



# **MONGOLIA**

# **WINTER DISASTER**

~

# ***DZUD***

United Nations and Government of Mongolia

Appeal for International Assistance

**(February – May 2001)**

**30 January 2001**

*This appeal is based on the work of the United Nations Country Team in Mongolia, the United Nations Disaster Assessment and Coordination (UNDAC) Team, and the Government of Mongolia. Representatives of all three, the international media, and the Government of Mongolia tragically lost their lives in a helicopter crash on Sunday 14 January 2001, whilst carrying out an assessment in Malchin Soum (county), Uvs Aimag (province).*

*Nine people lost their lives:*

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*This appeal is dedicated to carrying forward the mission of our friends and colleagues, to help the people of Mongolia overcome the dzud.*

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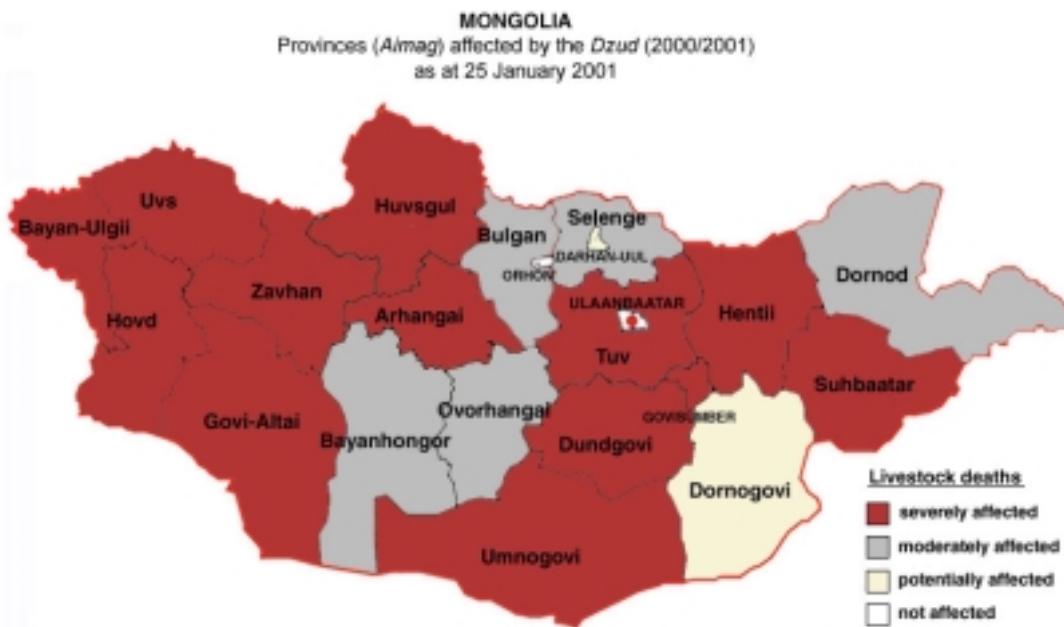
## ACRONYMS

COMECON	-	Council for Mutual Economic Assistance
DSA	-	daily subsistence allowance
FAO	-	Food and Agriculture Organization of the United Nations
IFRC	-	International Federation of Red Cross and Red Crescent Societies
MNE	-	Ministry of Nature and the Environment
MFA	-	Ministry of Food and Agriculture
MOH	-	Ministry of Health
MRCS	-	Mongolian Red Cross Society
NGO	-	Non-Governmental Organization
OCHA	-	Office for the Coordination of Humanitarian Affairs
PHC	-	primary health care
RH	-	reproductive health
SEC	-	State Emergency Commission
SRA	-	State Reserve Agency
STI	-	sexually transmitted infections
UN	-	United Nations
UNDAC	-	United Nations Disaster Assessment and Coordination
UNDMT	-	United Nations Disaster Management Team
UNDP	-	United Nations Development Program
UNFPA	-	United Nations Population Fund
UNICEF	-	United Nations Children's Fund
UNV	-	United Nations Volunteer
WFP	-	World Food Programme
WHO	-	World Health Organization

# United Nations and Government of Mongolia

## Appeal for International Assistance

### I MAP OF AFFECTED PROVINCES IN MONGOLIA



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

This map is based on a map produced by WFP-China, updated with recent data from the Government of Mongolia.

## **II EXECUTIVE SUMMARY**

For the first time in living memory, Mongolia has been struck by two consecutive *dzud* (in 1999-2000 and 2000-2001). *Dzud* is a Mongolia-specific winter disaster, which undermines the welfare and food security of the herding community through large-scale death and debilitation of livestock.

The direct cause of a *dzud* disaster is the accumulation of damaging natural hazards, including severe widespread drought in summer, unusually cold temperatures in autumn and winter and then very heavy snowfall. The indirect causes are mainly over-concentration of stock and overgrazing of pastures in some areas, leading to environmental degradation, the disappearance of abundant grass, and inadequate winter hay preparation. Extremes of climate and difficulties caused by social and economic transition have also contributed to the current disaster situation.

The 1999-2000 *dzud* affected 450,000 herders (a fifth of the total population) directly and killed about 3 million animals – approximately 10% of the total head of livestock, with the majority of deaths occurring in the spring when animals were at their weakest, before pastures could regenerate. In the current 2000-2001 *dzud*, the affected population already exceeds 300,000 herders in 20 out of 21 provinces and over 600,000 livestock have died. Many were lost in the severe snowstorm at New Year and then in temperatures as low as  $-50^{\circ}\text{C}$ , which also killed twelve herders.

Compared with the same period during the last *dzud*, the 2000-2001 *dzud* is much more severe in terms of the impact of the disaster on people and livestock, which comprise the backbone of the rural economy, and on the national capacity to respond. 90% of the country is now covered by snow, ranging from 20 cm to 70 cm. If current conditions persist throughout this winter as forecast, then up to 6.6 million livestock are projected to die between January and May, 21% of the total of about 30 million animals. The huge losses last year and this year have already brought severe hardship and poverty to herders, whose lives depend completely on livestock for food, transportation, heating and cooking (using dung for fuel), purchasing necessities and paying for health care and their children's education.

Mongolia has a long and harsh winter and more snow is expected in February and March. To reduce human suffering and the projected huge loss of livestock, the Government of Mongolia has been active in disaster preparedness and relief assistance in *dzud*-affected areas. However, the two consecutive *dzud* from 1999 to 2001 have overstretched national capacities. The Government therefore requested the international community through the UN to provide relief assistance to complement its ongoing relief effort in *dzud*-stricken areas. In response to this request, the United Nations Resident Coordinator System in Mongolia is launching an inter-agency appeal for international emergency relief assistance.

The objective of the United Nations and Government of Mongolia Appeal for International Assistance is to solicit contributions for emergency relief assistance in the areas devastated by both the previous and the present *dzud*. The appeal aims to facilitate a coordinated international response and assistance to the Government of Mongolia in its ongoing relief efforts. The activities in this appeal target vulnerable groups in the most severely affected provinces and seek to fulfil certain unmet relief needs. The appeal also focuses on building the disaster management and coordination capacity of the Mongolian State Emergency Commission (SEC) and other relevant national partners to enhance preparedness and future response. The appeal covers a period of four months, from 1 February to 31 May 2001. In collaboration with the Government of Mongolia, the UN Agencies will facilitate timely relief delivery, and ensure monitoring and reporting.

The UN Appeal seeks contributions worth US\$ 7,096,609 in cash and US\$ 4,682,248 in kind to assist beneficiaries in 73 counties. The UN agencies participating in the appeal are UNDP, FAO, UNICEF, WHO, UNFPA and OCHA. They aim to provide assistance to the following sectors: livestock survival (US\$ 3,996,027 in cash and US\$ 4,682,248 in kind), health, water and sanitation (US\$ 2,386,582), nutrition (US\$ 608,000), and programme support and capacity building in disaster preparedness (US\$ 106,000).

An immediate response to the emergency relief is very crucial. The two consecutive *dzud* affected 450,000 people last year and already 300,000 people this year, who are now living in precarious conditions which will continue and even worsen in the next few months.

The UN Appeal aims to keep herder families solvent by reducing livestock deaths, until resources can be mobilized to facilitate the transition to medium and longer-term rehabilitation and a more sustainable livestock industry. UNDP is working on pilot studies to incorporate disaster mitigation and management into its development projects, and a comprehensive assessment of the government capacity for disaster management, preparedness and response will be conducted in a joint effort of UNDP and OCHA.

### **III SUMMARY OF REQUIREMENTS BY SECTOR**

<b>Relief Sector</b>	<b>UN Agencies</b>	<b>In-kind requirement</b>	<b>Cash requirement US\$</b>
Livestock Survival and Logistics	FAO, UNDP	<ul style="list-style-type: none"> <li>– 58,000 tonnes of hay or equivalent</li> <li>– 264,000 livestock covers</li> </ul>	3,996,027
Health, Water and Sanitation	WHO, UNICEF, UNFPA	-	2,386,582
Nutrition	UNICEF, WHO	-	608,000
Programme Support / Disaster Preparedness	UNDMT, OCHA	-	106,000
<b>Total</b>			<b>7,096,609</b>

## **IV BACKGROUND TO THE APPEAL**

### **1. Basic Facts About Mongolia**

1	Population	Estimated at 2,617,000
2	Population density	1.6 per sq. km <sup>2</sup> (1997)
3	Size of territory	2,400 km from west to east and 1,260 km from north to south, total: 1,565,000 km <sup>2</sup>
4	Altitude	560 – 4,374 m above sea level, average: 1,580 m
5	Capital city	Ulaanbaatar (Ulan Bator), altitude 1,380 m
6	Regional units	21 <i>aimag</i> (provinces) [including 3 <i>hot</i> (municipalities)] divided into 380 <i>soum</i> (counties), further subdivided into <i>bagh</i> (communities) <sup>1</sup>
7	Climate	Pronounced continental climate with very cold winters (average min. -26°C), cool to hot summers (average max. 23°C), large annual and diurnal ranges in temperature, and generally scanty rainfall

### **2. Country Information**

Mongolia is in a phase of dramatic transition from a central command to a market economy. It is an emerging country which in the 1980s achieved outstanding results in preventative and medical care and education for all, with basic indicators equaling some of the industrialized world (e.g., a literacy rate of 98% in 2000, a vaccination rate greater than 90%). The past decade has seen the emergence of unemployment, poverty, declines in literacy, and diminished access to education and health services, as the guaranteed market within COMECON and the huge subsidies from the Soviet Union which had previously supported the economy and social services were withdrawn. Mongolia has set in motion a series of institutional and structural reforms, aimed at creating a foundation for the development of an efficient economy and the improvement of the social system. It has made considerable progress; after the economic collapse of 1990-4, Mongolia had five consecutive years of growth and brought inflation under control (below 10%). The livestock sector – the backbone of the economy – was privatised from 1991 on, though support systems still have to be developed, and private companies are operating in many other key sectors.

Many serious challenges remain. The Government carries a large annual budget deficit (20-25%), financed by debt. The rationalisation of the social sector has yet to result in efficient and effective services, and the decay in social infrastructure (schools, health, wells) is having extremely negative consequences. While a vast network of county hospitals and schools still exists and will be utilized as the main channel to provide emergency assistance in the health, nutrition and education sectors, access to these services, previously almost universal, is collapsing. These features are exacerbated in the *dzud*-affected areas. A nation-wide Living Standards Survey in 1998 revealed that 36% of the population were below the “poverty line” and 20%

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<sup>1</sup> Referred to as municipalities, provinces, counties, and communities respectively, in this Appeal.

were “extremely poor”. Of these, 57% lived in urban areas and 43% in the countryside. The effect of poverty on women and children remains a fundamental concern, as they bear the greatest burden.

Concerns are also emerging about Mongolia’s environment, as the transition has accelerated the pressures on and risks of damage to its fragile ecosystem. These include over-grazing in some areas, soil erosion, poor agricultural practices, mining, the absence of solid waste disposal, increased use of cars and trucks, man-made forest fires, illegal logging, and desertification. Existing national legislation and government action plans reflect a will to use natural resources in a sustainable way, but implementation and enforcement on the ground are weak and often non-existent.

### **3. Dzud – an evolving disaster**

#### **3.1 The Nature of Dzud – a “Winter Disaster”**

*Dzud* is a Mongolia-specific disaster, caused by the interaction of extreme climactic conditions and man-made socio-economic factors. It undermines food security of livestock thus ruining welfare and food security of herder families. There are different types, each classified by their effects: “white *dzud*” is deep snowdrifts, “black *dzud*” is lack of precipitation and hence no water, “iron *dzud*” is the formation of impenetrable ice cover. All of them kill livestock and severely affect the human population which depends on animals. Since 1999, the combination of many causes and the severity of the summer droughts followed by unusually cold temperatures in autumn and then very heavy snowfalls and extremely low temperatures in winter, have given rise to the term “multiple *dzud*”, to describe this complex phenomenon.

***Dzud* is a winter disaster involving the mass debilitation, starvation and death of livestock, seriously damaging the livelihoods of the herder households who depend upon them.**

Livestock are essential to every aspect of a herder families’ daily life, as well as to the entire rural economy. For most people in the affected areas, their animals are the only source of food, transport, heating materials, and purchasing power (for cash and barter), as well as the main means of access to education and healthcare. Without animals, no dung is available for heating or cooking, and no alternatives such as wood and coal are available in many areas. The average herder family has five members. Families with less than 20 animals per capita (on average 100 head) are considered to be below the threshold for Government livestock tax. They are thus on the poverty line, and most vulnerable to further loss of animals. Herders with less than 200 animals may easily drop below the subsistence threshold as well if their herds are depleted as a result of *dzud*. There are very limited alternative agricultural activities (e.g. cropping and vegetable gardening) in most of the affected areas, and due to Mongolia’s climate, these can only be conducted during a short growing season.

The livestock sector absorbed the shock of the transition from a planned economy, providing employment and livelihood to 40% of the population. However, with the disappearance of the guaranteed market within COMECON, the entire rural sector in Mongolia was reduced to a subsistence and barter economy. The herders resorted to a strategy of increasing the livestock population as insurance for the future, which in turn resulted in degradation of the some grasslands, making the system vulnerable to *dzud*. The efforts to bring the livestock sector under the market economy, increase the productivity and restore the balance between the livestock and nature are underway and expected to take a long time.

#### **3.2 The Disaster during 1999-2000**

The 1999-2000 *dzud* killed about 3 million livestock (10% of the total herd) and caused immense suffering by damaging the livelihood of more than 450,000 herders in 13 out of a total of 21 provinces. Some 2,400 herding families (about 12,000 people) were completely impoverished by the loss of all their livestock, and the *dzud* caused damage estimated at about US\$ 84 million. A major contributory factor to the disaster was the summer drought, which affected grass regeneration thus preventing livestock from building up the necessary body weight, and reducing the yield of hay herders could cut and lay up for the long hard winter. Herd health conditions further declined due to poor or virtually non-existent veterinary services in most rural areas.

The *dzud*'s impact on herders evolved steadily and predictably, from summer through to spring, when more than half of all livestock deaths occurred. The losses brought severe hardship to herders, impoverishing thousands who become largely dependent on relief assistance. Tens of thousands more lost their livelihoods, experienced food shortages, the onset of malnutrition, lack of fuel and transport, reduced ability to trade, communicate and access medical care, and lack of the means to continue their children's education.

### 3.3 The Growing Disaster in 2000-2001

Herder families' hopes of recovering from their plight last winter were dashed by the extreme widespread drought in the summer of 2000, affecting more than 60% of the country. Temperatures sometimes exceeded 35°C and it rained very little. The majority of those hit by the drought are in the same provinces that suffered the greatest livestock losses in the last *dzud*. The drought affected entire counties, so that most pastures were intensively grazed. Increased migration of livestock and households to less affected areas also increased the pressure on pastures normally preserved for the winter and spring, which were used throughout the year. In addition, rodents and locusts seriously damaged pastureland and crop areas in many provinces. Consequently, insufficient hay was prepared and, again, large numbers of animals failed to gain sufficient body weight to endure the coming winter.

As in 1999, early snowfall followed the summer drought. The Government reported that many provinces had been affected by heavy snowfall at New Year. A map of snow cover thickness dated 10 January 2001 is in Annex A. Blizzards swept across much of the country with wind speeds of more than 100 kph, freezing twelve herders to death, contributing to the death of 467,000 animals and driving another 33,000 animals away onto the steppes. The wind-chill factor has further aggravated the situation, as strong winds reduce the "effective" temperature significantly. Roads and mountain passes have been blocked by snow, average temperatures have ranged from -25 to -30°C, and *dzud* conditions have already started to form. The animal death is predicted to reach 6 million by spring.

**Mongolian herders are facing a second consecutive *dzud* disaster, even more severe than the first one, further threatening their already impoverished livelihoods.**

## 4. Preparedness at local level

Herders took measures to prepare their own winter and spring food reserves, such as the preparation of frozen and dried meat and the collection of dung for heating. However, information from provinces indicates that neither local authorities nor herders were able to adequately prepare for their livestock's survival in the winter in most places.

Insufficient preparedness by herders is related to a number of factors:

- (1) there was not enough grass for winter hay preparation because of the drought;
- (2) the same herders were severely affected by the last *dzud*, and not yet recovered;
- (3) herders could not afford to buy animal feed from private companies at unaffordable prices;
- (4) many herders have not really developed the habit of preparing sufficient winter hay as, before privatization, this was a Government responsibility.

## V IMPACT OF THE DISASTER

### 5. The Current Situation

Thirteen provinces are already seriously affected by *dzud*. The population of these provinces is 1.1 million people – about 45% of the total population of Mongolia. Of this population, about half a million are directly or indirectly affected by *dzud*, and these affected herders manage over 40% (12.8 million) of the livestock in Mongolia.

The Mongolian State Emergency Commission (SEC) reported that as of 25 January animal losses exceeded 600,000. This is double the losses by the same date last year. The worst affected provinces are as follows:

Province	No of severely affected counties	Head of livestock lost this winter
Zavhan	21	89,087
Tuv	7	88,285
Huvsgol	5	81,898
Hovd	3	62,735
Bulgan	N/A	45,503
Uvs	7	31,433
Arhangai	3	29,640

To prevent heavy loss of animals, herder families who are not able to move are increasing their winter food reserves by slaughtering weak and young animals. But the majority of herders are moving to places with relatively better conditions of grass, water, and weather. As in 2000, there is more migration this winter than normal, which further weakens animals and people. The increased movements of people and livestock outside their traditional winter grazing areas cause greater pressure on limited existing water resources and congestion on pastures reserved for other seasons, degrading them further. Access to pasture is becoming a serious problem.

**7,000 herder households from 8 provinces, with their 2.4 million livestock, have been forced to camp for the winter in neighbouring provinces. Another 790 households with 542,000 livestock, have moved into the border zone. 1,600 households, with 430,000 head, are wintering in the protected areas and national parks.**

The fact that herder households were permitted to over-winter in protected areas and national parks is an indication of the seriousness of the situation in Mongolia. It is also likely to cause damage to these areas.

## **6. Forecast and Projected Evolution**

A map of snow cover as at 10 January 2001, is at Annex A. More heavy snow is expected in most parts of the country during February, and temperatures are expected to drop 1-2 degrees below average. Greater than average snowfall is expected in March north of the Altai, Huvsgol, Khangai mountain areas, eastern Dornod, western Dundgobi and Dornogobi, northern Umnogobi, and southern Uvurhangai. The SEC has predicted that winter of 2000-2001 will be very harsh.

Following the experience last year, deaths of livestock will increase in late January, and then rise dramatically in March-May. Spring is the most difficult season for the livestock. The effects of snow and low temperatures will be exacerbated by heavy winds, and dust storms will occur more frequently, yet no new grass will have grown by this time. Spring is also the time when sheep and goats bear young, but in their weakened condition many female animals and young are expected to perish.

**It is estimated that up to 6.6 million livestock (twice as many as in the previous *dzud*) could be lost before the growing season (June).**

## **7. The Human Impact**

It is expected that the continuing *dzud* will seriously increase the current level of malnutrition, and that rates of morbidity and mortality among more vulnerable groups, including children, women, and the elderly will begin to increase. Already some affected areas are reporting increased maternal and infant mortality, as households are unable to access medical services. The health system itself is experiencing greater than usual shortfalls in resources and cannot reach many rural households. Similarly, the education system has come under strain with school dropouts increasing in some areas, and dilapidated facilities being overwhelmed with boarders in other areas.

The massive mortality of livestock experienced in 2000 and expected this year is causing huge socio-economic and financial damage not only to herders but also to entire provinces and the whole country. Assessments indicate that the situation is likely to deteriorate further with far-reaching consequences for the population. Herders comprise one-third of the total population of Mongolia, and livestock completely sustain their lives. There are no alternative livelihoods they can turn to, and many would fall into poverty. This will also be another severe psychological blow to the herder population, and widespread depression due to the huge livestock losses last year is already a serious problem.

**Many families are exhausting their food and cash reserves and, with the death of livestock, have few resources to meet basic needs.**

## **8. Government Initiatives**

### **8.1 Preparation for the *dzud***

The Mongolian authorities have taken many of the lessons learned during the previous *dzud* into consideration in their preparations for the 2000-2001 winter. From mid-2000 the Government passed a series of resolutions and commenced preparations to mitigate the occurrence of another disaster. In particular, they:

- alerted all provinces about drought and a possible *dzud* in August;

- established working groups in key ministries to assess drought conditions for the entire country and to organize better preparations for winter;
- allocated US\$ 452,000 to increase the state hay/fodder fund (by 27%), granted US\$ 90,000 in loans for three provinces to purchase emergency stocks, and US\$ 142,000 to renovate water points and wells in 8 provinces;
- allocated a further US\$ 64,500 as loans to two Provinces for winter reserve stocks;
- apportioned responsibilities between ministries for approaching donors for assistance and the distribution of various relief items;
- allocated state funds (US\$ 200,000) for the purchase and transport of hay/fodder and veterinary medicine to seven provinces, and the provision of 3 ambulances;
- gave guidance to officials at all levels to intensify efforts for winter preparedness;
- took action to ensure that Zavhan Province was not cut off and had sufficient stocks of coal and diesel (200 tonnes supplied);
- dispatched field assessment missions to try to better understand the current situation and improve disaster preparedness in drought and *dzud*-affected areas;
- provided 10 ambulances (Russian jeeps) to provincial and county hospitals;
- distributed 5,050 tonnes of hay, 2,315 tonnes of fodder and 1,084 tonnes of wheat flour donated by the Government of Japan, to 16 provinces.

The State Reserve Agency (SRA) determined that 768,200 tonnes of hay and 13,100 tonnes fodder should be prepared before the winter. By October, 455,600 tonnes (59%) and 2,800 tonnes (21%) respectively had been prepared but whilst in some provinces preparations were completed, others, particularly in the arid south, achieved less than a third of their targets. During the winter, SRA is also responsible for the planning, coordination and distribution of aid as far as provincial centres, whilst provinces are responsible for the delivery of aid to affected communities.

## 8.2 Response to the *dzud*

The State Emergency Commission (SEC) has divided all 133 counties of the 17 *dzud*-affected provinces into 3 priority groups, based on the severity of the situation there, and is providing assistance accordingly. The Government's list of severely-affected, moderately-affected and potentially-affected provinces and counties, is in Annex B.

The SEC is coordinating the overall emergency response efforts in the country. As a coping strategy, it is facilitating the migration of 7,000 families with some 2.4 million animals to other provinces, and the movement of another 4.2 million head to better locations within their own provinces. Some local authorities have also made arrangements to purchase fodder from other provinces less affected by the last *dzud*. The SEC has taken measures to ensure the immediate delivery of essential food and hay, oversee the delivery of relief, and promote rehabilitation activities. Central and local emergency commissions have been set up to distribute relief. However, many herders are completely isolated by the heavy snowfalls, which have blocked roads and passes.

**At present, the government is facing serious difficulties in delivering food, medicines and fodder/hay to herders.**

As the *dzud* situation worsened, on 15 December 2000 the Government officially requested the United Nations for advice and support in bringing the desperate situation in Mongolia to the attention of the international community.

## **9. International Response**

### **9.1 Red Cross Movement**

In response to the 1999-2000 *dzud* the International Federation of Red Cross and Red Crescent Societies (IFRC) launched an appeal for US\$ 2.5 million to provide 35,000 of the most vulnerable Mongolian herders with winter boots and food assistance over a 12 month period, up to March 2001. The details of the quantities distributed since October are in the table at Annex C. The Mongolian Red Cross Society (MRCS) supported by the IFRC has conducted a number of field assessments, which confirmed the deaths of thousands of animals in isolated communities and raised concern that the number of fatalities from cold and frostbite would rise. As a result, the IFRC is to release another US\$ 183,000, to augment the sum already spent on the herder families most affected by last year's severe winter and subsequent summer drought. MRCS will continue to monitor the situation during the winter.

### **9.2 Non-Governmental Organisations (NGOs)**

A number of NGOs are active in Mongolia: JCS International of Japan, Adventist Disaster Relief Agency (ADRA), Mercy Corps (implementing US AID projects), Mission East, Peace Wind Japan, Save the Children Fund (SCF), and World Vision (WV). Most were implementing development projects in specific provinces and counties, and in response to the 1999-2000 *dzud* they provided food aid in Bayanhongor, Dundgobi, Hovd, Uvurhangai, Uvs, and Zavhan Provinces. However, although they are monitoring the current situation in the locations where they are already active, only a few, such as World Vision and Peace Winds Japan, are distributing new emergency relief in response to the 2000-2001 *dzud*.

### **9.3 Bilateral Assistance**

In August the Government of Mongolia asked the Japanese Government to render assistance to the herders of the 157 counties in the 13 provinces most affected by the 1999-2000 *dzud*. A memorandum of understanding between the two countries was signed on 9 November 2000 and the details of the assistance were agreed. The Government of Mongolia identified the most urgently needed items, which are listed at Annex C.

In accordance with this memorandum, the Government of Japan extended an emergency grant aid of JPY 1.043 billion (USD 10 million), to purchase essential commodities including fodder and medicines for affected herders and their livestock in 13 provinces. US\$ 2 million is for the purchase and delivery of relief hay and fodder; US\$ 8 million for gas stoves and gas, human and animal medicine, water pumps, generators, radio sets, wheat flour, rice, and diesel fuel.

In response to the 1999-2000 *dzud*, the Government of the Netherlands also contributed US\$ 129,000 for the repair of rural water points and wells, which took place from July-December 2000.

The Government of India has announced an in-kind contribution worth US\$ 215,000 for humanitarian assistance including medicines, blankets and foodstuffs, as a gesture of concern and friendship.

The quantity of various relief items requested by the SEC compared with the amounts provided by the international community to date, are presented at Annex C. Delivery of the items supplied by Japan has commenced, but has also been delayed by access difficulties. Although the Japanese donation has met a number of critical national requirements, 10,291 tonnes of hay and 10,100 tonnes of fodder provided are just

fractions of the 1,800,000 tonnes and 760,000 tonnes respectively, which are considered by the Government as the overall requirement for January to May 2001.

## **10. United Nations Initiatives**

The United Nations System has been working closely with the Government and monitoring the growing *dzud* disaster since early 2000. UN assistance to Mongolia in 2000 included cash grants to purchase relief and also channeled directly to the Ministry of Health. These contributions were designed to support the Government and complement the extensive efforts of the IFRC and a number of NGOs. Over the year, the UN Disaster Management Team (UNDMT) led by the UN Resident Coordinator, has accumulated considerable experience in *dzud* disaster response, not least through conducting a major Lessons Learnt study on the 1999-2000 *dzud*<sup>2</sup>.

In November 2000, the UN Resident Coordinator reported the first major snowfall of the winter, and raised concern about the threat of another, consecutive, *dzud*. In December, OCHA dispatched its Regional Disaster Response Advisor in Asia to support the UNDMT in drafting of a response preparedness plan, should the Government request international relief assistance. A quick assessment of drought and snow affected areas was conducted, together with the UNDP disaster focal point and government officials. This confirmed that herders were at maximum vulnerability and facing the worst-case scenario – another *dzud*.

In response to the situation, FAO is currently operating the project TCP/MON/0067 "Provision of Animal Health Inputs and Animal Feed to Assist the Restocking of Severely-Affected Households in Snowstorm-Affected Areas" for an amount of US\$ 322,000. The objective of this project is to assist 1,200 vulnerable households to resume rangeland livestock production and promote economic recovery.

Having assessed its existing disaster response capacity, the Government determined that it needed international assistance to prepare for another *dzud*. On 15 December 2000, it officially requested assistance through the United Nations. OCHA then published its first situation report<sup>3</sup> on the emergency, updating the international community about the evolving situation in Mongolia. At the end of December, OCHA also released an Emergency Grant of US\$ 150,000 (US\$ 50,000 each from its own resources, and from prepositioned Danish and Norwegian funds) for the purchase and delivery of relief supplies including ambulances, WHO/UNICEF emergency kits, and fodder, for Zavhan Province.

**On 9 January 2001, a United Nations Disaster Assessment and Coordination (UNDAC) Team was dispatched by OCHA to assist the UN Disaster Management Team in Ulaanbaatar in a quick assessment of the situation, and in the development a United Nations and Government Appeal for International Assistance to Mongolia.**

## **VI SUMMARY OF THE APPEAL**

### **11. Introduction**

<sup>2</sup> UNDP Project MON/00/302, report dated 15 December 2000, available from UNDP Ulaanbaatar.

<sup>3</sup> OCHA Situation Report No.1 (OCHA/GVA - 2000/229), Mongolia – Dzud, 18 December 2000.

This inter-agency appeal was prepared under the leadership of the UN Resident Coordinator in Mongolia. It is based on inputs from UNDMT members, as well as assessment missions undertaken by the UNDAC Team, with participation of representatives of the agencies concerned, the Mongolian national authorities, donors and NGOs. It takes into consideration assistance provided in response to last year's *dzud* disaster, and more recent contributions.

## **12. Objective of the Appeal**

This Appeal concentrates on providing emergency relief to the most vulnerable of the affected groups, in order to reduce human suffering. It is also designed to mitigate further mass losses of livestock, and hence prevent large numbers of households from depending completely on relief assistance for long periods, since livestock is the only source of herders' income, food, transportation and nutrition. The Appeal covers outstanding needs for a focussed emergency humanitarian relief operation and the prevention of secondary problems. It is not designed to raise funds to provide comprehensive assistance for all Mongolians affected by the *dzud*.

## **13. Timeframe for Assistance**

The emphasis of this Appeal is on emergency relief assistance for a period of four months (February - May 2001). Urgent assistance is crucial, as the effectiveness of international relief aid depends largely on the timing. Rapid assistance can prevent thousands of herders from being further impoverished and millions of livestock from starving to death – if donors respond positively and quickly to this Appeal. This would enable UN agencies to start implementing their relief activities in late February and complete them in May.

## **14. Logistic Concerns**

As a completely landlocked country, Mongolia is reliant on ports in Russia and China. The most suitable port is Vladivostok in Russia, because of its capacity and railway access to Ulaanbaatar. The Mongolian rail gauge is common with Russia but not China, so routing via Russia avoids the delay and cost of bagging or containerising goods before leaving China, and transferring them from one train to another at the border. Rail provides the most efficient way of moving high tonnages into Mongolia, but the network is very limited, poorly maintained and there are few bulk handling facilities outside the capital. The main form of bulk cargo transportation within the country is thus by truck, costing around US\$ 0.10 per tonne per km. The road system is poor and getting worse due to neglect. Distances are deceptive; 100 km can take anything from one to four hours depending on the road and weather. The one main road in Mongolia runs roughly north-south through Ulaanbaatar from Russia to China, but even this is susceptible to blocking by snow in winter. Most other roads could hardly be termed secondary roads; they are barely formed and poorly maintained, and bridges have collapsed or are about to do so, so fords are common. Mostly they are little more than rough tracks across open ground.

Overall, the logistic difficulties in Mongolia are immense. Transport both into and within Mongolia is slow and expensive. Ideally, critical stocks should be distributed before winter, although some rural areas are completely inaccessible to wheeled vehicles even at the best of times. Normally snowdrifts can prevent movement periodically but not often for longer than a few days, as the weather is extremely cold but usually dry. This winter however, the snow is much deeper than usual and land access to some remote areas will be

almost impossible. A more detailed description of logistic concerns, based on a WFP Logistics Capacity Assessment dated 10 January 2001, is at Annex D.

## **15. Summary of Relief Sectors to be assisted through the Appeal**

<b>Relief Sector</b>	<b>UNDP</b> (US\$)	<b>FAO</b> (US\$)	<b>WHO</b> (US\$)	<b>UNICEF</b> (US\$)	<b>UNFPA</b> (US\$)	<b>OCHA</b> (US\$)	<b>Totals</b> (US\$)
Livestock Survival & Logistics	234,112	3,761,915					3,996,027
Health, Water & Sanitation	52,000		1,173,632	830,200	330,750		2,386,582
Nutrition				608,000			608,000
Programme Support / Disaster Prep.	60,000		2,000	2,000	2,000	40,000	106,000
<b>Totals (US\$)</b>	<b>346,112</b>	<b>3,761,915</b>	<b>1,175,632</b>	<b>1,440,200</b>	<b>332,750</b>	<b>40,000</b>	<b>7,096,609</b>

In the livestock sector, in-kind donations of 58,000 tonnes of hay or equivalent feed, and 264,000 livestock covers have also been requested. The financial value of these items is approximately US\$ 4,680,000.

## **SECTORS**

### **VII LIVESTOCK SURVIVAL**

Coordinating UN Agencies: FAO, UNDP

Government Counterparts: MFA, SEC

Implementing Partners: NGOs

#### **(a) Background and Context**

During the winter of 1999-2000 Mongolia was stricken by *dzud* which killed about 3 million livestock and impoverished thousands of herder families. Many herders were forced to take their livestock beyond their normal grazing lands in an often futile attempt to find feed. In the more seriously affected provinces livestock death rates ranged between 12-40%. About 2,400 herder households lost all of their livestock. The value of lost livestock production was estimated to be more than US\$ 25 million, at local prices. The 1999-2000 *dzud* was followed by a serious and widespread summer drought and now Mongolia is in the throes of another *dzud*.

The compounding sequence of *dzud*, summer drought and *dzud* have produced a situation which is leading to catastrophe for many herder families. Indicators offer compelling evidence that this year's *dzud* is considerably worse than last year's. Such evidence includes observation and reports by herders and officials,

comparison of climatic records, and comparison of the livestock deaths rates for the same periods of each winter. Temperatures are lower, snow coverage is greater and deeper. Livestock are already stressed by the effects of *dzud* and drought.

Twenty of the 21 provinces are currently affected by the *dzud*, some seriously, particularly in the west. About 98,000 herder households and 16 million head of livestock were seriously affected by mid-January (compared to 7 million during the same period last winter).

Twelve human deaths have so far been attributed to the *dzud*. The human cost is obvious – herders are helpless as their present and future security is depleted. Livestock are the basis of the population's culture, livelihood and security. The bulk of herder's dietary requirements, in the form of meat and milk products, are from their own livestock. Wool and skins provide a portion of clothing requirements; wool and other livestock fibres are used to make the felt covers of the *ger*<sup>4</sup>, and; livestock products are used as barter for goods and materials they cannot provide themselves. Livestock dung is the main fuel for heating and cooking.

Livestock are also the herder's bank. Without livestock there is no reserve; no buffer against the normal variations of the environment and the economy. Because of the reliance upon livestock, herders will frequently put their own welfare below that of their livestock.

Early reports of death rates for the current winter offer a compelling warning that the current *dzud* is going to be serious. Forecasts of deaths range between about 3 and 6.6 million livestock. Heavy snowfall and lower than normal temperatures are expected to continue through March in the Gobi and mountain areas.

## (b) Objective

To prevent the impoverishment of herder families, by saving their livestock.

## (c) Strategy

Adequate livestock feed to help reduce the forecast flood of deaths is urgently needed. Other interventions relate to reducing cold stress, increasing the efficiency of conversion of feed, and increasing the area available for grazing during the spring and early summer.

All interventions will target those livestock with a high risk of dying from the multiple effects of the *dzud*, and to maintain them into early summer. Only the "emergency" component of the current livestock/pastoral regime is to be addressed because the provision of livestock feed for all livestock in the affected provinces is neither warranted nor practicable. The emergency interventions will not in any way address the wider issues of the long-term sustainability of livestock production in Mongolia. These need to be addressed, but not within the context of the current emergency.

The livestock components of the emergency relief are:

- Emergency feed rations to high risk livestock, particularly breeding animals and the young;
- Livestock protection, shelter and covers to reduce hypothermia;
- Veterinary treatments to reduce diseases and infections which negatively affect the conversion efficiency of livestock feed;

<sup>4</sup> The traditional round Mongolian tent-house.

- Milk substitutes to supplement milk production by lactating livestock in poor condition;
- Watering points to improve grazing distribution in spring and early summer.

All the emergency interventions will be implemented according to rigorous prioritization criteria. Such criteria will primarily involve the identification of areas with livestock that are undergoing a serious decline in condition but able to respond adequately to emergency rations so that they may be sustained until sufficient fresh grassland feed becomes available in the spring. Secondary criteria will be those livestock meeting the primary criteria and belonging to herder households owning less than 100 head of livestock.

The prioritization process will take into account levels of aid already received from the government and other agencies. Where necessary that aid may be augmented but, in general, priority areas not receiving any form of assistance will be targeted. The identification of areas with priority livestock will be based on regularly updated information compiled by the SEC, MFA and other government departments. This information will be augmented by other agencies, for example NGOs. Where possible, existing government and agency resources and field programmes will be used for emergency relief implementation.

The distribution of emergency livestock forage and other goods is a critical link in the implementation of the emergency programme. For this reason, it is essential that adequate funds and resources are available to ensure that all forms of emergency relief are delivered to the target areas as quickly and efficiently as possible. Even with adequate funding, coverage of the *dzud*-affected areas is going to be restricted.

To ensure that all the emergency relief activities are implemented efficiently and according to a priority needs schedule, a temporary management and co-ordination unit will be established at the UNDP Office in Ulaanbaatar. National UNVs will be used for provincial level management and coordination

#### **(d) Budget**

The following table summarizes the livestock components of the emergency relief. Quantities and local cost equivalent for each component are shown, together with an indication of whether cash or “in-kind” assistance is preferred.

The quantities shown were derived using a process of priority targeting and therefore are generally considered minimum requirements. The quantities do not reflect the total extent of relief required to mitigate the extreme effects of the disaster. Therefore donations exceeding the quantities stated are, in fact, requested.

Appropriate technical and operational supervision and monitoring of the interventions should be provided through UNDP/FAO expertise subject to donor funding.

Component	Cost (US\$)	Form of relief
Livestock Emergency Feed Rations: – 58,000 tonnes hay equivalent	4,358,567	in-kind
Livestock Protection: – Shelters, repair or enhancement – Covers for 132,000 lambs, 100,000 kids & 30,000 calves	120,000 323,681	cash in-kind

Veterinary Treatments: – Ecto and endo anthelmintics to treat 250,000 and 500,000 head respectively, & antibiotics for 25,000 head	92,500	cash
Milk Substitutes: – 21 days' supply for 20,000 kids, 27,000 lambs, & 6,000 calves	241,111	cash
Wells for Grazing Distribution: – 100 deep wells with diesel pump, 60 shallow wells with winch, and 40 concrete-lined wells with winch	1,240,000	cash
Distribution: – Freight by truck (50% only, remainder from Govt)	1,789,165	cash
Livestock coordination unit	100,000	cash
Programme Support Costs for cash contributions at 5%	179,139	cash
Programme Support Costs for in kind contributions at 5%	234,112	cash
Sub-total cash contributions	3,996,027	cash
Sub-total in-kind contributions	4,682,248	in-kind
<b>Total Cost (US\$)</b>	<b>8,678,275</b>	

## **VIII HEALTH, WATER AND SANITATION**

Coordinating UN Agencies: WHO, UNICEF, UNFPA, UNDP

Government Counterparts: MOH, MNE

Implementing Partners: NGOs

Locations: The 73 most *dzud*-affected and remote counties and the affected border areas of Mongolia, Russia and China.

### **(a) Background and Context**

The health system in rural Mongolia is unacceptably weak with the *dzud* further constraining both the limited flow of resources into the health sector and the population's access to health care.

Rural healthcare is dependant upon a network of district hospitals with *feldshers* (physician assistants) providing outreach to the area population. This limited outreach system is collapsing due to the loss of transportation and reduced re-supply of essential items. Many have lost their horses during the last *dzud* further reducing the delivery of curative and preventive care, including antenatal care. Conversely, remote populations have difficulties to access county or provincial hospitals.

Many county and provincial hospitals lack basic equipment, drugs and heating. Particularly during this *dzud*, county hospitals receive renewable resources and training in inverse proportion to their accessibility from the provincial capital. The *dzud* has further emphasized the complete dependence upon existing locally available healthcare, which was already weak. Given this high level of dependence, especially during severe winters, it is essential that health services in remote districts be strengthened to provide basic life saving services to the area population. Recent outbreaks of vaccine preventable diseases (measles, mumps and rubella) provide more evidence of stress and deterioration in the health system.

Individuals with complicated health problems that live nearer the provincial hospitals can, although often with great difficulty, access referral centers for essential health care. Given the observed high migration to provincial capitals and their role as a referral centre, it is important to augment the health service delivery capacity of the most affected provincial hospitals.

Respiratory diseases account for 55% of infant deaths and nearly half of child deaths. Because of the *dzud*'s impact on animals, herdsmen and their children spend more time exposed to the severe weather with consequential respiratory diseases and increased exposure to frostbite. Frostbite in an environment with no referral possibilities can become a life threatening concern and certainly lead to disabilities.

Maternal mortality and anemia in Mongolia have increased with the *dzud* exacerbating this situation. Distant county hospitals must have adequately trained and equipped staff for safe motherhood and essential newborn care given the impossibility of referrals. Health workers in remote areas can only be effective if they have access to essential supplies, communications and the capabilities to first reach their patients and then transport possibilities for the more serious patients to the district hospital.

Children are especially exposed to diarrhoeal diseases and hepatitis-A due to the deteriorated or non-functioning water and sanitation facilities. The reported incidence of hepatitis-A has nearly doubled to 8,252 cases in 2000. The importance of safe water to reduce the incidence of diarrhoeal diseases during *dzud* conditions cannot be over-emphasized. The repair of existing wells and proper sanitation facilities in schools and their often overcrowded dormitories can have a real impact on reducing diarrhoeal diseases and the

growing hepatitis problem. The growing concentration of dead animal in county centres will also present sanitation and potential health problems as spring approaches.

Animals play a central role in the livelihood of herders and in their families lives. The loss of all or a significant portion of a herder's animals is known to have a devastating psychological impact on family life. Such problems are compounded by the protracted and distant family separation required for animal care during the *dzud*.

Given the *dzud*'s impact on the border areas of China and Russia in Western Mongolia, significant efficiencies can be realized through a mechanism for the improved exchange of information, material and technical support. Cross border arrangements for epidemiological surveillance, referral services and support for uninterrupted TB treatment can optimize the use of available resources in the area.

## **(b) Objectives**

The following objectives and the resulting work plans have been developed in full consultation to ensure complementarity and synergy with a focus on essential life saving measures, including both preventive and curative health care:

- (1) Reduce excess morbidity and mortality by making essential basic health care available from distant *dzud*-affected county hospitals and *feldshers* through the provision of essential equipment, supplies, heating, and training for the integrated management of childhood illnesses (IMCI), safe motherhood and essential newborn care (31% of targeted health workers have yet to receive this training, most of whom work in inaccessible counties);
- (2) Reduce excess child mortality through enhanced immunization activities;
- (3) Reduce the incidence of water born diseases;
- (4) Increase the effective use of available resources through the provision of communications and transport possibilities.
- (5) Optimize the use of available resources in the *dzud* affected tri-country border areas by increasing cross border collaboration and coordination to promote information and resource sharing, epidemiological surveillance and referral possibilities;
- (6) Reduce the incidence of psychological problems in families who have lost most or all of their animals by providing counselling skills to health and public workers;
- (7) Promote an effective planning, management, coordination and implementation capacity for the health response to this and future possible *dzud* through the provision of technical support and the provision of timely information on the both the health of the affected population and health system parameters.

## **(c) Strategy**

- Provide material, transport and communications support with on-site training to upgrade the healthcare delivery capacity of district health workers, county hospitals and affected provinces' referral hospitals;
- Through joint area meetings, facilitate coordination, monitoring and resource sharing for the optimal use of available resources in the *dzud*-affected tri-country border area with Russia and China, and the far eastern area of Kazakhstan;
- Assist the government to properly monitor the health impact of the *dzud* and to establish the capacity for the coordination and implementation of an effective response.

## **(d) Budget**

World Health Organization (WHO)

<b>Objective No.</b>	<b>Items for 277,000 people in 73 critically affected counties (international delivery cost included)</b>	<b>Cost US\$</b>
1.a	Provide remote county hospitals with missing equipment and drugs for the integrated management of childhood illnesses and essential newborn care (not overlapping UNFPA requested items and with UNICEF providing essential IMCI items to community <i>feldshers</i> )	219,000
1.b	Training on the integrated management of childhood illnesses and essential newborn care (11 day course) followed by supervisory visits and hands on training. (UNICEF to implement the IMCI community component)	73,000
3.a	Materials for safe water / home disinfection (acquatabs)	22,000
4.a	Provide counties with vehicles containing basic life support, communication and training to retrieve patients from outlying areas (x 17)	170,000
4.b	Provide <i>feldshers</i> with a communications link to county hospitals (VHF radios / repeaters and solar panel rechargers compatible with the Japanese donation)	292,000
5 & 7.a	Enhanced support to national disease surveillance in affected areas with on site health assessment, coordination, monitoring and advocacy including cross boarder cooperation for improved epidemiological surveillance, health systems monitoring, health collaboration, and uninterrupted TB treatment in the tri-country boarder areas of Russia, China and Mongolia including the nearby areas of Kazakhstan	95,000
6	Training / publications to health workers, public employees and shop / bar workers to increase mental health support to severely affected families	33,000
7.b	Supplemental support for a nutrition assessment survey with UNICEF	40,000
-	Logistical support (transport / delivery for material items within Mongolia)	163,200
-	PSC at 6%	66,432
<b>Total Cost (US\$)</b>		<b>1,173,632</b>

United Nations Children's Fund (UNICEF)

<b>Objective No.</b>	<b>Items for 277,000 people, 33340 children under 5 in 73 critically affected counties and some counties affected by hepatitis A in 2000.</b>	<b>Cost US\$</b>
1.a	Prevent vaccines preventable diseases, measles mump and rubella, through provision of MMR for children 1 to 13 years old	77000
1.b	Prevent acute respiratory infections and their complications	67,000

	through supply of pneumococcus and influenza vaccines for children 1 to 5 years old	
1.c	Prevent spread of hepatitis A epidemics in 73 sums and other areas affected by dzud in 2000 and recently stricken by 2000 hepatitis A epidemics , through the provision of Hepatitis A vaccines for 300,000 population	300,000
1.d	Prevent spreading of infectious disease and ensure safety of injections through supply of auto-destruct Syringes and safety box	72,700
1.e	Ensure timely vaccination activities for target groups through provision of Fuel for vaccination in 73 counties	12,000
2.	Prevent spread of nosocomial infections through provision of disinfecting substances for 73 sum hospitals	35,600
3.a	Strengthen IMCI outreach at the community level through provision of essential IMCI kit to 350 feldshers in 73 sums	31,500
3.b	Strengthen IMCI outreach activities for community in 73 sums through training, counseling and sensitizing of community	32,800
4.	Monitoring of vaccination and IMCI outreach activities	13,000
5.	IEC activities through mass media	13,000
6.	Freight / 5% overhead cost	175,600
<b>Total Cost (US\$)</b>		<b>830,200</b>

United Nations Fund for Population Activities (UNFPA)

<b>Objective No.</b>	<b>Items for the 73 critically affected counties(in-country delivery cost included)</b>	<b>Cost US\$</b>
1.a	Strengthen the referral system at provincial level, district hospitals and the community <i>feldshers</i> by providing Emergency RH Kits for safe delivery, management of complications as well as for management of STIs	100,000
1.b	Provision of training on the use of the kits, on safe motherhood and infection control	15,000
1.c	Support for the distribution of the kits within Mongolia and for monitoring (fuel, DSA)	25,000
1.d	Support the operation and expansion of maternity waiting homes, delivery and post delivery rooms during winter months	100,000
1.e	Strengthen the outreach capacity of the community <i>feldshers</i> by providing a horse to those who need one (US\$ 150 x 300 <i>feldshers</i> )	45,000
1.f	Establish and support reproductive health collaboration, coordination and referral services in the cross border area	30,000
-	PSC at 5%	15,750
<b>Total Cost (US\$)</b>		<b>330,750</b>

UNDP (WASH21 Project with WHO and UNICEF)

<b>Objective No.</b>	<b>Item details</b>	<b>Cost US\$</b>
3.b	Repair and/or install wells for safe water with hand pumps at US\$ 2,500 each	44,000
3.c	District authorities to remove concentrations of dead animals	5,500
-	PSC at 5%	2,500
	<b>Total Cost (US\$)</b>	<b>52,000</b>

## **IX NUTRITION**

Coordinating UN Agencies: UNICEF, WHO

Government Counterparts: MOH, Nutrition Research Centre, Office of the Governor / Public Health Centre in provinces

Implementing Partners: Office of the Governor, county hospital, IFRC/MRCS, others to be specified

Target population: 33,240 children (0-5 years) with their families,  
4000 nomadic children (5-8 years) in kindergartens,  
7000 nomadic children (8-15 years) in dormitories,  
Pregnant and lactating women.

Locations: The 73 most *dzud*-affected in 13 provinces.

### **(a) Background and Context**

FAO has classified Mongolia as a *Low Income Food Deficit Country*, due to low net income per person and lack of sufficient foreign exchange to purchase the necessary food on the international market. The difficulties are reflected in the 70% decline in domestic food production since 1991. The 182,000 tonnes of cereals produced in 1996 represent only 40% of national cereal consumption, and it was estimated that families were spending 44% of their income in rural areas and 51% of their income in urban areas, on food products<sup>5</sup> in 1997.

The staple foods consumed are animal meat (beef, mutton, goat, horse), wheat and rice. Estimated dietary energy intake was 2,400 kcal/day/person in 1989 but by 1992-1994 the estimate had fallen to 1,920 kcal/day/person and 66 grams of protein. This daily consumption level is less than the WHO recommended daily intake (2,700 for men and 2,200 for women)<sup>6</sup>. Another survey conducted by the NRC<sup>7</sup>, between 1993-1996 found an average intake of 2141 kcal of energy. Seasonal differences are obvious, with the highest intakes in summer (2,448 kcal/person/day) and the lowest in winter months (1,737 kcal/person/day)<sup>8</sup>. The situation does not appear to have improved much since then – according to the recent figures, 6% of population are living in extreme poverty, consuming only 50% of minimum nutrition requirements.

According to the second child nutritional survey (CNS) conducted in November 1999 by the Nutritional Research Centre with UNICEF support, the prevalence of malnutrition was estimated as 12.5%, 24.6% and 3.7% respectively, for children under five, underweight, stunted and wasted (less than 2 S.D., NCHS-CDC-

<sup>5</sup> National Statistical Office (NSO). 1997 Mongolian Statistical Yearbook. Ulaanbaatar, 1998

<sup>6</sup> NPAN 1997. Op. cit.

<sup>7</sup> NRC data based in 24 hour recall of 21,060 employed people in 1993-1996 not general population, and not divided by sex or age

<sup>8</sup> World Bank. Living Standards Measurement Survey. UN System Theme Group on Social Statistics, 1998 Database

WHO standard). These figures, which at first glance may appear of only moderate concern, mask the extreme vulnerability of the situation revealed during last year's *dzud*. Amongst others in Mongolia, vulnerability is linked to extreme weather conditions, the considerable difficulties of long distance transport, structural weakness in domestic food distribution, and lack of coping mechanisms in case of *dzud*.

The food insecurity dynamics<sup>9</sup> amongst those population groups that are least well-off relates to their lifestyle and share of resources. For example, individual herds range from 20 to several thousand, with a minimum of 150 for sustainability. Although currently there is a national herd of about 30 million sheep, goats, cattle, horses and camels, 70% of herders have less than 100 animals and are thus classified as poor. Most have also increased their herds in order to generate more income for basic living (particularly through the production of cashmere and fermented mares' milk rather than food). Such short-term strategies have been detrimental to households in the long run, exacerbating food insecurity during the *dzud*<sup>10</sup>.

The lack of cash in rural areas raises serious questions as to how the rural population procures food and other items even in normal times. During next spring the condition of the affected population may suddenly collapse, because the dried meat and dairy products they are still using as food reserves will be depleted.

The current *dzud* disaster, due to its magnitude and devastating effects on the life of the people in several provinces, its disruption of food security and its projected indirect effects on other provinces, may become the catalyst for a progressive sharp deterioration of the food security situation and subsequently of the population's nutritional status. There is a high risk of deteriorating nutritional status, especially amongst the poor, whose children are already 64% more likely to be underweight compared to those in the better-off households according to the 1999 survey (RR=1.64, 95% C.L. 1.27-2.10).

## (b) Objective

To prevent a sharp fall in herder families' energy and protein intake, and to improve dietary imbalances and the inadequate intake of micronutrients among children and pregnant women in affected areas.

## (c) Strategies

The mix of strategies aims to overcome the current threat to the nutritional situation of children and women. Whilst the (IFRC/MRCS) food aid pipeline will cover the most vulnerable population's needs until late spring 2001, the nutrition programme will achieve its objectives by:

- (1) Strengthening current growth monitoring in counties with outreach to communities;
- (2) Building on already existing systems and networks (PHC / district hospital / C&H and schools);
- (3) Procuring items through already well established pipelines (the UNICEF warehouse in Copenhagen, regional networks or others);
- (4) Strengthening outreach (through *feldshers*) and establishing add-on services (supplementary feeding in PHC / district hospitals, school dormitories) when needed;
- (5) Building local, community and family capacity in care for nutrition and nutrition promotion;
- (6) Coordinating interventions among partners and with the governments;
- (7) Strengthening collaboration with NGOs (IFRC, SCF, World Vision, others).

<sup>9</sup> WV Mongolia 1998. Op. cit. p2

<sup>10</sup> Select text from the Study of Extensive Livestock Systems. ADB 1997

**(d) Budget**

<b>Objective No.</b>	<b>Items for the most vulnerable groups in 73 critically affected counties (international delivery cost included)</b>	<b>Cost US\$</b>
1	UNICEF and WHO will conduct a joint CDC health and nutrition assessment survey of disaster-affected areas to assess the vulnerability of populations	45,000
2.a	Utilise growth monitoring charts for screening poor nutrition in children under five: – growth charts for 33240 children under 5 years – UNISCALE and height measurement instruments for 73 district hospitals – salter scales for 292 feldshers	35,000
2.b	Training of doctors and nurses in district hospitals and <i>feldshers</i> in communities, care-givers and parents on the use of growth charts, including visits by supervisors and hands-on training	80,000
3.a	Supplementary feeding (BP5) for children under 5 years and pregnant women (a 6 month supply of High Energy Biscuits – Soybean texture for 73 county hospitals, school dormitories and kindergartens)	165,000
3.b	Training health workers, care-givers and parents on the utilisation and distribution of supplementary food to 12-24 month old, underweight or chronically malnourished children in affected areas	80,000
3.c	Training teachers in kindergartens and boarding schools on supplementary feeding	30,000
4.a	Micronutrient supplements: vitamin A, vitamin D, multivitamin N500, and pediatric iron for infant and young children	6,000
5.a	Strengthen community and family caring capacity, provide IEC materials on nutritional issues, especially food preparation and storage in households facing drought or <i>dzud</i> situations	15,000
5.b	Radio programs on food preparation and storage in households, and integrated health, nutrition, water, sanitation and hygiene education in coordination with health, water and sanitation sector of this appeal	7,000
3	Establish a routine monitoring mechanism and make periodic evaluations of the effectiveness of inputs	10,000
4	Organize the development of a simple, user-friendly database on essential health and nutrition indicators to assist in the monitoring of the situation and management of the interventions, and review how existing routine reporting systems or recommended alternatives might be mobilized to manage the current, and future, disasters	20,000
-	Logistical support (transport / delivery for material items within Mongolia) / 5% overhead cost	55,000

-	Technical assistance (emergency officer for 6 months)	60,000
	<b>Total Cost (US\$)</b>	<b>608,000</b>

## X PROGRAMME SUPPORT AND DISASTER PREPAREDNESS

Coordinating UN Agencies: UN Resident Coordinator, UNDP and OCHA

Government Counterparts: MFA and SEC

Location: Ulaanbaatar

### (e) Background and Context

Given the magnitude of the *dzud* disaster, and the isolation of herders, it is extremely difficult for any single organization to collect comprehensive data on the impact of the disaster, to ensure timely delivery of emergency relief assistance in Mongolia, and evaluate its effectiveness. Strengthening overall coordination and management of disaster-related information and relief assistance is crucial for efficiency of international relief. Bearing in mind the current capacity of SEC and other implementing ministries to manage the response to *dzud*, the UN can provide a useful support at the national and local level to the coordination and monitoring of relief assistance, mobilised through the Appeal.

Timely relief activities will help to reduce human suffering and mitigate against the economic losses in the short-term. However, urgent assistance is also required beyond immediate relief needs, in order to help the Mongolian authorities to be better prepared for possible future *dzud* disasters. It is important to address the underlying causes of this type of disaster, and resolve a number of problems, including growing tension between local herders and migrated herders, and severe damage of environment and pastureland.

### (f) Objectives

- (1) To develop practical tools and mechanisms for coordination, monitoring, and reporting, so as to strengthen national implementation capacity and ensure a timely delivery of emergency relief assistance to the *dzud*-affected areas;
- (2) To provide regular updates on the disaster situation and relief assistance to the UN Resident Coordinator, and to help the UNDMT organize regular information-sharing during the period covered by the Appeal;
- (3) To cooperate with FAO Livestock Coordination Unit;
- (4) To organize a joint evaluation, with national authorities and other stakeholders, of the effectiveness of the international emergency relief and the lessons learned, so that cooperation will be sustained beyond the emergency relief phase among UN agencies, national authorities and NGOs;
- (5) To evaluate the existing capacity of the national authorities in disaster management, preparedness and response;
- (6) To identify the priority areas for UN assistance in disaster response preparedness;
- (7) To make recommendations on concrete measures to be taken by the national authorities in disaster preparedness and to formulate a relevant document.

### (g) Strategy

Under the overall leadership of the UN Resident Coordinator, UNDP and OCHA disaster management experts will provide support to the national authorities and UNDMT in the coordination and management of international assistance. Strategies and mechanisms will be elaborated to further strengthen the coordination

of information, delivery of relief assistance, field monitoring, reporting to donors and evaluation. These activities will be carried out in close cooperation with other UN agencies, donors, national entities and NGOs.

Based on the Lessons Learnt study from the 1999-2000 *dzud*, UNDP and OCHA, together with UNDMT and other relevant agencies, will further its assistance to the government in disaster preparedness. International disaster management experts will make an in-depth and comprehensive analysis of the man-made factors contributing to *dzud* disasters, in cooperation with the SEC and the MFA. They will develop a comprehensive disaster preparedness project, addressing the key issues through capacity-building, early warning, contingency planning, technical assistance and training/educational programmes, as well as pre-positioning of stocks. The overall aim is to increase national capacity in disaster assessment, preparedness and response and to complement the ongoing efforts of the UNDMT and national authorities.

#### **(h) Budget**

<b>Component</b>	<b>Agency</b>	<b>Cost (US\$)</b>
International disaster preparedness consultant	UNDP	40,000
International disaster response consultant	OCHA	40,000
National consultants to support MOH in the implementation of the support provided, to monitor and report	UNFPA, UNICEF, WHO	6,000
Three national logistics experts / UNVs	UNDP	12,000
Post-relief operation evaluation	UNDP	8,000
<b>Total Cost (US\$)</b>		<b>106,000</b>

### **XI MANAGEMENT OF PROGRAMMES IN THE APPEAL**

#### **16. Implementation**

All components of this UN Inter-Agency Appeal will be implemented by in-country UN Agencies, in coordination with their respective counterpart government ministries and/or partner NGOs. At the field level the appropriate UN Agencies will be responsible not only for local procurement, but also for monitoring and reporting on the progress of work. The budget for each sector includes an element for logistics, and for agencies' programme support costs.

#### **17. Project Details**

Donors may wish to contact the headquarters of the respective implementing UN Agency, for further details of the individual project inputs in each sector.

## **18. Channelling of Cash Contributions**

In response to this Appeal, donors can make their contributions directly to the United Nations agencies which have been identified as responsible for implementation of programme inputs in the desired sector, or to the Mongolian Government<sup>11</sup>, or to NGOs engaged in relief and rehabilitation in these sectors.

OCHA is prepared to serve as a channel for unearmarked cash contributions to be used for immediate relief assistance, in coordination/consultation with relevant organizations in the United Nations system. Funds should be transferred to OCHA account No. CO-590.160.0, Swift code: UBSWCHZ12A at the UBS AG, P.O. Box 2770, CH-1211 Geneva 2, with reference: OCHA – Mongolia, Dzud. OCHA provides donors with written confirmation and pertinent details concerning the utilization of the funds contributed. For coordination purposes, donors are requested to inform OCHA Geneva, as indicated below, of bilateral relief missions / pledges / contributions and their corresponding values by item.

## **19. Monitoring and Reporting**

For funds channeled through the United Nations system, the appropriate UN Agencies will be responsible for monitoring, coordinating and reporting on the progress and impact of relief efforts to the donors. The US\$ 106,000 requested for Programme Support and Disaster Preparedness is for the integrated implementation of the different components. The UNDMT will serve as the coordinating body in-county.

## **20. Post-Operation Review**

The implementation of this appeal will be closely monitored and regularly reported on to the respective donors by the UNDMT and OCHA. The entire relief effort will be formally reviewed with the participation of donor representatives at the end of the four month period. OCHA will track contributions and ensure general reporting, both through continuing situation reports and specific reports to donors on the implementation of the appeal, as appropriate. The entire inter-agency emergency relief will be formally reviewed at the end of the period.

Basic relevant information on this emergency is available on the OCHA Internet Website at <http://www.reliefweb.int>, as well as on the UN-Mongolia disaster website [www.un-mongolia.mn](http://www.un-mongolia.mn)

## **21. The Future: Medium to Long-Term**

**It is vital to Mongolia's future to transform the entire livestock production system into a fully sustainable sector of the economy, which lifts the living standards of herders above subsistence level and increases its contribution to national income.**

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<sup>11</sup> State Standing Emergency Commission of Mongolia (State Board for Civil Defence), Trade and Development Bank of Mongolia, Foreign Currency Account No. 21350135: Savings Bank, National Currency Account No. 2145013

Man-made factors, such as livestock overstocking and overgrazing may lead to environmental degradation and contribute to the scale and severity of *dzud* disasters. Reportedly, Mongolian grasslands are under threat from patterns of development that are proving to be unsustainable. According to some estimates, up to 30% of grasslands are severely damaged or overgrazed.

The total number of livestock grew from 26 million in 1992 to 33 million in 1998. At the same time, possibly connected to the process of the global climate change, water in Mongolia has become increasingly scarce in recent years. Surface waters have become shallower or disappeared altogether, groundwater levels have fallen, and pastures that were once lush with grass have become dry and dusty in many areas. The number of artificial water points (i.e. wells and reservoirs) serving livestock decreased from 47,000 in 1988 to less than 36,500 in 1995.

These factors contributed to overgrazing and land degradation as more animals crowded around fewer water points and market centres. It is estimated that 38,000 ha of land have become desert during the past 40 years, while the number of dust-storm days in the Gobi region has increased four-fold since 1960. Coupled with ongoing drought conditions in some areas of the country, overgrazing has contributed to desertification, which is reportedly increasing in Mongolia.

There is a clear need for a comprehensive approach to grassland and livestock management in light of the changed socio-economic conditions that have emerged in Mongolia during the past ten years. Increasing water scarcity also points to the need for improved management of water resources, both surface and underground. Medium- and long-term rehabilitation programmes are required to adjust long-term environmental strategies, and address the optimal balance between herders, their animals and the land.

It is crucial that the livestock industry in Mongolia is put on a sustainable development path, and the grasslands continue to support the livelihood of the Mongolian people.

In 2000, four studies were carried out to review issues related to the *dzud* disaster during the period of March to May 2000. UNDP formulated several projects to address the major problems identified by the studies, which include sustainable livestock production, strengthening customary herding communities; sustainable management of Mongolian grassland. Due to unavailability of sufficient funds, only one project was implemented with success.

It is suggested that UNDP, UNEP and FAO jointly prepare an appropriate project proposal(s), which could be submitted to potential donors for their support.



## **Map of Snow Cover Thickness as at 10 January 2001**

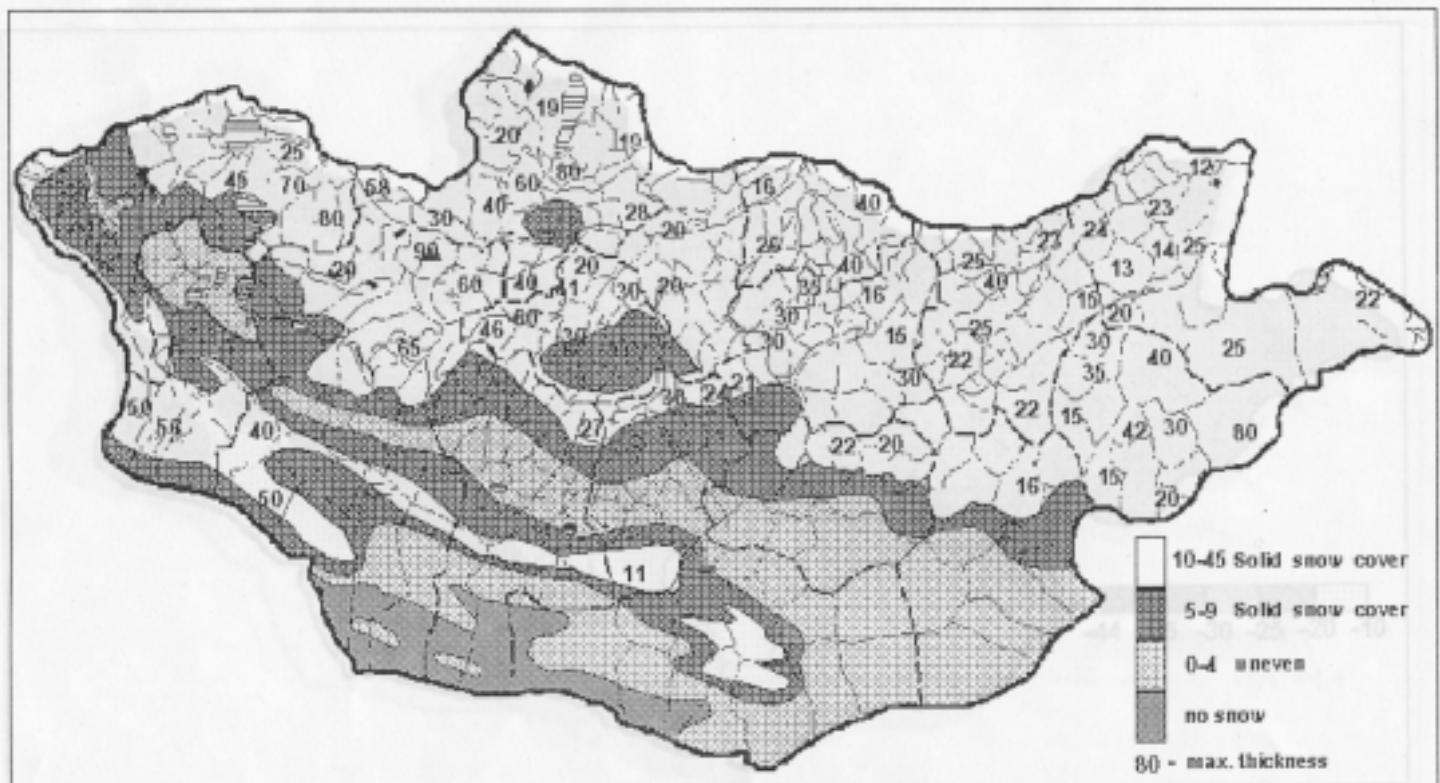


Figure 3. Snow cover average thickness (cm) over Mongolia (10.Jan.2001)



**Government List of Affected Provinces and Counties**  
**as at 25 January 2001**

A total of 98,000 herder households and 16 million livestock in 192 counties of 20 provinces are affected by the *dzud*.

According to incomplete data, more than 600,000 livestock have died.

Province ( <i>aimag</i> )	Severely affected counties ( <i>soum</i> )	Moderately affected counties ( <i>soum</i> )	Potentially affected counties ( <i>soum</i> )
Zavhan	Asgat, Ih-Uul, Bulnai, Ider, Numrog, Tudevtei, Bayan-Hairhan, Songino, Tsetsen-Uul, Santmargats, Yaruu, Erdenehairhan, Telmen, Otgon, Aldarhaan, Bayantes, Tes, Uliastai, Tsagaanhairhan, Tsagaanchuluut, Shiluustei (21)		Durvuljin, Zavhanmandal, Urgamal (3)
Govisumber	Bayantal, Shiveegovi, Sumber (3)		
Uvs	Baruunturuun, Hyargas, Malchin, Naranbulag, Ondorhangai, Tsagaanhairhan, Zuunhangai (7)	Sagil, Tarialan, Tes, Turgen, Zavhan, Zuungovi (6)	Davst (1)
Huvsgol	Alag-Erdene, Galt, Jargalant, Tsagaan-Uul, Tsetserleg (5)	Arbulag, Bayanzurh, Burentogtoh, Shine-Ider, Tumorbulag, Tunel (6)	Rashaant, Rinchinlhumble, Tosontsengel, Tsagaannuur, Ulaan-Uul (5)
Arhangai	Tsahir, Tariat, Hangai (3)	Jargalant, Hashaat, Hotont, Undor-Ulaan, Tsetserleg (5)	Erdenemandal, Ulziit (2)
Tuv	Bayan, Bayanjargalan, Bayantsagaan, Arhurst, Altanbulag, Bayan-Unjuul, Sergelen (7)	Argalant, Batsumber, Bayanchandmani, Bayanhangai, Bayantsogt, Bornuur, Buren, Delgerhaan, Erdene, Erdenesant, Jargalant, Ugtaal, Undorshireet (13)	Lhun, Zuunmod (2)
Hentii	Bayan-Ulaan, Darhan, Delgerhaan, Jargalthaan, Tsenhermandal (5)	Bayanmunh, Galshar, Batnorov, Batshireet, Muron (5)	
Dundgobi	Adaatsag, Delgertsogt,		Erdenetsogt,

	Deren, Govi-Ugtaal, Tsagaandelger (5)		Bayanjargalan (2)
Govi-Altai	Bugat, Tonhil (2)		
Hovd	Altai, Bulgan, Uyench (3)	Duut, Manhan, Munhhairhan, Must, Tsetseg, Zereg (6)	
Bayan-Ulgii	Tsengel, Ulaanhust (2)	Altai, Buyant, Sagsai (3)	
Suhbaatar	Bayandelger, Erdenetsagaan, Tuvshinshoree, Uulbayan, Halzan (5)	Dariganga, Naran Ongon (3)	Munhhaan, Asgat (2)
Umnogovi	Hanbogd, Manlai, Tsogt-Ovoo, Tsogttsetsii, Bayan-Ovoo (5)	Hurmen, Mandal-Ovoo, Hanhongor, Dalanzadgad, Nomgon (5)	Gurvantes (1)
Bayanhongor		Bayan-Undor, Gurvanbulag, Zag, Jargalan, Erdenetsogt (5)	Shinejinst (1)
Bulgan		Dashinchilen, Gurvanbulag, Rashaant, Teshig (4)	Bugat, Bureghangai, Mogod, Sainan, Hishig-Undor (5)
Uvurhangai		Esonzuil, Harhorin, Hujirt, Bat-Ulzii, Zuunbayan-Ulaan (5)	Bayan-Undor, Hairhandulaan, Ulziit, Burd (4)
Dornod		Halhgol (1)	Bayandun, Bayan-Uul, Dashbalbar, Gurvanzagal, Hulonbuir, Matad, Sergelen, Tsagaan-Ovoo, Bayantumen (9)
Dornogobi			Airag, Altanshiree, Dalanjargalan, Delgerek, Ihhet, Urgon (6)
Selenge		Orhon, Mandal, Sant, Bayangol, Orhontuul, Tushig, Baruunburen (7)	
Darhan-Uul			Hongor, Sharyngol (2)
<b>Total</b>	<b>73 soum in 13 aimag</b>	<b>74 soum in 14 aimag</b>	<b>45 soum in 14 aimag</b>

Source: State Civil Defence Board

Note: Severely affected provinces are those with more than 30,000 livestock lost and snow cover greater than 15 cm. Moderately affected provinces are those with 5,000-30,000 livestock lost with snow cover less than 15 cm. Potentially affected provinces are those with less than 5,000 livestock lost, little or no snow cover, but with overgrazing.





**ANNEX C**

**Comparison of Relief Requested and International Assistance Provided**

	REQUIREMENT			RELIEF PROVIDED TO DATE			
Ser.	Relief items identified by SEC (& unit of qty)	Quantity requested	Explanation / justification of Government request	Donor	Quantity provided	Remarks / current status	Quantity still req'd
1	Funds for transportation	?	Figure not specified				?
2	Ambulances (Russian Jeeps)	17	For hospitals in affected counties without ambulances				17
3	Ivomec (litres)	200	Veterinary drug				200
4	Emergency Medical Kits	129	Each kit: 10,000 people for 3 months & costs US\$ 5,000				129
5	Water pumps	1,000	For the wells in affected counties	Japan	1,000 ?	Expected U-B Mar 01	0
6	AC Generators (gasoline)	1,000	For 129 affected counties – though now 133 are affected	Japan	2,280	547 units received, remainder expected U-B by Apr 01, totals: – 550 VA (1,680 units); – 780 VA (600 units).	0
7	Radio sets	516	Each set costs ~ US\$ 5,000, for communities in 133 affected counties, each with 3-4 communities	Japan	420	Not arrived yet, but will supply: – HF base stations (110 sets); – HF mobile stations (20 sets); – VHF base stations (190 sets); – VHF mobile stations (50 sets) – VHF handheld (50 sets); – VHF repeater stations (8).	96
8	Wheat flour (TONNE)	9,000	For 300,000 herders	Japan	9,000	1,084 TONNE already distributed	0
			For 31,500 people in Dundgobi, Bayanhongor, Overhangai, Tov, Uvs, & Zavkhan Provinces	Red Cross / IFRC	1,418	Distributed Nov-Dec 00	0
			For 6,680 people in Dundgobi Province	World Vision	200	Distributed every 2 months from Dec 00 - May 01	0
9	Rice (TONNE)	405	For 300,000 herders	Japan	1,068	Arrived U-B, Dec-Jan 01	0
			For 6,680 people in Dundgobi	WV	80	Distributed from Dec-May 01	0
10	Diesel fuel (TONNE)	8,000	For Hovd, Uvs & Zavkhan Provs – heavy vehicles use ~ 30 l/km	Japan	8,000	Arrived U-B, 19 & 27 Dec	0
11	Hay (TONNE)	1,800,000		Japan	10,291	5,050 TONNE already distributed	1,790,000
12	Fodder (TONNE)	760,000	Wheat flour by-product	Japan	10,100	2,315 TONNE already distributed	749,000
	Hay / fodder (TONNE)	?	For Bulgan Province	WV	133		?
13	Salt blocks (TONNE)	378,000	Mineral supplements				378,000

Ser.	Other relief items identified (unit of qty)	Quantity requested	Description	Donor	Quantity provided	Remarks / current status	Quantity still req'd
14	Cookers (units)	?		Japan	19,418	Arrived U-B, 5 Dec 00	?
15	Gas (units)	?		Japan	194,180	Arrived U-B, Nov 00	?
16	Human medicine (\$)	?	– Ethyl Chloride (100 l); – Sodium Bromide (1,000 kg); – Ringer's lactate / set (228 l); – Rehydration salts (697.5 kg); – Penicillin tablets (25 kg); – Tetracycline tablets (25	Japan	800,000	Not yet arrived, expected U-B Mar 01	?

			kg).				
17	Veterinary medicine (\$)	?	<ul style="list-style-type: none"> <li>- Asersect 2 (7,360 l);</li> <li>- Novartis-600EC (2,000 l);</li> <li>- Trichlorophon (2,000 l);</li> <li>- Vermitan, etc. (3,005 l);</li> <li>- Omnisep (1,000 l);</li> <li>- Supersept (1,000 l);</li> <li>- Oleum Jecoris (61,000 l);</li> <li>- Oxytetracycllin (3,000 flacon)</li> <li>- Neopon 30 (3,000 flacon);</li> <li>- Streptopenicillin (3000 flacon)</li> <li>- Glucose (6,000 kg).</li> </ul>	Japan	199,200	Not yet arrived, expected U-B Mar 01	?
18	Powdered milk (TONNE)	?		Japan	505	Arrived U-B, Dec-Jan 01	?
19	Millet (TONNE)	?		Japan	186	Arrived U-B, Dec-Jan 01	?
		40	For 6,680 people in Dundgobi	WV	40	Distributed from Dec-May 01	0
20	Sugar (TONNE)	20	For 6,680 people in Dundgobi	WV	20	Distributed from Dec-May 01	0
21	Edible oil (TONNE)	20	For 6,680 people in Dundgobi	WV	20	Distributed from Dec-May 01	0
22	Institutional feeding	?	For 360 children in Dundgobi	WV	?	Conducted from Dec-May 01	0
23	Winter boots (pairs)	5,170	For Bayanhongor, Dundgobi, Overhangai, Tov, Uvs, & Zavkhan Provinces	Red Cross / IFRC	5,170	Distributed Nov-Dec 00	0
24	Funds for rural water supply (\$)	?	Repair of water points & wells	Netherlands	130,000	Contributed Jul 00	?

**Extract from WFP Logistics Capacity Assessment  
dated 10 January 2001****1. Access into Mongolia**

Mongolia is completely landlocked. The main points of entry are Suhbaatar near the border with Russia in the north, and Ereen in the south on the Chinese border. The main ports used for consignments to Mongolia are Vladivostok, Vostochny and Nahodka in Russia, and Xingang (the port for Tianjin) in China. The key factor is the rail gauge, which is common with Russia but not China. Goods coming from China must therefore be transferred from one train to another, and they must therefore be bagged or containerised before leaving China, rather than be transported in bulk, adding to the time and cost. The most suitable port is Vladivostok, because of its capacity for large ships, container berths and bulk handling, and its connection to the Trans-Siberian Railway. The typical rail time from Vladivostok to Ulanbaatar is 15-20 days, and bulk wagons are in short supply. It would also take about three weeks to set up the overall freight management system, in terms of organising tenders, contracts and transport assets.

**2. Customs and Entry into Mongolia**

Aid products are accepted by the Government duty-free, but exemptions need to be requested from the Ministry of Finance, through UNDP, prior to the arrival of goods at border crossings, where delays are common due to bureaucratic inefficiency and congestion. Although in dire emergencies it could be assumed that the Government would provide trucks and fuel to distribute international relief in-country, in practice the Government would require considerable assistance with the costs.

**3. Transport within Mongolia**

For transport by air, the only significant cargo handling facilities are at Ulanbaatar. There is no river transportation. Rail provides the most efficient way of moving high tonnages into Mongolia, but the network is very limited, poorly maintained and there are few bulk handling facilities outside the capital. The main form of bulk cargo transportation within the country is thus by truck. There are numerous companies and also a truck market where drivers and their vehicles wait for contracts. Any contact is best arranged through local agents. The cost of transport ranges is approximately US\$ 0.10 per tonne per km. Diesel fuel costs approximately US\$ 0.50 per litre, but its price is rising. The representative of the IFRC in Ulaanbaatar has good contacts and considerable experience in organising bulk cargo transportation by road.

**4. Road Transport**

The road system is poor and getting worse through neglect. The presence of a road marked on a map is no guarantee that this road exists or that it is passable. Before embarking on any journey, local advice is essential. Distances can also be deceptive; 100 km can take anything from one to four hours depending on the road and weather. The main road runs north-south through Ulaanbaatar from the Russian to the Chinese border. Although mostly a sealed two-way road, it is susceptible to blocking by snow in winter and is almost lethal by night at any time of year. Traffic is light, but at night many vehicles do not use lights, broken-down trucks stand unlit, and pedestrians wander across the road oblivious to the danger. Most other roads could hardly be classified as secondary roads by international standards. Short stretches of sealed road occur on the approaches to the main towns, but elsewhere the roads are barely formed and poorly maintained; often they

simply stop and drivers must choose one of several rough tracks. Many bridges have collapsed or are about to do so, so fords are common.

## **5. Grain Storage and Milling**

Warehouses is limited but available in Ulanbaatar and most provincial centres, but not in county centres or closer to the herder communities. Flourmills are found throughout the country but many have closed or are in poor condition – ideally grain should be milled and bagged before entering Mongolia, for better cost-effectiveness and quality control. Typical prices for bagged wheat flour are US\$ 215 per tonne from China, US\$ 228-252 per tonne purchased locally, and US\$ 250 per tonne from Russia.

## **6. Power and Communications**

Power supplies are irregular across most of the country, and many rural areas have none at all. Communications infrastructure is weak; the terrestrial telephone network is unreliable and seldom extends beyond the provincial centres, whilst mobile phones cannot be used outside Ulanbaatar. Generators and sufficient radios or satellite communications equipment are essential for logistic operations outside the main towns.

## **7. Summary**

Overall, the logistic difficulties in Mongolia are immense. Transport both into and within Mongolia is slow and expensive. Ideally, critical stocks should be distributed before winter, although some rural areas are completely inaccessible to wheeled vehicles even at the best of times. Normally snowdrifts can prevent movement periodically but not often for longer than a few days, as the weather is extremely cold but usually dry. This winter however, the snow is much deeper than usual (see map at Annex A) and land access to some remote areas will be almost impossible.