.5		
Mutton/Goat	343.1		
Goat	000.3		
Total	744.5		

NEARC

- Approximately km from Bayantumen soum center
- 400 ha of crop land under a long-term lease; 12 ha of alfalfa, fenced.
- Water wells
- Power line
- Demonstration plots
- Training facility
- E-Nomads social media site

