



Mercy Corps/T. Cook

MONGOLIA STRATEGIC RESILIENCE ASSESSMENT

Final Report

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LIST OF ACRONYMS

Acronym	Definition
ADB	Asian Development Bank
FGD	Focus Group Discussion
GDP	Gross Domestic Product
IFC	International Finance Corporation
IMF	International Monetary Fund
KII	Key Informant Interview
LEWS	Livestock Early Warning System
MNT	Mongolian Tugrik (national currency)
NGO	Non-Governmental Organization
NSO	National Statistics Office
RCP	Resilient Communities Program
SCU	Savings and Credit Union
SDC	Swiss Agency for Development and Cooperation
SME	Small and Medium Enterprises
STRESS	Strategic Resilience Assessment
ToC	Theory of Change
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WB	World Bank

COMMON MONGOLIAN TERMS

Aimag	Describes the first-level administrative subdivision, province, in Mongolia. Mongolia is divided into 21 provinces, plus the capital Ulaanbaatar.
Bag	Administrative division in Mongolia, third-level subdivisions, a division below the <i>soum</i> .
Dzud	A severe winter in which a large number of livestock die from extreme conditions and lack of pasture, most commonly in the form of white <i>dzud</i> that results from exceptionally cold temperatures with deep snow. A condition known as black <i>dzud</i> occurs when there is no snow accumulation, but abnormally cold weather occurs.
Ger	<i>Gers</i> are portable, round tents covered with felt and used as dwellings.
Idesh	A form of mutual assistance through the provision of meat to family members for winter consumption.
Negdel	Agricultural cooperatives or state collectives under the soviet system (1960-1990).
Soum	<i>Soums</i> , or districts, are secondary subdivisions (outside of Ulaanbaatar).

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Executive Summary

Mercy Corps has been working in Mongolia since 1999, undertaking support for economic development with a particular focus on rural lives and livelihoods. While the development agenda related to inclusive economic development, good governance and environmental stewardship has advanced, Mercy Corps has recognized that forward progress can be diminished or reversed due to shocks and stresses to Mongolia's economy, natural resources and sociocultural way of life.

In 2016, as part of the start-up of its Resilient Communities Program (RCP), and in collaboration with partners, donors and citizen groups, Mercy Corps applied the Strategic Resilience Assessment process (STRESS), focusing on Mongolia's herding communities and rapidly urbanizing areas. The goal of the STRESS was to develop a long-term strategy for supporting sustained, inclusive growth in Mongolia using a resilience approach. The STRESS process accomplished this by helping team members and local stakeholders to examine connections among social, ecological and economic systems, and how these impacted households' and communities' social and economic well-being in the face of shocks and stresses. The process resulted in a Theory of Change (ToC) for achieving sustained gains in economic and social quality of life among Mongolia's herders and those transitioning out of the herding system. This ToC can support development actors, the government, donors and multilateral institutions in prioritizing programming, and harmonizing approaches across timeframes and scales, to ensure that a resilience approach secures development for the country's increasingly vulnerable populations.

STRESS Results

Systems Constraints and Shocks and Stresses

Mongolia's overreliance on mining for Gross Domestic Product (GDP) growth has left its government and citizens deeply vulnerable to **commodity price slumps** and **global market price shocks**. The severe effects of these were felt in Mongolia during the 2009 financial crisis, when GDP decreased from 8.9% in 2008 to - 1.3% in 2009. The recent devaluation of the Chinese yuan and signs of a weakening Chinese economy have further reduced mining demand, and again slowed Mongolia's growth.

Overreliance on mining, which has fueled weak regulation, poor transparency, and in many cases corruption, has led to an underinvestment in Mongolia's livestock economy. Historically, livestock has been the mainstay of Mongolia's livelihoods. Today, antiquated livestock production systems and **rapidly increasing number of livestock**, incentivized by weak market linkages and the need for a rural social safety net, have escalated **rangeland degradation**, lowering production and meat quality. This problem has been exacerbated by a poorly understood land law, weak enforcement, and the effects of **climate change** on Mongolia's rangelands. Climate change contributes to **erratic rainfall**, more frequent and severe episodes of **drought and dzud** (winter blizzards), often in sequence.

An antiquated livestock economy, increasingly harsh herding conditions, and underinvestment in public services in rural areas of Mongolia have led to a **rapid exodus of young people** out of the periphery and into the capital, Ulaanbaatar. The number of people migrating to Ulaanbaatar has doubled in the last 10 years. As the population rapidly increases, the Ulaanbaatar municipality struggles to meet the growing demand for public services, housing and jobs. Importantly, the vast majority of migration is among young people, aged 15-29, who leave for the city primarily to seek improved education opportunities and to connect with what is perceived as a more modern, vibrant social and economic life. Drought and winter *dzud* events also lead to **stress-induced migration**, where entire families are forced out of the livestock system due to a combination of severe weather events, low

production, and lack of market opportunities. These conditions have further exacerbated pressure on urban services. The result has been the rise of sprawling slums – ger districts – on the outer boundaries of the city, which have contributed to urban poverty and **degradation of the urban environment, including air, soil and water pollution**. Ger districts are woefully disadvantaged, with water for example being significantly more expensive than in central Ulaanbaatar, and children having to travel long distances to attend school. Many unregistered migrants cannot access essential services.

Migration has strained social networks and knowledge systems that the herding economy relies on. It has also limited investments in the rural economy and slumped innovation, as herding now depends on a rapidly aging population.

These conditions have resulted in an overall threat to the social and economic quality of life, and prospects for sustaining development, in both urban and rural areas.

Theory of Change and Resilience Capacities

In support of an overall goal to sustain gains in economic and social quality of life for Mongolia's urban and rural populations, the STRESS process helped identify a number of critical intermediate results—and resilience capacities that holistically can support growth and resilience in Mongolia.

In order to support more manageable migration flows, and reduce the threat or impacts of commodity price shocks, Mongolia must diversify economically by building inclusive and competitive rural livestock markets that at the same time support alternative economic centers of growth, outside of the capital, Ulaanbaatar. This requires strong **linkages with value-added and export markets**. As the livestock industry becomes more profitable and modernized – and indeed if it is to be sustained – the STRESS highlighted that it must attract young people to engage in the system as producers, entrepreneurs or through a more competitive and attractive job market.

To achieve these gains in the face of shocks and stresses, **herders must demand and have access to viable markets for fodder and veterinary services**, among other critical inputs, that can help them manage drought and winter *dzud*, and reduce livestock disease outbreaks. At the same time **herders' knowledge and application of more adaptive herd management practices**, including lower number, higher-yield herds, is critical to reducing rangeland degradation, sustaining pasture supply, and maintaining consistent quality and supply to market in the face of variable weather. In addition, herders must apply **climate adaptive rangeland management practices**, supported by **early warning and climate information systems** that can help them plan mobility and grazing patterns.

While financial services are fundamental to the growth of any economy, resilience requires that **small business growth and recovery loans, as well as livestock and export insurance**, are designed with terms that allow herders and businessmen to recover losses caused by *dzud*, drought or livestock disease. **Emergency savings and improved household budget management** can also support herders to get through difficult seasons without having to sell off assets or lose productive animals.

Industry investment in the livestock economy must be accompanied by government investment in **improved education and health services across more peripheral urban and rural areas** to thwart unsustainable migration trends.

At the same time, those who have or will transition out of herding must find viable economic alternatives in urban areas. A more dynamic rural livestock economy should increase both entrepreneurship and employment opportunities in urban centers. Government can improve ease of doing business and support an **enabling environment for alternative small business growth**, which will further decrease vulnerability to commodity price shocks. As with rural areas, appropriate loan and insurance products can support alternative urban industry

growth. Government or private businesses must also provide **job market skill development**—services that appropriately inform transitioning migrants of skill demand, and ultimately provide **support in job placement**, thus addressing the current trends of unemployment and underemployment and the associated social stresses.

In addition, municipal governments must invest in better urban planning that adequately accounts for projected urban growth rates, and extends appropriate **urban water, sanitation, education and social support services** to areas that are currently marginalized, underserved, and contribute to the degradation of the urban environment. Urban migrants must receive information on registration, and have opportunities to register in urban areas to access such services.

Importantly, the resilience capacities highlighted above can only be made possible through an enabling environment – both formal and informal. In the context of Mongolia, these transformative capacities include **enabling governance for diversified growth and social inclusion, citizen demand for good governance, and strengthened social cohesion and capital** within and across rural and urban areas.

Holistic, appropriately sequenced, and sustained investments in the resilience capacities highlighted above among a range of development actors can ensure that gains in social and economic well-being for Mongolia’s communities can be achieved and sustained into the future.

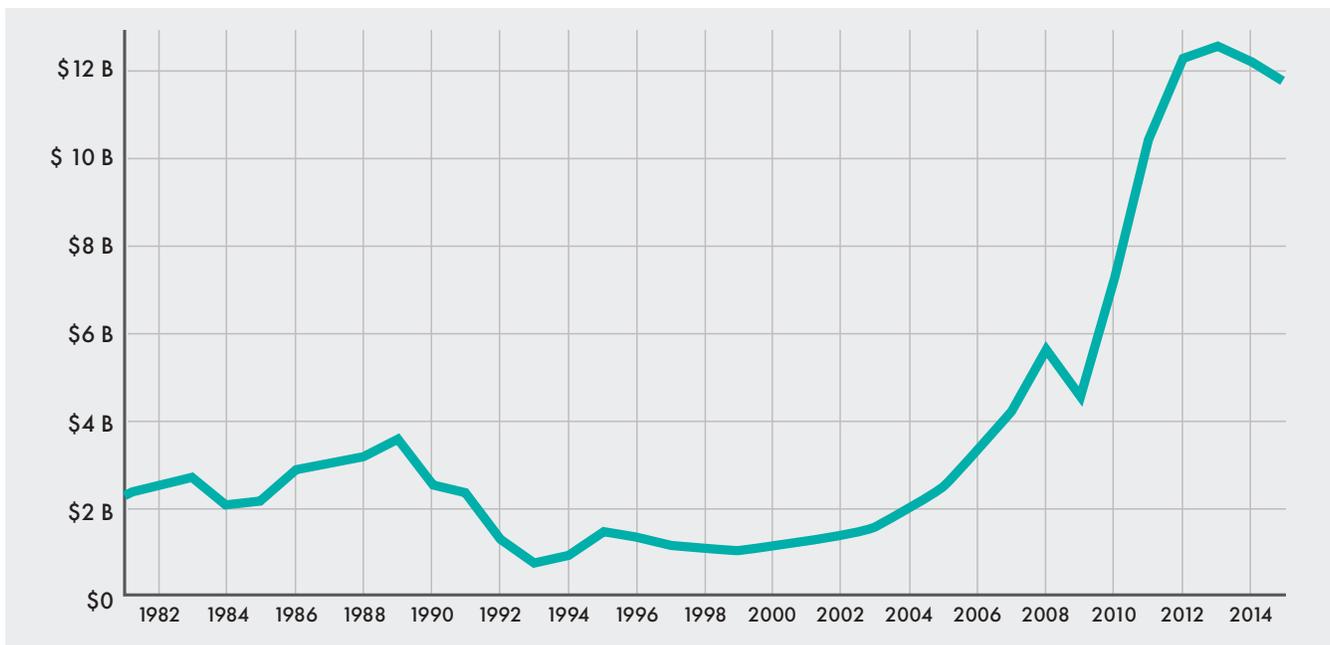


FIGURE 1: MONGOLIA'S GDP, 1982-2014

In the last fifteen years, the development of the mining sector has come at the expense of the rural livestock economy. This shift has driven a developing income inequality, ultimately creating a rural/urban divide. Continued weaknesses in the livestock sector in rural Mongolia have fueled urban migration, primarily to Ulaanbaatar. The government has been challenged to meet the increased demand for resources and services as these transitions have increased pressures on the environment, and left the pastoral economy and Mongolia's rural communities fragmented and stagnant.

The 2008 global financial crisis, which arrived just in advance of a historic winter weather disaster in Mongolia, exposed the magnitude of these challenges and within them the systemic issues that fueled the crisis in Mongolia. When global demand for minerals and livestock products dropped and prices fell, pastoralists and urban migrants were unable to make ends meet. Herders took out subsistence loans that they repaid by selling off their herds and many migrants were left jobless. In the 2009/2010 winter, 20% of total livestock herds were killed. A subsequent spike in urban migration further strained the urban economy and eroded wages. While the emerging mining, construction and service industries are able to withstand such shocks, the rural and urban poor and the growing middle class are increasingly exposed to risks that they cannot manage.

According to the World Bank (WB) economic outlook the Mongolian economy is facing challenges from persistent imbalances and undiversified market destinations.³ While the mining sector and wages recovered from the financial 2008 crisis, the commodities slump in 2016, largely driven by China's valuation of the yuan, has reduced growth rates in Mongolia from 17% in 2012 to a projected 1.4% in 2017.⁴ Other sectors (manufacturing, construction and agriculture) continue to suffer from lower domestic demand and purchasing power, and struggle to reach export markets. Government income has dropped significantly and the government is taking actions to mitigate the economic downfall through borrowing, cutting social welfare benefits and increasing value added taxes. The Mongolian authorities requested financial assistance from the International Monetary Fund (IMF) to support their economic program, which intends to address balance payment pressure and stabilize the economy.

³ World Bank. <http://www.worldbank.org/en/country/mongolia/overview>

⁴ Asian Development Bank, <https://www.adb.org/countries/mongolia/economy>

Mercy Corps in Mongolia

Mercy Corps has been working in Mongolia since 1999 with programs focused on three dimensions of sustainable development. These include:

- 1. Inclusive Economic Development:** Mercy Corps helps develop, diversify and strengthen businesses critical to Mongolia's rural economy. Our programs have helped rural entrepreneurs develop their business skills, access information and obtain crucial financial services. Work has focused on enhancing market access and negotiating power for rural livestock producers through market linkages and formation of herder groups and cooperatives; creating an enabling local governance environment and planning capacity for rural business development; and providing job development skills training for the rural poor.
- 2. Good Governance:** Mercy Corps programs are developing the capacity of government and local institutions to be participatory, transparent and accountable. In particular, Mercy Corps is improving legal, institutional and administrative processes; enhancing public planning and procurement mechanisms at the local government level; fostering open, transparent and productive relationships between government, civil society and the private sector; and building a more effective and professional rural civil society sector.
- 3. Environmental Stewardship:** Mercy Corps works to improve management systems and increase information flow in order to grow community and citizen engagement in critical environmental management processes. Mercy Corps supports communities to make more informed decisions around herding practices and mobility through improved access to early warning information.

While Mercy Corps has facilitated building capacities in these areas that have helped households and communities better cope with and respond to their rapidly shifting environment, an overarching lesson has emerged: Mongolia is facing the cumulative effect of sociopolitical, economic, and ecological shocks and stresses that undermine its potential for inclusive and sustainable growth.

Building Resilience in Mongolia

In order to better address the shocks and stresses threatening Mongolia's development over the long-term, Mercy Corps set out to incorporate a resilience approach into its programming, and influence other development actors in the country to do the same. Recognizing that resilience requires an integrated systems approach, the country team engaged in a multi-stakeholder process of analyzing behaviors, constraints and connections across social, ecological and economic systems, and how these impact opportunities for building resilience among Mongolia's vulnerable populations.

The intended goal of the process was to develop a strategic-level, resilience-focused ToC that not only informed Mercy Corps' programming, but could serve as a source of shared planning and collaboration. Mercy Corps envisions that building resilience in Mongolia will require coordinated multi-sectoral, multi-scale investments across a range of development actors, including government, civil society and donor institutions, who work towards a common vision for change.



Mercy Corps

Methodology

The STRESS Process

In order to develop a resilience-focused ToC for Mongolia’s development, and use this as a basis for program design, the Mongolia team conducted a STRESS in target areas. In collaboration with a wide range of actors, STRESS was designed to analyze the dynamic social, ecological and economic systems in rural and urban areas within which communities are embedded, and how these conditions determine vulnerability to shocks and stresses and social and economic well-being outcomes. The process was structured around Mercy Corps’ four key resilience questions that defined and focused the exercise:

- › **Resilience of what?** The context and boundaries of the assessment including the target geography, the relevant elements of social, economic and ecological systems within that geography that support social and economic well-being, and the systemic factors that undermine development and drive vulnerability.
- › **Resilience to what?** The risk profile of the assessment area comprised of shocks and stresses that collectively threaten various population groups at multiple geographic and temporal scales and across social, economic, and ecologic systems.
- › **Resilience for whom?** Vulnerability varies across geography and social groups such as gender, race, ethnicity and age.

› **Resilience through what?**
 Access and use of capacities, including resources and livelihood strategies, that enable individuals, households, communities and systems to absorb and adapt to risks over time. Underpinning these are transformative capacities - the governance processes, formal rules and regulations, and informal norms, attitudes and perceptions that enable or unlock the full potential of absorptive and adaptive capacities.

RESILIENCE AT MERCY CORPS

Mercy Corps defines resilience as the capacity to learn, cope, adapt and transform in the face of shocks and stresses. Capacities can be:

***Absorptive** - helping people, households or systems better prepare for or recover from existing shocks and stresses;*

***Adaptive** – mitigating the presence or nature of shocks and stresses over time;*

***Transformative** – enhancing the enabling environment to maximize access to and use of absorptive or adaptive capacities.*

For Mercy Corps, resilience is not the outcome of good development, but rather an ability that allows development to continue on a positive trajectory in spite of disruption.

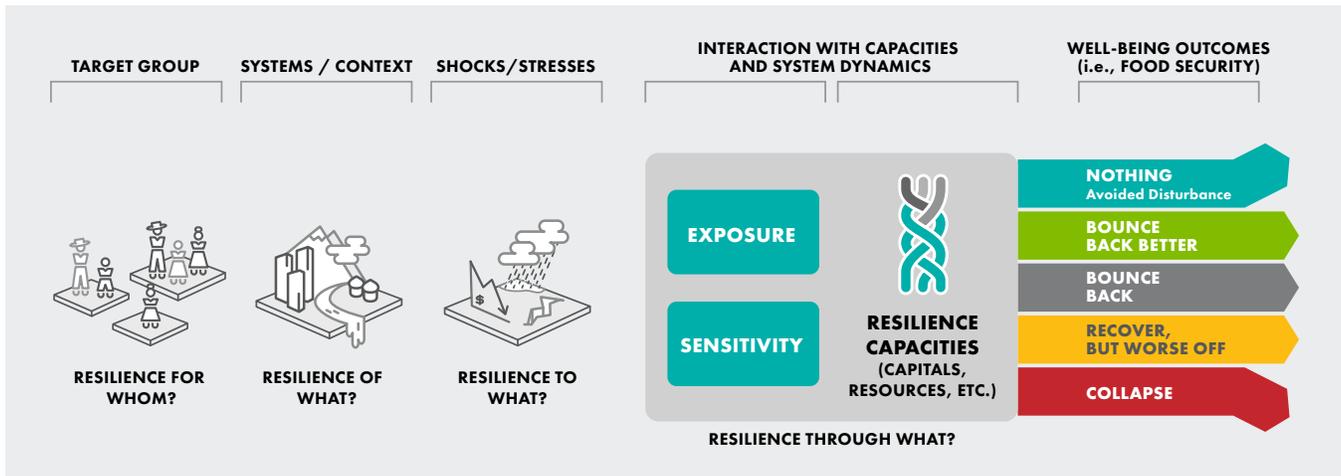


FIGURE 2: MERCY CORPS' STRESS FRAMEWORK

Application of STRESS in Mongolia

The STRESS methodology involves four phases. The first is a **scoping phase** and preliminary literature review to set the assessment parameters and identify core research questions. The scoping phase is followed by the **inform** and **analyze** phases, which include collection and analysis of secondary and field data collection to fill in key knowledge gaps. The fourth **strategize** phase contributes to the ToC and program design.



Phase One, Scope: During a series of scoping workshops, the Mongolia team and Mercy Corps technical advisors established an initial understanding of the program area's social, economic, and ecological context through systems mapping. The team articulated the rationale and objectives of the STRESS, identified knowledge gaps and lines of inquiry, and designed research methods.



Phase Two, Inform: The inform phase involved secondary literature review and field data collection. Six sectors were prioritized for deeper review:

1. Economic Diversification
2. Financial Services
3. Governance
4. Livestock Production and Marketing
5. Rangelands, Water and Natural Resources
6. Urbanization

The team developed detailed research questions under each sector to understand the core systemic constraints, the shocks and stresses related to that sector, as well as to draw out how that sector connected to the factors identified in the other sectors. The questions were principally answered through a desk review. Supplemental field research was conducted in five regions where Mercy Corps is operational – Western, Altai, Khangai, Eastern and Gobi – and within each region, the assessment focused on three *aimags* (provinces). Field research consisted of guided FGDs and key informant interviews (KIIs) to gather a more nuanced understanding of current challenges and attitudes, understand community-based perceptions and fill in information gaps from the research and literature review. More specifically, the FGDs looked at how herders understand and interact with the government around rangeland management, barriers and opportunities to civic engagement, perceptions of migration, as well as behaviors and attitudes with respect to cash flow management and financial services.

The FGDs targeted seven herder representatives in each group, with male and female interviewees ranging from 21 to 75 years old. The family size of participants' households was 3-5 members and each family had between 80 to 400 head of livestock. The participants were randomly selected by the governor of the *bag* (sub-district administrative level). FGDs were generally conducted at the oldest herder's family *ger* (traditional tent dwelling). The study team took notes and made audio recordings with prior permission from the participants.

Field data gathering was further supported by KIIs, which were conducted with *soum* (district) and *aimag* level livestock specialists, *soum* land officers, animal health laboratory specialists, *bag* governors and urban migrants. The team also conducted KIIs with specialists from banks, financial services institutions, and non-profit organizations. Questions focused on understanding financial inclusion, economic diversification, migration, urban development and poverty reduction. In total, sixty interviews were conducted in five locations including two *soums* of Uvurkhangai *aimag* and three districts of Ulaanbaatar.



Phase Three, Analyze: The analysis phase took place in August and early September 2016.

Drawing from the research, the Mongolia team first created detailed problem maps that highlighted the country's core development problems and the chain of contributing factors and their relationships in the sociopolitical, economic and ecological systems. Drawing on this analysis, the team then engaged in a workshop to identify resilience capacities and leverage points for change that informed the ToC.



Phase Four, Strategize: The final strategize phase used the STRESS analysis to develop a comprehensive ToC for Mongolia and develop an approach to Mercy Corps' next phase of programming in the country under the RCP. In support of the strategy development phase, Mercy

Corps brought together key actors including representatives from research institutes, government and non-governmental organizations (NGOs) active in the rural development and agricultural sectors; banks and financial institutions; and international organizations such as United States Agency for International Development (USAID) and Swiss Development Agency (SDA) to inform a ToC, as well as to help narrow Mercy Corps' unique role and area of focus within that wider change process.

Trends in the Livestock Economy

Adapted to survive and thrive in a vast, arid terrain with extreme winters, Mongolian livelihoods are historically built on pastoralism. As semi-nomadic herders, pastoralists efficiently managed vast tracts of pastureland to support livestock rearing under unpredictable weather and pastureland conditions. In Mongolia herding has traditionally been a source of financial security, social cohesion, protection and identity. Mongolians have referred to themselves as “people of the five animals” – goats, horses, sheep, camels and cattle (including yaks). Animals have provided everything necessary for life in rural Mongolia including butter, cheese and meat to eat; milk to drink; wool to make the felt covers for gers as insulation from the cold; and leather for clothing.

Under the soviet system (1960-1990), livestock herders and agricultural workers were organized into agricultural cooperatives or state collectives – *negdels* – which concentrated on livestock and crop production. During this period, all herders were salaried employees and were allowed to keep a certain number of animals (75 livestock in the Khangai region, 100 livestock in the Gobi region) for their private use.⁶ Herders specialized in the species, sex and age class of livestock they herded, although their herd size still allowed for some diversity. Livestock were rotated based on pasture availability in different seasons, which allowed grazed pasture to recover, but the overall radius of animal movement decreased during the *negdel* period relative to historic herding patterns. With Mongolia’s transition to democracy and a free market economy, state collectives were dissolved and all livestock were privatized, although the land remained state property. Seasonal movement has continued. Herders return annually to winter campsites and graze their animals on open pasture during the summer months, but the management of these movements is unregulated and has resulted in overconcentration of livestock, especially close to settled areas and open water sources.

The livestock sector supports the livelihoods of 34.5% of Mongolia’s labor force and is responsible for 90% of total agricultural production.⁷ In 2017, livestock remains the primary economic activity for rural households and in rural areas, approximately 60% of the population are herders. The primary products of the livestock sector are meat (72%), milk (13%), wool and cashmere (11%) and hides (4%).⁸ Notably, Mongolia is the world’s second largest producer of cashmere after China. Apart from being the major source of food for Mongolians and a source of earnings for the processing industry, the livestock sector provides employment to thousands of people engaged in supporting sectors of the national economy such as transportation and trade. Importantly, income earned in the livestock sector supports remittances from rural areas to urban centers, which are the primary source of education funds for young people transitioning from the rural to the urban economy.⁹

Despite their central importance to supporting livelihoods in Mongolia, agricultural products constitute only 12.5% of all exports¹⁰ and less than 15% of the GDP.¹¹ For example, wool is exported to China where it is processed into an end product and the finished product re-imported, but the wool quality is not considered high-end and therefore does not command a premium price in the export market (see Figure 4). In 2015, Mongolian meat-processing facilities exported only 1.05% (4.7 thousand tons) out of the total 448,300 tons of meat supplied to the market.¹²

The discrepancy between the level of local dependence on the livestock sector and its contribution to national growth can be understood by more closely examining the nature of herding in Mongolia and some of the historic and current drivers of existing herding practices in the country.

6. Christian Ressel. 2005. “Cooperation strategies in Mongolian pastoralism during the socialist collective economy.” *Inner Asia*. 7: 193-219 12.5

7. Government of Mongolia, Mongolian Livestock: <https://mofa.gov.mn/livestock/index.php?lang-en>

8. Mongolian Meat Association Annual Report. 2014. Ulaanbaatar, Mongolia.

9. National Statistical Office of Mongolia. 2007. “Report of a Qualitative Study of Internal Migration in Mongolia.” Ulaanbaatar. Mongolia

10. Ministry of Food and Agriculture, “Current Situation of Livestock Sector in Mongolia” <https://mofa.gov.mn/livestock>

11. Ibid

12. Ibid

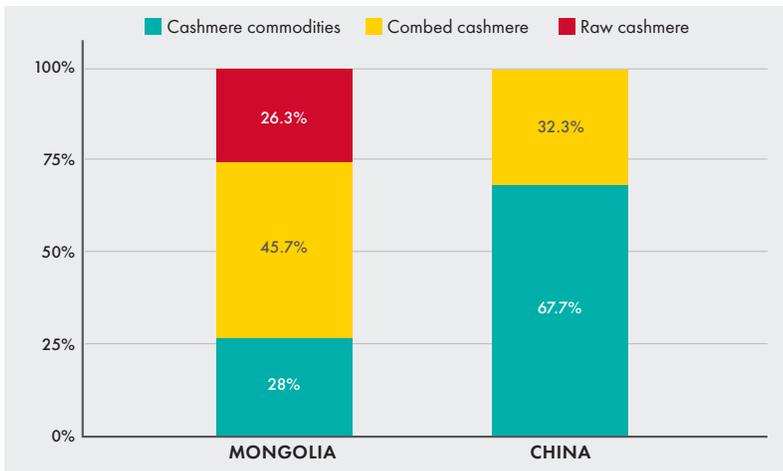


FIGURE 4: EXPORT STRUCTURE OF CASHMERE PRODUCTS IN CHINA AND MONGOLIA¹³

First, the country’s short warm season and extreme cold winters restrict when and how livestock is slaughtered and sold. Livestock are primarily slaughtered for meat in fall and early winter after the animals have been fattened up from grazing on the summer pastureland. **Absent supportive cold-chain infrastructure** and services, at this time of the year outside temperatures are cold enough to keep meat frozen to store and transport. The short processing season and the high volume of livestock which are processed at one time means products flood the market and prices herders receive are generally low, negatively impacting household income.

A second and related challenge has been the **extremely limited demand for and supply of fodder and feed** in rural areas, driven by a traditional reliance on pasture. Mongolian herders rely on what has been, until recently, abundant pastureland to feed their animals and have not perceived fodder or feed as commodities to be purchased. In addition, **large livestock herds serve as a type of savings account and a safety net** against harsh winters and drought, as well as a source of social prestige. With **no formal regulation of herd sizes** as occurred under the soviet system, herd sizes have dramatically increased, reaching 56 million head in 2015 (see Figure 5). This has led to a low input/low output model of herding that has decreased productivity and quality per animal, compared to a high input, high yield model with fewer animals that are higher quality. Importantly, the **continuing rise in livestock numbers** is in fact undermining the fundamental input that the extensive herding practices rely on. **Pastureland is rapidly being degraded**, complicating the ability of herders to increase livestock productivity for higher-value or export markets without supplementary feed or fodder. This is particularly true given the short window of opportunity for grazing between the late spring and early winter seasons—a window that is narrowing every year as a result of climate change.

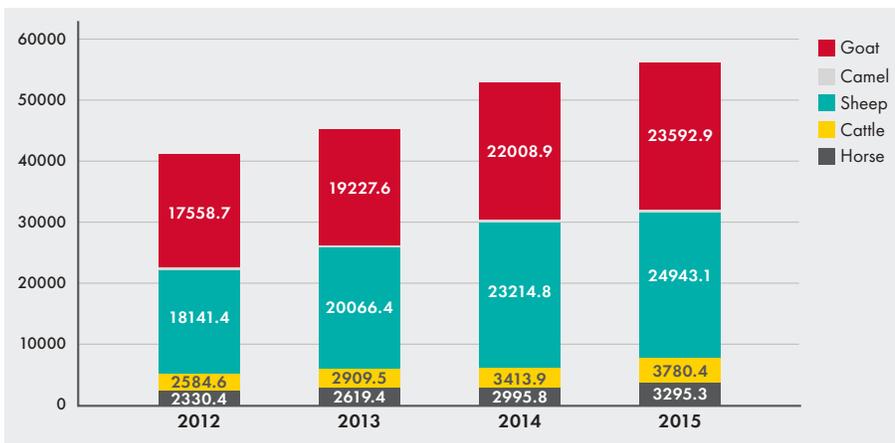


FIGURE 5: LIVESTOCK NUMBERS (PER THOUSAND HEAD)¹⁴

13. Mongolian National Chamber of Commerce and Industry. 2004. “Domestic and Foreign Market of Wool and Cashmere.”

14. National Statistical Office. 2015. Mongolian Statistical Yearbook. Ulaanbaatar, Mongolia.

Another challenge to achieving quality standards for higher value markets are **inadequate veterinary services**, combined with **poor sanitation practices** related to animal slaughter and processing facilities using **outdated technologies**. As a result, animal health cannot be certified and products do not meet quality and sanitation requirements. The system for provision of veterinary services was privatized in the early 1990s. While in many cases privatization in fact strengthens the market, free or subsidized services in the past meant that **herders were unable or unwilling to pay for the services**, causing a declining trend in the availability and quality of veterinary services. In practice, many offer livestock to pay for services, leaving veterinarians with animals to tend and sell, an inefficient and impractical solution for the veterinarian. The **limited demand for veterinarians**, coupled with the **long travel distances** required to provide appropriate coverage results in **low profit margins for veterinarians and degraded services**. Because of low demand, veterinary schools are also slow in increasing supply. Weak government support and policy has led to an **insufficient training of new practitioners**, which has resulted in a shrinking population of veterinarians as the number of veterinary school graduates fail to keep pace with the number of veterinarians entering retirement.

Reinforcing these conditions on the inputs side are **weaknesses in the value chain**: most slaughterhouses are located in *aimag* centers at some distance from the more dispersed herding families. With **weak trade networks, poor market information, and inaccessible transport services** to get livestock to the market, herders do not make the effort to move their livestock to these locations. Instead, most herders prefer to access cash quickly by selling livestock directly to local traders, linked to local butchers, where meat is processed by hand, negatively affecting options for value-added processing and meat export.

Meat export is also restricted to nearby major markets due to **unavailability of cold chain infrastructure** at many customs terminals and a **shortage of testing laboratories and qualified technical personnel** – areas that neither the government or the private sector are prioritizing for investment.¹⁵ These factors mean **slaughterhouses operate significantly below capacity**. In 2014, slaughterhouses produced 12.2 thousand tons of meat, using only 10.3% of their capacity.¹⁶

Domestic consumption is strong and the **majority of meat in Mongolia is consumed locally**. Mongolians have traditionally purchased meat that has been informally slaughtered, rather than at a slaughterhouse, and do not necessarily see the need for purchasing meat that has been processed at a facility.

These current features of the local market – driven by both cultural and economic limitations – are both drivers and effects of poorly performing livestock markets, resulting in a negative reinforcing loop that further reduces incentives for high-quality export-based production. The combination of local herding and consumption practices and market conditions has prevented herders from benefiting from price premiums available for higher quality products.

In cases where higher quality animals or products are available, there are limited actors or certifying bodies in place that could differentiate these products. In the cashmere and hide markets, there is **insufficient human and physical capital to support quality control, and grading and sorting**. Since the 1990s, the quantity of cashmere has increased, but the quality has declined - the wool is increasing in diameter and darkening in color. Herders' **limited access to technology, limited knowledge of improved breeding practices** and techniques for separating out high quality wool from coarser products continues to result in poor quality and poor prices. **Weak trader networks** have not created incentives to improve practices. The overall **economic conditions in Mongolia and China** also have impacted the cashmere market directly. The price for cashmere collapsed in 2009 due to the economic crisis and in the following year the cashmere production dropped by 20%.¹⁷

15. Sharma et al. 2014. "Can traditional livelihoods and mining coexist in a changing climate: Strengthening public-private partnerships in Mongolia to reduce risk and address loss and damage". Final report of Climate Adaptation Framework. Asia-Pacific Network for Global Change Research. Ulaanbaatar. Mongolia.

16. Mongolian Meat Association Annual Report. 2014. Ulaanbaatar, Mongolia.

17. http://factsanddetails.com/central-asia/Mongolia/sub8_2f/entry-4616.html

At the same time, there is a promising and **unfilled demand in the export market** for meat and products that could be explored to boost incomes for herders. There is considerable demand for meat and meat products in Russia, China, Korea, Japan and even Europe that can drive export opportunities in Mongolia. What is required is a transformation of both demand for and supply of key supporting functions across the livestock value chain, combined with a shift in herding practices, to ensure that Mongolian meat and processing can meet the required export standards. These factors could help crowd in traders and investors into the livestock market in Mongolia, stimulating a livestock-led market transformation that provides significant entrepreneurship, employment and income opportunities for Mongolia's population.

Mining

Over the past 15 years, Mongolia has experienced strong foreign investment into the mining of its vast mineral deposits. The initial economic boom and growth that accompanied the investment in mining encouraged the government to place a greater priority in further developing the sector at the expense of other industries, leaving the **country's economy heavily dependent on mining**. Mineral commodities account for about 80% of the country's exports and around 40% of total government revenues.¹⁸

While wages in the mining sector are significantly greater than those for other employment, this has only benefited a minority of Mongolians. According to 2015 NSO data, the average monthly earnings of mining sector employees was MNT 2,029,000 compared to the national average of MNT 868,000. **The mining sector only employs 3.6% of the total workforce**, however, and growth in this sector is not predicted to create many jobs for rural and peri-urban Mongolians.¹⁹

The principal government focus on incentivizing foreign investment and growth in the mining sector to secure government revenue has not thus far led to reinvestment or stimulating growth in either livestock or other non-livestock markets. This puts **Mongolia at high risk of suffering from so-called Dutch Disease**, an economic condition in which a nation's economy becomes overly dependent on the export of natural resources that are extremely vulnerable to global commodity prices. Currently the high dependence on mining makes Mongolia highly vulnerable to shocks associated with price fluctuations and variable demand from external markets.

Small and Medium Enterprises

As in many emerging economies, balanced and diversified growth in Mongolia will depend on the performance of SMEs. **Small businesses, which employ about half of the workforce in Mongolia²⁰** are primarily engaged in wholesale and retail trade, real estate and construction followed by manufacturing. Industries are focused on skin, fur, wool, wood and meat processing, textiles and mineral resources. Most are microenterprises 76% (1-9 employees) according to the World Bank definition. Although SMEs make up nearly 98% of all enterprises in Mongolia, their contribution to the GDP remains low at 25%.²¹



Mercy Corps/ T. Cook

18. National Statistical Office of Mongolia, www.nso.mn

19. Ibid

20. World Bank. 2012. "Financial Sector Assessment Program in Mongolia." World Bank Study. Ulaanbaatar. Mongolia

21. IFC . 2014. "SMEs and Women-owned SMEs in Mongolia" Market Research Study:

Gaps and inconsistencies in the regulatory framework, and **barriers to obtaining loans such as high interest rates and collateral requirements**, remain key restraining factors that hamper the development of SMEs. Businesses also face challenges such as **limited access to skilled labor that matches their sector** and appropriate support services for startup and expansion, limited capacity in marketing, sales and cost management. The pressure is especially strong for the smallest SMEs, **many of which are engaged in seasonal activities**, such as those related to agriculture and the livestock sector. These micro-enterprises are susceptible to sharp changes in demand, supply chains or market prices.

Other than a few large companies, most manufacturing enterprises have **limited financial and human resources**, especially in the area of export marketing. They also have very limited links to trading companies overseas. Public sector officials are bureaucratic, rarely business-oriented, and lack understanding of what is required to enhance export competitiveness.

In rural areas, SMEs have a particularly difficult operating environment. Operational costs such as electricity are high, population density is low, long distances add to transport costs and there is weak access to external markets. For all of these reasons, small businesses are more likely to be clustered in urban areas.

The most prominent opportunities for strengthening small and medium business growth in rural areas are improved support services for the livestock sector, whether in input provision of veterinary services or fodder, or in providing services such as cold storage, or in packaging, processing and transport. For these businesses to grow, the underlying factors limiting a robust market-based economy would have to be addressed and innovative business models would be required to solve the problem of low population density and distances between clients.

A shift in the small business environment, particularly in rural areas, is unlikely without a supportive government stimulus package. It is to be noted that while the Government of Mongolia is implementing SME development programs, these initiatives have limited reach and are not well understood by the target community. In research done by Mercy Corps Mongolia in 2015, the survey respondents expressed their general dissatisfaction with the high level of government bureaucracy, lack of adequate skills, transparency of information, and poor communication of government bodies.

Financial Services in Mongolia's Economy

In Mongolia, the **financial sector is largely dominated by banks** with thirteen commercial banks making up 96% of the total market share assets. Non-bank financial institutions and credit unions constitute about 3% of total financial sector lending.²² In general, the use of banking services is very high in Mongolia. Findings from a research study by the International Finance Corporation (IFC) revealed that 95% of male respondents and 99% of female respondents use at least some bank services.²³

Although a full range of financial products are available in the country, **banking services are concentrated in the capital city** and are more limited in rural areas. Geographic isolation, low population density and poor infrastructure in rural areas makes **service provision in rural areas costly** using traditional banking methods.

While there have been positive trends in broadly increasing access to financial services for Mongolia's herders and SMEs, **inadequate or inappropriate financial products and services** continue to play a role in limiting growth in the livestock sector and both urban and rural SMEs. Entrepreneurs face a number of **constraints in accessing financing**. Collateral requirements are particularly limiting for SMEs because **commercial banks ask that the entire loan be secured by immovable property**. This is a challenge for herders who are frequently mobile, and rely on common pasture for production. On average, the value of collateral needed for an SME loan is about 190% of the

22. World Bank. 2012. "Financial Sector Assessment Program in Mongolia." World Bank Study. Ulaanbaatar. Mongolia

23. IFC. 2014. "SMEs and Women-owned SMEs in Mongolia." Market Research Study;

loan amount.²⁴ Other terms and conditions also tend to be unfavorable for borrowers. Borrowers are charged **high interest rates for loans with short maturity periods**, usually between one to three years, a length of time **that does not correlate with business needs**. Moreover, clients describe the process for applying for loans at banks as time-consuming and onerous. Banks are cautious to lend to SMEs because of risk due to clients' weak management skills and poor reporting practices. Banks are particularly guarded about lending to rural and low income Mongolians as these populations may lack financial records to back up their loan applications and are unable to meet the collateral requirements.

High taxes are another limitation for SMEs. A large number of small businesses in Mongolia are home-based and/or seasonal, especially in rural areas. **Businesses may maintain an informal status in order to avoid paying taxes** and will not register until the business is profitable. **Without official registration, entrepreneurs are unable to apply for loans.**

Due to these constraints, SMEs are forced to search for alternative funding sources. Savings and Credit Unions (SCUs) offer more lenient lending conditions and are a solution used particularly outside of Ulaanbaatar. Of the 170 licensed SCUs, almost two-thirds are outside the capital city.²⁵ **However, SCUs cannot fully meet the demand for financing due to limited availability and low levels of funding**, a situation that has been particularly difficult in the last decade. Prior to 2006, SCUs existed under a weak legal and regulatory framework. In 2006, there were **severe failures of SCUs, with as many as 32 going bankrupt**. Small business owners were the primary customers and suffered large losses when the institutions crashed. The Financial Regulatory Commission has since introduced more **stringent licensing requirements for SCUs** which has made the institutions stronger, but the result has been a sharp reduction in the number of SCUs operating.

Overall, **financial literacy is weak particularly among the rural population**. Banks have stayed focused on lending requirements and risk, and have generally not understood the value of gaining and keeping customers through improving the financial literacy of the public. Although several banks deliver training programs and business advisory services, these initiatives have limited usefulness and reach and are generally unavailable in rural locations. The Golomt Bank is an exception, having introduced a basic financial literacy program via a web-based platform. Additionally, the low usage of standard financial products limits the demand for more sophisticated financial services that could be more specifically tailored to the seasonal needs of herders and livestock traders.

The insurance market is in an early stage of development, with only 0.5% market penetration.²⁶ Herders and SMEs currently do not use risk-mitigating financial products, such as livestock or property insurance. This is often due to a lack of understanding of insurance both by herders and by the insurance representatives selling the product. At the same time, without complementary risk mitigation measures taken by herders, these products themselves are unaffordable or not viable.

Ecological Systems

Prosperity and well-being in Mongolia are closely tied to the environment in which Mongolians live. Both the mining industry and livestock-related livelihoods are directly tied to the natural environment. Unsustainable pressures on the land and changes in weather and precipitation patterns are impacting the rangelands and reducing the already scarce supply of water. Trends in changes to the ecological system can highlight potential risks to stable and resilient lives.

24. World Bank. 2012. "Financial Sector Assessment Program in Mongolia". World Bank Study, Ulaanbaatar. Mongolia

25. Ibid.

26. Ibid.

Rangelands

Mongolia's rangeland is adapted to the continental climate with long, cold, dry winters and short, warm summers with high annual variability in rainfall amounts. Rangelands – both pasture and water – cover 75% of Mongolia's land area and are one of the remaining intact rangeland ecosystems in the world.²⁷ This important resource has comprised the primary input into Mongolia's livestock economy. The rangeland ecosystem has served as the basis for extensive, rotational herding, where diverse livestock herds are moved along wide tracts of land depending on seasonal availability of pasture.

Rangeland conditions have been in steady decline, however, thus undermining the productivity and sustainability of herding in Mongolia. The core causes of Mongolia's **rangeland degradation** include **climate change, social practices, and economic conditions**.

Climate change is having an impact on the rangelands, both in the **effects of rising temperatures**, as well as in **shifting precipitation patterns**. Meteorological data collected over the last 70 years shows that the mean annual temperature has increased by 2.1 °C and annual precipitation has decreased by 10%.²⁸ With reduced precipitation and higher temperatures, water availability is impacted. Water levels of lakes are decreasing and rainwater is inadequate to replenish the groundwater as quickly as it is withdrawn. At the same time, **an intensification of the hydrologic cycle creates an early start of spring snowmelt and an increase in high run-off and flood frequency**.²⁹ Most climate scientists predict that global warming will continue these trends in Mongolia.

The decline in rainfall and changing rainfall patterns may **limit germination of vegetation** in the spring and subsequent maturity of vegetation. One study showed that **soil evaporation has increased over the last 60 years**, and some **drought tolerant plants have increased significantly** in both the mountain steppe and steppe sites while other more palatable forage vegetation is declining.³⁰ These factors influence **change in rangeland vegetation composition** and volume, and therefore impact livestock productivity.

Socioeconomic factors have also contributed to the degradation of rangeland resources. As described in the *Trends in the Livestock Economy* section, large livestock herds and extensive grazing practices have been both a source of sociocultural identity and a mainstay of local livelihoods. However, as controls have been lost in the transition to a free market economy, the need for a rural social safety net and increased economic demands have resulted in larger herd sizes. **This has led to overgrazing and to rangeland degradation**, a quickly deepening challenge as **more livestock are increasingly concentrated on less productive land**. Ironically, as productivity per animal becomes lower due to a degraded pasture, herders need more animals to secure a basic threshold of living, creating a negative spiral towards increasing degradation (see Figure 6).

Trends in herd structure are contributing to the problem. Traditionally herders grazed different types of livestock, including sheep, goats, cattle, horses and camels. In response to rising global demand for cashmere, the proportion of goats has increased from 8.3% to 22.6% in the last 20 years.³¹ (See Figure 5) **Goats and their grazing habits may be a factor in increased rangeland degradation**. Nevertheless, herders tend to increase the number of goats based on the expectation of higher income.

27. Hoekstra et. al. 2005. "Confronting a biome crisis: Global disparities of habitat loss and protection." *Ecology letters*, 8(1), 23-29.

28. MARCC-2014. 2014. "Mongolia Second Assessment Report on Climate Change." Ministry of Environment and Green Development of Mongolia. Ulaanbaatar, Mongolia

29. Batiimaa et al., 2011. "Climate change vulnerability and adaptation in the livestock sector of Mongolia. Final report of Assessment of Impacts and Adaptations to Climate Change Project. Ulaanbaatar, Mongolia.

30. Khishigbayar, J., M.E. Fernandez-Gimenez, J.P. Angerer, R.S. Reid, J. Chantsalkham, Y. Y. Baasandorj, and Zumberelmaa. 2015. "Mongolian rangelands at a tipping point? Biomass and cover are stable but composition shifts and richness declines after 20 years of grazing and increasing temperature." *Journal of Arid Environments* 115: 100-112

31. National Statistic Office, 1995 and 2015 Ulaanbaatar, Mongolia

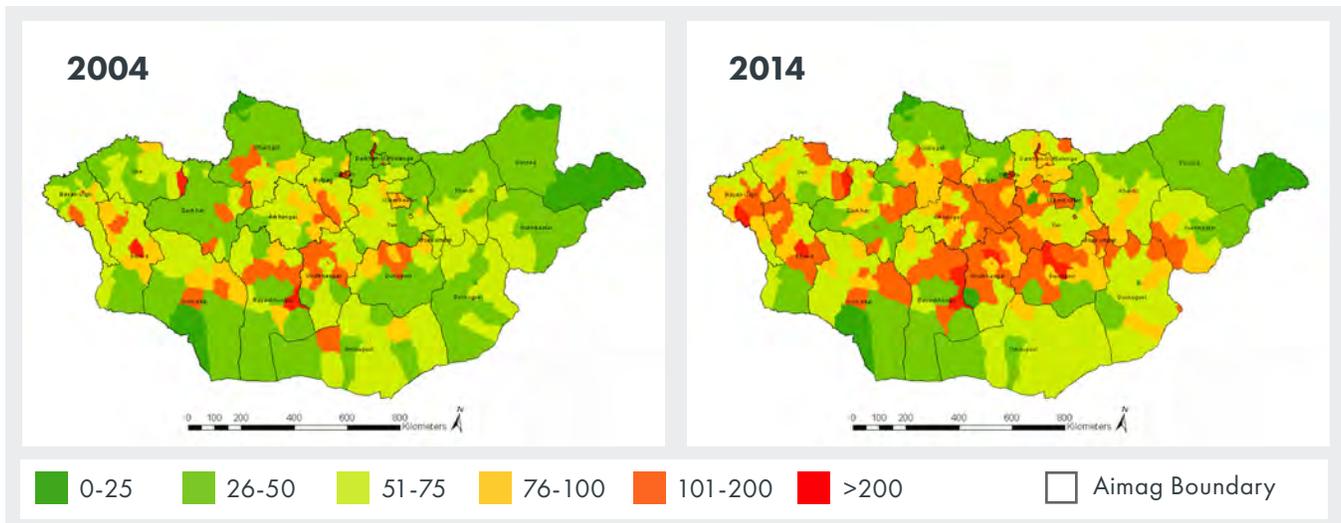


FIGURE 6: PERCENT INCREASE OF FORAGE USE BY LIVESTOCK WITHIN AIMAGS IN MONGOLIA IN 2004 AND 2014.³²

Mining has also contributed to degradation of the environment. Mining activities bring radical changes to landscapes, often bringing about land clearance, new infrastructure, waste dump, human settlements, and the expansion of informal road networks.³³ In certain parts of the country, **mining has altered land that was previously used for grazing** and has also limited access to other locations through construction of roads, which create barriers to livestock movements. These limitations have forced herders to move their livestock to new pastureland, increasing pressure on other locations.

Water

About 64% of Mongolia’s total water supply is in surface water, yet only about 10% of Mongolian water consumption is from surface water.³⁴ This is due to the fact that **all surface water resources are frozen for up to seven months of the year and can be accessed only three months of the year.** Mongolia’s surface water resources are primarily stored in lakes, glaciers and rivers. Over the last 20 years, **water levels of lakes have been decreasing and glaciers have been retreating due to increased evaporation related to higher temperatures.**³⁵ In the Gobi Desert and steppe zones, which cover 68% of the total territory, rivers and streams with permanent flow are very rare and **ground water is normally the only source of water year round.**

In urban areas, water for household is mainly piped in from wells. In Ulaanbaatar, there is **supply disparity between apartments in the city proper and ger settlements in the outskirts of cities.** Water is pumped from four fields along the Tuul river with 100 km of water pipes connecting wells and pumping stations and 350 km of distribution lines supplying the city core. In ger districts, people collect water from water kiosks where water is trucked in.³⁶

Mining expansion and its water-intensive activities not only negatively impact on water quantity but also the water quality of Mongolia’s already suffering water sources. The Ministry of Environment, Green Development

32. Gao, W., J. Angerer, M. Fernandez-Gimenez, and R. Reid. 2015. Is overgrazing a pervasive problem across Mongolia? An examination of livestock forage demand and forage availability from 2000 to 2014. in Building resilience of Mongolian rangelands. A trans-disciplinary research conference The Mongolian rangeland resilience project, Ulaanbaatar, Mongolia: 34-41

33. Neil McIntyre et al., (2016). A multi-disciplinary approach to understanding the impacts of mines on traditional use of water in Northern Mongolia. *Journal of Arid Environments*. 404-414 ; also Sharma et. al. (2014). Can traditional livelihoods and mining coexist in a changing climate: Strengthening public-private partnerships in Mongolia to reduce risk and address loss and damage. Final report of “Climate Adaptation Framework”. Asia-Pacific Network for Global Change Research. Ulaanbaatar. Mongolia

34. Dr. Janchivdorj, L. 2012. Ground water governance in Mongolia. International Regional Consultation on Groundwater Governance in Asia and Pacific Region. Shijiazhuang, China

35. MARCC. 2014. Mongolia Second Assessment Report on Climate Change-2014. Ulaanbaatar. Mongolia

36. Batiimaa et al., 2009. Urban water vulnerability to climate change in Mongolia. Ulaanbaatar. Mongolia

and Tourism of Mongolia claims that due to mining activities 551 rivers, 483 lakes, and 1557 springs have disappeared as of 2011.³⁷

Governance and Participation

For the last 25 years, Mongolia has been transitioning from an authoritarian socialist system of government to a free market democracy. During this transition, there have been **frequent changes to policies and testing of new models of public administration and financial systems**. From 1990 -1997, the government structured a traditional approach and established a career-based civil service system. This did not resolve the problems of instability and politicization, however. Subsequent reforms sponsored by the Asian Development Bank heralded a new generation of reforms. In 2002, Mongolia adopted and implemented the New Zealand model of public management reform. Some of the **reform policies and practices have conflicted with other existing policies and administration has been incomplete and chaotic**. Many of these shifts have been initiated at higher levels with little buy in and ownership from the population at large.

The political context has been equally unsettled. Since Mongolia moved away from communism in 1990, political control of the parliament has changed regularly. Over time, successive governments have installed their own supporters in job positions, contributing to a practice of **political patronage**. The result has been a corrupt system of favoritism for civil service positions.³⁸

The growth in the mining sector and limited economic diversification have fueled **corruption, mismanagement or misuse of public funds, and poor transparency in government spending**, pervasive judicial corruption and inconsistent enforcement of laws. Transparency International gave Mongolia a score of 38/100 and ranks Mongolia as 87 out of 176 countries (1 is least corrupt).³⁹ These factors have both contributed to and are driven by weak civic participation outside of elections and have also been a driving factor behind inadequate social service provision, and the economic challenges described above.

Social Service Provision

Before 1990, social sectors including education, health, and social protection were financed by the state. Health services were widespread and accessible due to the high priority placed on human development by the government. With Mongolia's transition to a market-oriented economy, the government's support for social services was reduced.

In rural areas, a **widely dispersed population makes it more costly to provide services**. Moreover, budgets are allocated according to population, and therefore smaller populations in rural areas **receive inadequate resources** for financing quality health and education. These sectors consistently fail to attract or retain **qualified doctors and teachers**, who are reluctant to move to rural locations due to low salaries, poorer living conditions, lower quality of life, and lack of investment in equipment and facilities. The **market for private medical practices in rural Mongolia is weak**, which is another barrier to attracting doctors.

Citizen Participation and Decision-Making

While turnout for elections in Mongolia is high — usually over 70%⁴⁰ — outside of elections, **citizen engagement in decision-making processes and local governance is symbolic or non-existent**. Provision of public services is centralized and mostly focused on urban areas, and **officials often remain unaccountable and unresponsive to citizens' needs**.

37. Amartuvshin et al. 2015. How does local mining impact on rural immigration. The case of Mongolia. Proceedings of Building Resilience of Mongolian Rangelands: A trans-disciplinary Research conference, Ulaanbaatar, Mongolia.

38. Sneath, 2006. Transacting and enacting: corruption, obligation and the use of monies in Mongolia. Ethnos: Journal of Anthropology, Volume 71, Issue 1.

39. Transparency International. 2016. Corruption Perceptions Index 2016; http://www.transparency.org/news/feature/corruption_perceptions_index_2016

40. Morozova (2010), Political Parties Against the Background of Neoliberal Reform in Present Day Mongolia, Mongolian Studies, Volume 32, pp. 61-84

Low citizen participation that could push for either economic reform or improved public services stems from reinforcing challenges in both the demand and supply side of good governance. The sociocultural weight of the socialist era is strong in Mongolia, where **citizens became accustomed to a centralized governance model that for the most part adequately delivered a range of public services**, from health to veterinary services. At the same time, the socialist era discouraged civic engagement. **Modern day Mongolian citizens have ultimately little experience in public service and civic engagement models**, and a push for sociocultural change has not yet emerged.



Mercy Corps/ T. Cook

Further stagnating civic engagement is the perceived and real **ineffectiveness of the government due to corruption, nepotism, and poor government investment**. These factors contribute to a sense of dissatisfaction and hopelessness that ultimately leads to indifference and inaction in the civic space, as citizens perceive they are unable to change the scope of the problem. In rural areas, widely dispersed populations are not easily consulted and there is little culture of participation.

Civil society organizations have primarily been mobilized by international donor funds and external nonprofit organizations. Nonetheless, Mongolia's **civil society sector is still small** and focuses primarily on environmental and child welfare issues. While these organizations could create bridges between the government and decision-makers, citizen engagement with civil society organizations is also limited. For example, a study by Bayartsetseg T. and Margot Rawsthorne found that in urban *ger* districts, only those who had resided there for over three years were aware of nonprofit organization activities. Of the respondents, 72% indicated that they had not participated in a single event organized by civil society.⁴¹

Low citizen participation is particularly problematic for rural areas where citizens are physically hard to reach. As the trend of the population migrating to urban centers has increased, there has been **little incentive to engage in appropriate, and expensive, decentralization of authority and resources to rural aimags**. The underinvestment, low presence and long distances that characterize rural government centers in Mongolia are additional barriers for rural citizen to engage in government or at a minimum express their needs.

While citizen partnership in rural government is low in Mongolia, informal governance, through traditional kinship networks, plays an important role in supporting livelihoods, resource rights and access. These networks are characterized by high-levels of trust and provide mutual assistance through practices such as *idesh* (providing meat to family members for winter consumption) and allocating pasture for grazing. **Linkages are usually kinship-based** but may include friendship and other forms of networks and relations. These relations are often characterized by mutual obligation, solidarity and loyalty, where older family members are influential and respected by the kinship group. The kinship networks can often encourage pro-active problem solving and serve as an intermediary for communicating

41. Bayartsetseg T. and Margot Rawsthorne. 2016. Social exclusion in Ulaanbaatar city Mongolia. Asia and Pacific Journal of Social Work and Development

with local authorities. Importantly, **kinship networks as alternative rural structures of governance are weakening as an increasing number of young people migrate** to urban areas, leaving a void in the rural social governance structure.

A particular challenge in rural governance has been the management of land and natural resources, which are the mainstay of Mongolia's livestock and mining economy. Mining companies and herders compete for some of the same resources, but the herders hold relatively little clout compared to the lobbying interests of large corporations.

Land regulations in Mongolia have been ineffective and poorly enforced, leading to localized, at times haphazard forms of management by herding communities. Decisions about land use at the national, *aimag* and *soum* levels are considered a function of the government. In 1994, the Mongolian parliament passed a land law containing provisions for the regulation and management of pastureland. The law authorizes national, regional and district governments to regulate stocking rates and seasonal movements and designate seasonal and emergency reserve pastures. However, **relevant government entities have not received the revenue necessary to implement these provisions effectively** and there is currently weak support and a lack of capacity to implement the law's provisions from both local and national governments. At the same time, **herders are rarely consulted in government land law implementation**, despite often holding the most specific and relevant knowledge to pasture allocation and seasonal herd mobility.

In Mongolia, there is **no legal recognition of herding community groups** that recognize their rights and responsibilities with respect to rangeland management. Most of the herding communities are informal and few are registered.

Civil society actors have worked to form community-based management groups, with some documented effects on improved grazing patterns. Herder community groups were formed to improve livelihood and grazing management after the winter *dzud* disasters between 1999 and 2002, with financial and technical support provided by donor organizations like UNDP, SDC and WB. Successful herding groups have demonstrated that increased access to information along with improved knowledge flows and good leadership can enhance both coping and adaptive capacities of community groups. Herder families in community groups better plan for pasture use and hay and fodder preparation for winter. The strength of the groups appears closely tied to levels of trust and the structure underpinning community-based management. Challenges have occurred, however, in **limiting or regulating communal land access for those outside of the group**, especially during *dzud* and drought conditions. It is critical that the government supports legal standing for community groups to strengthen regulations governing cross-boundary migrations, and that community-based herding groups also share information and plan for rangeland management horizontally, to allow for pasture access in difficult periods.



Mercy Corps/T. Cook

Urban Growth Trends

Rural poverty and an antiquated, localized livestock sector have perpetuated a marked internal migration of people from rural areas to urban centers in search of a better life. The proportion of Mongolia's total population residing in Ulaanbaatar has increased from 27% in 1990 to 46% in 2015 and just over half of Mongolia's total migrants are young people aged between 15 and 29 years.⁴² Despite perceived opportunities in urban areas, the **lack of appropriate stimulus for economic diversification and SME growth have limited opportunities for Mongolia's urban labor force.**

Migration has had a direct impact on the provision of government services in urban areas. Many **urban migrants settle around the city in gers.** In Ulaanbaatar these have evolved into massive, unplanned and informal ger districts. The government has struggled to engage ger district residents and has been unable to provide them with proper services. One challenge is registration. Around 25% of migrants are not registered due to lack of documents or lack of information on the process.⁴³ **Without registration, migrants cannot access local services.** For those who are registered, some services have a relatively wide coverage. In particular, in 2009, the majority of urban migrant households were receiving some kind of social welfare support, most commonly maternity or child support.⁴⁴

Ger districts are without paved roads and assigned addresses. Many are far from key services particularly schools, hospitals, wells and main roads. **Footpaths to transportation nodes and water wells are in bad condition.** Over half of residents rely on buses for transportation on a daily basis, but must walk a distance over difficult terrain in poor conditions to reach the stops.

Overloaded capacities to provide services for the burgeoning population has led to ecological consequences. While over 90 percent of ger districts are connected to the central power supply, **gers do not have access to central heating,** relying on coal and wood-fired home stoves for both heating and cooking. This creates both extremely unhealthy conditions inside the gers but also contributes to overall air pollution in the city. **Poor sanitation services have also led to increasing pollution** of water and soil in the urban environment.⁴⁵ Most households have outhouses but 70% do not have access to waste disposal.⁴⁶

Drinking water is carried manually from wells and **ger district resident report having to walk more than a kilometer to reach clean water supplies.** Ger district residents must **purchase their water at a price 20 times higher than that delivered to apartment housing.**⁴⁷

The government has made plans to address urban development, most notably the Ulaanbaatar Master Plan, which lays out a program to redevelop the city by 2030. The plan aims to improve utilities and sewage networks, construct apartments and increase the capacity of schools to accommodate the influx of residents from rural areas. There is a **question on how the government will fund urban development projects,** however, at a time when the budget has shortfalls and cuts to public spending are rising.

42. Ochirsukh, Y. 2011. Mongolia 2010 Population Census: Main Findings: <http://www.slideshare.net/Ochiro/mongolia-2010-population-census-main-findings>

43. Ministry of Social Welfare and Labor/UNFPA. 2009. Mongolia: Internal migration dynamics and its consequences.

44. Ibid.

45. <https://www.adb.org/projects/49113-001/main#project-pds>

46. <http://www.news.mn/r/96843>

47. Batiimaa et al. 2011. Urban water vulnerability to climate change in Mongolia. United Nations Environment Program and the Water Authority under the Government of Mongolia. Ulaanbaatar, Mongolia.

Resilience to What? Shocks and Stresses Threatening Mongolia's Development

The development landscape that affects incomes and social well-being in Mongolia is complicated by a nexus of ecological, social and economic shocks and stresses. Stresses refer to longer-term, slower-onset changes that introduce increased unpredictability and disturbance in the system. They include climate change effects, rapid land degradation, and precipitous rates of urbanization all of which pose major disturbances to inclusive and balanced growth. Shocks refer to rapid or slow onset shorter-term events that pose a large disturbance to people and systems. Both shocks and stresses either emanate from or are exacerbated by conditions in the ecological, economic and governance systems, while in turn reinforcing many of the development challenges outlined above.

This section outlines the major shocks and stresses facing Mongolia's rural and urban populations, and the reinforcing relationships between these and the systemic constraints threatening Mongolia's development.

Commodity Price Shocks

Arguably the most pernicious threat, with the potential to have the most widespread, damaging effect on the well-being of Mongolia's citizens is that of commodity price shocks. Mongolia's dependence on mining means it is highly vulnerable to volatility in global commodity prices, experiencing booms when prices are high and sudden busts when prices fall. A high dependence on export markets for minerals means that the country is vulnerable when there is a reduction of export demand. Changes in demand from China, in particular, directly impact the situation in Mongolia. As Mongolia's dominant trading partner, when China's economy contracts and demand for raw materials declines, the Mongolian economy suffers. Currently, Mongolia's exports continue to contract, reflecting weaker global economic conditions, sliding commodity prices and slowing growth in China.

The effect of economic shocks ripples through society in several ways. Reduced demand impacts services and small businesses that are directly tied to exports and creates lower incomes and higher unemployment. Moreover, since the government budget is highly dependent on the mining industry, each swing in commodity prices and exports directly impacts government services. In this volatile economic environment, the government is not able to provide consistent services or additional support to affected populations. Climate-related shocks further complicate the problem.

Dzud and Drought

Rural households are particularly affected by natural disasters. In Mongolia, these are most commonly present in the form of *dzuds* and droughts. Livestock forage generally relies on standing dead vegetation during winter. During a *dzud*, deep snow can block access to pasture and causes significant loss of animal life thus devastating the livelihoods of herding families. This weather also stresses animals and can lead to livestock loss. Drought - abnormally low rainfall leading to a water shortage and reduced vegetation growth — has a similar impact on animal health and herder livelihoods. Summer drought reduces the available fodder and animals fail to fatten up sufficiently before winter, resulting in poor livestock quality and low prices. Drought preceding *dzud* exacerbates the negative impacts of the *dzud*. Animals weakened due to poor forage during a drought may perish in the event of a *dzud*. During the three years of consecutive drought and *dzud* that occurred between 1999 and 2002, the national herd declined by 30%. When another harsh winter occurred between 2009 and 2010, about 20% of the national herd perished.⁴⁸

48 Fernandez-Gimenez, M. E., B. Batkishig, and B. Batbuyan. 2012. Cross-boundary and cross-level dynamics increase vulnerability to severe winter disasters (*dzud*) in Mongolia. *Global Environmental Change-Human and Policy Dimensions* 22:836-851

In addition to threatening livestock in the short-term, these weather shocks also alter patterns of rangeland use and management, forcing larger numbers of livestock to congregate in smaller areas where vegetation is available, leading to longer-term damage in pasture conditions.

Historically, herding culture has been adapted to manage *dzud* and drought as features of the Mongolian climate, managing herd sizes and grazing in such a way to allow for recovery following bad seasons. As the frequency and severity of *dzud* and drought has been increasing, herders are unable to recover from one shock before the next one hits. There were six occurrences of *dzud* in the period from 1990 – 2010, compared to the same number in the 50 preceding years as shown in Table 1.⁴⁹

TABLE 1: DZUD AND DROUGHT INCIDENCE IN MONGOLIA, 1944-2010

N	Year	Type of Disaster
1	1944-45	Dzud + drought
2	1954-55	Dzud
3	1956-57	Dzud
4	1967-68	Dzud + drought
5	1976-77	Dzud
6	1986-87	Dzud
7	1993-94	Dzud
8	1996-97	Dzud
9	1999-00	Dzud + drought
10	2000-01	Dzud + drought
11	2001-02	Dzud + drought
12	2009-10	Dzud + drought

As herders have no insurance or alternatives in the event of mass livestock loss, *dzud* and drought often devastate rural families and are a catalyst for families abandoning herding livelihoods. The frequency of the disasters means that traditional reliance on family support networks to overcome such disasters is more quickly expended. In recent years increased urban migration has been used as a mechanism to cope with herd loss and weakened social safety nets. For example, after the severe *dzud* of 2010, urban migration from rural areas increased by 40%.⁵⁰

Livestock Pests and Diseases

Another major shock threatening herder households are livestock pest and disease. Inadequate or inaccessible veterinary services have facilitated the spread of foot and mouth disease, sheep pox, and worms. In 2015, 518,900 livestock animals suffered from parasites and 15,700 from infectious diseases.⁵¹ The result is weakened

49. Suttie, J.M. 2005. Grazing Management in Mongolia. Grasslands of the World. Food and Agriculture Organizations of the United Nations. Rome. Italy.
 50. Mayer 2016. Climate migration and the politics of causal attribution: a case study in Mongolia. Migration and Development. (5)2: 234 – 253. http://www.benoitmayer.com/files/Causes_of_Internal_Displacements_in_Mongolia.pdf
 51. NSO of Mongolia, 2015, Ulaanbaatar, Mongolia.

animals and poor quality meat, hides, wool and cashmere. Outbreaks of livestock disease are also linked to patterns of *dzud* and drought, as herds weakened by severe weather and forced to concentrate in more limited pasture areas are even more susceptible to infectious diseases.

Beyond the immediate financial burden, or loss of livestock assets, disease outbreaks undermine the reputation of Mongolian livestock and negatively impact market opportunities of livestock products especially in the international market.

Degradation in Land and Water Resources

The heavy use of pastureland by herders and the use of water by both mining and livestock industries is exceeding the capacity of these natural resources to recover. Nationwide rangeland health monitoring concluded that 65% of rangelands were found to be altered relative to the ecological potential of the soils and climate zone, and 7% of total study sites were degraded irreversibly or required ecological restoration return to their pre-degraded state.⁵²

As described in the analysis of ecological systems, the cause of land degradation and stresses to natural resources can be attributed to three primary causes: climate change, herd management practices and mining. The trend in climate change is temperature increase, precipitation decrease and an increase in the number of extreme weather events, such as *dzud* and drought. Herd management practices including larger herd sizes, less mobile herds and concentration of animals in certain locations are leading to overgrazing of



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pastureland and degradation. Herd structure changes to include more goats also impacts the recovery of the grasses. Contraction of grazing land due to degradation contributes to congregation of livestock in remaining rangelands, exacerbating overgrazing issues and further land degradation. With no effective management of livestock grazing and weak collective structures, these management issues are not being addressed. The expansion of human settlements around mines, the development of informal road networks, as well as the waste products from mining and mining settlements also contribute to rangeland deterioration.

Water is also a declining resource that is being depleted at an unsustainable rate. Mongolia has limited surface and groundwater and in recent years, due to climate change, the rainfall that would replenish this resource has been decreasing. The only recharge of the groundwater is from the limited rainfall – an average 115-150mm/year - and that recharge is estimated to be just 1 mm/year.⁵³

52. NAMEM and MEGDT. 2015. National report on the rangeland health of Mongolia. Government of Mongolia. National Agency for Meteorology and Environmental Monitoring and Ministry of Environment, Green Development and Tourism, Ulaanbaatar, Mongolia.

53. Tuinhof, A and Buyankhishig, N. 2010 Groundwater assessment of the southern Gobi Region. Mongolia Discussion paper, East Asia and Pacific Sustainable Development Department. Washington, D.C. World Bank (www.worldbank.org/mn and www.worldbank.org/nemo.)

Mining competes with herders for water, further pressuring this scarce resource. This situation is particularly severe in the southern Gobi region, where four large mining companies are heavy users of groundwater for processing of raw materials to concentrate the mineral (copper/gold), to wash coal and for dust suppression. Mining development also triggers population increases and industrial, commercial and agricultural development in the surrounding areas thereby contributing to increased water demand near mines. A preliminary estimate by the World Bank for the Gobi region groundwater assessment (2010) forecasts that a total water demand in 2020 will be 400, 000 – 450,000 m³/year, of which 300,000 m³/year would be used by the mining industry.



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These trends may have the greatest impact on herder's livelihoods and income, with secondary effects in the urban economy. Inadequate access to natural fodder and water leads to weaker animals and reduces the management options for a herder regarding where to move the animals and when to slaughter them, ultimately leading to lower income. The degraded environment will also make it increasingly difficult for herders to rebound from climate-related shocks, described below, and lead to a downward spiral in the viability of herding livelihoods.

Rapid Urban Migration

The shocks and stresses outlined above have contributed to large-scale, rapid demographic shifts in the form of high, growing rates of rural to urban migration. Over half of the population of Ulaanbaatar are migrants,⁵⁴ with tens of thousands of new arrivals each year.⁵⁵ The vast majority of those migrating are youth, aged 15-29, drawn by education and potential job opportunities.⁵⁶ Initial migrants draw in others: 25% of migrants surveyed in Ulaanbaatar said they had moved to join a relative. These may be spouses or elderly parents moving to live with their children when they can no longer work in rural areas.

High rates of migration can be attributed both to the push factor of the weak rural economies, exacerbated by shocks and stresses, and pull factors of the urban environment. As rural livelihoods suffered from weather shocks, poor animal health and breeding practices and weaknesses in the livestock value chain, there are few alternative forms of employment to turn to. Instead, rural Mongolians resort to migration with the hope that they can get a better education and find employment and services elsewhere. Attitudes towards rural living and the perception that there are more opportunities in urban areas also drives the migration trend, particularly among the youth, who see the rural lifestyle as antiquated and irrelevant. Youth seek urban living as much for a modern, vibrant social and economic life as they do for mere employment.

54. Mongolia National Census 2011

55. Mayer. 2016. Climate migration and the politics of causal attribution: a case study in Mongolia, published in *Migration and Development*, Volume 5, Issue 2, pp. 234 – 253.

56. Ochirsukh, Y. 2011. Mongolia 2010 population census: main findings. <http://www.slideshare.net/Ochiro/mongolia-2010-population-census-main-findings>

The rapid rate of migration to peri-urban and urban areas has overwhelmed the capacity of the government to provide services as described in the *Urban Growth Trends* section. Recent migrants from rural areas often erect their gers on open land on the outskirts of the city, creating entire districts of unplanned and unstructured developments. The flight to urban areas not only overwhelms service providers, but it also weakens the traditional system of kinship support in rural areas, thus reducing the safety net for migrants and placing a further stress on rural social and economic well-being. Few who leave return to rural areas. Migration also has limited investments in the rural economy and reduced innovation, as herding is now reliant on a rapidly aging population.⁵⁷ As the social fabric is weakened, residents are less able to recover from economic shocks and environmental stresses.

Urban Water and Air Pollution

One result of the unplanned settlements and lack of services in urban areas is a contaminated environment. For example, Ulaanbaatar has one of the worst records of urban air pollution in the world, with its associated health risks. A major contributor is the burning of coal for heat in ger districts, which is the leading contributor of fine particle air pollution.

Sanitation is also limited in the ger districts. The majority of ger district residents use pit latrines, which are often unsealed and which allow waste to leak into the soil. Much of household waste is not collected by the municipality, and is discarded straight onto the ground. Drainage systems become clogged due to poor waste management which appears to be increasing the frequency of flooding.⁵⁸ As waste disposal sites are often on flat areas, they can be particularly prone to flooding, which can spread disease.⁵⁹

The stress of all of these environmental factors greatly reduces health and well-being of the residents and contributes to a poorly functioning community.

Unemployment

One effect of poor economic diversification and a rapid rural to urban transition in Mongolia is the rise of unemployment rates that create social and economic stress primarily on urban households. The unemployment rate increased from 8.3 percent in 2015 to 11.6 percent in 2016,⁶⁰ attributed to the overall economic slowdown and a lack of skills to match the labor market. Due to high urban migration rates, the supply of low-skilled workers exceeds the demand and recent immigrants often experience unemployment and low-paid work.⁶¹ According to a 2009 survey, 11% of respondents who have migrated to Ulaanbaatar within the last five years could not find work in the city despite actively seeking a job.⁶² Reasons for unemployment include a lack of information on vacancies and requirements, high demands for collateral in employment contracts from some employers, and discrimination based on sex and age.⁶³ Employers have cited migrants having no resume, a lack of professional attitude, and confusion over job requirements as barriers to hiring.⁶⁴

High unemployment rates among recent migrants and youth impacts the current and future well-being of the population. Economic shocks and stresses such as commodity price shocks, and ecological shocks affecting the the decline of the livestock industry, will continue to contribute to rising unemployment and underemployment.

57. National Statistical Office (NSO) of Mongolia 2015. *Mongolian Statistical Yearbook*. Ulaanbaatar, Mongolia.

58. Saldivar-Sali (2015), *Flood risk in dry Ulaanbaatar of Mongolia? Really? Really*. The World Bank Blogs, <http://blogs.worldbank.org/eastasiapacific/flood-risk-in-dry-ulaanbaatar-of-mongolia>

59. Uddin et al. (2014), *Exposure to WASH-borne hazards: A scoping study on peri-urban Ger areas in Ulaanbaatar, Mongolia*. *Habitat International*. Volume 44.: 403 – 411. NSO 2015

61. The World Bank (2007), *Mongolia: Building the Skills for the New Economy*, http://siteresources.worldbank.org/INTMONGOLIA/Resources/building_the_skills_for_new_economy_ENG.pdf

62. UNFPA and Ministry of Social Welfare and Labor (MoSWL).2009. *Mongolia: Internal migration dynamics and its consequences*

63. Ministry of Social Welfare and Labor/UNFPA (2009), *Mongolia: Internal migration dynamics and its consequences*

64. Adam Smith International and MCDS Consultancy (2015), *Promoting Inclusive Growth Draft Final Report, Pilot Project 2: Increasing Access to Employment for Poor Urban Households*, For project TA-8241 Mon of The Mongolian Government, ADB and Japan Fund for Poverty Reduction.

Gender-Based Violence and Alcoholism

Patterns of domestic violence and other forms of abuse, are a significant challenge in Mongolia—particularly in urban areas. A 2009 study found that 55% of women surveyed in two districts of the city reported experiencing some act of violence in the past 6 months, with 36.4% having experienced both physical and emotional abuse, and another 32% experiencing combined physical, sexual, emotional and financial violence.⁶⁵ In two-thirds of the cases, the perpetrator of violence was the husband, ex-partner or unmarried partner, with two-thirds experiencing violence on a monthly, weekly or even daily basis. Importantly, incidence was linked to income levels, residential areas, and registration within the city.⁶⁶ For example, urban migrants who were unregistered were abused two times more than those family members who had official registration or were considered to have more formal or permanent city residence.

Alcoholism has also been associated with high-levels of domestic violence in Mongolia, a worrying connection given that the average consumption of alcohol per capita doubled from 4.7 liters a year in 1997 to 9.8 liters a year in 2014.⁶⁷ Consumption by men is twice that of women. The Ministry of Health has reported that alcohol consumption is linked to 87% of family conflicts and 58% of divorces.⁶⁸

These statistics highlight how trends in urban migration, urban unemployment or under-employment, and poor access to government services and social support networks, all contribute to gender-based violence in urban areas.

Interconnected Economic, Ecologic and Social Systems

The shocks and stresses outlined in this section are often interrelated, where one shock can lead to or amplify another and further intensify the negative outcomes. As illustrated in Figure 7, conditions in the economic system, including overreliance on mining and weak regulations, have led to a rapid increase in numbers and concentration of the livestock population, this has led to rangeland degradation and created conditions for increased livestock disease. Both rangeland degradation and livestock disease are exacerbated by increasing frequency and severity of drought and *dzud*. The result is a decline in the livestock economy and an exit from the livelihood sector, directly contributing to rapid rates of urban migration, particularly among youth. While migration is serving as an adaptive mechanism to shocks and stresses occurring in rural areas, recent migrants to urban areas have not found healthy and viable alternatives, and the rates of urban migration cause a challenging, unpredictable dynamic that neither government nor migrants are able to adequately cope with. Unemployment and underemployment in urban areas has been connected to increased rates of mental health problems, alcoholism, and a spike in gender-based violence. Commodity price shocks further contribute to the problem, as vulnerability to external markets is a serious challenge to income and job stability in Mongolia's context.

65. Shagdarsuren Oyunbileg, Nyamjav Sumberzul, Natsag Udval, Jung-Der Wang, and Craig R. Janes. *Journal of Women's Health*. December 2009, Volume 18, Issue 11.

66. *ibid*

67. UNDP "Mongolia Human Development Report 2016: Building a Better Tomorrow: Including Youth in the Development of Mongolia."

68. *ibid*

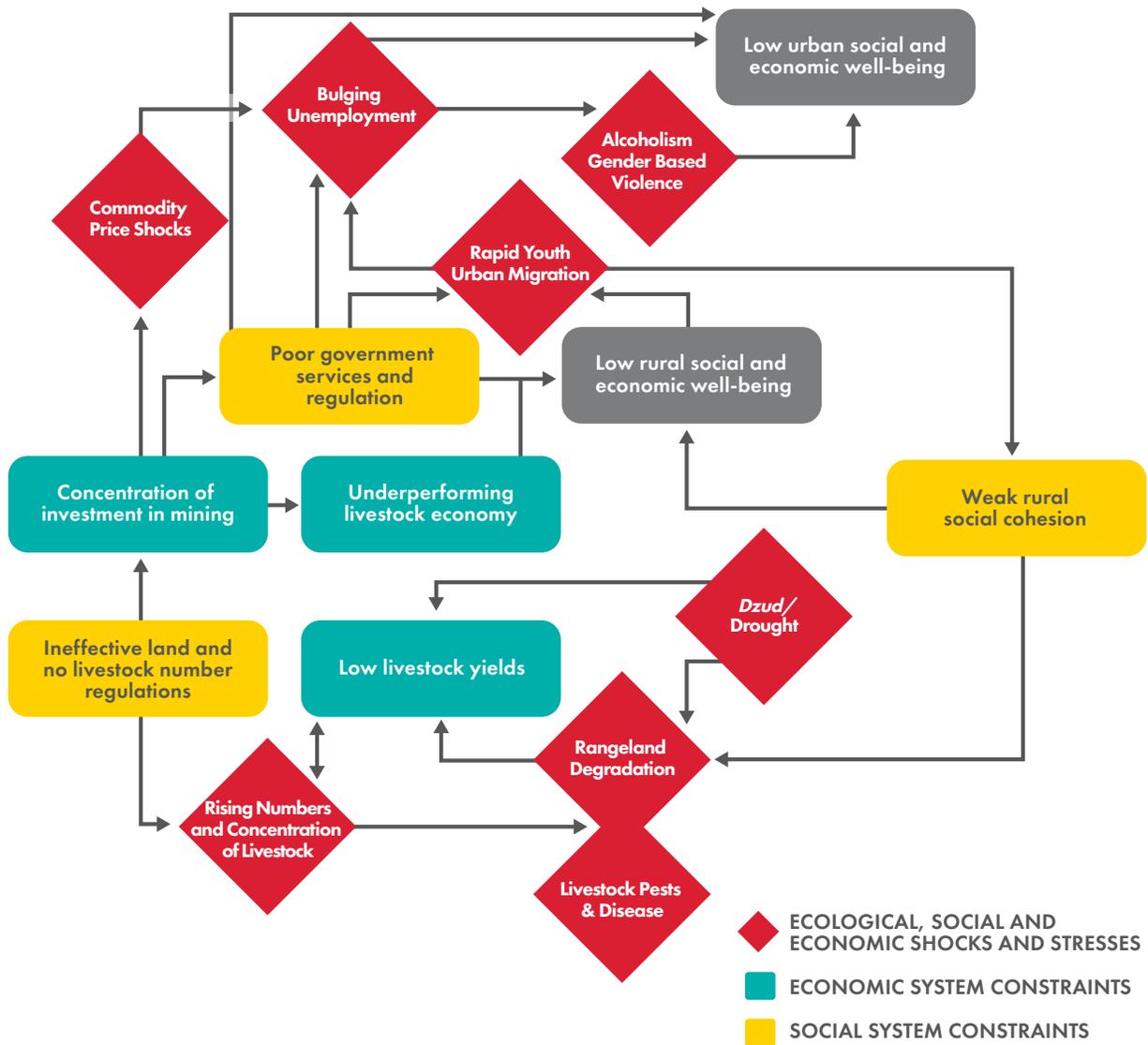


FIGURE 7: A SYSTEMS MAP ILLUSTRATING THE CONNECTIONS BETWEEN SYSTEMIC CONSTRAINTS AND SHOCKS AND STRESSES IN MONGOLIA



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Resilience for Whom?

Vulnerabilities to shocks and stresses depend on a variety of factors, including livelihoods, age and gender. The STRESS process identified people in both rural and urban Mongolia who are particularly vulnerable to setbacks, and who should be the target of resilience and development efforts.

Herders and SME Owners in the Livestock Sector

Herding families are at the core of Mongolian society and drive the livestock economy. Others along the value chain – traders, inspectors, transportation providers – are dependent on the herders and the production of healthy livestock. Economic stagnation and livestock practices which have not modernized have kept rural incomes low. For example, in 2014 the average salary per month was 796,600 MNT, but that amount was only 587,800 MNT in the Western region and rose to 869,400 MNT in Ulaanbaatar.⁶⁹

Tied to a livelihood that yields low margins, herder households and those small and medium enterprises reliant on the herding sector are the most vulnerable to weather shocks, livestock pests and disease, and the threat of land degradation. As previously discussed, a family's livestock business may not recover from the shock of a *dzud* or a drought. Stresses from rangeland degradation and insufficient water supply weaken animals and limit grazing options for livestock. Livestock pests and diseases not only result in the loss of livestock, but the presence of animal diseases interferes with the ability to export meat.

69. Mongolian Statistical Yearbook, 2015

Herders have limited coping strategies to manage these shocks and stresses. Herders have generally relied on increased volume in the number of livestock to cushion themselves from livestock loss, but this solution has negative outcomes in overgrazing and reduction of forage. The traditional economic and social safety net relies heavily on kinship ties but outmigration is weakening this coping mechanism as well. Herders are not highly involved in the political process and governance, are not organized and exert little power for change. Not only does outmigration reduce the access to young, vibrant actors in a tough and physical industry, it also results in a potential loss of new innovations and methods of managing livestock businesses.

Urban Migrants

Rural to urban migration is an ongoing trend that intensifies when there are shocks to the rural economy. In the five years between 2007 – 2011, an average of 31,830 people/year migrated to Ulaanbaatar alone and by the 2010, 45% of Mongolia's population lived in the capital city.⁷⁰ Almost 30% of recent migrants interviewed in 2009 reported migrating because they could not get a job in their origin area.⁷¹ These rural migrants are not often highly successful at securing employment.

A second reason influencing people to migrate is for education opportunities - 22.4% of migrants cited providing their children with a good education as a reason to move. These initial migrants draw in others: 25% of migrants surveyed in Ulaanbaatar said they had moved to join a relative. These may be spouses or elderly parents moving to live with their children when they can no longer work.⁷²

Urban migrants are often young people between the ages of 15-29 that face a number of vulnerabilities in the urban environment. These groups come into cities with low skills and limited education, and often find poor services to meet their needs. The two largest stresses created by this influx to urban areas are low income and limited access to services resulting in a degraded urban environment. The rapid influx of people have overwhelmed the government's ability to provide services in ger districts. With poor access to water and waste disposal and by burning inexpensive dirty coal for fuel, the living environment threatens social and economic well-being.

The options for recent urban migrants to improve their situation are limited. Current coping strategies depend on their social networks, particularly family for loans or information. Access to government information is weak and non-governmental organizations tend to be ineffective at reaching and engaging this population.

Women

In traditional nomadic Mongolian society, women assumed vital roles in the herding households and livestock economy. The demanding natural environment necessitated participation and hard work from all family members, women included. As such, they took part in making decisions about the family business. During the period of socialist governance, women made gains in medical care, welfare benefits, maternity care, education and participation in politics.

Since 1991, the situation for women in Mongolia has been mixed. The socialist state support for rural families has eroded, and the social safety net, with special care for pregnant women, subsidies and provisions for child care has been reduced.⁷³

70. Census data

71. Ministry of Social Welfare and Labor/UNFPA (2009), Mongolia: Internal migration dynamics and its consequences

72. Ibid

73. Rossabi, Morris. Women in Modern Mongolia. Asia Society. Center For Global Education. <http://asiasociety.org/education/women-modern-mongolia>

On the bright side, females attain education at greater rates than males. Herding families send girls to schools in urban locations at higher rates than boys, who stay back to help with livestock related activities. Secondary school enrolment by female students is 4.8% higher than males.⁷⁴ For tertiary degrees, the difference is more pronounced. By 2010, women exceeded men by 38% in the number of higher education degrees. The reverse gender gap for education is narrowing, and males are enrolling in higher education in greater numbers.⁷⁵

Higher education attainment, however, has not translated to higher employment rates and fewer female youth transition into the labor force after graduating. According to the ILO, one-quarter of older (20-24 year-old) female youth are inactive and out of education.⁷⁶ This could be due to gender biases in employment, the result of a lack of demand for their degrees, or because they drop out of the workforce to attend to family obligations. It also matches with the trend of higher unemployment among youth with more education as discussed below. Young women who do have employment earn 1.4 times less than young men.⁷⁷ Educated women frequently find employment in the low paying service sector, such as in restaurants or shops. Women are also concentrated in a narrow range of occupations such as education, health and welfare and social sciences.⁷⁸

Unemployment is also slightly higher for women than men. Current statistics indicate that 52% of unemployed are women and unemployment is greater among young women than older women.⁷⁹

Women owned businesses have the same barriers that are present for men, but have additional constraints. For example, women have fewer networking opportunities related to customary roles. While men come together to exchange information and ideas, women are tending to family and household duties. Women are also unlikely to approach financial institutions to apply for loans and banks are more reluctant to lend to them, typically pointing to insufficient assets and low collateral.

Women must also shoulder more family responsibilities. Women are the primary caregivers for children and the elderly and are responsible for the household chores. About a third of the women end up as unpaid family workers.⁸⁰

Alcohol and unemployment leading to increased gender-based violence are trends that have impacted the well-being of many women. These trends have contributed to an increase of female-headed households as some women are choosing to leave partners who are unstable. Women-headed households may have less income and less support, and are thereby more vulnerable to economic shocks and stresses.⁸¹



Mercy Corps/ T. Cook

74. UNICEF, https://www.unicef.org/infobycountry/mongolia_statistics.html

75. UNDP "Mongolia Human Development Report 2016: Building a Better Tomorrow: Including Youth in the Development of Mongolia."

76. ILO. March 2013. Youth Employment Challenges in Mongolia

77. UNDP "Mongolia Human Development Report 2016: Building a Better Tomorrow: Including Youth in the Development of Mongolia"

78. Ibid

79. NSO, January 2017

80. UNDP "Mongolia Human Development Report 2016: Building a Better Tomorrow: Including Youth in the Development of Mongolia"

81. Rossabi, Morris. Women in Modern Mongolia. Asia Society. Center For Global Education. <http://asiasociety.org/education/women-modern-mongolia>

Youth

The population of Mongolia aged 15-34 deserve consideration both because of their numbers and due to the long term impact of their ability to find employment and their transition into adulthood. At more than one million, youth make up 34.9 % of the population and constitute the largest demographic group.⁸² Rural youth comprise 36% of the overall youth population.⁸³

Mongolian youth are healthier than their parents' generation and have more education opportunities. In step with youth worldwide, they readily adopt modern communications technologies and use them to attain information and for social connection. Use of the internet is rapidly spreading, particularly as coverage in rural areas improves. In 2015, there were 2.4 million internet subscribers, reaching over 80% coverage.⁸⁴

Unemployment is the most significant stress on this population, restricting current income and future prospects. Overall, almost 11% of youth are unemployed, almost all of whom are looking for employment for the first time (83%). Much of youth unemployment is long-term in nature and over half (56%) have been unemployed for over one year.⁸⁵

In rural areas, youth tend to be concentrated in insecure, unskilled jobs receiving lower pay. Most rural youth work in animal husbandry and non-wage family jobs and only 6% of working rural youth hold jobs in the formal economy.⁸⁶ They are at high risk for loss of incomes or jobs when economic shocks or stresses occur.

Insufficient income from herding and lack of alternative livelihoods puts pressure on rural youth to migrate to urban areas, particularly after an economic or ecological shock, and youth comprise the majority of the urban migrant population. This depletes rural areas of the vigor of youth and reduces opportunities for future development of the livestock industry. There are few economic and government-based incentives to reintegrate youth into alternative economies or into herding.

Unfortunately, the allure of better employment prospects in the city does not always materialize. The recent migrants frequently reside in poorly serviced *ger* districts and do not have the skills or access to wage employment. Urban youth have high rates of unemployment particularly in *aimag* and *soum* centers (17-19%) and in Ulaanbaatar, the overall rate of youth unemployment is 13.7%.⁸⁷ In general, the unemployment rate for urban youth is more than double the rural youth, underscoring the important role that the livestock sector plays in absorbing young rural workers. It also takes urban youth longer to find their first job (2.9 years) compare to the 1.1 years for rural youth. The urban youth that are employed tend to have wage jobs.

Even youth who have completed university or vocational institution education experience difficulties gaining employment and are often employed in jobs unrelated to their education. This highlights the problem of formal education not equipping graduates with the skills most demanded by employers.⁸⁸

In an effort to address these challenges, the government of Mongolia has expanded the education coverage nationwide. A child starting school in 2014 will expect to receive 14.6 years of schooling, which is high relative to other comparable countries.⁸⁹ Enrolments in higher education have also risen. Technical and vocational education and training more than doubled in the decade 2002-2011, though enrolment has subsequently declined.

82. UNDP "Mongolia Human Development Report 2016: Building a Better Tomorrow: Including Youth in the Development of Mongolia"

83. Ibid

84. Ibid

85. ILO. March 2013. Youth Employment Challenges in Mongolia

86. Ibid

87. Ibid

88. World Bank.2007. Mongolia: Building the Skills for the New Economy

89. UNDP

Unfortunately, rural youth attend schools for higher education at lower rates than urban youth. One reason is that most tertiary schools are in urban centers or Ulaanbaatar. Poor rural youth have less capacity to afford the cost of housing to attend school away from home.

The quality of the education at all levels also continues to be a problem, and services vary between locations. Schools are suffering from outdated curricula, lack of funding to upgrade teacher qualifications, and limited supply of textbooks. Schools for rural students often have less qualified teachers, poor physical structures and lack of internet. Quality of schools in Ulaanbaatar is also inconsistent. Schools in the city center often have more resources compared to those in the ger districts, where pupil to teacher ratios are much higher.

This set of conditions has created a youth population that is underemployed, vulnerable to economic stresses, uninspired, and unable to innovate and contribute to Mongolia's economic growth.

Theory of Change

In support of an overall goal to sustain gains in economic and social quality of life for Mongolia's urban and rural populations, the STRESS process helped identify a number of critical intermediate results and supporting resilience capacities that holistically can support growth and resilience in Mongolia.

In order to support more manageable migration flows and reduce the threat or impacts of commodity price shocks, Mongolia must diversify economically by building inclusive and competitive rural livestock markets that at the same time support alternative economic centers of growth, outside of the capital, Ulaanbaatar. This requires strong **linkages with value-added and export markets**. As the livestock industry becomes more profitable and modernized – and indeed if it is to be sustained – the STRESS highlighted that it must engage young people in the system, either as producers, entrepreneurs or through a more competitive and attractive job market.

To achieve these gains in the face of shocks and stresses, herders must **demand and have access to viable markets for fodder and veterinary services**, among other critical inputs, that can help them manage drought and winter *dzud* and reduce livestock disease outbreaks. At the same time **herders' knowledge and application of more adaptive herd management practices**, including lower number, higher-yield herds, is critical to reducing rangeland degradation, sustaining pasture supply, and maintaining consistent quality and supply to markets in the face of variable weather. In addition, herders must apply **climate adaptive rangeland management practices**, supported by **early warning and climate information systems** that can help them plan mobility and grazing patterns.

While financial services are fundamental to the growth of any economy, resilience requires that **small business growth and recovery loans as well as livestock and export insurance** are designed with terms that allow herders and businessmen to recover losses caused by *dzud*, drought or livestock disease. **Emergency savings and improved household budget management** can also support herders to get through difficult seasons without having to sell off assets, or lose productive animals.

Industry investment in the livestock economy must be accompanied with government investment in **improved education and health services in more peripheral urban and rural areas** to thwart unsustainable migration trends.

At the same time, those who have or will transition out of herding must have economic alternatives in urban areas. A more viable and dynamic rural livestock economy should increase both entrepreneurship and employment opportunities in urban centers, but government can improve ease of doing business and support an enabling environment for alternative small business growth, which will further decrease vulnerability to commodity price shocks. As with rural areas, appropriate loan and insurance products can support alternative urban industry

GOAL

Sustained gains in economic and social quality of life among Mongolia's herders and transitioning populations

OBJECTIVES

Sustained gains in rural incomes, services and social cohesion

Results Trajectory

Youth Engagement in Livestock economy

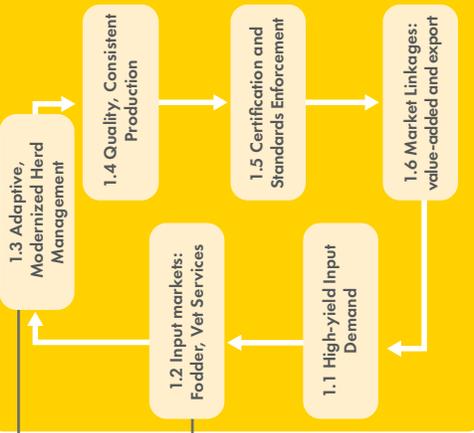
Results Trajectory

Growth of Alternative Economic hubs

Balanced, sustainable, inclusive urban growth

OUTCOMES

1. INCLUSIVE, RESILIENT, COMPETITIVE RURAL LIVESTOCK MARKETS



2. PRODUCTIVE, PROVISIONING NATURAL ENVIRONMENT

- 2.1 Early Warning Information Systems
- 2.2 Climate Adaptive Rangeland Management
- 2.3 Urban Water and Sanitation

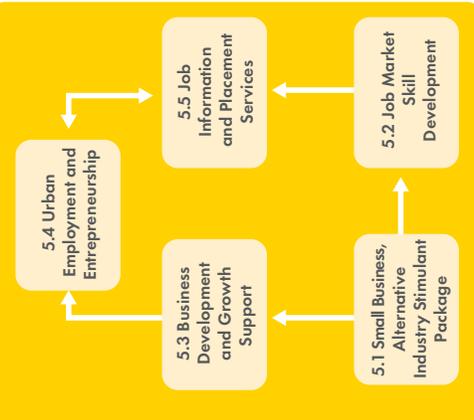


3. DIVERSE, ROBUST FINANCIAL PRODUCTS AND SERVICES

- 3.1 Livestock and Export Insurance
- 3.2 Emergency Savings
- 3.3 Small Business Growth and Recovery Loans
- 3.4 Financial Literacy

4. EQUITABLE, QUALITY SOCIAL SERVICES

- 4.1 Rural Education and Health
- 4.2 Skills Development
- 4.3 Urban Services



5. INCLUSIVE, DIVERSE, RESILIENT URBAN MARKETS

6. STRENGTHENED RURAL-URBAN SOCIAL COHESION AND CAPITAL

7. ENABLING GOVERNANCE FOR DIVERSIFIED GROWTH AND SOCIAL INCLUSION

8. CITIZEN DEMAND FOR GOOD GOVERNANCE

FIGURE 8: THEORY OF CHANGE DIAGRAM

growth. The government or private businesses must also provide **job market skill development**, services that appropriately inform transitioning migrants of skill demand, and ultimately provide **support in job placement** that can address the current trends of unemployment and underemployment and the associated social stresses.

In addition, municipal governments must invest in better urban planning that adequately accounts for projected **urban growth rates and extends appropriate urban water, sanitation, education and social support services** to areas that are currently marginalized, underserved, and contribute to the degradation of the urban environment. Urban migrants must receive information on registration, and have opportunities to register in urban areas to access these services.

Importantly, the resilience capacities highlighted above can only be made possible through an enabling environment – both formal and informal. In the context of Mongolia, these transformative capacities include **enabling governance for diversified growth and social inclusion, citizen demand for good governance, and strengthened social cohesion and capital** within and across rural and urban areas.

Holistic, appropriately sequenced, and sustained investments in the resilience capacities highlighted above among a range of development actors can ensure that gains in social and economic well-being for Mongolia's communities can be achieved and sustained into the future.

These resilience capacities are further detailed in the section below.



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Resilience through What? Capacities for Building Resilience in Mongolia

Demand for and access to markets for adaptive livestock industry inputs

The increasing severity and frequency of *dzud* and drought, combined with rangeland degradation, means that traditional herding practices - grounded in large herd mobility and rotational grazing - are no longer sufficient to ensure herders can have productive, healthy herds. The current input model herders use prevents consistent, quality production, and has an adverse effect on sufficient and consistent incomes throughout the year.

Access to quality inputs through market channels—particularly veterinary services, feed and fodder—are a critical resilience capacity that can help herders manage conditions of drought and *dzud*, livestock disease, and mitigate rangeland degradation. Veterinary inputs can protect livestock from pest and disease outbreaks, and help the animals survive harsh winters. These same products are critical to ensure that animals will meet market standards for export.

A vibrant fodder market also ensures livestock herds are able to maintain productivity in harsh weather conditions, while alleviating pressure on the natural resource base year round. Supplementing forage with feed and fodder introduces flexibility into the season for slaughter, and also allows for continued market production of livestock products, including dairy.

Combined, these capacities allow for both risk management and increased yields, contributing to more consistent quality production that can help open up improved market opportunities for herders. New markets can help herders increase and stabilize incomes. Increases in incomes, in turn, can support investment in future assets, while providing better options to secure existing herds in the face of risks.

Provisioning systems and transformation: The systems that will ensure access to and use of market inputs for resilience are both economic and social in nature. First, creating sustained access to inputs through market channels will require demand from herders. This will in turn require a shift in attitudes and perception that can be supported by enhancing production knowledge, and facilitating opportunities for herders to observe and internalize benefits from utilizing higher-yield inputs. At the same time, barriers to increasing quality supply of adaptive livestock inputs must occur through market system transformation. Government actors should create an improved environment for small and medium business to invest in veterinary services and fodder production and related market support services; potential entrepreneurs can be educated around business opportunities in these areas. By facilitating market linkages with herders, entrepreneurs can better understand their clients' needs, and develop innovative, alternative business models that deliver these services to populations that remains highly mobile.

Adaptive herd management knowledge and practices

To reduce the strain on the natural environment and achieve sufficient and stable incomes from livestock, it is essential that herders are able to adapt the management of their overall herd. In addition to the demand for and appropriate use of livestock inputs described above, this requires herders to apply improved breeding practices, and appropriately manage herd composition and size. Herd management is essential to reducing the effects of land degradation, *dzud* and drought, as these conditions often do not support extensive herding and require higher-input, higher yield models of herd management. Similarly, the matching of herd composition with market demand and pasture conditions could help herders yield better prices for animal meat and products. Growth in incomes can in turn support longer-term, adaptive investments among herders.

Provisioning systems and transformation: Improved herd management for resilient income growth requires not only access to inputs through market systems as highlighted above, but increased human capital and a shift in attitudes. This includes knowledge and awareness of the appropriate herd management technologies, ability to analyze the costs and benefits associated with applying particular management practices, and understanding production levels and market demand related to breed, herd composition and size. Stronger networks among herders, which allow those who are already benefiting from improved practices and technologies to demonstrate the positive effects to fellow herders, can help create these shifts. Apprenticeships and livestock agricultural fairs can provide additional opportunities for knowledge exchange, and the private sector must be engaged as a critical partner in increasing human capital and changing attitudes about herd management. Importantly, young people will be an important target of these capacities. A young generation may be easier to influence in terms of technology-intensive, modern livestock practices, and innovation in herd management can serve to attract young people to participate in the livestock economy. Developing modern livestock management skills among youth will be essential to help address the rapid exodus of young people to urban areas. This can also help revive rural social cohesion, having a positive reinforcing effect on herder-to-herder knowledge transfer for adaptive herd management in the long-term.

Market linkages to dynamic value-added and export markets

A redundant and robust market for livestock and livestock products can support herders to access buyers even as demand and market conditions shift, ensuring secure and steady income streams in the face of risks. Furthermore, a robust rural livestock economy creates markets for new jobs and skills, stimulates entrepreneurship, and can

decrease urban migration pressure. Value-added markets can help develop business and job opportunities in grading, processing, packaging, transporting, export and sales in alternative centers of growth. A more vibrant market and innovative businesses will be critical to engaging youth, by offering more prosperous and stable income opportunities. Finally, diverse and dynamic value-added and export markets for herders in a range of meat and other livestock product industries can reduce both unemployment and the vulnerability of Mongolian households to market price shocks.

Provisioning systems and transformation: A dynamic buyers' market requires 1) economic and social transformation that can ensure quality, consistent meat production, 2) an improved business and regulatory environment that can stimulate investment in value chains and export markets, and 3) improved certification and standards that can assure quality to markets. The first transformation is addressed through the first two resilience capacities outlined above. In addition, there is a critical need to focus on ensuring appropriate industrial standards are applied to processing, packaging and export, and create an enabling environment for livestock business investment in Mongolia. The government must put the right incentive structures in place that stimulate entrepreneurship in livestock value chains, trading and export.

Access to appropriate savings, loans and insurance products

Increased financial inclusion of herders and rural businesses – including through access to and use of varied financial products, as well as improved household and business financial management practices – are an essential risk mitigation and economic growth strategy that supports resilience to the full range of shocks and stresses outlined in this report. Improved financial management can ensure herders and business have emergency savings to restore supplies after a difficult period. Favorable loan products can support improved investments in more adaptive livelihoods – such as in improved herding inputs for example – and favorable loan terms can allow herders to weather difficult periods without taking on new or expensive debt. Insurance is particularly important not only for herders who are at risk of herd loss during harsh winters and drought, but also for exporters to secure their investments in the rural livestock economy.

Financial literacy and basic financial education are fundamental to achieving financial inclusion. People cannot use a wide range of financial services and products if they do not understand the risks and benefits associated with using them, or the preferred mechanisms of managing finances in a particular risk environment. Deepening of capacities in knowledge of products and their potential for mitigating shocks and stresses is essential to the resilience of herders and businesses.

Provisioning systems and transformation: Ensuring that more diversified and accessible financial services and products support economic and resilient growth in the livestock economy, as well as viable urban entrepreneurship, requires transformation in governance, social attitudes and economic systems. Herders and businessmen must perceive benefits to formal registration so that they are eligible for loans. Banks must do more to understand clients' needs and business cycles in the livestock and alternative economies, and design loan products on improved terms that meet business needs. Livestock should be allowed to fulfill collateral requirements under specific circumstances, provided livestock is registered and can be traced. The financial regulatory environment must continue to help avert potential risks associated with Savings and Credit Unions, but at the same time provide a more favorable environment for these institutions to grow and fill a critical small and middle financing gap for herders, and small and medium businesses. The financial sector must also do more to not only understand financial industry risks, but also risks faced by clients, and where possible, provide viable financial solutions to risk mitigation. This can include alternative savings products, business recovery loans, and risk pooling among smaller financial institutions.

Climate adaptive, equitable rangeland management

Adaptive, equitable management of rangelands will reduce land degradation and water shortages, ensuring more reliable access to pasture in support of the livestock economy. Appropriate rangeland management practices can also support herders to manage difficult weather conditions, reduce risk of livestock disease caused by a high concentration of herds in small pasture areas, and support quality and consistent livestock production. In this manner, rangeland management practices will not only improve ecological outcomes, but support long-term economic ones as well. Importantly, common rangeland management can contribute to collective action and social cohesion, critical transformative capacities that underpin a range of resilience capacities and well-being outcomes.

Provisioning Systems and Transformation: Equitable management of natural resources requires transforming attitudes toward inclusive decision-making and collective action, and a more favorable formal governance environment. Herders must perceive benefits from organizing themselves into larger rangeland management groups that extend knowledge, information and shared decision-making beyond the village or kinship network. Local government tasked with rangeland management can support this capacity by drawing on herder knowledge and expertise, facilitating inclusive dialogue and decision-making for rangeland management, and recognizing local resource management structures. Land regulations and their application must provision for local land rights and community-based management. Local decision-making processes around natural resources should also encourage youth to engage in rural governance. Importantly, once systems for improved rangeland management are in place which better connect herders horizontally, and with their local government, there can be a positive reinforcing effect on social capital, social cohesion and collective action that can support rural livestock markets.

Access to effective climate and early warning information

With climate change increasing the incidence of *dzud*, drought and other weather hazards, it is critical for herders and other livestock industry stakeholders to access timely, accurate, and actionable early warning and climate information. Access to livestock early warning systems (LEWS) currently in place are already informing mobility patterns during adverse weather, ensuring herders can secure more favorable pasture and maintain herd viability. This system can be further extended to traders, and provide information on weather conditions that favor offtake of more animals, or even help identify alternative market points in bad weather based on herd concentration. Long-term climate information can inform decision-making around breeds, herd composition, and technology adoption. It can also provide critical market signals that inform climate sensitive investments by small and medium business entrepreneurs, thus ensuring more resilient economic growth over the long-term.

Provisioning Systems and Transformation: While demand for early warning information is currently high, more can be done to improve the speed and accuracy of technological applications that transmit weather information to herders and traders. This includes coupling weather data with forage, vegetation and water conditions, as well as livestock concentration. Improved information can increase willingness to pay for services, ensuring long-term system viability. At the same time, the government must maintain a focus on and increase investment in climate research and information management, working jointly with research institutions to better transmit and increase understanding of longer-term climate projections among herders and the business community. Access to this information should be coupled with regulatory signals for businesses and herders to make climate adaptive investments.

Delivery of rural public services

A key factor driving unsustainable urban migration rates includes limited opportunity to receive quality education or health care in rural areas. Access to improved rural services can help mitigate urban migration flows and related stresses including pollution, unemployment and underemployment, and a breakdown in kinship structures and social cohesion. While the concentration of higher education institutions and specialized medical institutions will naturally be concentrated in a few urban centers, improved services in alternative centers of growth and in rural areas can support youth to remain close to family at least through high-school, preserving social cohesion. It can also incentivize young people to return and invest in the rural economy upon finishing advanced education. The willingness of educated young people to return to and engage in the rural economy can in turn bolster economic diversification, critical to long-term resilience.

Provisioning Systems and Transformation: Improved delivery of rural services, particularly focused on education and health, will require a fundamental shift in the demand for and supply of good governance. Citizens in rural areas must increase their participation in local decision-making processes, set priorities, and demand transparency and accountability in the implementation of agreed upon rural development plans. Similarly, local government must more clearly articulate local needs and priorities upward, to ensure that budget allocation for *aimag* development can adequately serve rural populations. Government planners must also provide service solutions that work in low density population environments, by extending access to technology that can, for example, support online learning or even remote communication with health service professionals. Education systems must further be transformed to meet the demands of the current and future job market, as detailed further below.

Business and Job Market Skills Development, Information & Placement Services

Too many Mongolian youth are unable to find work and high unemployment among educated youth points to a mismatch between skills and labor market needs. Unemployment and underemployment are a major threat to urban social and economic well-being, and have been associated with other stresses including alcoholism and higher-rates of gender-based violence. Tailored vocational programs, advanced learning centers, and business skill development programs can provide both the technical and social skills young people need to get ahead – both as employees in emerging industries, and entrepreneurs who can take these industries forward. Such programs can also better meet labor market needs in the livestock sector not only in urban but also rural areas. For example, curricula can be expanded to include techniques in slaughter, meat and sanitation certification standards, certification in livestock production grading, processing skills, and livestock registration. Importantly, a major challenge in meeting labor market demand is asymmetric information. Platforms that provide information on labor market needs and placement services will serve as a critical capacity to ensure job and business skills development meets resilience and economic objectives.

Provisioning Systems and Transformation: Developing a work force and supporting entrepreneurs to meet modern and emerging labor demands requires innovation and investment from government, educational institutions and the private sector. Government should allocate budgets for revamping and modernizing vocational training centers to meet the demands of the modern market, and make these institutions more attractive to youth, with small business development and entrepreneurship part the of the curricula. Advanced learning institutions can offer adult learning and continued education programs, and a formal apprenticeships can be offered in a range of industries, including herding. The private sector can provide recruitment services, and offer their own training programs in highly competitive sectors to meet growing labor demand. At the same time, this range of improved education offerings requires clear policy and regulatory signals that demonstrate government commitment towards a more diversified economy. Only then can institutions be confident that investments in skill upgrading and continued education can be consistently met with emerging job market opportunities.

Urban Services: Water, Sanitation, Energy and Social Support

Addressing the tremendous gap in basic water, sanitation, energy and social support services in the ger districts can improve urban well-being, particularly in Ulaanbaatar, but also help mitigate the social and environmental stresses associated with urban migration. Lack of energy services in ger districts is the main contributor to urban air pollution in the capital and increasingly in other urban centers, as households burn coal in the winter to stay warm. Ensuring more equitable access to energy can thus bring significant gains in public health. Provision of access to water and sanitation services can help curb water and land pollution in urban areas. Social support services can facilitate integration into urban communities, help stimulate social cohesion in urban areas, and curb incidence of alcoholism and gender-based violence.



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Provisioning Systems and Transformation: Provision of adequate and equitable social services requires strong urban governance. Disparate and divided government departments must be encouraged to work together in support of holistic municipal development, through processes that motivate multi-stakeholder engagement. Strong urban planning is essential, which can be motivated by research and evidence on the long-term threats to the environment, economy and public well-being if current urban growth trends – in absence of adequate public service supply - continue. The current Ulaanbaatar Master Plan must appropriately account for current and projected urban growth rates, and plan the distribution of water, sanitation and energy systems accordingly. As the allocation of resources at a municipal level is frequently driven by patronage or political-driven decision-making, citizen participation in Urban Plan development and implementation is essential. Urban citizens can be supported to organize into community-based groups or civil society that can more effectively identify urban

problems, stimulate collective action, and advocate for change. Given the importance of educational institutions for the core demographic of 15-29 year olds that migrate to cities, civic participation in municipal governance can be more deliberately built into high-school and advanced learning curricula. Finally, counseling must be a key service offered that supports migrants to transition, as well as understand opportunities within and beyond the urban environment.

Transformative Capacities

The range of capacities identified above can support Mongolia's herding population, as well as those transitioning out of the herding system, better prepare for, respond to, and recover from existing shocks and stresses. At the same time these capacities can support these groups to adapt, or mitigate risk and reduce their exposure over the long-term. Importantly, each capacity requires critical underlying systemic change to ensure that citizens can access and use the capacity in support of resilience and development outcomes. While the systemic constraints to be addressed in each case are unique, the critical transformative capacities that consistently emerge as underlying systemic change are highlighted below:

Enabling Environment for Diversified Growth and Social Inclusion: Policies, regulations and their application, combined with cultural norms and attitudes, determine opportunities for resilience in Mongolia. Government can stimulate investment in balanced, resilient and diversified growth – centered on the livestock economy – by setting the right incentive structures. Similar regulations are needed in support of environmental standards and to support social services in both rural and urban areas. At the same time, cultural norms and attitudes influence economic, social and environmental decision-making at both a citizen and government level. On the one hand, attitudes and norms among an aging herding population help preserve an antiquated system of livestock production; on the other hand, attitudes and perceptions towards herding among youth are driving young people away from the herding economy. While income-levels, urban migration and alcoholism all effect gender-based violence, underlying beliefs around gender differences mean that women and girls are exposed to greater household and societal risks, undermining their long-term social and economic stability and well-being. It is the ability to shift these factors in the enabling environment that will ultimately determine the extent to which Mongolia's citizens can consistently access, and effectively apply, the resilience capacities required to secure their future.

Civic engagement and Inclusive decision-making: An enabling environment for resilience and development must be supported by citizen demand for good governance through civic engagement and collective action. In Mongolia's context, this requires a transformation of attitudes, as Mongolians' perceptions of civic engagement are heavily influenced by an era where centrally planned government determined people's economic future and limited social participation. Stimulating platforms for dialogue and discussion between citizens and government authorities can help shift perceptions around the benefit of governance participation. In addition, motivating citizens to engage in or initiate community action groups, whether to support rangeland management or solve urban challenges, can foster opportunities for citizens to find points of engagement with government and develop confidence in advocacy. These preliminary steps can have a positive reinforcing effect in building stronger civic engagement over the long-term, allowing Mongolians to hold their government accountable for the change they wish to see in their future. Targeting civic engagement efforts towards youth will be especially critical, as this helps cultivate a sense of agency and future purpose that underlies resilient individuals and communities.

Rural and Urban Social Cohesion and Capital: A critical factor to ensuring civic engagement, promoting inclusive decision-making, and ultimately creating an enabling environment for development through a resilience pathway is strong social cohesion and social capital among rural and urban communities, as well as across them. While strong social capital within kinship networks is a key feature of rural economic and social life in Mongolia,

urban migration has increasingly strained these connections. Moreover, influence from the socialist system that limited organized groups and collective action continues to limit cooperation among herders, and restricts growth of civil society in urban areas. Fostering opportunities for citizens to connect – whether through a livestock cooperative, savings and credit union, or neighborhood action group in urban centers – is critical to strengthening social capital. Improving access to technology, creating market linkages, and promoting continued exchange through education opportunities and apprenticeships can also strengthen social capital across urban and rural centers of growth. Strengthened social networks have been shown in many contexts to have a multiplier effect on inclusive decision-making, civic engagement and an overall enabling environment that supports resilience.

Together, these three transformative resilience capacities will underpin resilient, inclusive social and economic well-being for Mongolia’s herders, as well as those transitioning out of the herding system.



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Conclusion

Mongolia’s recent development trajectory has suffered from a range of interconnected shocks and stresses, shaped by conditions in the social, governance, economic and ecological systems. The overreliance of the economy on the mining sector, and underinvestment in the country’s aging herding system have made Mongolians vulnerable to **commodity price shocks**, and rising **unemployment and underemployment**. These same conditions, combined with a poorly understood and weakly applied land law, have contributed to a rapid **rise in livestock numbers** and resulting **rangeland degradation**, conditions that create a negatively reinforcing downward spiral. Rangeland degradation contributes to lower productivity per unit of livestock, encouraging even larger herd sizes to meet basic needs. These factors, combined with the **increasing frequency and severity of dzud and drought** due to climate change, impact the viability of the rural herding system, along with its historic social and economic benefits.

Increasingly unfavorable conditions in rural areas have driven **unsustainable rates of urban migration** to the capital, Ulaanbaatar. Unfortunately, many of those transitioning out of the herding system have found few viable alternatives in cities. The large demographic of 15-29 year olds who come to the capital for better education are unable to find jobs after graduation. Many urban migrants are forced to reside on the outskirts of the city in ger districts, where poor service delivery contributes to **pollution**, health problems, as well as high rates of **alcoholism** and **gender-based violence**.

By taking a systems approach, Mercy Corps' STRESS process uncovered a range of resilience capacities that could help herders and those transitioning out of the herding system achieve and sustain improved social and economic well-being outcomes in the face of these shocks and stresses. By engaging multiple stakeholders at the local, regional and village-level, STRESS resulted in a ToC that shows the interconnectedness among resilience capacities, and how holistically they can contribute to a more secure future for currently vulnerable populations. These connections highlight how a holistic, carefully sequenced and coordinated set of resilience-focused interventions can lead to long-term sustained development gains in Mongolia's context. Importantly, the ToC highlights investments and support required by multiple sectors, and thus points to the need for a coordinated, multi-agency, sustained approach to achieve long-term well-being outcomes for Mongolia's vulnerable citizens.

In partnership with the government, the private sector, and other industry stakeholders, Mercy Corps hopes to advance the resilience capacities critical to the livestock economy under its new Resilient Communities Program, launched in April 2017.

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Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within. Now, and for the future.



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