



INDEX-BASED LIVESTOCK
INSURANCE PROJECT



IMPLEMENTATION REPORT 2005-2015

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МАЛЫН ИНДЕКСЖҮҮЛСЭН
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IMPLEMENTATION REPORT



2005 – 2015

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GREETINGS



1.1 GREETINGS FROM THE PROJECT STEERING COMMITTEE

On behalf of the Project Steering Committee, we would like to extend our warmest greetings to all the herders, local authorities and insurance companies' agents who have co-implemented the Index-based livestock insurance project and to all those people collaborating with us and providing their support.

It has been ten years since the pilot implementation of the project with the financial support from the World Bank and other international donors, recognizing the importance of index-based livestock insurance system as a mechanism to provide government protection for the livestock and ensure safe livelihood for herders in dutiful conformity with the provisions of the Constitution of Mongolia.

In these years, our works have been full of new experiences and successful achievements and we appreciate and are grateful of the rising number of insured herders receiving their indemnity payments and enjoying its benefits as a sign of their greater understanding of the value and importance of this insurance.

Index-based livestock insurance is special in that it becomes sustainable through the collective efforts by many parties, including herders, insurance companies and their frontline agents, the government and local authorities.

The nationwide implementation of the index-based livestock insurance covering 21 aimags and over 330 soums along with the passage of a law on index-based livestock insurance, one of the major goals of the Government of Mongolia, provide a favorable opportunity for the long-term sustainability and development of this insurance system.

We believe that herders, individuals, insurance industry professionals and local authorities residing in every corner of Mongolia will do their best to continue the success of this emerging system and wish all of you a great success in your endeavor.

Chairman of the Project Steering Committee and
State secretary of the Ministry of Finance

Kh.Gantsogt



1.2 GREETINGS FROM THE WORLD BANK GROUP

Mongolia is considered a booming economy, strongly pulled by the country's mineral resources and export. However, Mongolia's poverty rate and communities' vulnerability to disasters remain high in rural areas. The livestock sector, embedded into the country's culture, remains crucial for the economy diversification and generates 80% of the agriculture's income, while providing major source of livelihood for more than 800,000 people.

While the sector remains threatened by disasters, notably Dzuds as in 2010, the support given by donors, and notably the World Bank and the Swiss Agency for Development and Cooperation, has laid the foundations for risk transfer mechanisms through this Index-Based Livestock Insurance Project (IBLIP), to reduce Dzud impact on rural vulnerabilities. After successful phases to pilot the mechanism in selected aimags, then scale it up and expand it to all aimags and having passed the "2010 test" as all insurance companies continued their involvement in the IBLIP after such bad a Dzud, the program is now finalizing the full institutionalization and transfer of ownership to the Government.

The World Bank is glad to accompany the Government in its full commitment to sustain the Index-based Livestock Insurance mechanism, having: (i) promulgated the Index-based Livestock Insurance Law (IBLI Law – passed by an Act of Parliament in June 2014) and a subsequent one to establish the Agricultural Re-insurance Company of Mongolia (ARCM) to take over the project, (ii) provided initial capital to the Company, and (iii) established the Board of Directors and already appointed officers to the various positions.

As the process of closing the project is underway, and notably organizing the project's archives of 21 aimags over 10 years period, and conducting the final impact assessment that will document these successes, I would like to end this message by highlighting that about 10,000 herders in Mongolia voluntarily chose to get a livestock insurance coverage in 2015. This was done despite: (i) relatively good weather observed during the past 2 years, (ii) a decrease in public awareness and sensitization about the insurance due to the approaching project closure, and (iii) the knowledge that the WB-supported IBLI project itself will not be behind indemnity payments for insured loss to insured herders anymore in 2016 – therefore demonstrating the trust that herders have in the mechanism. This represents a success in itself and can give us confidence about the sustainability of the program.

Senior Livestock Specialist and Task Team Leader,
The World Bank Group

Stephane Forman



1.3 GREETINGS FROM THE SWISS AGENCY FOR DEVELOPMENT AND COOPERATION

Livestock is a major backbone of Mongolia's society. Hundreds of thousands of herding families are relying on their animals for their livelihood. The country has a vast pasture land which is particularly appropriate for extensive grazing. The nomadic lifestyle as it is still present in today's Mongolia is unique.

However, a number of challenges are affecting this lifestyle in recent decades. After the switch from the centralised to the market oriented economy, the livestock has been privatised. Several mild winters, the free access to public pastureland and the absence of structured marketing channels were among the factors for an uncontrolled increase of the number of animals. According to the latest data released by the National Statistical Office, in 2014 the country had a herd of more than 50 million animals. This high number of animals is increasingly degrading the pasture land. Insufficiently fed animals are less able to cope with the harsh winter conditions and are at risk in the case of a dzud.

In 2005, the Government of Mongolia initiated the Index-Based Livestock Insurance project to develop an insurance scheme able to support the herders in case of mortality of their animals. Assisted by the World Bank and by other bilateral donors, such as the Swiss Agency for Development and Cooperation the insurance scheme has been successfully developed during the last decade all over the country. In close collaboration between the public rural services and several private insurance companies, today all herders in Mongolia have the possibility to insure their livestock against mortality. According to the figures from the 2015 insurance campaign, more than 10'000 herders insured their animals according to the insurance scheme. In case of mortality during the coming winter they are at least partially protected and will receive a financial compensation in the case of a loss.

In 2014, the Mongolian Parliament voted the Index Based Insurance law and prepared the way for the handing over of the project achievements to the Agricultural Insurance Company. We are confident that this new company will rapidly establish the needed expertise and insure the challenging tasks to continue to offer a well-adapted insurance scheme to the Mongolian herders.

Head of Programme,
Swiss Agency for Development and Cooperation

Daniel VALENGHI



1.4 GREETINGS FROM THE PROJECT IMPLEMENTATION UNIT

We are grateful to express the IBLI project team's deep gratitude to the Government of Mongolia, the Ministry of Finance, the World Bank group, the Swiss Agency for Development and Cooperation and other international organizations that provided their support to the successful implementation of the index-based livestock insurance system to reduce the negative impact of dzud risk inherent in the livestock sector of Mongolia, local

authorities, insurance companies, banks and other financial institutions that have organized annual insurance sales, including Bodi insurance, MIG insurance, Mongol insurance, Monre insurance, Nomin insurance, Practical insurance, Tenger insurance, KHAAN bank, State bank and international and local consultants of the project, herder families recognizing the importance of index-based livestock insurance and having their livestock insured, other projects, programs and partner organizations.

Since the pilot implementation of the Index-based livestock project in 2005, we have seen the 10th sales season and provided indemnity payments for the 9th year. In the past, we have insured about 90 000 herder households and paid the indemnity of 3.2 billion tugriks. There have been many positive impacts, achievements and experiences, including cash indemnity payment contributing to the economy and monetary circulation of aimags and soums, creation of permanent and temporary jobs in the local areas, increase of income sources, expansion of insurance services and improvement in the ease of access to these services.

We are presenting the implementation report of Index-based livestock insurance project for 2005–2015 at this moment where the livestock insurance covers all of 21 aimags and 330 soums of Mongolia and the law on Index-based livestock insurance became effective as a result of the successful fulfillment of its goals and objectives by the Project implementation unit.

It should be noted that the Project implementation unit worked hard and took many initiatives to further develop the index-based insurance system and ensure its long-term sustainability on purely market principles, improve the understanding and capacity of stakeholders regarding insurance, lessen the burden of insurance companies and the government by engaging international reinsurers and establish legal and institutional frameworks based on our previous works that were done in the reporting period.

May the Index-based livestock insurance system, a symbol of State favor, Insurers' endeavor and Herders' trust, further expand!

Director,
Project implementation unit

Ya.Ulziibold

2

BACKGROUND

2.1 RATIONALE FOR PROJECT IMPLEMENTATION:

The extreme climate condition of Mongolia causes great difficulties for livestock husbandry. But Mongolian herders have been ingraining a nomadic lifestyle adapting to this climate condition for thousands of years. Mongolian livestock is biologically adapted to this climate. However, a shortage of grass resulting from meteorological drought and a lack of pastureland leads to a severe winter condition. The main reasons for livestock mortality include heavy snowfalls, extreme cold, powerful thunderstorms, severe droughts and violent storms. Another reason is highly infectious diseases of livestock. Extreme cold combined with heavy snowfall makes it very difficult for livestock to graze, leading to a high rate of mortality. Moreover, heavy snowfall blocks roads thus obstructing any help and assistance from outside the area. This mass death of livestock caused by the shortage of feed is called a “dzud” in Mongolian. In agricultural sectors of any country, there are always challenges attributable to forces of nature. Even in the developed countries where the protective systems against risks related to the nature and climate are put in place, there have been ongoing efforts to find other alternative mechanisms.

In its effort to protect the livestock sector from risks, the Government of Mongolia, through the Ministry of Agriculture and Food, prepared a draft law on compulsory livestock insurance and introduced it into the Parliament three times. But these draft laws (“Law on livestock insurance” in 1995, “Law on insurance of breeding livestock and seed plantation” in 1998 and “Law on livestock insurance” in 2001) were not approved and the initiative to protect the livestock sector and herders from probable losses through insurance was stagnant.

The droughts and dzuds during 1999–2002 led to deaths of 11.2 million livestock leaving 12 thousand herder families with no livestock and the total direct loss to the country’s economy was 333 billion tugriks. The Government of Mongolia, in cooperation with the World Bank, the UN and other international donors, started a market study in Mongolia in 2001 and implemented the Index-Based Livestock Insurance Project on a pilot basis to ascertain the viability of index-based livestock insurance as a way to reduce the impact of severe livestock mortality in Mongolia.



2.2 OBJECTIVE AND SCOPE OF THE PROJECT

REDUCING THE VULNERABILITY AND EXPOSURE OF HERDERS' LIVELIHOOD TO DZUDS AND OTHER NATURAL DISASTERS;

Expanding the opportunities of insurance companies for further development in line with international standards by insuring livestock using this unique methodology and ensuring the stability of the insurance sector; distributing appropriate sums of indemnity payments only to insured herders, thereby avoiding spoon-fed practices of giving cash and livestock to herders;

Mobilizing resources from the private sector and international organizations (reinsurance) to indemnify a part of disaster losses and lessen the burden of dzuds and natural disasters on the Government, creating a protective recovery system for the livestock sector and establishing legal and institutional frameworks to ensure the sustainability of this system.

PROJECT SCOPE

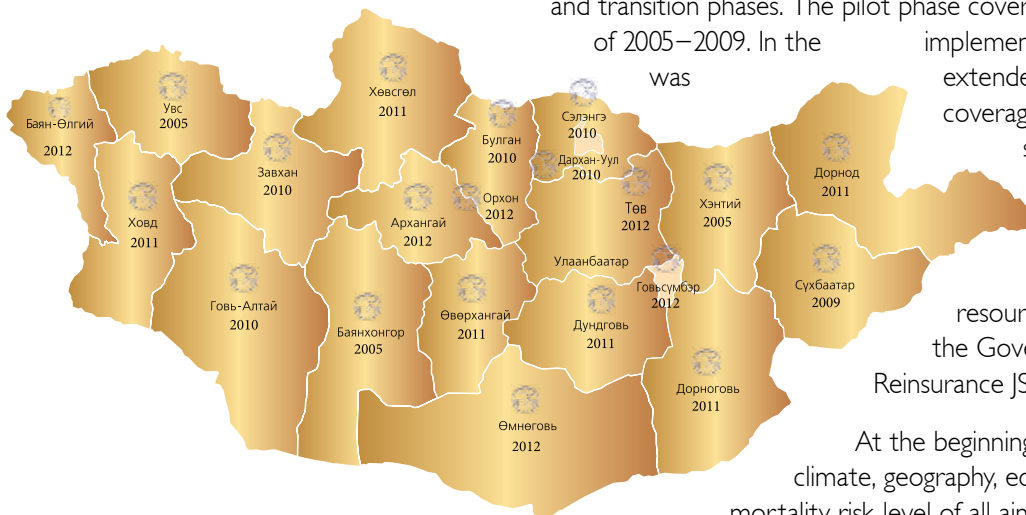
The project was implemented in three phases: pilot, implementation and transition phases. The pilot phase covers 4 aimags for the period of 2005–2009. In the

implementation phase, the project was extended to reach nationwide coverage of 21 aimags and 330 soums adding 5–6 aimags each year. The transition phase started in 2014

to transfer the project resources and responsibilities to the Government and Agricultural Reinsurance JSC.

At the beginning of the pilot phase, the climate, geography, economic development and mortality risk level of all aimags were considered and three aimags were chosen: Uvs from the western province, Khentii from the eastern province and Bayankhongor from the gobi province.

These 3 aimags each represent a different level of mortality risk. As the territories of these aimags are relatively large, the probability of happening a disaster event in all soums of a given aimag at the same time is very low which in turn diversifies the risks facing insurance



companies. Since the pilot implementation of the project had shown positive results, the project coverage was extended to Sukhbaatar aimag in 2009, Bulgan, Govi–Altai, Darkhan–Uul, Zavkhan and Selenge aimags in 2010, Dornogovi, Dornod, Dundgovi, Uvurkhangai, Khovd and Khuvsgul aimags in 2011, and Arkhangai, Bayan–Ulgii, Govisumber, Orkhon, Umnugovi and Tuv aimags in 2012.



2.3 INDEX-BASED LIVESTOCK INSURANCE AND ITS BENEFITS

The livestock insurance introduced in 2005 is a brand–new insurance product on the Mongolian insurance market. It is a new form of insurance that pays all policyholders if the livestock mortality rate for the entire soum exceeds a specified threshold or index.

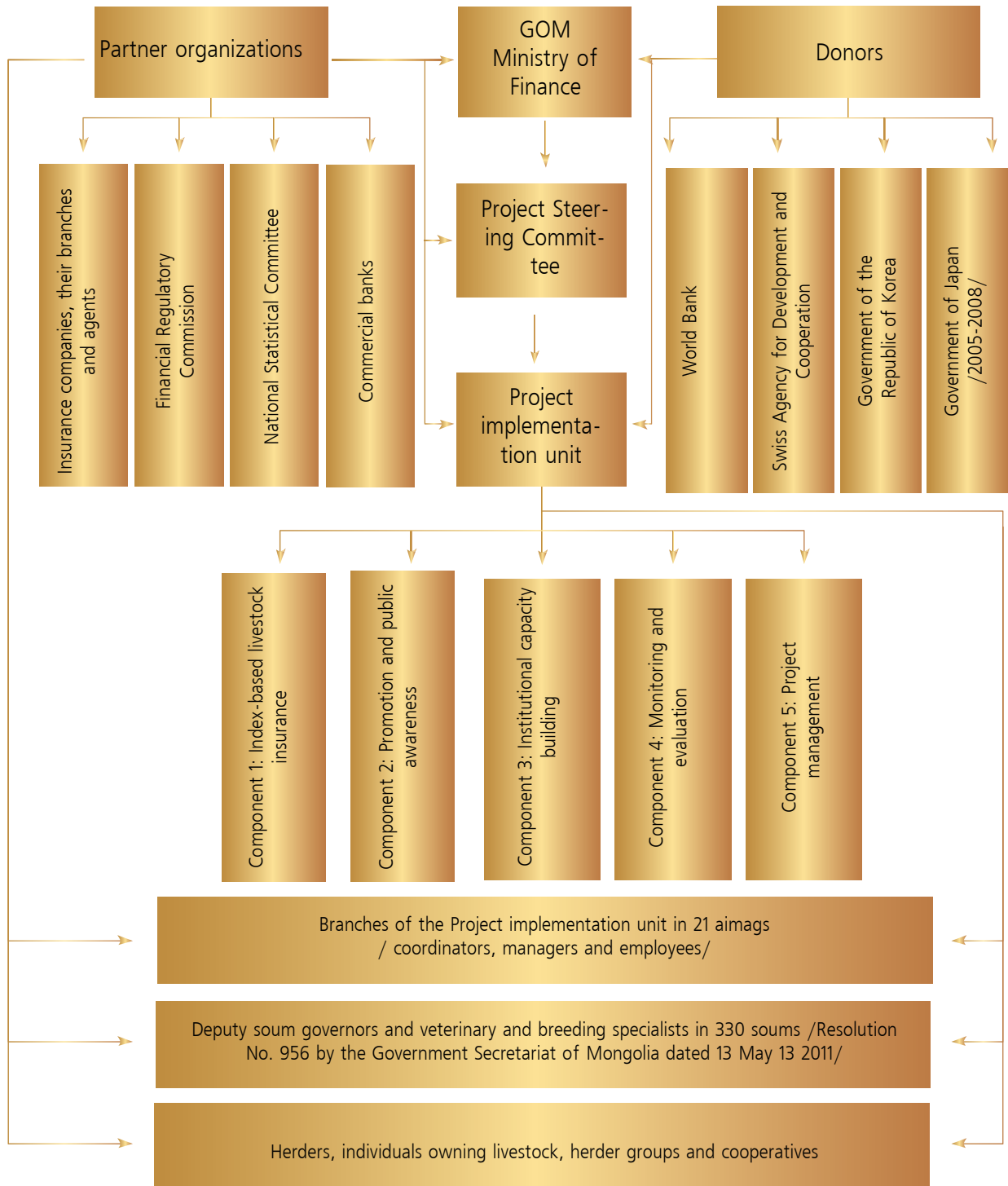
The index–based insurance aims at protecting livestock from dzuds and other natural disasters and ensuring the livelihood of herders and distributes the livestock mortality risk among local insurance companies, the Government and reinsurance companies.

The index–based livestock insurance has the following benefits:

- Herders spread their risk over time by paying a small amount of insurance premium annually and get compensated through indemnity payments when the risk is materialized in a disaster. This helps them to avoid a situation where they incur a significant loss at once when a dzud or other natural disaster happens;
- Insurance makes livestock a safer loan collateral and therefore banks are more interested in providing loans to herders;
- Both insured herders and insurers are protected from financial risks as the risk beyond the capacity of an individual insurance company is entirely allocated among the mutual risk fund, the Government and reinsurance companies

The establishment of the index–based livestock insurance system is a significant achievement in that this system engages the private sector in managing disaster risks and provides a unified access to global reinsurance markets.

2.4 ТӨСӨЛ ХЭРЭГЖҮҮЛЭХ БҮТЭЦ, ЗОХИОН БАЙГУУЛАЛТ



2.5. PROJECT COMPONENTS



COMPONENT 1: INDEX-BASED LIVESTOCK INSURANCE

This component focuses on the implementation and refinement of the insurance program through the following subcomponents:

- Registration and databases of insured herders;
- Statistical reports and livestock census of the National Statistical Office;
- Risk evaluation;
- Management of indemnity pool account and mutual risk fund;
- Indemnity calculation and management of contingent debt facility;
- Training and certification of insurance agents;
- Promotion and support to insurance sales.



COMPONENT 2: PROMOTION AND PUBLIC AWARENESS

The component organizes promotion and public awareness activities for project stakeholders. The stakeholders include herders, herder groups, officials and staff of central and local government, insurance companies, commercial banks, NGOs and donors. The main activities include:

- Dissemination and promotion of information on index-based livestock insurance and its activities;
- Capacity building to strengthen the understanding of herders, herder groups, local authorities, insurance companies and relevant government organizations in the pilot aimags and encourage their interest in the index-based livestock insurance



COMPONENT 3: INSTITUTIONAL CAPACITY BUILDING

This component of the project provides support for capacity building of key government institutions that play an important role in implementation of the index-based livestock insurance. The component allows the successful implementation of the project and has helped to establish the institutional framework necessary for national expansion of the index-based livestock insurance. The project supports:

- Capacity building for the National Statistical Office to strengthen the livestock census data system;
- Capacity building for the Financial Regulatory Commission to prepare the necessary regulations for managing index-based livestock insurance activities;
- Capacity building for establishing the legal and institutional framework for the index-based livestock insurance;
- Capacity building for participating insurance companies;
- Capacity building for Agricultural Reinsurance JSC



COMPONENT 4: MONITORING AND EVALUATION

The objective of this component is targeted at determining how the new product influences the needs and goals of project stakeholders. The focus shall be research oriented to learn if the modified behavior contributes to increased interests and needs in risk protection, better access to banking and financial services, more collaboration among herders and development of the insurance sector. Broadly speaking, the component aims to determine if the new form of insurance has the potential to contribute to the economic development of Mongolia.



COMPONENT 5: PROJECT MANAGEMENT

The fifth component provides support to the Project Implementation Unit (PIU) in managing the pilot project effectively and optimally. The supports include operational costs for the PIU, technical assistance and training for project staff, supply of equipment and other assets, information technology, communication and auditing.

3

OPERATIONS

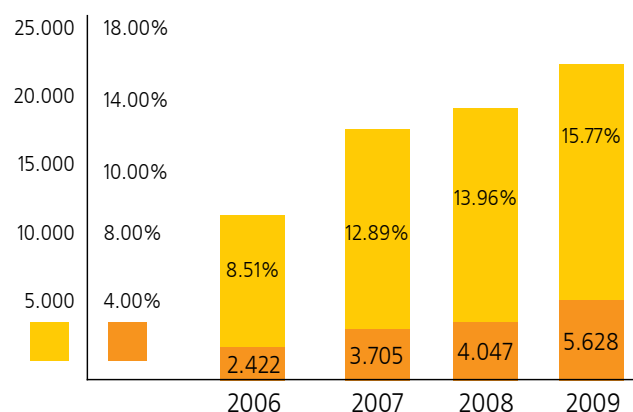
The main operations of the project include providing insurance for livestock owned by herders and individuals in all soums of the pilot aimags in cooperation with commercial insurance companies, providing herders and other stakeholders with necessary information, capacity building for the stakeholders from the private sector and the government and facilitating the establishment of appropriate legal and institutional frameworks. The Project implementation unit has initiated and conducted many other multilateral activities in order to ensure the continuity and stability of these operations.

3.1 PROJECT PILOTING

The Government of Mongolia, in collaboration with international organizations, had carried out a number of researches on opportunities to reduce the vulnerability of herder' livelihood and provide a protection for livestock and finally proposed an initiative for implementing an index-based insurance system for livestock sector in 2005. With the support from the World Bank, this initiative was materialized into the index-based livestock insurance project to be piloted in 56 soums of Bayankhongor, Uvs and Khentii aimags for the period between 2005 and 2008. This was a form of government involvement to comply with the provision of the Constitution of Mongolia stating that livestock shall be under the protection of the State.

The main objective of the pilot project was to ascertain the viability of index-based livestock insurance system in Mongolia.

During the project implementation, training and education programs for stakeholders to demonstrate the benefits of insurance were effective which was evident from the consistent increases in the insurance uptake level among herders.

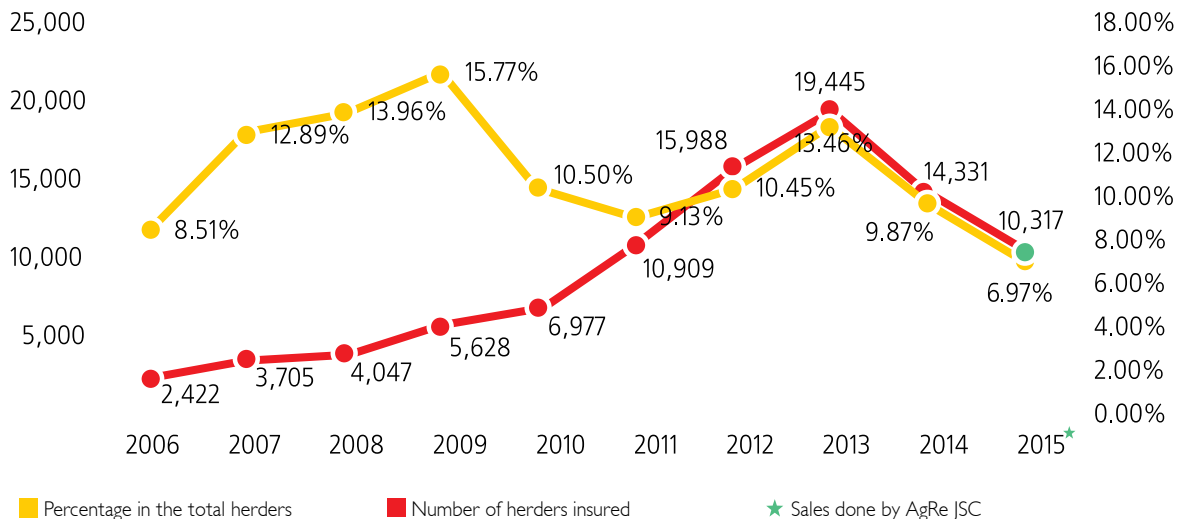


While the project was in its pilot phase, the project stakeholders, especially herders, had often stated that there was a need for establishing the legal and institutional framework for the index-based livestock insurance. In 2009, the Government of Mongolia and the World Bank reviewed the outcomes of the pilot project and decided to extend the project to a national level, adding few aimags each year. Consequently, the Amended Development Credit Agreement was approved by the Parliament on the 7th of July, 2010.



3.2 PROJECT IMPLEMENTATION

The Index-based Livestock Insurance Project has consistently met its goals and objectives in compliance with the Development Credit Agreement and the Project Implementation Manual. Since the beginning of project implementation, the Project implementation unit has organized nine sales seasons and provided nine indemnity payouts for the index-based livestock insurance. The number of insured herders and the amount of premium accumulated in the indemnity account varied over time showing growth in most years.



3.2.1. OUTCOME INDICATORS

By the end of 2015, about 94,000 herders (on cumulative basis) purchased an insurance policy and there are roughly 1,600 agents at the participating insurance companies to sell the livestock insurance policy. In the past, we have organized 206 training programs on the index-based livestock insurance, covering more than 6,200 people, including soum governors, soum deputy governors, food and agricultural specialist, bag governors, breeding veterinary specialists, and treasury specialists.

Outcome indicators		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of aimags covered by the project		3	3	3	4	9	15	21	21	21	21
Number of participating insurance companies	Target	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6
	Actual	3	4	4	4	4	4	5	7	7	6
Percentage of herders who bought IBLI	Target	5%	5%	10%	10%	15%	15%	15%	15%	15%	15%
	Actual	8.50%	12.9%	14%	15.9%	10.5%	9.13%	10.2%	13.6%	9.8%	6.9%
Percentage of herders who are aware of IBLI	Target	40%	70%	75%	75%	75%	75%	75%	75%	75%	75%
	Actual	51.9%	72.9%	76%	93.6%	87.3%	85%	85%	85%	85%	85%
Percentage of herders who obtained information from face-to-face training	Target	30%	40%	50%	50%	40%	40%	40%	40%	40%	30%
	Actual	81%	80.4%	84%	57%	53.6%	50%	46.2%	46.2%	46.2%	36%
<i>Net premium amount accumulated in the indemnity payment account /Operational costs are deducted and sent to each insurance company's account separately. /</i>		87,9 min	126,8 min	140 min	192 min	416 min	565 min	998 min	1,2 billion	951.4 min	922.4 min
Number of aimags that received indemnity payments		2	3	3	4	7	7	8	6	7	
<i>Total sum of indemnity payments to herders /PS: Due to the nature of index-based insurance, herders get insured this year but receive indemnity payments next year./</i>		1.1 min	378.8 min	389.7 min	1.8 billion	108 min	112 min	278.9 min	40.6 min	62.8 min	To be calculated in 2016
Percentage of indemnity payments received by eligible herders		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

3.2.2. PROJECT STAFF AND EQUIPMENT

The project has five components: index-based livestock insurance program, promotion and public awareness, institutional capacity building, monitoring and evaluation and project management. As of September 2013, there were 63 people working for the project on full-time basis. The Project implementation unit in Ulaanbaatar has a passenger vehicle and a team of 17 people, including a project director, coordinators, specialists, assistants and a driver. At the local level, four aimags had 3 staff members and 17 aimags had 2 staff members. Each aimag branch had 1 or 2 PCs, a printer, tables, chairs, a telephone, a fax machine and a Russian vehicle "UAZ-469". In accordance with the decision of the Project steering committee to close the branches in two phases, the first seven aimag branches were closed in March and April of 2014 and all of their assets were transferred either to Emergency management office or to Agriculture and SME unit of that aimag based on the order of the State Property Committee. Similarly, the last 14 aimag branches were closed in October 2014 and the assets were transferred to either of the two organizations mentioned above..





3.3. BILATERAL AND MULTILATERAL COOPERATION

Under the Index-Based Livestock Insurance Project, the Project implementation unit has developed not only bilateral cooperation with herders, individuals and insurance companies, but also multilateral cooperation with government and non-government organizations



THE GOVERNMENT OF MONGOLIA

The Government of Mongolia has started the establishment of a risk protection system for livestock sector since 2001 and carried out a study on the Mongolian insurance industry in collaboration with the United Nations, the World Bank and other international donor organizations. The results of the study led to the Development Credit Agreement with the International Development Association and the establishment of the index-based livestock insurance system. Going forward, it is stipulated in the law that the Government has specific roles and responsibilities in the implementation of this insurance system.



PROJECT STEERING COMMITTEE

The Project Steering Committee is a temporary, collective decision making unit responsible for providing guidance on the management and implementation of the Index-Based Livestock Insurance Project at a national level, overseeing the project's performance and supporting and coordinating initiatives of government and non-government organizations, companies and individuals to reduce livestock mortality risks and participate in the project's activities. From the very beginning of the project implementation, the Project Steering Committee has been a competent team of individuals representing government and academic organizations and insurance companies.



FINANCIAL REGULATORY COMMISSION

As a public administration organization responsible for supervision and regulation of commercial insurance industry, the Financial Regulatory Commission has provided its guidance, advice and assistance in setting prudential ratios for participating insurance companies and drafting agreements, rules and procedures related to the index-based livestock insurance. For example, a temporary rule on recording and reporting of index-based livestock insurance in supplemental financial statements was issued by the Financial Regulatory Commission's order No. 177 dated June 30, 2011.

During the project implementation period, the Project implementation unit has worked closely with the Financial Regulatory Commission to organize the certification of insurance agents, who work for insurance companies as the main channel of insurance sales at a soum level, by financing the cost of trainings for insurance agents, supplying with the necessary information and preparing examination tests.

NATIONAL STATISTICAL COMMITTEE



Each year, the National Statistical Committee conducts a mid-year livestock sample survey in the pilot aimags under the financing from the project and supplies the Project implementation unit with the information needed for calculating indemnity payments to insured herders. The Project implementation unit every year since 2007 has calculated and distributed indemnity payments to insured herders based on the mid-year livestock census results.

In addition, the Project implementation unit has provided support for many other tasks to improve the livestock data system, including introducing advanced data collection methodologies into the agricultural statistics, improving the forms used for livestock census, applying a questionnaire design to census forms, refining agricultural census indicators, establishing an integrated household database for livestock census at an aimag and a soum level and developing a software application to be used at a soum level.

As a result of this cooperation, all the livestock census indicators, including such balance items as income and expenditure of livestock and mid-year livestock numbers, are now registered at a household or a business entity level which facilitates the process of changing the year-end livestock census forms from table designs to questionnaires and ensures the correctness and reliability of beginning-of-year data for livestock number and mortality by species needed for the Project implementation unit.

AIMAG AND SOUM GOVERNOR'S OFFICE



Livestock husbandry is the main source of living for individuals in any soum or aimag. It is one of the major responsibilities for local government organizations to protect livestock from natural disaster risks. Local government organizations play an important role in explaining the benefits of index-based livestock insurance and providing insurance services for herders which requires great amounts of time and effort. Within this framework, the Project implementation unit has developed a close cooperation with aimag and soum governors, the governor's office, representatives of local councils and bag governors through training programs and information sessions. The cooperation with the local authorities covered various activities, such as providing reliable and adequate information for herders, supplying with the necessary data, organizing livestock census and conducting monitoring and evaluation studies. Each governor's office in 330 soums and 21 aimags used to have a cooperation agreement with the Project implementation unit. Under these cooperation agreements, aimag governor's offices provided an office room for branches of the Project implementation unit.

INSURANCE COMPANIES



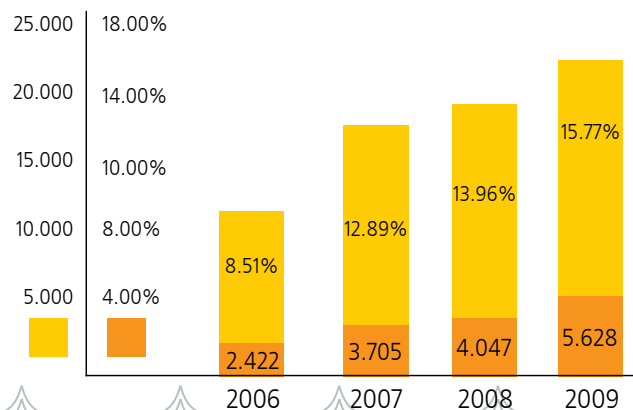
The first insurance organization in Mongolia was established in 1934. As the state ownership had prevailed in the livestock sector since 1963, the compulsory livestock insurance with a very low insurance value was implemented in all agricultural cooperatives even though herders had never received any indemnity payment. Insurance organizations concluded that livestock could not be insured because such insurance would be risky and unprofitable requiring high operational costs. Back then, there was a lack of financial resources to recover the loss when a natural disaster took place. Because of the factors above, both herders and insurance companies were skeptical about livestock insurance systems until the twenty first century.

The Index-Based Livestock Insurance Project created an opportunity to provide a new financial service in all aimags and soums through insurance companies. When an application from an insurance company to participate in the project is received, a working committee set up under the project implementation unit examines the application based on specific admission criteria and makes a recommendation to the Project Steering Committee if the company meets the admission criteria. The admitted company is then entitled to sell livestock insurance policies after signing a cooperation agreement with the Ministry of Finance and the Project implementation unit.

In the first sales season in 2006, Soyombo insurance (formerly Tushig insurance), Mongol insurance and Tenger insurance (formerly Prime insurance) executed the sale of livestock insurance products. The number of participating insurance companies has increased gradually with the addition of Bodi insurance in 2007, Monre insurance in 2012 and Nomin insurance and Practical insurance in 2013.

The participation in the index-based livestock insurance program provides insurance companies with an opportunity to expand their operations and improve their profitability by spurring their operations in local areas, opening up new branches and promoting other insurance products to herders and other individuals in that soum or aimag.

Insured herders, insurance companies, international reinsurance companies and the Government have a collective responsibility for the indemnification of the loss on insured herders' livestock. Spreading the risks among these stakeholders is an indispensable feature of risk diversification principle.



As livestock is a private property, herders should combat against their livestock mortality and bear the responsibility for their loss. If the loss is within the range to be borne by the insured herders, they do not get indemnity payment. Threshold is a percentage that sets a boundary between the risk to be borne by the insured and the risk to be borne by insurance companies. A part of the loss above this threshold but below the range to be borne by the Government is indemnified by insurance companies. This demonstrates how the Government supports insurance companies. Therefore, it is a form of government involvement to comply with the provision of the Constitution of Mongolia stating that livestock shall be under the protection of the State.



COMMERCIAL BANKS

Since the beginning of project implementation, there have been several initiatives to integrate banking and insurance services, coordinate operations of banks and insurance companies and provide innovative financial services to herders. For example, a discount of 0.2 percentage point on monthly loan interest rate is provided for herders who have a livestock insurance policy and KHAAN bank, State bank, XAC bank and Savings bank (formerly Mongol shuudan bank) have supported this discount program. During the lifetime of the project, 5561 insured herders took out 16.3 billion tugriks in loans from banks and enjoyed the discount of 392.8 million tugriks. Another example is a new loan product specially designed for herders who do not have cash to pay their livestock insurance premium. There were 430 herder households in the past who took this type of loan and their total loan amount was 63.5 million tugriks.



MONGOLIAN INSURERS ASSOCIATION

The Index-Based Livestock Insurance Project is a voluntary member of the Mongolian Insurers Association and has worked together with the association in several areas, including training of insurance agents, capacity building for insurance markets players and organizing the 80th anniversary of the Mongolian insurance industry.

As a capacity-building support to the association members, the Index-Based Livestock Insurance Project, in collaboration with the National Insurance Academy of India, organized a training workshop for insurers to develop underwriting manuals that would meet international standards. As a result of this training, underwriting manuals for property insurance, vehicle insurance and casualty insurance were prepared and submitted to the association and the Financial Regulatory Commission.



HERDERS

Herders and individuals with livestock are the main stakeholders of the Index-Based Livestock Insurance Project. They can purchase an index-based livestock insurance policy on a voluntary basis anywhere in Mongolia. The number of insured herders has consistently increased over time thanks to the systemic approach to promotion and public awareness activities to demonstrate the benefits of index-based livestock insurance. In the three pilot aimags, the attitude of herders towards the index-based livestock insurance had been evaluated by an independent monitoring agency each year. The evaluation concluded that over 90% of the herders in the three aimags were supportive. It has been observed that herders accept the index-based livestock insurance as a safe way to protect their livestock from dzud, a natural disaster.





4

OUTCOME AND IMPACT

4.1 PROJECT OUTCOME

Index-based livestock insurance is a mechanism that transfers some of the risks facing livestock sector to insurance industry. The implementation of the project has not been straightforward. A relatively inexperienced team at the Project implementation unit has succeeded in introducing the livestock insurance system nationwide and this success is attributable to the support and assistance from the relevant government organizations, the World Bank, insurance companies and international and local consultants.

Promoting the benefits of insurance to herders and having them buy insurance are the main indicators of the project implementation. Herders should truly understand the economic benefits of getting insured. When livestock, a major source of herders' livelihood, gets insured, herders are connected to the Government through a liability mechanism between them. This connection proved to be valuable as the purchase of insurance by herders provides opportunities for the Government to support the livelihood of local citizens, acquire deeper knowledge about their life and collect accurate information on their livelihood. Indeed, insurance of livestock allowed the creation of a large statistical database for herders that could be used by government organizations of any level, for example, to define the living standard of herders or calculate the exact number of their livestock. Advertisement and training programs to promote insurance services have been beneficial in that they provided a basic education of economics and finance for herders and other local individuals.

Project funding

Under the Amended Development Credit Agreement on the Index-based Livestock Insurance Project between the Government of Mongolia and the International Development Association of the World Bank, the project's funding consists of USD 17.3 million in development credits, USD 1.3 million in PHRD grants from the Government of Japan, USD 0.35 million in grants from the First Initiative, USD 0.7 million in grants from the Government of the Republic of Korea and USD 2.1 million in grants from the Swiss Agency for Development and Cooperation.

See Table 7 in the Appendices.

Based on the project implementation and performance, it can be said that the disbursement rate of project funding is 67%.

Note that this rate includes the use of funds from the development credit of the World Bank allocated for dzuds and other natural disaster events.

4.1.1 OUTCOME FOR HERDERS

During the project implementation period of 2006–2015, herders have paid 8.1 billion tugriks in insurance premium (including the operational cost of insurance companies) and received 3.2 billion tugriks as an indemnity payment. Herders have received differing amounts of indemnity payments depending on the insurance premium paid and the loss amount of each local area.

D.Lkhagva, a herder from Bayan-Ovoo soum, Khentii aimag



Quotes

Thanks to the insurance covering my livestock, the loss of livestock from a blizzard in last spring was fully recovered. I received indemnity payment of 22 million tugriks and recognize now the real benefit of index-based livestock insurance.

The Index-Based Livestock Insurance Project has organized ten sales seasons and nine settlement processes for indemnity claims in the period of 2006–2015. The increasing trend in the number of insured herders and premium revenue shows how effective and important the livestock risk insurance has been. Throughout the lifetime of the project, about 94,000 herders bought livestock insurance policies and 16,545 herders received indemnity payments. Of the total sum of indemnity payments, over 1 billion tugriks were financed from the Mutual risk fund, 235.6 million tugriks from the Government reserve account and 1.9 billion tugriks from the Contingent debt facility.

4.1.2 OUTCOME FOR STAKEHOLDERS

- The involvement of insurance companies in the Index-Based Livestock Insurance Project has encouraged them to expand their local presence by opening up a new branch or hiring more staff which ultimately improves the operational capacity and solvency of insurance companies and makes it easier for local people to get all types of insurance services on a regular basis and enjoy the benefits of insurance.

- During the period of 2006–2015, the livestock insurance has covered 21 aimags and 330 soums with the total number of insured herders reaching to 93,700. The system of distributing indemnity payments in full to herders without any delay has been set up and provided 3.2 billion tugriks in indemnity payments.
- In accordance with the Article 7 of the Law of Mongolia on Statistics that says the census of livestock and domestic animals shall be conducted every year, the National Statistical Committee organizes the nationwide livestock year–end census each year from December 7 to December 17.
- Under the technical assistance from the National Agricultural Statistics Service of the US Department of Agriculture to provide capacity building for the National Statistical Committee, the livestock sample survey methodology was introduced into the mid–year livestock census. This methodology is not only used for livestock census, but also for compilation of more detailed statistics on agricultural census (including yards, wells and equipment used in the agriculture). A special software application was developed with the introduction of the sample survey methodology and over 700 people, including aimag and soum statistics officers, soum treasury specialists, deputy governors and food and agricultural specialists, have been trained to use this software.
- The Index–Based Livestock Insurance Project has created over 4,000 permanent and temporary jobs (with overlaps) in Ulaanbaatar and 21 aimags. For example, 69 soums in the pilot 4 aimags used to have fulltime employees responsible for the index–based livestock insurance program during 2006–2009, but all of them were dismissed in the beginning of 2010 due to a lack of funding. As of 2015, there were 144 people at the Project

M. Jalavdorj
First deputy director,
MIG insurance LLC



Quotes

With the implementation of the Index-Based Livestock Insurance Project, the livestock insurance sales revenue reached 2 billion tugriks at its peak. Thousands of herders are interested in livestock insurance. Insurance companies have already established their reserve funds. Dzud or a natural disaster occurs frequently

and we have to be ready for this risk. This is the main characteristic of insurance business. The importance of the project lies in the establishment of reserve funds and expansion of insurance industry. On the other hand, herders felt that their assets were safe. They got used to receive indemnity payments too.

implementation unit, over 100 people at the branches of insurance companies and about 3,800 insurance agents (with overlaps) selling index–based livestock insurance policies on a part–time basis. The local consulting organizations of the project have created over 300 temporary jobs (face–to–face trainers, monitoring evaluation researchers, etc.) each year.

It has been one of the key objectives for the project lifetime to increase the capacity of the index-based livestock insurance system to finance the probable indemnity payments without the World Bank contingent debt facility. This capacity was 96 million tugriks in 2006, but it has increased to 5.6 billion tugriks by 2015.

The participating insurance companies have earned a profit of about 2 billion tugriks between 2006 and 2015.

The participation in the index-based livestock insurance program provides insurance companies with an opportunity to expand their operations and improve their profitability by spurring their operations in local areas, opening up new branches and promoting livestock insurance as well as other insurance products to herders and other individuals in that soum or aimag. By 2012, there were 72 branches of 5 insurance companies working in Ulaanbaatar and 330 soums of 21 aimags to provide all types of insurance services for herders and other individuals through their insurance agents. The number of insurance agents has grown year by year.

T.Batzul CEO, Mongol insurance LLC

Quotes



Insurance companies alone would never insure livestock if this project was not implemented. In the sense that it is indexed, the project succeeded in establishing a fair system for everyone to calculate the risk correctly. It established reserve funds and increased them to improve risk tolerance and provide indemnity payments. If the risk is not materialized, there is a potential to make a profit. Therefore, the Index-Based Livestock Insurance Project has naturalized livestock insurance in Mongolia. Moreover, there were many other benefits for insurance companies from the project, including establishment of bases in local areas, training and education of insurance agents and creation of new jobs

4.1.3 OUTCOME FOR INSURANCE INDUSTRY

- The passage of the law on index-based livestock insurance signifies the first independent law on voluntary insurance

- Previously, herders who lost their livestock in a dzud used to make requests for assistance to the government organizations and receive subsistence support hardly enough to make a living. With the livestock insurance system in place, insured herders recover a part of the loss through the index-based livestock insurance product. Many positive results have emerged from the project, including the first mutual risk fund in the insurance sector; increased participation and capacity of insurance companies and cooperation with established international reinsurance companies (SwissRe, QatarRe, SCOR, Canopus Asia Pte, etc.).

Ch.Davaajav
CEO, Practical insurance LLC and President of Mongolian Insurers Association

Quotes



Previously, we had cooperation with Mongol shuudan LLC to use their postal workers for providing insurance services. It was because they worked closely with local citizens, for example, to take subscription orders. Since 2013, we have contracted our own insurance agents. Even now, there are many postal workers who work as an insurance agent. The cooperation with Index-Based Livestock Insurance required us to have branches in local areas. We have now branches in every aimag. Each branch has a director, a manager and contracted agents and works well. In addition, we use banks and brokers to sell insurance products

- In the sales season of 2010, the Project implementation unit did an extensive research to get international reinsurance coverage on a part of risks to be borne collectively by insurance companies and concluded the first reinsurance contract with SCOR. The reinsurance coverage with SCOR had been further expanded in 2011 and 2012. In order to transfer some of the risks borne by the Government through reinsurance, another extensive research was done and SwissRe was the first reinsurance company to take a part of the risks from the Government in 2012. These contracts are important as they make the first steps to transfer the risks facing the livestock sector of Mongolia to international reinsurance communities.

B.Badamtsetseg Director of Policy implementation and coordination department,
National Statistical Committee

Quotes



One of the important achievements resulting from our cooperation with the Index-Based Livestock Insurance Project was the introduction of livestock census sample survey methodology into agricultural sectors in the form that is suitable to bags, soums and aimags.

Moreover, the Index-Based Livestock Insurance Project has provided the necessary software application for this methodology with the National Statistical Committee. We now process our data using this software and provide information for other sectors. In general, it should be noted that the project has provided the full support for capacity building of statistical organizations, including knowledge transfer and supply of equipment

- Since the very beginning of the project implementation, the Government reserve account was created to recover a certain share of the losses incurred by insured herders. The total sums of indemnity payments in 2007, 2008 and 2009 were above the combined amount of the mutual risk fund and the Government reserve account and the deficit was funded from the Contingent debt facility of the World Bank; however, the Government reserve account has steadily increased in the subsequent years between 2010 and 2015, totaling to 2.1 billion tugriks.

D.Lkhagvadorj
Member of Project steering committee and Teacher of Agriculture and economics department, Economics and business school, Agricultural University of Mongolia



Quotes

Most of employees working in public administration, financial and business sectors are the alumni of our university. Thus, we teach a course on index-based livestock insurance in two of our departments to educate students who will work in the rural areas. Occasionally, the project staff and the World Bank specialists give us lectures

B.Biniye, Ph.D Director, Puzzling Key of Development, a center for agricultural training and information



Quotes

There have been several unsuccessful attempts to have a law on livestock insurance since 1990. Thanks to the project, the index-based insurance has now an independent law. Any act that takes money out of people's pocket should be based on the law. Second, it makes the responsibilities clear. Insurance companies take the responsibilities as they collect premium. The State has its own responsibilities too. Any dispute will be solved based on the law. The project without a law was a challenge. It is only Mongolia in the world that first implemented this type of insurance. The results were very good.

One of the important aspects in the successful and consistent implementation of the index-based livestock insurance program is the calculation of livestock mortality rates in a quick, accurate and cost-effective manner. To ensure the timely and accurate calculation of livestock mortality rates, mid-year livestock census is carried out in 21 aimags and Ulaanbaatar every year.

4.2 PROJECT IMPACT

Objective.

The objective of the Annual Field-Based Monitoring 2015 is to monitor every direction of the Index-Based Livestock Insurance Project's activities, assess the quality and performance of project implementation, reveal the qualitative aspects of the attitude and behavior of beneficiaries/stakeholders and study the impact accruing since the beginning of the project.

Scope.

To ensure the evaluation accuracy, the consultant team surveyed 1046 herder households in 52 soums of the selected 11 aimags, organized focus group discussions and forums with 1200 people representing herders, individuals and the public and interviewed about 280 key officials, including chairmen of soum local councils, soum governors, deputy governors, treasury specialists, heads and specialists of breeding and veterinary divisions, bag governors, insurance agents, bank officers, directors and employees of aimag branches of insurance companies, officers of aimag statistics divisions and branch staff of the Index-Based Livestock Insurance Project.

Changes and impacts on stakeholders' behavior and attitude:

Thanks to the implementation of the Index-Based Livestock Insurance Project, there have been significant changes and effects in the operations of local administration, citizens, herders and insurance firms in soums. In particular, there have been noticeable changes in herders' mindset, their understanding about insurance as well as in the quality of administering livestock census in soums. Besides, the project has provided a positive influence on insurance firms as it helped improve the firms' work conditions to operate locally and restored their reputations.

1.1 Changes in herders' attitude on insuring their livestock, their understanding about general insurance and index-based livestock insurance and access to loans:

Thanks to the project, herders were given the full opportunity to get covered by livestock insurance against the risk from dzud.

- Herders in all soums and districts were given the full opportunity to get covered by index-based livestock insurance voluntarily. Within the framework of the project, the principles and methodology of index-based livestock insurance were introduced and a new livestock insurance system that is suitable to our country's nomadic lifestyle was built and legalized.

Herders' knowledge and understanding about general insurance and index-based livestock insurance improved to the next level.

- Within the framework of the project, face-to-face trainings were organized among herders in all project-implementing soums, and herders, citizens, authorities and officials of aimags and soums improved their knowledge and understanding about index-based livestock insurance. 57.4% of them have gained positive attitude toward insurance; 32.1% of herders who participated in the survey say that they have understood livestock risk insurance and the importance of having livestock insurance. This shows trainings were

effective to a certain extent and brought a positive change in their understanding about insurance.

- Annual monitoring reports show that 8.5%– 15.5% of herders in the aimags covered by the project buy livestock insurance every year. This shows that herders have understood the need for index-based livestock insurance and developed the mindset to buy livestock insurance on their own.

Establishing an immediate indemnity payment system and a real-life demonstration of it by making timely payment to the insured in each occurrence of livestock loss, have restored herders' trust.

- In 2007–2014, after the livestock loss occurred in the soums covered by the project, indemnity payments were made 100% without delay, and this has restored herders' trust in insurance

Thanks to the access to discounted-interest rate loans for insured herders, most of them now have higher solvency and have improved their livelihoods.

- In the framework of the Index-Based Livestock Insurance Project, measures to expand the range of financial services for herders were taken in collaboration with banking and financial institutions to improve herders' solvency. Particularly, measures such as loans for insurance premium and loan interest rate discounts given to insured herders have shown to be effective. During the period of the project implementation, KHAN bank, Mongol shuudan bank, XAC bank and State bank gave such incentives to insured herders. Following this example, several savings and loan cooperatives and non-banking financial institutions in some soums also started giving similar loan incentives to insured herders.

With the implementation of the Index-Based Livestock Insurance Project, the number of savings accounts owned by herder families at bank branches in all soums and aimags have increased in proportion to the number of herders who got covered by livestock insurance.

- Starting from 2006, current accounts were opened for herders who bought an index-based livestock insurance policy. This enabled herders to receive an indemnity payment into their own accounts, and by 2015, all herders use their current accounts to make transactions.
- As herders placed a large amount of indemnity payment into their savings accounts, the number of banks in soums and the number of herders who have savings accounts at savings and loan cooperatives and non-banking financial institutions have increased from year to year.

The cooperation among herders has improved.

- Thanks to the face-to-face trainings under the project, most herders understand what the index-based livestock insurance is all about. However, most of them tend to make decisions to get livestock insurance based on information they got from other herders or their observation of rich and respected herders' attitudes toward index-based livestock insurance.

- 10 percent of herder families participated in the survey said that they got information about the index-based livestock insurance from herders in their own or neighboring soums. This shows that herders communicate with other herders and exchange information to find out more information about the index-based livestock insurance

1.2 Changes in the capacity of government organizations in aimags and soums:

In order to reform the traditional methodology of livestock census, a new, effective methodology was introduced under the Index-Based Livestock Insurance Project and it is now being implemented successfully.

- Pilot testing of the sample survey methodology used for livestock census was successful and soum authorities confirm the suitability of this method. The methodology created favorable conditions to carry out a quality livestock census twice a year and the personnel were trained on the use of this methodology. As a result, the quality of administering livestock census has improved at a soum level and the accuracy level of livestock census data reached to 98%.
- The quality control of livestock census has improved as the year-end and mid-year livestock censuses are now confirmed with the results of control groups at a soum (a team led by the soum governor) and an aimag (organized by the aimag's statistics division) level. 84.9% of herders participated in the monitoring survey say that the quality of livestock census is acceptable and 79.0% say they get used to reporting their livestock mortality on a regular basis. This shows that the quality of livestock census has improved.
- The renewal of forms used for livestock census and introduction of a software program to aggregate the soum level data along with appropriate training programs have had positive influence on the improvement of the soum-level databases of livestock sector, agriculture and socio-economic information. This, in turn, allows for more accurate and comprehensive data at an aimag and a national level.
- 98.74% of soum authorities who participated in the monitoring survey view that the mortality calculation methodology introduced under the Index-Based Livestock Insurance Project is suitable and applicable to local circumstances.

In the project implementation period, aimag and soum staffs who participate in livestock census and livestock insurance were adequately educated and trained.

- Under the project implementation, officials, including aimag and soum governors, bag governors, deputy governors and food and agriculture specialists in all aimags and soums attended a capacity building training on the index-based livestock insurance and new livestock census methodology

1.3 Changes in the performance of insurance companies at an aimag and a soum level:

- Training for insurance agents is conducted every year and total of 11,000 people (with overlaps) attended the training for the past 10 years. 2,454 insurance agents were licensed to sell the livestock risk insurance product in 2015 and earned a certain level of income which had a positive effect on their livelihood.
- The introduction of the livestock risk insurance product has led the branches of 6 insurance firms to expand their operations into all soums, aimags and Ulaanbaatar which brought insurance services closer to herders and improved their understanding about insurance.
- In each aimag, there are branches of 4–6 insurance firms that organize and coordinate the sales season of the index–based livestock insurance. During the project implementation, Prime insurance, Bodi insurance, Mig insurance, Tenger insurance and Practical insurance opened new branches in some aimags and set up their offices, vehicles, telecommunication and other infrastructure. The branches are equipped to meet the basic working requirements..

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SUMMARY OF IMPACT EVALUATION REPORT BY CENTER FOR SOCIAL WORK EXCELLENCE

Objective.

The objective of the impact assessment was to conduct the impact assessment of the Index–Based Livestock Insurance Project's pilot activities through its development and offering of index based livestock mortality insurance to herding households [and]... to seek to attribute and estimate the contribution of the project toward the improvement in herder livelihood and risk management conditions and to compare the result with the desired outcomes.

Scope.

When selecting the sample size, its representativeness of the all herder households in Mongolia was considered. Specifically, 599 insured herder households in 5 soums of 18 aimags were randomly chosen from the list of herders who bought the insurance at least once using a stratified random sampling and then another 599 herders households who lived in the same soum and had the same number of family members and livestock but never bought the insurance were selected using a propensity score matching. Under this matching, the number of

family members (on average, 4 and the number of adult is 2.4) and the locational proximity (149 km from the aimag center, 39 km from the soum center, 31 km from winter base and 28.5 km from spring base) were equal for both insured and uninsured herder households.

The first data collection from the sampling households was done in the autumn of 2014 and the second data collection was done in the autumn of 2015. The information on the herder households before and after the dzud in 2009–2010 was also collected.

The collected data was processed using a difference in difference method to determine the difference of difference between the two groups: insured and uninsured. The logistic regression and multiple logistic regression analyses were also used to define the difference.

MAJOR FINDINGS:

What is the causal effect of purchasing insurance on herder household livestock numbers?

- Livestock numbers have grown over time and have contributed to mounting pressure on rangeland resources since the granting of open access following liberalization. There are currently a number of development projects addressing rangeland degradation and the impact of insurance in contributing to rangeland pressure is an important policy question. When converted the total livestock of herders to a sheep unit, herd size increased by 24% for Insured herders, and by 19% for non-Insured herders.
- Moreover, there has been an effect of purchasing insurance on the species mix of livestock. The dzud affected insured and uninsured herder households equally. However, it can be seen from the difference in difference of total livestock numbers of insured and uninsured herder households between 2009 and 2014 that insured herders have increased their horses ($\beta_3=1.937$), cattle ($\beta_3=2.258$) and sheep ($\beta_3=23.202$) more than uninsured households have. There was no significant difference in the growth rates of camels of both groups whereas the growth rates of goats were similar.

This is about the composition of assets or capital stocks in response to financial risk sharing mechanisms. Animal species such as goats and sheep are hardier than cattle and horses and might be expected to comprise the largest share of livestock assets in the presence of environmental risk. Most commonly insured animals are cattle and goats as these have the poorest survival in bad weather. Typically sheep and horses survive reasonably well. The higher the risk, the higher the insurance premium. Therefore cattle and goats are also more expensive to insure. If the insurance product is viewed as effectively substituting for this risk management strategy then one would expect a change in livestock composition (herding more large animals). Another option would be to assess the quality of the stock – herders who select for quality over quantity (ie. improved breeds rather than a simple focus on numbers) will have less negative impact on the environment.

- Herder households who bought insurance tend to pay attention more to the quality than to the quantity of their livestock as they can now keep the number of their livestock at an appropriate level. Compared to uninsured herder households, insured households were 1.57 times more likely to purchase high-productivity breeds of livestock. The number of herder households who have taken measures to improve the quality of their livestock in the last 5 years or after the dzud of 2010 was 6% higher in insured households than in uninsured households.

What is the causal effect of purchasing insurance on the household income from herding ?

- The impact on household income from herding was estimated using income from the sale of wool, cashmere, meat and livestock and the production of milk and milk products. Insured herder households earned more income from the sale of live cattle, mutton and camel wool than uninsured herder households had.

What is the causal effect of purchasing insurance on household wealth, savings and access to financial services?

- The economic capacity and wealth accumulation of insured herder households have increased. Increases in investment, wealth accumulation and consumption lead to improvement of living standards and eventually to increased capacity of households to overcome risky economic situations. Insured herders were more likely to purchase five of the eighteen types of assets than uninsured herders. Insured herders were 1.62 times more likely to purchase a water pump for a well, 1.27 times more likely to purchase a satellite dish, 1.30 times more likely to purchase a refrigerator, and 1.42 times more likely to purchase a home or apartment. These findings are consistent with our hypothesis that having insurance frees up capital for herders to invest in asset-building. The types of assets purchased by herders suggest a mix of additional investment (a water pump and a house) and a higher standard of living (a satellite dish and refrigerator).

The access to loan and leasing services was improved as the opportunity for insured herder households to get a loan using their livestock as collateral increased.

- Compared to uninsured herder households, insured herder households had 6% more access to bank loans, 6% more use of livestock as collateral and 6% less households who never took a bank loan in the last 5 years. The access of herders to loans and financial services is of great significance to the development of livestock sector.

The index-based livestock insurance has had positive influence on the increased agricultural investment and improved livelihood of insured herder households.

- According to the Livestock Sector Study of the World Bank, herders didn't have resources necessary for overcoming and protecting from environmental and financial risks even though they foresaw a weather and climate difficulty. The index-based livestock insurance has had positive influence on the increased wealth accumulation, higher standard of living and improved livelihood of herders. This increases their chances to overcome the environmental and economical risks

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SUMMARY OF IMPACT EVALUATION REPORT BY GERMAN INSTITUTE FOR ECONOMIC RESEARCH?

Does Index Insurance Help Households Recover from Disaster.

Objective.

Our research explores the causal effects of receiving indemnity payments of the index-based livestock insurance on households' post-disaster livestock recovery.

The aim of our analysis is to provide evidence on the beneficial effects of index insurance after a weather shock in a developing country.

Scope

We analyzed the effect of indemnity payments of index-based livestock insurance after a once-in-50-year winter disaster struck Mongolia over 2009/10. Our analysis builds on three waves of herder household panel surveys (between June 2012 and May 2013, between June 2013 and May 2014, and between June 2014 and May 2015) and the data are collected in the three neighboring aimags of Uvs, Zavkhan, and Govi-Altai in western Mongolia...

When the dzud disaster of 2009/10 occurred, the index-based livestock insurance was still in its pilot stage and only available in one of the three survey aimags. We match treated households living in the aimag where the index-based livestock insurance was available in 2009 with control households living in the two other aimags where the index-based livestock insurance was not yet offered...

Our analysis builds on three waves of the Coping with Shocks in Mongolia Household Panel Survey in collaboration with the National Statistical Office of Mongolia. Our sample comprises 59 treated households and 583 control households living in 49 out of 61 soums of these three aimags...

The survey questionnaire collects detailed information on the demographics of each household member, household consumption expenditures, income, assets, subjective well-being, social networks, livestock holdings and strategies in herding as well as infrastructure and environmental conditions in the soum. One questionnaire module focuses specifically on households' exposure to the 2009/10 dzud and post-dzud coping strategies applied.

Another questionnaire module records detailed information on the index-based livestock insurance from all herding households...

Negative impact of dzuds on herders.

...The socio-economic consequences of the 2009/10 dzud were numerous. Some 40 percent of all herding households lost more than half of their herd (UNDP and National Emergency Management Agency 2010, p. 41). Many households were pushed below the herd size of 100 animals, which is considered the minimum necessary for sustaining a pastoralist livelihood in the long term. A sizeable number of impoverished herders moved as distress migrants to urban centers in search of employment (Sternberg 2010). The food security of severely affected households was threatened (IFRG and MRCS 2010). In turn, malnutrition experienced during the dzud months had lasting impacts on the human capital of children from herding households: Children who lived in severely affected regions were significantly shorter three years after the dzud compared to same-aged children living in less affected regions (Groppo and Schindler 2014).

Impact of the project implementation.

Shortly after its implementation in pilot areas in 2006, the index-based livestock insurance had already created a sufficiently high demand (above 20 percent in some provinces) for it to be scaled up to the national level in 2012. It is the only index insurance scheme to date that has been transferred into an independent commercial insurance company. In contrast, most index

insurance schemes that are implemented in developing countries are still in the pilot stage (Carter et al. 2014).

So far, most of those schemes are either implemented on a small scale or heavily subsidized and thus not commercially viable. Almost all schemes struggle with low uptake (Binswanger–Mkhize 2012; Carter et al. 2014; Miranda and Farrin 2012)...

Effect of indemnity payments of index-based livestock insurance on shock recovery

...Results show an overall positive effect of the indemnity payments of the index-based livestock insurance on post-disaster livestock recovery after controlling for selection based on observables. Herders who purchased the index-based livestock insurance in 2009 and received indemnity payments in autumn 2010 have a larger herd size in 2011, 2012, and 2013 compared to herders who did not purchase the index-based livestock insurance...

The magnitude of the treatment effect is relatively large: In 2011, treated households own on average 15 to 16 percent more livestock than control households; in 2012, they own between 22 percent and 27 percent more livestock; and in 2013, they own about 17 percent more livestock...

It can be seen that the positive effect of the indemnity payments appears to attenuate three years after the shock.

...However, when asked to assess how helpful the indemnity payments were, most treated households in our sample were very satisfied. Of the 59 sample households that had purchased the index-based livestock insurance in 2009, 44 households (75 percent) indicated that they found the indemnity payments helpful to manage the consequences of the dzud, compared to 14 households (24 percent) indicating that they found the indemnity payments either too small or coming too late. In fact, the majority of households that received indemnity payments in 2010 continued purchasing the index-based livestock insurance in the post-dzud period: Of the 59 treated households, 37, 37, and 14 households purchased the index-based livestock insurance again in 2012, 2013, and 2014.

...Descriptive statistics indicate that treated sample households used the indemnity payments of index-based livestock insurance mostly to cover household expenses. A large share of treated sample households – 43 households (73 percent) – used the indemnity payments received in 2010 to buy food and other household necessities. Eight households (14 percent) used the indemnity payments to cover education and health expenses. Only 13 households (22 percent) reported using the indemnity payments for investments in livestock activities, such as buying livestock fodder and improving shelters. Surprisingly, none of the treated households reported using the indemnity payments to restock the herd. Interestingly, nine households (15 percent) used the indemnity payments to pay back a loan.

Conclusion

Our analysis tests if the indemnity payments of index-based livestock insurance helped insured herders to recover their herd size faster than non-insured herders. Our empirical strategy exploits the phasing-in of the index-based livestock insurance scheme.

Pastoralist households purchasing the index-based livestock insurance before the shock recovered faster from shock-induced asset losses than comparable non-insured households. We find a significant, positive and economically large effect of indemnity payments of index-based livestock insurance on herd size both one and two years after the shock. In the medium term – three and four years after the shock – the effect is still visible but narrowing. These findings, obtained with the bias-corrected matching estimator, hold both when using livestock holdings in the post-shock period and cumulative growth rates in livestock. Results are also robust to varying the number of matches per observation, the choice of covariates, and to the usage of alternative double robust estimators.

An analysis of shock coping strategies as well as complementary qualitative interviews conducted in the field suggests that herders benefit from indemnity payments of index-based livestock insurance through two channels:

1. On the one hand, indemnity payments are used to cover expenses for food, education, and health. Herders can thus avoid selling and slaughtering animals and smooth their productive asset base.
2. On the other hand, the index-based livestock insurance appears to have relieved households from credit constraints, which may have been used to purchase new livestock. Access to credit appears to be a positive side-effect of index-based livestock insurance on rural financial markets.

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4.3 OUTLOOK FOR THE FUTURE

4.3.1 CREATING CONDITIONS FOR PROTECTIVE RECOVERY IN LIVESTOCK SECTOR

The pilot testing of an index-based livestock insurance system by the Government of Mongolia in collaboration with the World Bank has been valuable in establishing a protection mechanism for livestock sector against natural disaster risks. The livestock number grows considerably under favorable climate conditions but decreases significantly when a dzud takes place. The Government has been an active player to overcome this vulnerability of the livestock sector characterized by ups and downs. As the risks cannot be eliminated by the Government alone, the solution requires cooperation among the Government, insurance sector and other sectors. There is a need for new and improved financial services specifically tailored to herders. Policies focused on people rather than problems, such as social and cultural

services at a bag and soum level, have been well forgotten which is the main reason for migration from rural areas to urban centers. The conditions for risk mitigation and protective recovery of livestock sector can be created only after solving all of these problems simultaneously..

4.3.2 Agricultural Reinsurance JSC

Under the index-based livestock insurance system, insurance companies and the Government of Mongolia provide indemnity payments to insured herders if the soum mortality rate is above the preset threshold. Indemnity payment is paid from a mutual risk fund where all insurance companies deposit premium revenue from herders. If the fund is not sufficient to pay all indemnity claims, the shortage is paid from the Government reserve account and then from reinsurance coverage.

Agricultural Reinsurance JSC is going to be responsible for the activities that have been done by the Index-Based Livestock Insurance Project in 2005–2015.

According to the Article 18 of the law on index-based livestock insurance, a reinsurance company should be licensed as required under the law on insurance, for-profit joint stock company with specific functions to undertake livestock reinsurance activities and the member of the Government in charge of finance should implement the state ownership representation in the company.

In compliance with the law on index-based livestock insurance, Agricultural Reinsurance JSC was established by the Government order No 280 dated 28 August 2014.

Mission

The mission of Agricultural Reinsurance JSC is to contribute to the development of agricultural, insurance and financial industries of Mongolia through offering of reinsurance services.

Goals

- ✓ Refining the insurance system that protects the livelihood of herders from dzud risks;
- ✓ Being the trendsetter in the Mongolian reinsurance industry;
- ✓ Strengthening the financial capacity of domestic reinsurance;
- ✓ Ensuring the sustainability in financial growth and market existence;
- ✓ Being the bridge for international reinsurers and developing international business relations;
- ✓ Delivering agricultural insurance products tailored to customers' needs;
- ✓ Preparing competent human resources in insurance industry.

Agricultural Reinsurance JSC will continue the cooperation with commercial insurance companies developed under the Index-Based Livestock Insurance Project.

5

APPENDICES

5.1 LAW ON INDEX-BASED LIVESTOCK INSURANCE

The Government of Mongolia has laid the foundation of sustainable operations of the index-based livestock insurance system through the adoption of the law on index-based livestock insurance by the Parliament of Mongolia.

Rationale of the law on index-based livestock insurance

The legalization basis of index-based livestock insurance system is the statement in the Provision 5 of the Article 5 of the Constitution of Mongolia that says livestock is national wealth and shall be under the State protection.

The Government of Mongolia introduced the draft law on index-based livestock insurance on December 26, 2013 and the Parliament passed the law on June 13, 2014.

The law on index-based livestock insurance has 6 chapters and 29 articles.

Principles of index-based livestock insurance

- Choosing insurance coverage on the voluntary basis;
- Insuring livestock within territory of soum where the livestock is counted;
- Insuring livestock by each species;
- Determining livestock mortality rate at a soum level;
- Calculating indemnity based on an index.

Herders can voluntarily choose any insurance value that is not higher than the combined total market value of their livestock at hand. Insurance premium rates differ by the species of livestock and are set jointly by insurance companies participating in the mutual risk fund in accordance with the regulations approved by the Financial Regulatory Commission.

Soum livestock mortality rates and thresholds

Mortality of adult livestock is the mortality number for adult livestock (excluding newborns) for the period between the beginning of respective year and mid-year livestock counting. Mortality rate of livestock in the soum means the mortality rate of adult livestock estimated based on the official results of year-end and mid-year livestock counting.

In the law, the first threshold for soum mortality is set at 6% and the second threshold at 30%.

The Government has a right to update the thresholds by species and soums every three years in consideration of soum mortality rates, number of insured herders, premium revenue and indemnity payments. When updating the threshold, the Government can increase or decrease the first threshold by one percent and the second threshold by five percent.

Determination of livestock mortality and indemnity payouts

According to the law, the National Statistical Committee should calculate the livestock mortality count in the soum based on the results of mid-year livestock counting for the current year and the mortality rate in soum per species by dividing the mortality count with the number of livestock counted in the end of previous year and report to the public through media.

It is considered as the occurrence of insurance event if the soum mortality rate reported to the public is higher than the first threshold set by the Government and the insurer should provide indemnity payments for the insured herders through banks.

Risk levels:

In consistency with the livestock mortality threshold set by the law, the risk layers are classified into three groups: low risk layer, mid risk layer and high risk layer.

- Since livestock is a private property, herders are responsible for their loss when soum mortality rate is below 6% or within the low risk layer. In other words, lawmakers considered that herders could overcome the mortality loss of up to 6%.
- Insurance companies that provided insurance for livestock and received the premium from herders are responsible for the mid risk layer or the loss between 6% and 30% and the indemnity payment is paid from the Mutual risk fund when an insurance event occurs.
- The Government (through the reinsurance company) is responsible for the high risk layer or the loss above 30% and the indemnity payment is paid from the reinsurance company's reserve funds (risk protection fund and loss protection fund) and the state budget.

The law states that the Government should establish a reinsurance company with private and public ownership. The reinsurance company should follow the market principles in its operations and can increase its equity.

5.2 PROJECT INDICATORS

NUMBER OF INSURED HERDERS

Table 1

№	Aimag	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*	Нийт
1	Arkhangai	-	-	-	-	-	-	2,061	2,896	2,382	613	7,952
2	Bayan-Ulgii	-	-	-	-	-	-	369	514	381	242	1,506
3	Bayankhongor	947	1,708	1,903	2,444	1,883	2,613	3,583	3,603	2,799	2,630	24,113
4	Bulgan	-	-	-	-	75	170	272	469	533	258	1,777
5	Govi-Altai	-	-	-	-	945	1,116	1,321	1,332	610	357	5,681
6	Govisumber	-	-	-	-	-	-	91	116	30	23	260
7	Darkhan-Uul	-	-	-	-	112	60	104	60	8	32	376
8	Dornogovi	-	-	-	-	-	378	570	804	727	459	2,938
9	Dornod	-	-	-	-	-	269	443	571	438	184	1,905
10	Dundgovi	-	-	-	-	-	135	269	353	348	478	1,583
11	Zavkhan	-	-	-	-	537	907	1,171	1,334	1,220	539	5,708
12	Orkhon	-	-	-	-	-	-	35	80	12	19	146
13	Uvurkhangai	-	-	-	-	-	128	759	549	500	269	2,205
14	Umnugovi	-	-	-	-	-	-	183	664	378	121	1,346
15	Sukhbaatar	-	-	-	273	648	853	590	635	536	362	3,897
16	Selenge	-	-	-	-	100	310	400	423	523	233	1,989
17	Tuv	-	-	-	-	-	-	158	720	529	432	1,839
18	Uvs	1,195	1,431	1,391	1,835	1,754	2,637	2,329	2,646	1,410	1,408	18,036
19	Ulaanbaatar	-	-	-	-	-	-	-	3	-	-	3
20	Khovd	-	-	-	-	-	231	456	485	335	256	1,763
21	Khuvsgul	-	-	-	-	-	417	204	382	128	484	1,615
22	Khentii	280	566	753	1,076	923	685	624	808	504	947	7,166
Number of insured households		2,422	3,705	4,047	5,628	6,977	10,909	15,992	19,447	14,331	10,346	93,804

AGGREGATE LIVESTOCK INSURANCE VALUE

Table 2

№	Аймаг	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Нийт
1	Архангай							3,373,779,809	3,296,763,617	2,548,181,869	843,561,937	10,062,287,232
2	Баян-Улгий							992,036,079	1,968,971,766	1,425,288,484	819,315,263	5,205,611,592
3	Баянхонгор	3,426,767,428	8,664,522,100	10,261,455,700	8,610,375,360	3,717,776,249	4,159,301,479	6,019,420,674	5,845,690,487	4,640,635,042	4,878,388,142	60,224,332,661
4	Булган					470,821,282	383,379,735	796,351,472	1,436,887,377	1,191,801,899	795,599,155	5,074,840,921
5	Говь-Алтай					2,456,467,761	2,786,221,392	3,811,809,562	2,530,416,521	1,484,084,040	1,010,062,855	14,079,062,130
6	Говьсүмбэр							950,278,050	489,221,296	192,360,000	158,948,310	1,790,807,656
7	Дархан-Уул					1,211,471,190	835,015,000	1,228,340,500	455,520,712	152,739,631	347,196,000	4,230,283,033
8	Дорноговь						2,155,217,638	2,899,168,891	3,818,161,261	3,179,857,993	1,862,887,454	13,915,293,237
9	Дорнод						1,182,945,720	1,394,950,786	2,688,841,467	1,831,489,703	1,026,677,041	8,124,904,716
10	Дундговь						510,674,700	1,178,895,883	1,391,096,655	1,322,968,959	1,498,472,750	5,902,108,947
11	Завхан					1,358,735,102	1,558,028,140	2,304,375,071	1,844,671,658	1,317,461,690	903,174,700	9,286,446,361
12	Орхон							128,588,019	149,938,135	63,520,600	155,251,299	497,298,053
13	Увурхангай						251,409,318	751,633,940	689,716,818	796,229,317	480,347,447	2,969,336,840
14	Увс							272,579,988	2,495,189,512	382,788,791	133,105,046	3,283,663,337
15	Сүхбаатар					1,558,164,978	2,938,656,060	1,965,262,655	2,748,337,548	2,173,578,439	1,721,435,590	15,637,907,183
16	Сэлэнгэ					639,580,667	1,206,120,098	1,166,790,072	741,992,256	822,369,402	660,936,231	5,237,788,726
17	Төв							853,123,888	1,686,241,833	1,047,869,610	1,042,547,427	4,629,782,758
18	Увс					3,250,853,890	3,811,232,717	3,384,974,000	3,115,945,141	2,671,689,156	3,138,945,400	40,613,260,535
19	Улаанбаатар								1,148,612	3,500,000	-	4,648,612
20	Хөвд						1,174,134,977	1,899,062,233	2,236,433,133	1,266,032,041	1,023,813,225	7,599,475,609
21	Хувсгүл						945,172,132	636,530,756	616,468,483	326,663,979	1,193,659,910	3,718,495,259
22	Хэнтий					1,373,510,745	3,711,316,000	5,205,208,706	3,786,026,836	2,146,700,896	2,038,462,158	29,159,800,825
	Total	8,051,132,063	16,187,070,817	18,851,638,406	17,070,512,025	19,125,210,025	28,395,958,667	41,514,368,244	44,205,440,995	30,019,031,532	27,827,073,159	251,247,436,224

NUMBER OF INSURED LIVESTOCK

Table 3

Аймаг	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Нийт
Arkhangai	-	-	-	-	-	-	375,727	534,255	629,487	193,883	1,733,352
Bayan-Ulgii	-	-	-	-	-	-	26,771	73,064	82,893	59,075	241,803
Bayankhongor	116,666	238,761	270,460	444,933	295,055	364,604	549,919	615,064	631,445	631,142	4,158,049
Bulgan	-	-	-	-	12,687	15,447	24,167	67,761	68,225	37,933	226,220
Govi-Altai	-	-	-	-	112,052	127,749	167,317	222,845	145,909	95,710	871,582
Govisumber	-	-	-	-	-	-	17,727	23,669	7,354	4,849	53,599
Darkhan-Uul	-	-	-	-	8,305	8,756	9,618	4,446	1,537	4,537	37,199
Dornogovi	-	-	-	-	-	66,520	81,051	131,343	108,171	77,217	464,302
Dornod	-	-	-	-	-	46,206	66,767	95,624	87,410	43,391	339,398
Dundgovi	-	-	-	-	-	16,629	44,141	73,159	68,406	99,561	301,896
Zavkhan	-	-	-	-	94,850	160,241	242,918	328,411	313,050	221,472	1,360,942
Orkhon	-	-	-	-	-	-	5,348	12,194	4,321	2,138	24,001
Uvurkhangai	-	-	-	-	-	12,467	86,041	110,610	121,283	86,908	417,309
Umnugovi	-	-	-	-	-	-	23,042	136,286	79,462	34,291	273,081
Sukhbaatar	-	-	-	47,257	119,053	167,107	149,145	190,030	179,534	143,499	995,625
Selenge	-	-	-	-	11,792	45,400	46,015	44,058	64,796	40,767	252,828
Tuv	-	-	-	-	-	-	20,196	169,686	175,989	181,294	547,165
Uvs	142,228	145,801	142,607	187,173	237,397	322,760	330,929	399,482	293,608	312,296	2,514,281
Ulaanbaatar	-	-	-	-	-	-	-	181	-	-	181
Khovd	-	-	-	-	-	44,015	59,817	80,564	70,125	65,300	319,821
Khuvsgul	-	-	-	-	-	47,878	26,569	24,064	18,971	80,727	198,209
Khentii	33,325	53,091	80,556	109,675	146,111	108,075	109,065	154,362	105,719	247,428	1,147,407
Нийт	292,219	437,653	493,623	789,038	1,037,302	1,553,854	2,462,290	3,491,158	3,257,695	2,663,418	16,478,250

INSURANCE PREMIUM PAID BY HERDERS

Table 4

Nº	Aimag	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
1	Arkhangai					151,554,042	151,374,333	118,737,735	39,492,677	461,158,787		
2	Bayan-Ulgii					26,038,192	40,780,803	38,933,922	22,681,642	128,434,558		
3	Bayankhongor	54,549,841	95,507,345	91,494,067	157,882,100	196,906,257	217,361,803	351,083,673	385,732,410	316,372,447	335,689,898	2,202,579,840
4	Bulgan					12,816,423	10,612,047	22,265,964	45,676,313	45,476,164	32,833,081	169,679,991
5	Govi-Altai					83,193,401	91,275,698	140,047,124	139,463,070	82,109,832	57,699,590	593,788,714
6	Govisumber					29,824,736	15,209,665	5,860,117	4,821,566	55,716,084		
7	Darkhan-Uul					14,746,160	9,945,555	18,666,443	9,658,548	2,992,670	6,907,749	62,917,125
8	Dornogovi					40,866,571	61,375,308	86,108,873	90,600,420	49,574,697	328,525,870	
9	Dornod					32,759,925	38,997,798	64,608,073	52,305,022	31,971,415	220,642,233	
10	Dundgovi					20,085,213	66,793,469	66,793,469	63,201,301	74,187,553	281,203,020	
11	Zavkhan					46,932,635	52,029,634	103,467,799	76,082,059	51,554,365	426,101,740	
12	Orkhon					4,577,637	5,480,375	1,926,348	5,160,640	17,145,000		
13	Uvurkhangai					40,931,236	36,363,222	43,139,606	26,208,220	159,211,642		
14	Umnugovi					13,112,764	72,742,590	16,996,617	5,853,910	108,705,881		
15	Sukhbaatar				26,371,793	78,160,358	96,785,005	106,896,988	103,761,470	82,360,172	578,248,611	
16	Selenge					9,084,740	15,712,992	18,492,547	22,868,761	21,675,993	107,012,353	
17	Tuv					27,944,769	60,637,623	47,818,917	49,192,428	185,593,737		
18	Uvs	37,096,701	34,687,976	39,442,076	51,143,671	83,910,836	128,672,444	165,908,181	225,471,055	142,411,518	163,676,363	1,072,370,822
19	Ulaanbaatar					60,000	60,000	60,000	60,000	60,000	60,000	60,000
20	Khovd					28,149,712	50,769,383	65,496,708	41,218,509	36,953,443	222,587,755	
21	Khovsgul					24,090,381	22,687,717	19,713,044	8,934,259	30,850,826	106,276,227	
22	Khentii	16,073,033	32,902,875	45,641,630	46,784,604	97,002,768	66,088,399	74,923,621	79,006,665	52,340,536	188,459,217	699,223,348
	Total	107,719,575	163,098,196	176,577,773	282,182,168	622,753,578	847,004,736	1,496,769,464	1,799,184,175	1,374,088,228	1,317,805,447	8,187,183,340

NUMBER OF HERDERS WHO RECEIVED INDEMNITY PAYMENTS

Table 5

№	Аймаг	2006–2007	2007–2008	2008–2009	2009–2010	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015	Total
1	Arkhangai							940	97	372	1,409
2	Bayan-Ulgii										-
3	Bayankhongor	17	648	823	2,278	304	260	805	197	680	6,012
4	Bulgan	-	-	-	-	9				67	76
5	Govi-Altai	-	-	-	-	349	303	413	25		1,090
6	Govisumber										-
7	Darkhan-Uul	-	-	-	-	3	4				7
8	Dornogovi	-	-	-	-	-	48			35	83
9	Dornod	-	-	-	-	-		44			44
10	Dundgovi	-	-	-	-	-					-
11	Zavkhan	-	-	-	-	65		194	56		315
12	Orkhon										-
13	Uvurkhangai	-	-	-	-	-				64	64
14	Umnugovi									68	68
15	Sukhbaatar	-	-	-	44	158	82	38	76		398
16	Selenge										-
17	Tuv									5	5
18	Uvs	30	815	1,025	1,751	464	668	877			5,630
19	Ulaanbaatar										
20	Khovd	-	-	-	-	-			54		54
21	Khuvsgul	-	-	-	-	-		57			57
22	Khentii	-	320	269	633	-	11				1,233
Total		47	1,783	2,117	4,706	1,352	1,376	3,368	505	1,291	16,545

INDEMNITY PAYMENTS DISTRIBUTED

Table 6

Nº	Aimag	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	Total
1	Arkhangai							43,180,366	5,351,469	7,254,986	55,786,821
2	Bayan-Ulgii										-
3	Bayankhongor	114,663	31,444,051	103,090,507	964,877,397	16,887,091	12,940,486	52,313,899	26,380,460	48,911,456	1,256,960,010
4	Bulgan					329,413				5,216,354	5,545,767
5	Govi-Altai					51,070,936	19,730,202	62,784,591	859,152		134,444,881
6	Govisumber										-
7	Darkhan-Uul					139,650	324,465				464,115
8	Dornogovi					-	681,238			669,873	1,351,111
9	Dornod					-		64,773,232			64,773,232
10	Dundgovi					-					-
11	Zavkhan					3,200,249		7,500,987	3,860,681		14,561,917
12	Orkhon										-
13	Uvurkhangai					-				374,901	374,901
14	Umnugovi									323,680	323,680
15	Sukhbaatar				9,949,889	10,190,259	1,546,094	1,345,551	1,830,667		24,862,459
16	Selenge					-					-
17	Tuv									94,968	94,968
18	Uvs	1,022,362	74,501,590	179,380,645	729,256,047	26,488,065	76,626,203	37,115,657			1,124,390,567
19	Ulaanbaatar										
20	Khovd					-			2,271,249		2,271,249
21	Khovsgul					-		9,865,938			9,865,938
22	Khentii		272,898,115	107,225,385	154,803,919		171,780				535,099,199
Total		1,137,025	378,843,756	389,696,537	1,858,887,250	108,305,663	112,020,467	278,880,221	40,553,678	62,846,218	3,231,170,815

TOTAL BUDGET AMOUNT AND DISBURSEMENT OF INDEX-BASED LIVESTOCK INSURANCE PROJECT FOR 2005–2015 /IN USD/

Table 7

CREDITS				
Source of funding	Funding No	Budget	Disbursement	Disbursement In percentage
Development credit	IDA40690	10,000,000.00	5,878,066.79	58.78%
Development credit	IDA4687	7,750,000.00	4,653,474.11	60.04%
Total amount of credits		17,750,000.00	10,531,540.90	59.33%
GRANTS				
Source of funding	Funding No	Budget	Disbursement	Disbursement In percentage
The Swiss government grant	TF13074	1,525,089.39	1,416,351.46	92.87%
The Japanese government grant	TF53738	358,865.00	358,865.00	100%
The Japanese government grant	TF54740	1,318,000.00	1,318,000.00	100%
The Swiss government grant	TF94002	680,949.00	680,949.00	100%
The Korean government Grant	TF94827	700,000.00	700,000.00	100%
Total amount of grants		4,582,903.39	4,474,165.46	97.63%
Total project funding		22,332,903.39	15,005,706.36	67%

**5.3 LIST OF PEOPLE WHO CONTRIBUTED THE PROJECT IMPLEMENTATION
 LIST OF EMPLOYEES WORKED FOR IBLIP BRANCHES SINCE 2005**

Nº	Aimag	Name	Position
1.	Arkhangai	S.Dashdavaa	Arkhangai aimag coordinator
2.		B.Otgontungalag	Arkhangai aimag manager
3.		Z.Bayarjargal	Arkhangai aimag employee
4.		D.Danzan	Arkhangai aimag employee
5.		J.Byambasuren	Arkhangai aimag manager
6.	Bayan-Ulgii	A.Baiganat	Bayan-Ulgii aimag coordinator
7.		T.Erbolat	Bayan-Ulgii aimag manager
8.		B.Lazatkhan	Bayan-Ulgii aimag coordinator
9.		J.Begjan	Bayan-Ulgii aimag coordinator
10.		K.Samarkhan	Bayan-Ulgii aimag manager
11.	Bayankhongor	T.Ganbold	Bayankhongor aimag coordinator
12.		Ts.Doyodjantsan	Bayankhongor aimag manager
13.		D.Ariunbuyan	Bayankhongor aimag manager
14.		D.Ariunbileg	Bayankhongor aimag manager
15.		O.Bat-Erdene	Bayankhongor aimag PPATR employee
16.	Bulgan	Kh.Nyamsuren	Bulgan aimag coordinator

17		N.Ganchimeg	Bulgan aimag manager
18		J.Dorjsuren	Bulgan aimag coordinator
19		D.Narmandakh	Bulgan aimag PPATR employee
20	Govi-Altai	D.Nayanbuu	Govi-Altai aimag coordinator
21		G.Batbold	Govi-Altai aimag employee
22		B.Serjbadam	Govi-Altai aimag office manager
23		E.Enkh-Aldar	Govi-Altai aimag office manager
24	Dornogovi	J.Zorigtbaatar	Dornogovi aimag coordinator
25		P.Munkhdul	Dornogovi aimag manager
26	Dornod	G.Bat-Erdene	Dornod aimag coordinator
27		D.Tuya	Dornod aimag manager
28	Dundgovi	G.Dashbaldan	Dundgovi aimag coordinator
29		Ts.Ider-Orgil	Dundgovi aimag manager
30		E.Gansukh	Dundgovi aimag manager
31	Zavkhan	B.Purevdorj	Zavkhan aimag coordinator
32		Ts.Gantulga	Zavkhan aimag PPATR employee
33		B.Altantsetseg	Zavkhan aimag office manager
34	Uvurkhangai	S.Shagdarsuren	Uvurkhangai aimag coordinator
35		G.Tsagt-Uul	Uvurkhangai aimag employee
36		M.Tsogtbayar	Uvurkhangai aimag manager
37	Umnugovi	Sh.Mandakh	Umnugovi aimag coordinator
38		O.Narangerel	Umnugovi aimag manager
39	Sukhbaatar	O.Duurenbileg	Sukhbaatar aimag coordinator
40		S.Amartaivan	Sukhbaatar aimag coordinator
41		D.Battsetseg	Sukhbaatar aimag office manager
42		Z.Tuvshinbayar	Sukhbaatar aimag employee
43		B.Khash-Erdene	Sukhbaatar aimag office manager
44		T.Shinekhuu	Sukhbaatar aimag coordinator
45		G.Enkhchineg	Sukhbaatar aimag office manager
46	Selenge	S.Baast	Selenge aimag coordinator
47		N.Gankhuyag	Selenge aimag employee
48		N.Buyanjargal	Selenge aimag office manager
49	Tuv	Sh.Shagjaa	Tuv aimag coordinator
50		I.Tserensugar	Tuv aimag PPATR employee
51		N.Shinetsetseg	Tuv aimag manager
52	Uvs	Ts.Baatarsuren	Uvs aimag coordinator
53		B.Tungalag	Uvs aimag office manager
54		D.Batsaikhan	Uvs aimag PPATR employee
55	Khovd	O.Khurelbaatar	Khovd aimag coordinator
56		D.Batzaya	Khovd aimag manager
57		P.Jambaldorj	Khovd aimag employee
58		B.Bat-Oyun	Khovd aimag manager
59		L.Oyunbileg	Khovd aimag coordinator
60	Khuvsgul	Ts.Baasanjav	Khuvsgul aimag coordinator
61		Ts.Batsukh	Khuvsgul aimag coordinator

62		Kh.Munkhtulga	Khuvsgul aimag PPATR employee
63		S.Batmunkh	Khuvsgul aimag PPATR employee
64		M.Gantumur	Khuvsgul aimag PPATR employee
65		Ts.Burenzaya	Khuvsgul aimag manager
66	Khentii	O.Luvsanchultem	Khentii aimag coordinator
67		J.Demberel	Khentii aimag coordinator
68		Ch.Amarjargal	Khentii aimag manager
69		A.Purevdorj	Khentii aimag employee
70		N.Nyamsuren	Khentii aimag manager
71	Darkhan-Uul	P.Myagmarsuren	Darkhan-Uul aimag coordinator
72		B.Bayaraa	Darkhan-Uul aimag office manager
73		P.Ikhubayar	Darkhan-Uul aimag office manager
74		M.Bulgan	Darkhan-Uul aimag office manager
75	Orkhon	Kh.Bat-Erdene	Orkhon aimag coordinator
76		B.Enkhtuul	Orkhon aimag manager
77	Govisumber	Z.Olonbaatar	Govisumber aimag coordinator
78		A.Myagmarjamts	Govisumber aimag manager

LIST OF EMPLOYEES WORKED IN SOUMS OF PILOT AIMAGS FOR 2005-2010

No	Aimag	Soum	Name	
1	Bayankhongor	Bogd	Altangerel	
2		Bayan-Ovoo	Javzansuren	
3		Khureemara	Byambadorj	
4		Zag	Enkhsaikhan	
5		Jargalant	Gereltuya	
6		Bayantsagaan	Tunshburen	
7		Galuut	Ganbaatar	
8		Bumbugur	Jadambaa	
9		Erdenetsogt	Otgonbayar	
10		Jinst	Saruultuya	
11		Baatsagaan	Tumur	
12		Shinejinst	Nergui	
13		Ulziit	Enkhbold	
14		Buutsagaan	Baatar	
15		Bayanlig	Gerelbat	
16		Bayanbulag	Batbileg	
17		Bayangovi	Baasan	
18		Bayan-Undur	Tsetsegmaa	
19		Gurvanbulag	Lkhamdulam	
20		Sukhbaatar	Sukhbaatar	Enebish
21			Tuvshinshiree	Battsogt
22			Tumentsogt	Oyungerel
23			Uulbayan	Baigalmaa
24			Naran	Tumurchuluun
25			Ongon	Erdenebaatar
26			Khalzan	Tsogt-Erdene
27			Dariganga	Sambu

28	Sukhbaatar	Munkhkhaan	Purev
29		Bayandelger	Ariuntuya
30		Baruun-Urt	Adiyakhuu
31		Asgat	Tuvshinbayar
32		Erdenetsagaan	Gankhuyag
33	Uvs	Zuunkhangai	Tsetsegmaa
34		Ulgii	Nyamjav
35		Tarialan	Nyamsambuу
36		Turgen	Gelenkhuu
37		Khovd	Uranchimeg
38		Tsagaankhairkhan	Batbaatar
39		Baruunturuun	Enkhtaivan
40		Bukhmurun	Sainduuren
41		Davst	Batnasan
42		Zuungovi	Odgerel
43		Malchin	Javzan
44		Naranbulag	Tsendsuren
45		Umnugovi	Naranchimeg
46		Undurkhangai	Unurkhuu
47		Sagil	Khatanbaatar
48		Tes	Navaan
49		Khyargas	Bat-Ulzii
50		Zavkhan	Dorjderem
51	Khentii	Norovlin	Dulmaa
52		Bayan-Ovoo	Batsuuri
53		Bayan-Adraga	Oyunchimeg
54		Binder	Tuul
55		Umnudelger	Tsevelmaa
56		Darkhan	Altantuya
57		Bayanmunkh	Ankhniibayar
58		Bayankhutag	Munkhnaran
59		Batnorov	Gantumur
60		Dadal	Munkh-Orgil
61		Delgerkhaan	Narmandakh
62		Jargaltkhaan	Serdagva
63		Galshir	Namsrajav
64		Murun	Khasbazar
65		Tsenkhermandal	Usukhgerel
66		Batshireet	Dorjgotov

5.4 LIST OF CONSULTANTS WORKED FOR IBLIP SINCE 2005

Nº	Type	Name	Consilancy	Time period
1	International	Jerry Skees	Insurance	2005-2014
2		Richard Carpenter	Legal frameworks	2005-2014
3		Holly Bakke	Reinsurance operations manual	2014-2015
4		Dennis Garand	Reinsurance capital adequacy assessment	2014-2015
5		Bob Hale	Statistics analysis	2006-2012
6		Steve	Statistics analysis	2006-2012
7		Eamon Kelly	Business planning	2010-2011
8		Ann	Insurance	2006-2010
9		Andrew Makentire	Monitoring&evaluation	2005-2006
10	Domestic	Chuluut mongol LLC	Promotion and public awareness	2007-2014
11		Community conservation and consulting network NGO	Monitoring and evaluation	2006-2015
12		B.Bayarsaikhan	Legal frameworks	2006-2009
13		B.Auysh	Legal frameworks	2013-2014
14		Art impress LLC	Promotion and public awareness	2006-2007
15		Interactive LLC	Management information system	2006-2010
16		Ultimate solutions LLC	Management information system	2011-2014
17		Social development center	Transitional documents	2008-2010
18		Center for social work Excellence NGO	Project's social and economic impact evaluation	2014-2015
19		Alternative development policy NGO	Face-to-face training	2012
20		Center for Policy Research	Face-to-face training	2006-2012

NOTES

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