MONGOLIA Extreme winter conditions







Crisis overview

Seventeen out of 21 *aimags* (provinces) across Mongolia have been affected by a *dzud*, a phenomenon characterised by harsh winter conditions that result in extremely high numbers of livestock deaths. Around 157,000 herders are at risk of losing livestock and livelihoods, with the lean season expected to last until May. A previously rare phenomenon occurring once a decade, this is the second consecutive year with *dzud* conditions in Mongolia, limiting herders' abilities to cope. Bulgan, Khuvsgul, and Zavkhan are among the *aimags* affected by the *dzud*. Seven out of 36 priority *soums* (districts) in Mongolia identified on 22 December 2016 were in Khuvsgul, with another priority *soum* in Bulgan. The situation across Mongolia is expected to worsen, as the heaviest snowfalls are expected to coincide with the beginning of the spring birthing season.

Key findings

Anticipated scope and scale

The spring birthing season likely coinciding with heavy snowfalls will cause further livestock deaths. Most devastation during the *dzud* is observed in March, April and May. Of an approximate of 52 million, more than one million livestock died in the 2015/16 *dzud*, and due to the lack of fodder collected in 2016, as well as the current *dzud* affecting more *aimags* than the 2015/16 *dzud*, a higher casualty rate can be expected.

Priorities for humanitarian intervention

- Food and livelihoods: cash, food, and animal feed are key needs
- Shelter: especially fuel, warm clothes, and animal shelter
- Access: road access for ambulances, food, fuel and medicine deliveries

Humanitarian constraints

Some roads are barely passable due to snow and ice.

Limitations

There is limited information on the humanitarian needs in Bulgan, Khuvsgul, and Zavkhan. Available information comes from a limited number of sources.

Numbers provided are estimates, and do not accurately represent humanitarian conditions.

There is no detailed information on the accessibility of roads.

Crisis impact

What is a dzud?

The *dzud* is a slow-onset phenomenon that occurs cyclically in Mongolia. It is characterised by a summer drought, which results in low hay production, followed by harsh winter conditions: storms accompanied by strong winds, up to 350cm snowfalls, and colder than average temperatures (below -40°C at night). Consequently livestock are unable to access enough food. A *dzud* causes an extremely high toll of livestock deaths and the collapse of livelihoods in herder communities. (OCHA 04/02/2016; World Bank 31/01/2010; Reuters 01/09/2015).

An estimated 157,000 people in 17 out of 21 *aimags* (provinces) across the country are at risk of losing their livestock and livelihoods in Mongolia due to the effects of the ongoing *dzud*. Limited access to food for livestock is expected until the end of the lean season in May 2017, when grass typically starts growing. As heavy snowfalls are normal February and March, the current situation is expected to worsen (IFRC 15/01/2016; OCHA 16/01/2017; FAO 13/12/2016).

Seven out of 36 priority *soums* (districts) in Mongolia identified on 22 December 2016 were in Khuvsgul, with another priority *soum* in Bulgan. These *soums* are considered priority as there are herders with less than 200 livestock in them. A further 10 *soums* in Khuvsgul, five *soums* in Bulgan, and five *soums* in Zavkhan were considered low risk (OCHA 23/12/2016). 2,000 households in Khuvsgul and 150 households in Bulgan were targeted for assistance due to high poverty rates in these households (OCHA 23/12/2016).

Conditions are exacerbated as Mongolia faces a second consecutive year of *dzud*. Despite fair summer conditions, early snowfall started in October 2016, and by early December had covered 70% of the country. Livestock have to dig for food in pastures covered by ice, as well as snow, therefore damaging hooves and leading to decreased mobility and strength. More than one million livestock died in the 2015/16 *dzud*, and the impact of dzud is expected to be worse this winter due to the compounding nature of consecutive *dzuds* (Save the Children 14/02/2017; UB Post 23/12/2016; Al Jazeera 13/02/2017; IFRC 02/03/2016).

The expected significant loss of livestock will negatively impact on the economic situation of the herders and their families. Working for a minimum salary herding other people's animals or moving to extremely poor slums in the outskirts of the capital Ulaanbaatar are likely coping mechanisms.

Food and livelihoods: Herders concerned about the impact of the *dzud* have been selling high quantities of livestock. The subsequent oversupply in the market led to a steep decline in prices of meat and other animal products, resulting in insufficient income for many herders to sustain themselves and their livestock. (IFRC 29/02/2016;; Save the Children 14/02/2017).

Hay and fodder supplies are limited, and livestock sizes have already been reduced due to the 2015/16 *dzud*. Due to lack of purchasing power, herders are unable to access hay and fodder available in local markets (OCHA 04/02/2016; Save the Children 14/02/2017)

Herders depend on animals for milk, cheese, meat, dung for heating, fur for clothing, and income (UB Post 23/12/2016).

The National Emergency Management Agency in Bulgan province states that 3,000 local herders did not have enough supplies for the winter, with hay predicted to last until February or March. In December 2016, snow was at four times the usual levels (UB Post 23/12/2016).

Cash: Income opportunities will be low for herders until mid-April, when households will start getting an income from cashmere sales (People in Need 01/2017). Many currently lack cash to buy basic household items, health services, and food (IFRC 10/02/2017).

Health: Snow has made roads inaccessible, disrupting ambulance services in the affected areas and limiting access to health facilities. Lack of essential medicines is also reported, as well as a lack of purchasing power to access healthcare services when they are available. Psychological distress among herders can result in domestic violence and depression (IFRC 29/02/2016; OCHA 04/02/2016; ECHO 10/02/2017; IFRC 10/02/2017). Herders often migrate to urban areas following serious *dzuds* in search of employment. Herders who migrated to the outskirts of big cities, especially Darkhan and Ulaanbaatar, burn rubbish collected in the streets for heating, which leads to respiratory illnesses (British Red Cross 05/02/2016).

The presence of dead livestock represents a threat due to possible contamination and diseases (OCHA 04/02/2016).

Frostbite cases are possible due to the extreme temperatures (IFRC 10/02/2017).

Nutrition: Acute forms of malnutrition are not an immediate concern. Compromises on food consumption as a negative coping mechanism may lead to acute malnutrition later in the spring (Save the Children 02/02/2016).

WASH: Adoption of negative coping mechanisms will likely lead to reduced purchasing of hygiene items among herders. (Save the Children 02/02/2016).

Education: Heavy snow on roads inhibits access to education, which is offered in towns (People in Need 01/2017).

Vulnerable groups affected

An estimated 2,500 pregnant women, 26,000 children, and 8,000 elderly people are living in winter pastures (UB Post 23/12/2016). Herders' children are often separated from their parents in order to access education. In extreme winter conditions, they may be

particularly worried about their families and can experience acute feelings of isolation (Save the Children 14/02/2017).

Old schools and dormitories are reporting heating problems and children who board must wear outdoor clothes in classes and at night. The heating problems are a consequence of budget cuts — Mongolia has been facing a national economic crisis since 2014 and has reduced funding to public infrastructure such as schools (Save the Children 02/02/2016; Al Jazeera 13/02/2017). Following the 2010 *dzud*, many children living in school dormitories were unable to return to their homes in inaccessible rural areas during the school holidays, and many schools ran out of fuel and food supplies with which to support them (Save the Children 02/2013).

Psychological distress among herders raises the risk for domestic violence against women and children (IFRC 29/02/2016). Impoverishment could lead to negative coping mechanisms such as taking children out of school, family separation as parents migrate in search of work, or child labour (Save the Children 02/2013).

Humanitarian and operational constraints

Bad road conditions because of snow and ice are reported across Mongolia. (OCHA 04/02/2016; IFRC 10/02/2017).

Aggravating factors

Important upcoming events

If the *dzud* continues into the spring birthing season in March as predicted, there will be a dramatic increase in livestock losses

Pasture conditions

Roughly 70% of Mongolia's pastureland is degraded or desertified, according to the Ministry of Food, Agriculture and Light Industry. The ministry attributes this to overgrazing and climate change, which has seen the recent increase in frequency of *dzuds* (IRIN 17/10/2016; People in Need 01/2017). This limits the amount of hay that can be found to store for the winter.

Pasture conditions were further affected by the 2015 drought-like conditions, which led to poor vegetation growth, overgrazing, and less hay for livestock (IFRC 15/01/2016, 29/02/2016; GIEWS 22/02/2016

Purchasing Power

Many herders lack cash, and they are in debt due to loans. In some areas, 90% of herders have loans. They buy food on credit from local markets (UB Post 23/12/2016; IFRC 29/02/2016; GIEWS 22/02/2016; Save the Children 14/02/2017).

Economic Recession

Mongolia is experiencing an economic recession since 2014, and demand has fallen for key goods, such as meat. This has resulted in lower prices for livestock (Al Jazeera 13/02/2017). The average price of a two year old sheep fell from MNT 60,000 (USD 24.2) per head in 2014 to MNT 35,000 (USD 14.1) in the second half of 2016. At the same time, prices of sheep skin fell from MNT 10,000-12,000 (USD 4-4.8) to MNT 1,500 (USD 0.6) (Save the Children 30/01/2017).

Diseases

Movement is being restricted in affected areas where livestock diseases have been detected (IFRC 10/02/2017). Foot and Mouth disease has been recorded in Sukhbataar and Dornod provinces, while *peste des petits ruminants* has been recorded in Khovd (WAHID 13/02/2017; FAO 27/01/2017). People in affected areas therefore cannot migrate to areas where there is more pasture.

Key characteristics of host population and area

Demographic profile: total population: 28,174,724 (World Bank 2014). 72% is urban (CIA World Factbook 2015).

Bulgan: 53,653 people

Khuvsgul: 114,924 people

Zavkhan: 65,481 people (Geohive 2011)

Gender and age distribution (CIA World Factbook 2015): 0-14 years: 27% (male 401,000/female 394,000) 15-24 years: 18% (male 267,000/female 262,000) 25-54 years: 45% (male 653,000/female 695,000) 55-64 years: 6% (male 86,000/female 102,000) 65 years and over: 4% (male 50,000/female 73,000)

Health: Infant mortality rate: 22.44 per 1,000 live births (CIA World Factbook 2015). Under-five mortality: 35.8/1,000 (World Bank 2015). Maternal mortality: 44 per 100,000 live births (CIA World Factbook 2015).

WASH: 91.6% of the population has access to improved water sources (World Bank 2015): 66.4% of the urban population, 59.2% of the rural population. 45.8% of the population has access to improved sanitation facilities: 66.4% of the urban population, 42.6% of the rural population (CIA World Factbook 2015).

Lighting and cooking: 70% of the population use solid fuels for cooking: 60.9% of the urban population, 95% of the rural population. 34% of the population uses wood for cooking, and 23% dung (Cleancookstoves 2016).

Literacy: 98.4% (CIA World Factbook 2015).

Response capacity

Local and national response capacity

The current winter has not been declared a natural disaster yet. However, on 20 December 2016, the government requested international humanitarian aid because of the dzud conditions (IFRC 10/02/2017).

The Office of the Deputy Prime Minister established a task force from January to May 2017 to coordinate response. MNT 3.5 billion (USD 1.4 million) was allocated to *dzud* response by the government, more than double that of last year. Funds will primarily be used to buy hay and fodder from state reserves, which will be donated or sold to herders at a discounted price. The rest will be used to maintain roads and support public healthcare systems. Provincial emergency commissions provide local response efforts, such as clearing major roads and rescuing stranded people. (IFRC 10/02/2017).

The national body responsible for disaster response is called the National Emergency Agency of Mongolia (NEMA). NEMA holds stocks of hay from state reserves, provides logistics support to state services, and supports logistics of humanitarian organisations in affected areas. The Agency estimates that it is 82% prepared in terms of hay and fodder at *aimag* level, but preparedness in *soums* (districts) is less than between 50-70% due to budgetary constraints. It has identified multipurpose unconditional cash grants, emergency agricultural inputs, and first aid kits as priority needs (UB Post 23/12/2016; IFRC 10/02/2017; IFRC 15/01/2016).

International response capacity

On 19 January, the Mongolian Humanitarian Country Team meeting was organised by the Deputy Prime Minister. Close coordination between NEMA and other aid organisations exists to avoid duplication efforts. (IFRC 10/02/2017). UN agencies, Mongolia Red Cross Society, Caritas Czech, People in Need, World Vision, Save the Children, World Animal Protection Organisation (WAPO), and Mercy Corps are involved in the response to the *dzud*.

The European Commission provided over 115,000 euros to vulnerable individuals in Khuvsgul, Selenge, Uvs, and Zavkhan (EU 10/02/2017). USAID has provided USD 100,000 to respond to this crisis (IFRC 10/02/2017). The UN Central Emergency Relief Fund (CERF)

approved USD 1.1 million (IFRC 10/02/2017). World Animal Protection Organisation is providing emergency food for 73,000 animals (Animal Protection AU on Twitter 03/02/2017)

Population coping mechanisms

Coping strategies include reducing food intake, spending less on basic necessities like appropriate clothing for children, medical care, as well as transportation and communication costs (Save The Children 20/12/2016).

People are letting weak animals sleep with them in their *gers* (tents) (BBC 14/05/2016).

Herders who have lost the majority of their livestock are migrating to the outskirts of big cities, mainly Ulaanbaatar and Darkhan. They usually live in extreme poverty in slums (Emergency Live 04/03/2016).

Information gaps and needs

- There is limited information on the current sectoral needs of herders, irregular migration, and the impact of the *dzud*, including the provinces most affected, and the severity of the needs.
- While assessments have been carried out in Dornod, Khentii, Sukhbaatar, Arkhangai, Bayan-Ulgii aimags, no assessments have been published on conditions in other aimags, including Bulgan, Khuvsgul, and Zavkhan.
- There are limited numbers available: numbers of those at risk have not been updated since December 2016, accurate numbers of people in need or people affected are not available. Estimates of people at risk are based on average poverty levels of soums, and are therefore inaccurate. Households at high risk but living in soums with a lower level of poverty are methodologically excluded from being counted as part of the population at risk.
- Information on the accessibility of roads is very general. No concrete areas or roads are said to be inaccessible.

Lessons learned

Herders who lose their livestock usually move to towns and search for casual labour.
 They live in the 'ger district', which is a slum area of traditional Mongolian tents known as gers or yurts (British Red Cross 05/02/2016). 600,000 former herders have migrated to ger districts of UlaanBataar in the past three decades as a result of dzuds

(IDMC 20/01/2017). Job opportunities for this population are low, purchasing power is a chronic issue, and the majority of pastoralist drop-outs rely on some form of social welfare (Save the Children 02/2013).

- The last *dzud* occurred in 2015/16, and killed over one 1 million livestock (ECHO 10/02/2017) The *dzud* in 2010 killed over seven million livestock (over 16% of all livestock). The 2000 *dzud* wiped out a third of the national livestock and pushed tens of thousands of families to the outskirts of Ulaanbaatar and Darkhan (UN 15/02/2016; Financial Times 01/03/2016).
- The *dzud* has devastating social and economic consequences mainly loss of livelihoods for rural communities. The effects are usually most apparent during March, April, and May (Reuters 03/03/2016; UN 15/02/2016).
- Livestock losses tend to increase significantly during spring months, as livestock weaken (IFRC 15/01/2016).
- Sustainable investments must be made to improve pasture to mitigate compounding effects of dzud for the following winter.

Source: OCHA 23/12/2016

