



**Leveraging Tradition and Science in Disaster Risk Reduction in
Mongolia-2 (LTS2-Mongolia)**

QUARTERLY PROGRAM REPORT

Agreement # AID-OFDA-G-15-00101

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ACRONYMS AND TRANSLATIONS

<i>aimag</i>	An administrative unit similar to a province or state
<i>dzud</i>	An environmental hazard that unfolds over several seasons and includes drought conditions in the summer leading to poor forage availability and low temperatures, heavy snows and/or ice in winter which combine to exhaust animals, leading to death from starvation or exposure.
ES	engageSPARK
ICT	Information and Communication Technology
LEWS	Livestock Early Warning System
LTS	Leveraging Tradition and Science in Disaster Risk Reduction in Mongolia
MEGD	Ministry of Environment and Green Development
MNO	Mobile Network Operator
MNDI	Mongolian National Development Institute
NAMEM	National Agency of Meteorology and Environmental Management
NEMA	National Emergency Management Agency
RIMES	Regional Integrated Multi-Hazard Emergency Warning System
NUM	National University of Mongolia
SMS	Short Message Service
SDC	Swiss Development Cooperation
<i>soum</i>	An administrative unit similar to a county
Tot	Training of Trainers
UNDP	United Nations Development Programme
WB	World Bank

GENERAL INFORMATION

Project name:	Leveraging Tradition and Science in Disaster Risk Reduction in Mongolia 2
Duration:	May 1, 2015 to April 30, 2016
Funding:	Total funding: 278,207.00 USAID: 278,207.00
Direct Beneficiaries:	Government representatives and local authorities; community representatives, herder organizations and herders (total 9,168)
Indirect:	Rural residents in 10 aimags (total 151,481)
Reporting period:	May 1, 2015 to June 30, 2014
Target area:	

Region	Aimags	Highly dzud affected soums
West	Hovd	altai, bulgan uench.
	Uvs	baruunturuun, davst, zuungobi, zuunkhangai, malchin, naranbulag, undurkhangai, sagil, tes, turgen, khyargas, tsagaankhairkhan
	Bayan Ulgii	altai, bulgan, sagsai, ulaankhus, tsengel
Altai	Zavhan	aldarkhaan, asgat bayantes, bayankhairkhan, ider, numrug, songino, tosontsengel, tudevtei, telmen, tes, tsagaankhairkhan, tsagaanchuluut, tsetsen-uul, erdenekhairkhan
	Gobi Altai	bugat bayan-uul delger tonkhil tugrug khaliun
Hangai	Uvurhangai	bat-ulzii, bayan-undur, burd, kharkhorin, khujirt, ulziit, yesunzuil, zuunbayan-ulaan
	Arkhangai	bulgan, ugiiuur, tuvshruulekh, khashaat, khotont, tsenkher
	Bayankhongor	bayanbulag, bayan-ovoo, gurbanbulag, jargalant, jinst, zag, ulziit, khureemarl, erdenetsogt
Gobi	Dundgobi	adaatsag, erdenedalai
East	Sukhbaatar	asgat, dariganga, erdenetsaagan

EXECUTIVE SUMMARY

Mercy Corps began supporting the use of weather and pasture data in production planning through the Gobi Forage project resulting in the introduction of the Livestock Early Warning System (LEWS) in 2007. The LEWS system continues to receive international development support from the World Bank. A number of government agencies¹ in Mongolia are now tasked with creating and distributing information on weather risk and weather forecasts with little coordination and no clearly defined goals on reaching end-users. In this context, information and knowledge products are being produced, but they are not reaching local communities, herder households, local administrators and first responders who can utilize such necessary information.

¹ The National Emergency Management Agency (NEMA); NAMHEM; the Ministry of Environment and Green Development (MEDG); aimag Governors' Offices; aimag agriculture and veterinary extension workers, and soum governments.

From June 2013 to September 2014, OFDA supported Mercy Corps’ efforts to solve this communication breakdown through training and information delivery systems. The *Leveraging Tradition and Science in Disaster Risk Reduction in Mongolia* (LTS1) project evaluated existing DRR and disaster management systems, connected local communities to weather information, trained local administrations on emergency management planning, and tested an SMS information platform that would enable herding communities to access, interpret and apply weather forecast information in their management practices. The LTS project theorized that there was strong demand for information and for management tools that could improve planning, mitigation and management of winter weather risks and this was validated through effective program implementation. Working closely with local partners and key national emergency management actors, LTS has introduced planning tools that are simple to implement, increased understanding of available weather information and how to utilize it; and identified opportunities for significant improvement in dzud outcome through simple management tools and improved information flow. LTS demonstrated that herders are eager for more information and better tools to support dzud preparation and risk mitigation.

Expanding upon our initial work, the LTS2 project is accomplishing two critical goals 1) A national SMS platform for weather and pasture information and 2) Increased aimag (province) and soum-level capacity to provide training on emergency planning, preparation and mitigation to segmented audiences within the local community.

PROJECT IMPLEMENTATION AND OUTCOMES

Summary

Period	Activities	Outcomes
Q1	<ul style="list-style-type: none"> • Mongolian translation of key project documents • Staff orientation via Blackboard platform • US Embassy Launch event • Resilient Mongolian Rangelands Conference • Consultation from Mercy Corps’ Senior Director for Project Technology • Initial training plan development 	<ul style="list-style-type: none"> • Mercy Corps field team participated in developing and localizing the project work plan • Technical design of the SMS system and sustainability planning was improved.

Program set up

The Leveraging Tradition and Science-2 project launched on May 1, 2015 with the formation of the project team from within existing Mercy Corps staff. This first quarterly report covers the first two months of project implementation which focused on the technical design of the proposed SMS system, work planning and partner mobilization.

Partner Coordination

Mercy Corps worked closely with the National Emergency Management Agency (NEMA) and the National Agency of Meteorology and Environmental Management (MNDI) to plan and coordinate the LTS2 project activities in line with each partner’s annual calendars for the 2015-2016 project period. In June, Mercy Corps participated in the Resilient Mongolian Rangelands conference which provided ample opportunities to meet and coordinate with existing and potential partners. As noted in more detail below, a number of projects are focused on delivering information resources to herders and there are a number of new opportunities for coordination and collaboration that were not identified at the time the LTS2 project was developed. In particular, Swiss Development Cooperation (SDC), United Nations Development Programme (UNDP) and the World Bank (WB) are implementing projects related to pasture and weather information that will be coordinated with LTS2 work. SDC’s Green Gold project is piloting a veterinary services application that is bundled with a sim card and handset which can be purchased with some subsidy. The application provides simple diagnostics and is being used in conjunction with SDC’s local training programs, providing a model for introducing scientific information into herder management practices. UNDP has funded an SMS link to local weather stations that is used by NEMA to distribute emergency weather alerts. It will be important to ensure that users understand the difference between weekly weather reports and emergency alerts, so LTS will collaborate with NEMA on promotional activities for both services. Finally, the World Bank is planning an Information Communication Technology (ICT) oriented extension program that will launch at the end of 2015; the LTS2 team will work with the WB to ensure that the two projects are complimentary.

Mercy Corps also hosted its Senior Director for Program Technology, Mr. Jeff Wishnie, for a weeklong consultation on developing the SMS system. Mr. Wishnie met with a wide variety of stakeholders, including MNDI and Keio University, four mobile phone operators, the LEWS project team, former staff of the DREAM IT project, SDC and UNDP. His visit

focused on resolving a number of technical questions as well as developing the proposed system design and organizational structure, discussed further below.

Mercy Corps' field team reached out to aimag and soum governors in all project target areas to formally introduce the project and to begin the process of local partner coordination.

Risk Management Policy and Practice

Sub-sector: Building Community Awareness/Mobilization

Activity 1.1 SMS System Design

With support from Mercy Corps' Senior Director for Program Technology, the LTS2 team set up an initial SMS distribution mechanism that will allow Keio and MNDI to immediately begin programming soum-level weather and pasture information and test on-demand message delivery in the project target areas. In the process of evaluating the options for setting up sustainable SMS message delivery, a number of obstacles were identified, not the least of which is the absence of aggregated SMS service providers in the mobile phone system that in many other markets would manage message distribution to customers of multiple phone operators.

In order to address the lack of aggregators, Mercy Corps set up an account with engageSPARK (ES) (<https://www.engagespark.com/>) a frequent collaborator with Mercy Corps based in India that provides a platform for mobile messaging. Using their platform, the LTS2 partners can develop soum-level messages, upload them to the ES platform and users can request the messages on demand by texting a key to a local mobile phone number. Users pay for the cost of one outgoing message through their regular texting service, and the project pays for the ES send (\$0.005) and one SMS (MNT 40 at commercial rates, discounts to MNT 15 might be possible). With planned upgrades to the ES platform, it is expected that MNDI will be able to upload weekly weather and pasture information automatically, reducing the number of person hours needed to operate the system.

Using the ES platform will allow the project to begin rolling out messaging services, testing user response, and planning for any adaptations that result from user feedback while at the same time working with local mobile providers and the mobile regulator to develop a local solution for message distribution. At the same time, the project team will pursue options for local aggregation by working with the local regulator (Communications Regulatory Commission), which would be supported by Mobicom and other mobile operators, and pursuing individual integrations with the mobile network operators (MNO) that matter most to the project (Mobicom and G-Mobile for certain, perhaps others as well) and set up our own aggregation server using open source systems such as Vumi or Kannel (TDB).

Activity 1.2 SMS Message System Implementation

Mercy Corps, MNDI, Keio University, Texas A&M University, and the LEWS team have mapped out the data flows needed for message creation and it is expected that Keio will begin working on soum-level messaging in July.

Activity 1.3 Community Mobilization

The LTS2 team has concluded that the best option for reaching herders via SMS is to use a "pull" model in which users ask for and then receive a message. While this creates a challenge as far as teaching users about the system and how to use it, it ensure that herders who are infrequently connected to the mobile phone system will be able to access information when it is convenient for them, rather than automatically sending out a mass message that may sit in many people's inbox until it is no longer relevant.

The "pull" model will also allow users to define certain parameters for their message such as receiving it in Cyrillic or Latin characters, in Mongolian or Kazakh languages, or potentially as text versus voice. This flexibility will be developed as the system is constructed and will require a high degree of promotion and engagement to ensure that users understand the service and to collect feedback on its effectiveness. In order to create that level of engagement, the LTS2 team is evaluating media channels for conducting outreach, advertising and promotion. Mercy Corps has existing relationships with television, radio and newspaper companies in all of the target aimags and recently made contact with a national program, "Herder TV," that is seeking content and may be interested in both promoting the SMS system as well as distributing the pasture and weather information it provides.

DREAM IT was a ten year technology development program that supported a weather information messaging system in collaboration with the Regional Integrated Multi-Hazard Emergency Warning System (RIMES). The Mercy Corps team has had a number of conversations with former project staff on their experience developing and implementing their SMS system, which did not continue after project completion. DREAM IT's experience is helping to validate the LTS system design process but also offers insights into how herders used the system, their preference in terms of message delivery and some of the important issues to be addressed in terms of linking information to changes in management or decision making.

Sub-sector: Capacity Building and Training

Activity 2.1 Partner Mobilization and Planning

During June 2015, the LTS2 team worked with NEMA to coordinate training schedules and to plan additional content for the LTS2 training and capacity building activity. NEMA conducts two kinds of training – professional training for their staff and disaster simulation exercises targeted at the general public in four to six aimags per year. The LTS2 training takes a broader view of dzud risk mitigation and will provide an opportunity for NEMA to increase its outreach through joint training across public sector responsibilities and inclusive of leaders from the private sector. Partner mobilization will continue into July as the LTS2 team reaches out to other projects and programs to align training plans and content.

Activity 2.2 Curriculum Development

Work is underway to identify the Master Trainers who will lead training and capacity building. The project team has mapped out the training structure and is in the process of negotiating schedules with local partners with a target of completing direct training implementation by October 2015.

The training content will build on the modules from the LTS1 training program with additional content and training methodologies adopted from the feedback and evaluation conducted at the end of LTS1 implementation. In particular, the training days will be structured to include more skills oriented sessions that are specifically targeted to participants in public sector roles or engaged in herding, the training will be structured to include sessions that focus on cross-sector knowledge and collaboration skills, as well as those that support more in-depth learning and practice.

Activity 2.3 Training of Trainers and Direct Training

Training implementation will begin in August 2015

LTS PROJECT IMPACT

In this section of the report, Mercy Corps will discuss program impact; identify opportunities and constraints and detail lessons learned or best practices in order to document the specific events that hindered or supported progress toward the LTS project goals.

The first two months of project implementation have focused on partner mobilization, planning, systems design and curriculum development. In the process of defining the SMS delivery system a number of opportunities for enhancing the impact of the project through additional collaboration emerged.

ANNEXES

Annex 1: Performance against indicators

Indicator	Baseline	Target	Q1 Performance	Notes
SECTOR: RISK MANAGEMENT POLICY AND PRACTICE				
1 Sub-sector Name: Building Community Awareness/Mobilization				
1.1 Number of people participating in training, disaggregated by sex	n/a	1,528	0	
1.2 Percentage of people trained who retain skills and knowledge after two months	n/a	100%	0	
1.3 Percentage of attendees at joint planning meetings who are from the local community	n/a	90%	0	
1.4 Early warning system in targeted community is in place for all major hazards with appropriate outreach to communities	n/a	10	0	
1.5 Percentage of community members who received at least one early warning message from at least one source prior to a disaster occurring	0	6%	0	Note: this is the % of the estimated population of 69 soums
2 Sub-sector Name: Capacity Building and Training				
2.1 Number of people trained in disaster preparedness, mitigation, and management, disaggregated by sex;	n/a	1,528	0	
2.2 Number of trainings conducted	n/a	75	0	
2.3 Number of people passing final exams or receiving certificates, disaggregated by sex	n/a	1,528	0	
2.4 Percentage of people trained who retain skills and knowledge after two months.	n/a	100%	0	