

STAKEHOLDER CONSULTATION REPORT

“Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia” project

1. Introduction

Throughout the proposal development process regular consultations were held with the NDA, UNFCCC and UNCCD focal points, officials from the Ministry of Environment and Tourism (MET), National Agency for Meteorology and Environmental Monitoring (NAMEM), Ministry of Finance (MOF), Ministry of Food, Agriculture and Light Industry (MoFALI), National Emergency Management Agency (NEMA), Administration for Land Affairs, Geodesy and Cartography (ALAGaC), National Development Agency, aimag level representatives and communities, as well as other development partners and their projects implemented in relevant field and same geographical target areas. Local level government officials in charge of development policy, agriculture, livestock and crop farming, environment and tourism, land and water resources management, hydro-meteorology and emergency management. Consultations were made with NGOs and CSOs active in natural resources management, intended primary beneficiaries from the target provinces, academia and private sector entities. The consultations took place in different forms including:

1. Stakeholder consultations at the:
 - Central level with representatives from project target aimags
 - Local level (Dornod Province) with primary beneficiaries
2. Private sector roundtable at the:
 - Central level (Capital city)
 - Local level (Khovd Province)
3. Validation workshop at central level
4. Bilateral meetings and regular consultations with key stakeholders and target beneficiary communities

2. Stakeholder consultations

2.1 Consultation at the central level

The first consultation took place on November 10th, 2016 at the UN House, Ulaanbaatar. A total of 70 individuals participated in the consultation representing MET, MoFALI, NEMA, Governor offices of Dornod, Sukhbaatar, Zavkhan and Khovd provinces, national implementing agencies, international organizations, research institutions, private companies and NGOs. The workshop was opened by Mrs. Daniela Gasparikova, DRR, UNDP, followed by a remarks by Mrs. T. Bulgan, Director-General of Green Development Policy and Planning Department at MET, and Mr. Choi-Ish, Director General, Livestock Policy Department at MoFALI. The project introduction was made by Mr. Ch. Rajapakse, Consultancy team leader and Mrs. B. Bunchingiv from UNDP Mongolia.



Upon introduction, the consultation merged into component specific group works. The group works were facilitated by national experts as the following:

- Group 1: Enhanced early warning system to strengthen preparedness and planning in the agriculture sector. Facilitator: D.Dagvadorj
- Group 2: Up-scaled ecosystems based adaptation measures to preserve land and water resources. Facilitator: S.Enkhbileg
- Group 3: Application of climate-smart technologies to increase agriculture production and protect agriculture livelihoods. Facilitator: Sh.Altanbadralt

Group discussions were based on the guiding questions as to whether participants agree with the priority recommendations, whether there are objections to the proposed project interventions, what are the means to improve the project proposal, and how they can support the implementation of the proposed project. Group work outcomes are summarized in Table 1.

Table 1. Summary of group work outcome

Activities	Recommendations and Measures
<i>Group 1. Enhanced early warning system to strengthen preparedness and planning in the agriculture sector</i>	
Improve information provision for EWS (Weather forecasts and disaster warnings issued by National Agency for Meteorology and Environmental Monitoring (NAMEM) and its provincial branch offices)	<ul style="list-style-type: none"> • Improve the accuracy of localized weather forecasts [short range (6 hours to 5 days), medium- (5 to 15 days)] and long-range (monthly and seasonal) climate predictions, as well as disaster warnings; <ul style="list-style-type: none"> - Improve methodologies, models, tools (global, regional, local GCMs, data interpretation tools, etc.) for short-range and monthly, end seasonal weather forecasting. - Develop methodologies for more accurate seasonal prediction of drought and zud (harsh winter weather) at national, sub-national and aimag levels. - Improve initial (observation) data collection for weather forecasting (meteorological and hydrological observation data, satellite and radar information, Global GCMs outputs, etc.), • Enhance the dissemination message content for end-users: <ul style="list-style-type: none"> - Issue user-friendly weather warnings by NAMEM and avoid using overly technical terminologies and jargons. - Issue more phenomena-specific extreme weather forecasts and disaster warnings (cold/warm waves, storms (wind, sand and snow), heavy rainfall and snow, flooding (flash floods); - Issue more locally (within the soum territory) specific disaster warnings with exact time and places when/where the phenomena probably will take place • Improve agriculture meteorological information services (grassland and crop yield forecasts, soil moisture, pasture carrying capacity, crop planting and harvesting dates, other practical advices and recommendations for herders and farmers, etc.) for herders and farmers, • Improve hydrological information and forecasts, warnings (river discharge and levels, rain floods, flash floods, etc.)) • Develop guidelines on how to understand and use weather forecasts and disaster warnings for target user groups (herders, farmers, etc)

Improve and upgrade the technical and technological provision for dissemination	<ul style="list-style-type: none"> • Institute of Meteorology, Hydrology Research and Information and NAMEM: <ul style="list-style-type: none"> – Improve and upgrade computing techniques, (especially for running more comprehensive global and regional models and tools. This will entail upgrade of existing computing capacity, more capable data storage system, and video conferencing facilities between central and aimag meteorological centers, and between Meteorological centers and Emergency Authorities • Aimag and Soum branch offices of NAMEM: <ul style="list-style-type: none"> - Improve technical and technological provision of aimag branches of NAMEM (computers, other devices and equipment, as well as trainings) - Improve the technical and technological provision of observation stations and monitoring sites of NAMEM located in soums (computers, observation equipment, communication devices and equipment, as well as trainings) • For NEMA: <ul style="list-style-type: none"> - Install and upgrade the NEMA's part of national EWS - Enhance local EWSs at aimag and soum levels to disseminate warnings to end-users with report back mechanisms - Upgrade communication network and equipment (TV, radio, satellite communication devices, etc) - Transfer the NEMA radio communication analogy system into digital technology and expand its area of coverage
Improve existing networks and develop cost effective mechanisms to expand delivery of weather information to target communities	<ul style="list-style-type: none"> • Undertake survey among the end-users to assess the current condition of receiving the weather forecasts and disaster warnings, and identify the households that are unable to receive timely weather information • Improve guidelines and rules of weather information broadcasting and disseminating to end users and increase responsibilities and obligations of media (TV, radio, mobile phone operators, newspapers, etc.) • Establish a specialized weather TV and radio studios and channels • Upgrade communication (mobile phone operators) and radio broadcasting systems transferring from analogy system to digital ones, and establish a re-transmitting centers • Expand use of satellite technologies in EWS (in TV program receivers, satellite communication facilities, etc.) • Consider using existing local good practices in delivering and disseminating weather info and warnings at local level such as the radio-signal based system used in Dundgobi aimag. • Upgrade the existing radio-communication facilities in Emergency authorities into digital system and install a radio stations with higher transmission capacity in all project aimags and soums, establish a networks for information dissemination facilities between soum and bags (end-users) • Improve and upgrade the technical facilities and technological background of the disaster early warning system in the country (tele-communication and satellite communication systems, teleconferencing facilities, live-cameras, etc.): <ul style="list-style-type: none"> - Hydro-meteorological institutions → Emergency Authority → Aimag Governor's Office → Soum Governor's Office → Bag Governor's Office → End-users (herders, farmers, local households) - Hydro-meteorological institutions → Media (TV, radio, newspapers, mobile phone operators, Alarming/Sirens systems, etc.) → End-users (herders, farmers, local households)
Train agricultural communities and	<ul style="list-style-type: none"> • Train local level officers and end-users (herders and farmers) in use of early warning system in aimag, soum and bag levels

local level Government officers	<ul style="list-style-type: none"> • Educate herders, farmers, and community groups • Train journalists, broadcasters, presenters and media people • Train staff of meteorological and hydrological monitoring stations and observation sites • Train staff of Emergency authority at central and local levels
<i>Group 2. Up-scaled ecosystems based adaptation measures to preserve land and water resources</i>	
Ecosystem based approaches incorporated into land-use planning processes at the local level	<ul style="list-style-type: none"> • Based on available eco-regional assessment completed by TNC and aimag environmental assessments (assessment of pastureland and watersheds in project target areas), conduct monitoring on the state of land use in targeted aimags/soums in coordination with ALAGAG and its local branches and officers to ensure ecosystem based land use planning • Conduct survey on application of ecosystem based land use among herders, local environmental and land management officers, NGOs and local private entities • Improve LMP at aimag level in coordinating with relevant local administrations and departments and ALAGAG based on results of the monitoring on LMP in targeted areas. • Integrate improved/developed ecosystem based LMP principles into soum land management plan (LMP) and guidelines; • Identify priority actions to improve land/soil productivity • Develop mechanisms for planning of livestock breeding based on the capacities of pasture, water and fodder availability in target areas • Improve land management by providing high capacity equipment to line officers of ALAGaC. • Improve coordination mechanisms of related departments including land/pasture, water, forest, and biodiversity, as well as agriculture at the local level. • Promote active participations of Citizen's Khural, NGOs, private companies, HGs to implement the improved LUPs at soum level • Conduct series of training and workshops, organized by experts for implementing LUPs at local level among environment, land and agricultural officers, local communities and private sector; • Develop user friendly guidebooks, leaflets or recommendations on improved LUPs to increase public awareness at the local level • Collaborate with media channels and publication companies to disseminate information on the implementation status of improved LUPs
Gap between water demand and availability reduced through watershed development and water use efficiency and access to water across the watershed enhanced by promoting better (climate-smart) agricultural practices including groundwater	<ul style="list-style-type: none"> • Prepare watershed development plans building on National Water programme and participatory water balance (including groundwater) profiles. • Manage water resources appropriately based on local specific conditions, especially ecosystem health, availability of resources and etc • Undertake water point explorations in underutilized pastures and reflect the findings in the water management plans in target areas. • Take measures to improve availability of water resources, such as water harvesting, protection of surface water sources (springs), and the establishment and/or rehabilitation of both deep wells and hand-dug wells scaling-up good practices generated by EBA project. • Increase water provisioning services through using water saving techniques including drip and micro-irrigation systems based on water management plans (planting seeds resilient to drought and tzud) • Demonstrate technologies or good practices on soil conservation in degraded areas (eco-friendly soil fertilization etc). • Take measures in protecting river and stream channels from potential damages in target areas

	<ul style="list-style-type: none"> • Implement actions on balancing use of surface and ground water, <i>i.e</i> increase the use of surface water. • Implement coordination of water user groups under PPCP approaches to provide effective water management at national and local levels • Regarding to water management in Zavkhan province, the watershed management plan covered 54 soums of 5 aimags, therefore specific water management plan required to implement appropriate measures on water issues. • Conduct community survey at local level on water program to improve the plan (Zavkhan requested) • Conduct research on distribution of ground water reserve in Zavkhan (Budget for the research is planned from the State, but never been allocated) • Organize study tours and demonstration trainings on the ground among local administrations, departments, and local communities and water user groups to replicate best practices • Provide technical and financial supports to HGs and PPCP that improve water source availability and demonstrate technologies or good practices in water management
Community based pasture management, and co-management with local government strengthened	<ul style="list-style-type: none"> • Strengthen coordination of programs on watershed, forest, pasture management at local level • Scale up good practices of possessing pastureland to herder groups based pasture user agreement regarding to the law of the Land, article 52.2 (under the GG project implementation, SDC, the practices is piloted effectively in the some soums of project 4 aimags) • Implement pasture improvement actions integrating with the soum pasture management plan in coordination with HGs and local government (pasture rehabilitation, re-seeding and fencing of pasture where feasible, best practices in fertilizing pasture) • Enhance pasture reserve areas to strengthen sustainable pasture management on basis of Soum land use plan • Improve haymaking management in target areas • Pilot establishing Livestock risk fund in target soums to improve pasture management (fund can be built by fee for pasture use from herders and budget of local Government) • Undertake activities on household livelihood improvement based on ecosystem services to adapt climate change (revolving fund to strengthen HGs, loan with low rate interest, promoting non livestock production such as fodder, fruit and vegetable productions) – good practices by ongoing projects IFAID, Japanese project from MoET and EBA • Set up small scale of promotion system for herder groups who are improving their livestock quality (these practice has been piloted on collecting camel wool in Umngobi aimag through Policy Study Institute) • Provide support in exporting meat products abroad in target areas to decrease overgrazing and improve livestock quality • Establish fire protection strips to decrease frequency of steppe fires in Dornod and Sukhbaatar • Demonstrate targeted training in pasture condition assessment by experts (botanist) to build capacity in HGs and soum administration • Conduct series of trainings by professional experts in livelihood improvement actions (wool trainings, production of non livestock products, fodder planting and seeds, improving meat quality and providing hygiene and etc) • Train local trainers in each livelihood improvement actions for each soum.

	<ul style="list-style-type: none"> Organize experience sharing workshops and replicate best practices and approaches to other local communities Replicate best practices in pasture improvement, water management, livelihood improvement actions through green development broadcasting channels, environmental publications Develop and publish user friendly guidebooks on livelihood improvement activities.
<i>Group 3. Application of climate-smart technologies to increase agriculture production and protect agriculture livelihoods</i>	
Establishing an extension service	<ul style="list-style-type: none"> Facilitate early warning system with agricultural aspects Improve agricultural technologies in soil preservation, such as using forage crops in pasture and crop rotation Improve veterinary service at soum level Support animal breeding system for producing intensive farming breeds rather than traditional free pasturing animals by cooperating with Research Institute for Animal Husbandry Support crop breeding and pasture management program by cooperating Research Institute for Plant Science and Agriculture
Facility improvement of animal disease controlling and sanitation system	<ul style="list-style-type: none"> Equipment improvement in veterinary stations at soum level such as supporting vaccine transportation and storing equipment Supply diagnostic kits Reconstruct car sanitation stations in soum level Establish an analytic laboratory in aimag level
Establishment of winter greenhouses	<ul style="list-style-type: none"> In order to improve income of farmers during winter season, establishing a solar greenhouse at soum level
Improve current soil protection system from erosion and des	<ul style="list-style-type: none"> Building dams and pounds at selected areas Establishing tree nursery at soum level
Improve logistic facilities	<ul style="list-style-type: none"> Building storage houses for agricultural raw materials such as meat, milk, skin, vegetables etc. at aimag level Supporting cooler trucks at soum level
Improve animal fodder system	<ul style="list-style-type: none"> Establishing fodder crop seed production system at state level to secure animal husbandry during long-snowy-cold winter Building irrigated crop land for fodder crop production at the river basin areas (soum level) Establishment of poultry industry next to fodder plant
Development of water well system	<ul style="list-style-type: none"> Renovating and establishing groundwater wells at soum level
Introduction of animal identification / certification system	<ul style="list-style-type: none"> Introduction of chip technology for animal traceability

Improvement of current education system by climate change issues	<ul style="list-style-type: none"> • Raise awareness on climate change at all level – middle school, high school as well as herders and farmers • Insert curricula on climate change in secondary schools and University • Establish TV stations or TV programs to educate people at aimag level
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2.2. Local level consultation - Dornod Province

The second stakeholder consultation was organized at Choibalsan soum of Dornod aimag on February 20, 2017 with a support from governors from Dornod aimag. A main purpose of organizing the workshop at the local level was to incorporate closer to the local administration, agricultural organization, herders and natural resource users, and obtain their views and contributions into development of project documents for adaptation agricultural sector in climate change. Over 50 participants including from local government, organization, private sectors herders and natural resource users attended to the consultation. Members of the consultation organizing team were: Chaminda Rajapakse as project leader, Bunchingiv B as a team leader from UNDP, local advisors Dagvadorj D, Altanbadralt Sh, Enkhbileg S and Myagmarsuren P. List of participants were attached as appendix 2.

The consultation workshop was opened by speech from Mr. Ganbat Ch, Deputy Governor of Dornod aimag followed by a remark from Mrs. Bunchingiv, head of Environmental Division of UNDP. Major introduction of the project to the audience was given by Mr. Rajapakse, project leader. He proposed and provided a clear background of the project by a ppt presentation under the title “Improving Adaptive Capacity and Risk Management of Rural Communities in Mongolia”. After the introductory presentation Team members were responsible for answering questions raised by the participants.

Afternoon section was continued by group discussion workshops by guidance from the project team members. The first group discussion was concerned about disaster risk assessment and early warning information system and led by Mr. Dagvadorj. The second group was discussed on the subject of actual measures to provide ecosystem services. Mrs. Enkhbileg S gave an instruction to the group during their discussion. Mr. Altanbadralt Sh and Mrs Myagmarsuren were provided instruction to the third group. Discussion of the last group was concentrated on the subject of climate change adapted agriculture. Each group was provided following questions to work out and asked to bring solutions:

- Effect of climate change in their daily activities of herders and natural resource users
- Effect of climate change in natural conditions such as in soil structure, grass composition in pasture, water resources, forest etc.
- Whether herders and local people like the current system of early warning messages and forecasting system
- How herders and local people incorporate early warning and forecasting information in their everyday life
- Their wish what this project should implement to improve their livelihood



Participants from each group provided their views on addressing specific challenges while answering guiding questions for the group work. All participants were in agreement on the fact that their livelihood is seriously affected by current natural disasters or climate change. Major natural disasters that affect livelihoods in Dornod province are: lack of rain and frequent steppe fire during the spring and summer seasons, and heavy snow falls during the wintertime. Therefore, they understood of importance of improvement of seasonal forecasts, which they can access easily in advance of occurrence of slow onset natural disasters. Group discussion outcomes are summarized below in Table 2.

Table 2. Summary of group discussions

Raised questions	Answers and solutions
<i>Group 1. Disaster risk assessment and early warning information system</i>	
Improvement of telecommunication and early warning system	<ul style="list-style-type: none"> • Currently applied mass messaging system need to be changed to receive feedback afterwards • Improve accuracy of information in early warning messages • Training of young herders and natural resource users for traditional weather forecast methods • TV stations need to be built at soum centers (currently all 5 TV stations is located at province center) • Supply herders with radio with battery
Change dialogue in the warning messages delivered by TV and Radio	<ul style="list-style-type: none"> • Improve the use of hazard warning messages by changing the technical languages into more simplified version as the technical languages are not

	well understood by herders especially about implications on their everyday life.
<i>Group 2. Actual measures for conserving ecosystem services</i>	
Update pasture and water management plans	<ul style="list-style-type: none"> • Put stress on pasture and water management when developing Soum land use plans rather than soum infrastructure plan (buildings, and other investments). • Implement ecosystem-based land use at soum level in coordination with soum administration and relevant officers annually. • Establish pasture monitoring plots in some soums of target areas to monitor vegetation cover changes over time. • Incorporate results of the monitoring in Soum land use plan annually. • Include herder and other community groups, as well as water user groups and administrations of river basins at target areas in land use planning process at soum level. • Under the implementation of this plan, pasture rotation and resting for recovery should be undertaken.
Formalize herder and water user groups	<ul style="list-style-type: none"> • Establish as many as possible herder groups in target areas, support their engagement with local Governments, as well as with the river basin administrations in implementation of “ecosystem-based” Soum Land and water use plan. • Support them in formalizing their status with soum Government and connect them to agriculture and livestock product markets • Provide assistance to Herder and water groups to access loans with low rate or establish seed money /funds to encourage income generations.
Increase water supply for pasture	<ul style="list-style-type: none"> • Support establishment of small-scale of water harvesting structure necessary for livestock water supply in accessing remote pasture areas • Protect and fence natural springs in target areas to increase water supply for pasture • Establish new engineered and hand wells based on River basin management plan. • Rehabilitate traditional wells and watering points to improve water supplies • Establish reservoirs and ponds. • Formally assign the possession right of established engineered and hand wells to herder or water user groups to ensure smooth operation and maintenance • Establish fire strips in Dornod aimag along the border zones or forest areas are essential to protect pasture areas from the fire • Resolve the issue of water supply for wheat and vegetation plots in Dornod which is crucial for appropriate ground water management • Support undertaking inventory of water resources for Buir Lake and Menengiin tal Basin in Dornod province which is essential for developing River basin mangement plan and implement appropriate water and pasture management at soum level.
<i>Group 3. Climate adaptive agriculture</i>	
Natural disasters frequently happen in Dornod aimag: - heavy snow falls (zud)	<ul style="list-style-type: none"> • Improve current hazard warning because the broadcasting information is not suitable for herders’ use for their daily life • Establish extended fire strips against steppe fire

<ul style="list-style-type: none"> - continuous drought - steppe fire in spring - cold rainstorm in late spring - frequent of sand storm 	<ul style="list-style-type: none"> • Establish windbreak next to to protect agricultural lands from wind erosion • Train herders to utilize pasture by a rotation and have a reserve pasture • Use cloud seeding method to improve water supply in spring and early summer
Measures to improve Animal husbandry system	<ul style="list-style-type: none"> • Provide herdes and soum animal health and breeding units with training opportunities on improved animal breeding methods in practice • Establish Extension or Innovation Center at aimag level • Establish dairy farming to improve milk production
Improvement of current Veterinary services	<ul style="list-style-type: none"> • Organize trainings for both herders and specialists • Establish animal disinfection units with wash pool (for treatment from parasites) • Build storage facility for vaccines and medicines at the local level
Improvement of crop farming system	<ul style="list-style-type: none"> • Build seed production units for fodder crops • Organize animal feed production trainings • Support establishment of new greenhouses, specifically, winter greenhouse system in Bayantumen and Kherlen soums • Support building permanent housing for garden workers at the field to secure their work space • Support planting windbreaks around the field • Help establish storage facilities
Improvement of local marketing system for fresh and raw materials from animals	<ul style="list-style-type: none"> • Support herders and gardeners to access market directly and obtain a spot to sell their products at the central market areas • Build extension center's sub-units at each soum • Building storage houses for agricultural products and raw materials such as meat, milk, skin, vegetables etc. at aimag level • Support cooler trucks at soum level
Protect natural resources	<ul style="list-style-type: none"> • Establish plantations for research, conservation and regeneration purposes. Dornod province has a rich natural medicinal plants.

3. Private sector consultations

3.1 Central level roundtable meeting with meat processors

A private sector roundtable was co-organized by FAO and UNDP on 17 February 2017 with 17 individuals representing meat processors, producers and exporters. Views were sought from private companies in meat processing sector on interventions that can be incorporated within the proposed project to help improve the output of the meat processing industry in the country. Recommendations are summarized below.

Table 3. Summary of discussions

Issue	Recommendations
Policy environment on meat processing	<ul style="list-style-type: none"> • Support the Government in reviewing adopting new laws supporting the safe and hygienic production and processing of meat, <i>i.e.</i> draft Law on Genetic resources, Livestock breeding etc. • Advise the Government to avoid: <ul style="list-style-type: none"> ○ adopting new policies and regulations abruptly which serves as hindrance for private businesses without prior warning.

	<ul style="list-style-type: none"> ○ putting cap on export volumes which limits revenue generation and thus overall growth. ○ Bans that result in wasting meat harvested prior to animal disease outbreak in particular region. • Implement policies to: <ul style="list-style-type: none"> ○ prohibit selling of informally (traditionally) slaughtered meat at domestic markets, as the slaughter houses use less than 10% of their installed capacity. For herders, factory slaughtering adds to the cost. ○ improve loan conditions for start-up businesses • Seek potentials to reduce international transportation costs for export.
Increased output of meat processing industry overall	<ul style="list-style-type: none"> • Improve access to market price information for herder communities as they tend to hesitate to sell the meat to meat processors with the hope to get higher price offer. • Promote building trustful relations and partnerships with herder-producers and companies based providing win-win situation on both parties, <i>i.e.</i> regular and quality supply of raw products to companies and regular cash income for herders. • Support enhancement of fodder production industry, especially fodder seed production is essential. • Support development of niche markets and production lines to ensure new and small businesses (meat processing) to enable competitive market and establishment of clientele.
Increasing meat export	<ul style="list-style-type: none"> • Improve animal disease control, <i>i.e.</i> foot and moth disease (only one out of four target provinces is declared as FMD free), sheep pox or Peste des Petits Ruminants, rabies etc. • Focus on supporting value chain and export opportunity for thermo-processed meat products, considering the weak capacity for animal disease control. • Implement measures to improve transits and specialized inspection. • Explore niche markets and address barriers for export - S.Korea for its high potential to import organic agri products

3.2 Local level private sector consultation – Khovd Province

A local level consultation was organized on Sustainable Value Chains in Khovd Province through the mission of Mr. Marcos Neto, Director, UNDP International Centre for Private Sector Development and Mr. Noah B. Beckwith, Development Finance Expert for the period of 31 July – 4 August 2017. The mission has been extremely useful to gather information on potentials for developing sustainable value chain and social impact investment opportunities in Mongolia. The one week mission involved individual meetings with private sector representatives in the capital city and local level consultations with private companies operating at the local level.

Table 4. Summary of key points and insights shared during the stakeholder meetings

Issue/topic	Recommendations
Cashmere sourcing, exporting and producing	<ul style="list-style-type: none"> • Take measures to improve quality of cashmere. While the volume of the cashmere sourced from Mongolia has been increasing, its quality is not very good and has been declining. Quality of cashmere sourced from eastern aimags is better than that of in west. • Regulate the “Middle men” issues. 80% of cashmere in Mongolia goes to ‘middle-men’ without any quality check and sorting. Goats for up to 4 years produce good quality cashmere but herders keep also goats that are 6-7 yrs old for the volume.

	<ul style="list-style-type: none"> To compete with 'middle-men', companies are coming up with their own strategies that broadly combine trustful working relations development with those committed to sustainable pasture/grazing practices, price differentiation through premium on quality. Promote branding for Mongolia's differentiating and competitive factor ('country of origin', 'sustainably-sourced', "cultural heritage") and invest more in related strategies. Enable access to international markets- All companies met were currently operating below their already existing capacity.
Logistics and market access	<ul style="list-style-type: none"> Establishing sound logistics network – Due to the low population density and huge territory of the country, transportation is extremely costly. Establishment of logistics centers around the country through a PPP scheme may serve as a solution. Take measures to address high transportation cost – Although largest domestic market is in the capital city, it is extremely challenging to compete with price there, due to the transportation cost from the remote provinces. Exploring markets in China and Russia taking advantage of their close proximity with country's border is encouraged.
Business development	<ul style="list-style-type: none"> Invest in skills development and business education and literacy – lack of knowledge serves as a barrier in value addition industry, including certification as well Take measures to protect and promote local business – Middlemen from central level tend to come and offer higher prices for products whereas local business is struggling to get their raw materials from local herders.
Access to financing opportunity	<ul style="list-style-type: none"> Take measures to enable access to favorable loan conditions – other challenges mentioned was dependency on imports for good quality production machines and high cost of accessing capital at reasonable costs (high loan interest rates, around 20% and more). Improve education of those engaged in value addition - private sector access to finance continues to be a barrier whereas loan and small grant projects have a very little uptake

4. Project validation workshop

The Final validation workshop of the proposed project was organized on August 25th, 2017 at UN House, Ulaanbaatar. The workshop was facilitated by Ms. Mariana Simoes, Regional technical specialist, UNDP Regional Hub in Bangkok, and co-facilitated by Ms. Bunchingiv.B, Climate change specialist, UNDP Mongolia. The workshop was opened by Mrs. J.Saule, Deputy Minister of MoFALI, Mrs. Bulgan.T, Director-General of Green development policy coordination department, MET and Mrs. Beate Trankmann, Resident Representative, UNDP Mongolia.

Mrs.Bulgan, MET highlighted the critical importance of the proposed project to Mongolia's rural population and thanked the UNDP CO Mongolia for their active engagement and their support in the project formulation. Through her speeches, Mrs. Beate Trankmann, RR, UNDP Mongolia, welcomed all participants and highlighted the objective of the workshop is to review and endorse the full project proposal for the submission to GCF Secretariat and welcomed comments and suggestions from the representatives. Mrs. J.Saule, Deputy Minister, MoFALI, acknowledged the importance of engagement and collaboration between relevant sectors for project implementation.



The workshop was attended by a total of 55 representatives from the key partners, which comprised of MET, MoFALI, NEMA, NAMEM and local Governor offices of Dornod, Sukhbaatar, Zavkhan and Khovd Provinces where the project will be implemented. In addition, representatives from relevant research institutions, private companies, NGOs and international development organizations namely FAO, SDC, IFAD, World Bank, ADB participated in the validation workshop as well.

The objective of the final validation workshop was to provide last opportunities to relevant stakeholders to provide their inputs to the proposed project interventions and re-validate the objectives, outcomes and activities in the full project proposal.

Ms. Mariana Simoes, Regional technical specialist, UNDP provided an overview presentation of the project proposal. She presented overview of the GCF, the project itself, rationale considering challenges and impacts caused by climate vulnerability, project formulation stages including project objectives and components, target areas and budget, results framework and project management structure.

The workshop was continued by plenary discussions and validation by participants. The following 3 outputs of the project were discussed openly among the representatives under facilitation by Ms. Mariana Simoes, regional technical specialist and Ms. Bunchingiv.B, Climate change specialist, UNDP Mongolia. Discussions of each output were discussed and summarized in the below table.

Table 5. Summary of validation workshop discussions

Outputs	Recommendations
Output 1: Climate-informed medium-to-long term land and water use planning at the national and sub-national levels	<ul style="list-style-type: none"> • Improve the content and accuracy of weather forecasts [short range (6 hours to 5 days), medium-range (5 to 15 days)] and long-range (monthly and seasonal) climate predictions, as well as disaster warnings at local level; • Improve the technical and technological provision of aimag branches of NAMEM (coms, other devices and equipment, trainings) observation stations and monitoring sites of NAMEM located in soums (computers, observation equipment, communication devices and equipment, trainings) • Upgrade communication network and equipment (TV, radio, satellite communication devices, etc) to disseminate weather forecast and monthly and seasonal weather predictions among herders • Extend or demonstrate new mobile network providers in rural areas (isolated from soum and aimag centres) where the coverage by existing networks are insufficient. • Carry out participatory mapping study (with local stakeholders) on climate change impacts when producing seasonal and multi-decaded forecast. Benefit of this multi-stakeholder study is to build capacity of local officials and decision makers and spatial data analysis will be done, best practice example provided from Arkhangai province and Ger Community Mapping Center.
Output 2: Community level ecosystems-based adaptation approaches	<ul style="list-style-type: none"> • Undertake water point explorations in underutilized pastures and reflect the assessment to the integrated water resource management plans in target areas.

<p>to protect land and water resources</p>	<ul style="list-style-type: none"> • Take measures in protecting river and stream channels from damages, establish water harvesting systems in target areas • Collaborate with Livestock Risk Management fund to increase internal co-financing for the project and improve pasture management measures. Example of best practices provided from SDC Green Gold project where the risk fund is compromised of charging fee (500 MNT per sheep unit) from herders. • Consider 10-15 households in establishment of RUG. If larger measures on pasture and water management are not effectively implemented. • Reflect water use issues into Resource use agreements (RUAs), pasture and water agreements should be integrated. In Mongolian practice, issues of pasture and water are mainly taken together. • Under the project implementation, regulation of river flows should be addressed to improve water management. • Conduct survey on application of ecosystem based land use among herders, local specialists, NGOs and local private entities to establish baseline • Integrate improved/developed ecosystem based principles into soum land management plan • Conduct series of training and workshops, organized by experts for implementing land use planning at local level among environmental departments, land officers, local communities, and PPCP • This output should be integrated consistently to relevant existing policy documents including water national programs and IWRMP at river basins. • Provide technical and financial supports to established HGs and PPCP that operates to improve pasture management and water source availability in local areas.
<p>Output 3: De-risking sustainable practices to reduce vulnerability and improve productivity</p>	<ul style="list-style-type: none"> • Support development of value chain and market access among the RUGs and PPCP at local level to help increase household income and provide sustainable agriculture. • Undertake capacity development for resource user groups through trainings in EBA measures, market access, value chain and etc. • Promote Global Market Access through Product Certification and Branding (organic products) to provide sustainable agriculture and balanced livestock head with pasture capacity. • Demonstrate promotion mechanisms (financial and technical supports) for RUGs and PPCPs that undertake or replicate best practices on improving animal breedings to improve productivity. • Increase fodder plantation (local seeds and plants) and fodder storage houses in coordination with RUGs and PPCP. • Support animal breeding system for producing intensive farming breeds rather than traditional free pasturing animals by cooperating with Research Institute for Animal Husbandry • Encourage household crop farming to increase livelihood income through providing irrigations systems, green houses, local seeds and other climate-resilient agriculture technologies.

Wrap-up and closing

Mr. Batjargal Zamba, NDA and UNFCCC Focal point and Mrs. Daniela Gasparikova, DRR, UNDP Mongolia closed the validation workshop. Mr. Batjargal provided summary of key recommendations and expressed his appreciations for active participation and valuable contributions from the stakeholders, especially those representing target aimags. He also highlighted successful finalization of full project document that meets the GCF requirements is dependent on active engagement of stakeholders in the process. He concluded by noting that the project proposal is considered as approved by the stakeholders and recommended for further submission to the GCF Secretariat upon reflecting relevant comments.

Mrs. Gasparikova, DRR, UNDP Mongolia expressed her sincere gratitude to representatives of four aimags and their active engagement in the project proposal. She also highlighted that their continues support and feedback will be essential in addressing comments by GCF after submission of the project proposal.

5. Bilateral consultations and missions

Engagement with NDA

NDA has been consulted throughout the project formulation process starting from the concept note stage. Not only was he consulted throughout the process, the NDA provided his inputs to the concept note, as well as the Project document formally which were addressed accordingly. NDA was actively engaged in all stakeholder consultations at the central level, as well as the validation workshop with facilitation role. All missions by International consultants and UNDP's regional advisors involved briefing or debriefing with the NDA.

Individual and bilateral consultations

During the project development process, individual consultations were made repeatedly with the following stakeholders, in addition to the stakeholder workshops:

- FAO – Country director and Community Forestry Project
- SDC – Advisor on Environment and Agriculture at the Swiss Mission and Green Gold project team
- IFAD – Environment and Climate Change Portfolio Officer at IFAD Headquarters in Rome, Market and Pasture Management Development Project team
- WB – Resident mission and Livestock and Agricultural Marketing Project (LAMP)
- ADB - Environment officer at ADB Mission
- GIZ – First secretary, Development Cooperation, German Embassy, GIZ's Climate change and Biodiversity Programme
- UNDP's other ongoing projects implemented in areas of climate change adaptation, pasture/land management and disaster risk reduction in Mongolia. These include Ecosystem-based Adaptation Approach to Maintaining Water Security in Critical Water Catchments in Mongolia, UNREDD and Strengthening local level capacities for Disaster Risk Management in Mongolia projects.

NGO and academia consultations included those with Institute of Research Institute for Animal Husbandry, Mongolia Water Forum, Environmental Consulting and Research Company, Mongolian Farmer's Association for Rural Development and Center for Policy research at the central level. Private sector representatives, including Mongolian Chamber of Commerce, specific companies engaged in cashmere sourcing and export, meat processing and animal tagging were interviewed individually as well.

Project development team missions to Mongolia

For the project development purpose, International consultants team and UNDP's Regional advisors at Regional Centers worked in Mongolia through following missions for duration of one to two weeks:

- Mission by the International Consultancy Team Leader twice, once in November 2016 and February 2017
- Other International consultants on Feasibility, Social and Environmental Safeguards once in November 2016
- Mission by UNDP's Regional Technical Advisor on Adaptation, Bangkok Regional Hub twice, in May 2016 and August 2017

- UNDP's UNDP International Centre for Private Sector Development, Istanbul Regional Center, September 2017
- International consultant on Private sector and Social impact investment twice, August and September 2017

Interview with target beneficiaries

After the local level consultation in Dornod Aimag center, the project formulation team visited a number of herder households in two soums of the same province to collect first-hand information and seek views from primary beneficiaries on the proposed project interventions and their understanding of climate change impact on their livelihood. Herder households represented those at subsistence level (with less than 100 and 200 heads of households realize that climate change causes additional challenges to their livelihood with increasing frequency of natural disasters, decreasing biomass of pasture, intensified desertification, altered pattern of precipitation etc. Although majority are willing to stay in herding, given the conditions are favourable, the livelihood is becoming riskier everyday especially for those at subsistence level.

6. Reflecting outcomes of consultations in project development

Stakeholder consultations in different forms with wide range of stakeholders have helped strengthening the project proposal. Stakeholder inputs that are inline with project objectives were reflected in the project document. However, the consultations with central Government and NDA resulted in the following change from the concept note in the project document.

Early Warning Systems

Although support to improving Early Warning Systems (EWS) and disseminating hazard messages to herders was included in the Output 1 of the concept note and stakeholder consultations demonstrated the need to enhance the existing EWS, the parties were in agreement to focus on medium to long term climate prognosis. The decision not to cover the EWS and relevant interventions through the proposed project was based on the fact that:

- Short-term weather prognosis is made with a relatively high accuracy by NAMEM
- EWSs are primarily needed to disseminate rapid-onset hazards caused by atmospheric convection with short advance time of few hours to couple of days
- EWS through mass messaging was already piloted through UNDP's Disaster Risk Reduction programme and successfully upscaled throughout the country.