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Index-based Livestock Insurance in Mongolia

Protecting Herders from Climate-related Livestock Mortality

DISASTER RISK FINANCING & INSURANCE CASE STUDY

Background

Semi-nomadic herders make up approximately 30% of the population of Mongolia. Mongolian herders raise horses, camels, goats, cattle, and sheep for milk, cashmere, meat, and other products. Approximately one-third of this population is poor, with a further 40% vulnerable to poverty, a situation significantly linked to high exposure to extreme climatic conditions that can cause high rates of livestock mortality. For example, from 1999 to 2002, a combination of droughts and severe winters caused the loss of 11 million heads of livestock, almost 35% of total livestock in Mongolia. These losses significantly negatively impacted GDP and stunted Mongolia's economic growth. In this context, the Government of Mongolia (GoM) approached the World Bank and donors for assistance in developing an improved risk management framework, including livestock insurance.

The World Bank helped GoM set up a public-private partnership with domestic insurance companies to offer affordable and cost-effective insurance coverage to herders, while protecting domestic insurers against major losses that could jeopardize their business.

Objectives

The objectives of the livestock insurance program are to:

- Reduce the impact of livestock mortality on herders' livelihoods by developing structured plans to finance large losses before they occur;
- Provide herder households with immediate liquidity after a disaster;
- Provide the GoM with a tool to transfer part of its fiscal exposure to climatic risks to the international reinsurance market.

Operating Structure

The Index-based Livestock Insurance Project (IBLIP) in Mongolia, launched in 2005, is based on an index of livestock mortality rates by species and *sum* (county) compiled and maintained by the Mongolian National Statistics Office. The conceptual framework combines self-insurance, commercial insurance (IBLIP), and social transfers for catastrophic losses. Herders bear the cost of small losses (less than 6% livestock mortality rate) that do not affect the viability of their business. Larger losses are transferred to the private insurance industry. The final layer of catastrophic loss is borne by the GoM.

Highlights

- Livestock in Mongolia are exposed to extreme climatic conditions.
- Herders purchase policies from private insurance companies that pay out when local livestock mortality rates exceed specified "trigger" percentages.
- The product is currently reinsured on the international reinsurance markets.
- The GoM also acts as a reinsurer and covers extreme losses.

Herders purchase policies from private insurance companies that pay out when local mortality rates exceed specified "trigger" percentages up to a maximum exhaustion point. Participation is voluntary. Losses between 6-30% are covered through a reserve fund, the Livestock Insurance Indemnity Pool (LIIP), established under the Ministry of Finance to guarantee indemnity payments, for which GoM acts as reinsurer. Losses exceeding 30% are covered by GoM. The GoM also has access to a contingent credit line from the World Bank, which it can call if the LIIP is exhausted.

Outcome

The 2009-2010 season resulted in the largest payments (totaling in excess of US$1.3 million) thus far after nearly 22% (9.7 million) of the country's livestock died due to a harsh winter, the worst losses ever recorded. The LIIP fund was exhausted, and approximately 84% of losses were paid from the contingent credit provided by the World Bank. For the 2010-2011 season, coverage was extended to nine provinces and was purchased by around 7,000 herders. About 1,350 herders received indemnity payments totaling nearly US$900,000. By 2012, it is expected that the insurance will be available in all 21 provinces.

The expansion of the program at the national level will ideally involve increased risk transfer to the international reinsurance market. Currently, a reinsurance treaty between participating insurance companies and French reinsurer SCOR is in place. Future risk transfer out of the country enhances Mongolia's capacity to protect herders against losses while ensuring the long-term viability of the program.

Lessons Learned

1. The development of an effective agricultural insurance program requires a strong institutional and legal framework. The legal framework should create an enabling environment for the development of private agricultural insurance and provide incentives for farmers/herders to purchase insurance.

2. The government plays a crucial role in the public private partnership. Governments should promote a cost-effective risk layering of agricultural production risks, in which small and recurrent risks are retained by farmers, less frequent but more severe losses are transferred to the domestic insurance industry, and catastrophic losses are transferred to the international reinsurance market, possibly backed by governments.

3. An efficient data management system is important to the development of insurance products. A historic database is needed to implement index-based insurance mechanisms. For livestock insurance based on a mortality index, this database should include annual data by species as well as adult mortality data. Also, mechanisms have to be in place to secure data measurements from fraud and abuse.

4. Education and outreach is essential. Countries that do not have a culture of insurance, such as Mongolia, require extensive educational initiatives to establish successful micro-level insurance programs. When the population has little to no understanding of insurance, there may be resistance to purchase insurance. Direct marketing and educational outreach in Mongolia helped to quell this issue during the pilot phases, but the program's expansion to a national scale will require increased efforts.

Glossary

Index-based insurance: Index-based insurance makes indemnity payments based not on an assessment of the policyholder's individual loss, but rather on measures of a parametric index that is assumed to proxy actual losses.

Indemnity: The amount payable by the insurer to the insured in the event of an insured loss.

Insurance pool: An insurance pool is a collective pool of assets from multiple insurance companies. Pooling facilitates the development of insurance markets by spreading risk across insurers who would otherwise lack financial capacity to participate in the market. It enables insurers to provide coverage for high-risk events.

Further Reading

Mahul, O., & Skees, J. (2007). Managing Agricultural Risk at the Country Level: The Case of Index-Based Livestock Insurance in Mongolia. *World Bank Policy Research Working Papers.*

Index Based Livestock Insurance Mongolia: www.iblip.mn

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