

National Mongolian Livestock Program (Draft)

Livestock husbandry is a distinctive livelihood practice in Mongolia, the heritage of which is valued on a world scale. Livestock is a renewable resource and one of the country's main economic pillars and the basis for Mongolia's sustainable development. The Mongolian Constitution (1992) stated "The livestock of the country is national wealth and subject to state protection".

One: Current State of the Livestock Sector

Livestock husbandry is a special, traditional sector of the national economy, and an important source of employment and export income for Mongolia.

Today the agriculture sector employs around 34.6% of the total labor force and produces 18.8% of all GDP, of which 86.9% is from livestock production. The livestock industry earns around 10% of all export income. Although the number of livestock has reached 43.3 million, traditionally appropriate proportions of livestock (herd structure) have been lost and changed. The number of goats now consists of 46.1% of the total number of livestock, and the number of cattle has reduced by 23.7% compared to figures in 2000.

60 sheep-equivalent animals are accommodated per 100 ha of hay and pasture land in Mongolia. This indicator is exceeded in some aimags by 2-9 times, which is one factor of pasture land degradation. Also, due to environmental and human impacts in the last few years many rivers, streams and lakes have dried, pasture growth has decreased by 20-30 percent, pasture plant species numbers have reduced and it has resulted in an increase in land degradation and desertification. A total of 560,500 tonnes of supplementary fodder is produced nationally, which equates to 8.1 kg of fodder per sheep equivalent animal. This is only 2 days supply of fodder during times of natural emergency or in a disaster situation.

Infectious animal diseases including brucellosis, glanders and equine infectious anaemia, and leikoz disease of cattle, locations of outbreak are expanding resulting in increasing rates of illness for both human and animal populations. In addition to signs of expansion, instances of new (strong) disease and previously controlled diseases are occurring, which is creating conditions that limit the supply to market of raw materials and livestock products.

Mongolia is producing 223,100 tonnes of meat, 457,400 liters of milk, 20,800 tonnes of sheep wool, 5,800 tonnes of cashmere, 10,000 tonnes of camel wool and 9.9 million pieces of hide each year; however the local and international market value of those products is also declining year by year. Even though Mongolia's meat and milk production is self sufficient for its domestic consumption, the volume of properly processed meat and milk products are as low as 7% and 4% respectively. Factors influencing this situation include the lack of adequate government policy within the sector, a lack of financial and capital resources for local producers and under development of the sector for the external market.

Although over 40 different species, families, genus and types of livestock have resulted from evolutionary processes and the efforts of herders and livestock specialists, as well as farming of several previously introduced highly productive dairy, beef and hybrid cattle breeds, pigs and poultry breeds, Mongolia is not fully utilizing the genetic resources of these purebred animals.

The Mongolian Government has adopted and implemented several national programs in the past such as: "Livestock health", "To improve livestock quality", "To support development of intensive livestock", "Milk", "Livestock fodder" and "Food security". In addition, more than 20 projects have been implemented with the funding of foreign countries and donor organizations.

Unfortunately these programs have not realized their full effect because of an unconsolidated policy, weak monitoring and coordination and insufficient funding.

State funding to the livestock sector is low compared to other countries at not even one percent of total public expenditure. In other words, current state funding is not sufficient to develop a strong livestock sector in the market economy.

Activities related to: the implementation of state policy, laws, programs and plans for the protection of animal health and genetic resources; technical and professional guidance and consultation to private veterinary and breeding entities; and maintenance, information sharing and monitoring of the database related to livestock origin, productivity and health status, is almost non-existent at the soum level.

Two: Rationale and Need for the National Program

2.1 Legal Context

The "State Policy on Food and Agriculture" states to:

- re-enforce strength and use the biological potential of Mongolian domestic livestock,

- use local and imported purebred animals for selective breeding,
- improve livestock breeding by using advanced biotechnology and genetic engineering,
- implement research and development and implement selective breeding activities for obtaining highly productive dairy and beef cattle, sheep, pigs and poultry,
- restore the health of animals and implement activities of international standard to prevent and combat infectious parasites and improve efficacy.

The “**National Development Strategy based on MDG**” stresses that:

- both pastoral and intensive animal husbandries shall be developed in combination, taking into account regional peculiarities;
- the outbreak and spread of contagious animal diseases should be decreased substantially,
- the production, processing and export of animal products will be increased;
- biotechnology shall be introduced, and animal breeding capacity expanded;
- take concerted efforts to rehabilitate the fodder production system, improve supply and improve the quality and nutrition of the fodder.

The “**State policy on Herders**” mentions that the

- create conditions for herders to live and work comfortably and happily in their respective local area purpose is to increase employment security for herders,
- improve their health and social security,
- include them in the social insurance system,
- enhance their knowledge and skills,
- encourage their co-operation and organization,
- improve extensive livestock production techniques,
- develop comfortable living conditions for herders by supporting intensified livestock production, and
- assist in the management of risk inherent in the business.

The “**Main direction of reforming legal framework until 2012**” includes creating a legal framework for:

- improving pasture management through possession, use and protection of pastureland,
- establish adequate livestock processing systems,
- increase competitiveness of production, and
- improve food security monitoring.

The **Government Action Plan 2008-2012** says:

- increase livestock quality and productivity
- improve the effectiveness of veterinary services and its coverage
- keep appropriate herd structures
- define the borders for running intensive and extensive husbandry
- develop extensive livestock management
- establish model farms at the regional level
- operate animal health protection activities at international standard
- strengthen the capacity of animal disease diagnosis laboratories

2.2 Socio-economic Context

There exists a need to maintain traditional animal husbandry, to transfer technology that is suitable for changing climate conditions in Mongolia, to increase water, pasture and fodder supplies and their management, to increase risk resilience capacity and to meet market demand.

There is no visible improvement in animal disease eradication, protection of public health, livestock quality and productivity and the transfer of advanced technology. This is due to poor, insufficient and ineffective veterinary and breeding services, a lack of government supervision and coordination in these areas as well as insufficient financial resources.

Mongolian milk and meat products are considered to be natural, tasty and of high quality. However raw materials and livestock products cannot meet market demand because production is seasonal, there is an absence of traceability, they do not meet quality and sanitary standards, there is inadequate processing systems and small size businesses services are underdeveloped in rural Mongolia.

Although the number of livestock is increasing, the price of raw materials is falling and has resulted in a reduced income for herders. There is a need to eradicate disease, register livestock, meet international food security standards and create conditions to market and export livestock products.

Three: Program Goal and Priorities

The purpose of the program is to develop a livestock sector that is adaptable to changing climatic and social conditions and create an environment where the sector is economically viable and competitive in the market economy, to provide a safe and healthy food supply to the population, to deliver quality raw materials to processing industries, and to increase exports.

The following priority areas were identified for implementing the above mentioned aim:

1. Drawing special attention from the State to the livestock sector as the main traditional economic activity of the country, to assist in the formulation of a favorable legal, economic and institutional environment for sustainable development, and to develop of good governance in the livestock sector;
2. Improving animal breeding services based on social need/demand, increasing the productivity and production of high quality livestock products and raw materials and increasing market competitiveness;
3. Raising the veterinary service standard to international levels and protecting public health through securing Mongolian livestock health;
4. Developing livestock production that is adaptable to climatic and ecological changes with strengthened risk management capacity; and
5. Developing targeted markets for livestock and livestock products; establishing proper processing and marketing structures and increasing economic turnover.

Four: Program Objective and Activities

4.1 Within the first priority, four objectives are stated below, with associated activities

Ensure the sustainable development of the livestock sector and create a legal environment that will promote economic turnover.

4.1.1 Improving the legal framework of the livestock sector

4.1.1.1 Establish a legal framework regarding pastureland resource use, protection, possession and defining territory borders, for managing pastoral and intensive livestock.

4.1.1.2 Revise the “Law on Protecting the livestock gene pool and animal health”, and create a legal environment that will strengthen capacity of the units that will have responsibility to maintain animal registration, veterinary and breeding services.

4.1.1.3 Adopt the “Law on Livestock Husbandry Development”, and establish a legal environment that will support livestock production, improve the recognition of herders’ labour and create an incentive system.

4.1.1.4 Make revisions to the “Law on Administration, administrative units and their management”, “Law on Land Fees”, “Law on Government Special Fund”, “Law on Special Permission for Economic Entities” and “Law on State Reserve”.

4.1.1.5 Implement “Strategic Program Animal Breeding Service” and other sub-programs such as “Camel”, “Pasture and Fodder”, “Meat”, “Milk”, “Wool”, “Cashmere”, “Hide/animal skin”.

4.1.2 Strengthening veterinary and breeding services at the local level and bringing services to international standard

4.1.2.1 Establish a state service office at soum level that will monitor, coordinate and supervise activities related to veterinary and breeding services.

4.1.2.2 Strengthen the technical capacity of the local level veterinary and breeding service office and provide state support for capacity building and improving human resources.

4.1.2.3 Access quality information and data at international standard related to animal health and genetics and connect all veterinary and breeding units with internet to enable information sharing.

4.1.3 Improve knowledge and education of professionals and herders and introduce advanced technology

4.1.3.1 Supply and train veterinary and breeding specialists based on requests from aimags, soums, bags and private companies and ensure continuous education for them.

4.1.3.2 Establish a temporary school in every aimag center for educating young herders on traditional and contemporary livestock management. Train herders on effective animal husbandry management and provide legal and market information.

4.1.3.3 Transfer, adapt and introduce advanced technology based on sector demand.

4.1.3.4 Legally classify veterinarians and assistant staff work environment as a ‘hazardous’ work environment.

4.1.3.5 Apply outcomes from livestock and veterinary innovations and scientific studies into practice through state support, economic incentives and by inclusion in various projects and programs.

4.1.3.6 Support the initiatives of herders and herder organizations for increased livestock production through tax incentives, credits and through favorable interest rates.

4.2 Within the second priority, four objectives are stated below, with associated activities

Improve traditional livestock practices, develop rational livestock herd structure, improve animal breeding services to increase production and improve economic efficiency.

4.2.1 Create core (*nuclear or stud*) animal herds of productivity for a specific type of animal and implement scientifically based selective breeding that uses the full biological potential of Mongolian livestock.

4.2.1.1 Improve pasture based livestock through breeding with highly productive nucleus livestock that are adapted to local conditions.

4.2.1.2 Horse and cattle farms will be concentrated in Khangai region, horse and sheep farms in the steppe region, goats and camels in the Gobi region and intensive livestock production will be developed near large towns or in crop regions.

4.2.1.3 Set livestock production level targets for different regions and identify biological potential. Develop breeding activities based on the demand and needs of the market.

4.2.1.4 For extensive husbandry systems, set the number of breeding female animals based on regional condition and livestock productivity characteristics and preserve optimum ratios of livestock species within the herd.

4.2.2 Protect the livestock gene pool and introduce advanced biotechnological measures to increase animal productivity

4.2.2.1 Establish a National Livestock Genetic Resource Centre to preserve, store and sustainably use Mongolian livestock genetic resources, produce frozen semen, artificially inseminate and conduct sex-predetermination and selection.

4.2.2.2 Establish a semen bank to protect, manage and ensure sustainable use of genes from highly productive breeds that are threatened or whose numbers are decreasing.

4.2.2.3 Monitoring schemes will be introduced for imported reproductive animals or semen to ensure such breeding activities are carried out only by professional and legal entities with special permission.

4.2.2.4 Provide support for the importation of milking cattle, low micron wool producing sheep, goats and other productive animals and semen based on market demand.

4.2.2.5 Establish biotechnology and animal breeding units in economic regions for technology transfer and application, expand artificial insemination activities and bring mobile breeding services to international standard.

4.2.2.6 Use semen from the highest quality male livestock for artificial insemination, use advanced techniques for insemination and create donor herds for reproduction products.

4.2.2.7 Develop and implement an initiative for rewarding a professional entity who has carried out breeding activities and developed reproduction products, based on quality and number of sales at the market.

4.2.3 Strengthen livestock breeding services and improve access and results

4.2.3.1 Set adequate institutional structures for animal breeding at the local level, and operate at international standards.

4.2.3.2 Set operational standards for veterinary and breeding service units, revise types of services provided and implement.

4.2.3.3 Provide financial support from the state for those raising *bog* (small ruminants) stud male animals to provide a mating service based on contracts and herd stud males separately during the non-mating period.

4.2.3.4 Livestock breeding services shall be carried out under the authority of professional government agency's management and monitoring through implementing specific breeding plans, based on information such as livestock production purpose, origin and productivity.

4.2.3.5 Support committee's working with livestock and their productivity and contract some state duties to these organizations.

4.2.4 Creating an animal registration database and network

4.2.4.1 Register every animal with an individual identification number and establish an internationally compliant system for registering, monitoring and informing livestock and livestock products including origin and health certificate.

4.2.4.2 Establish an information database (*with information about core herds, the origin of good quality male animals, and an animal's productivity with all health indicators*) at soum, aimag and national level and provide information to customers.

4.2.4.3 Training and awareness activities on livestock registering and establishing the livestock information network will be delegated and executed by professional NGOs.

4.2.4.4 Provide necessary equipment and programs for livestock registration, expanding the database network, and using advanced technology for registration that meets international requirements.

4.2.4.5 Create a list of main animal diseases that are obligatory to report at the national level, and collect, compile, assess and create a reporting and information network on sources of disease and levels of outbreak.

4.2.4.6 Improve monitoring scheme through and registration of livestock origin, productivity, quality, traceability and health, and livestock products' quality and safety.

4.3 Within the third priority, three objectives are stated below, with associated activities

Supply healthy and safe food to consumers.

4.3.1 Early prevention measures, increased preparedness to combat against and prevent infectious animal diseases that are banned for international trade.

4.3.1.1 Obtain international certification (World Organization for Animal Health) for Mongolia to certify that the country has freedom from cow disease, pox virus of sheep and goats, Bovine spongiform encephalopathy (BSE) brain disease of cattle, and the country's western part has no foot and mouth disease records and has 'not used vaccination' status.

4.3.1.2 Maintain monitoring schemes of main animal diseases and outbreaks, implement preventive actions in regions that are highly susceptible to animal diseases, improve results and maintain a disease-free condition in livestock.

4.3.1.3 Eradicate all animals from brucellosis, horses from glanders and infectious equine anemia and cattle from leucosis.

4.3.1.4 Maintain preparedness and allocate necessary financial resources for use in reducing risk against transboundary infectious animal diseases that are newly recorded or repeated.

4.3.1.5 Eradicate animal disease epicentre using technology that is not harmful to the environment and human health; improve hygiene conditions through preventative action.

4.3.2 Bring the veterinary service structure to international standard; strengthen the capacity of veterinary services to the level that can fully meet consumers' demands and requirements.

4.3.2.1. Provide modern equipment for veterinary unit laboratories, mobile fencing for veterinary diagnostic and classification activities and improve the capacity of bio-security activities in each regional center.

4.3.2.2. Provide high performance shared inter-soum mobile laboratories with special equipment for veterinary diagnostics and surveillance and implement activities to investigate livestock disease, causes of mortality and to respond quickly.

4.3.2.3. Introduce internationally acceptable technology and methodologies in sanitary quality assurance testing and increase export-import requirements for animal and animal-originated products.

4.3.2.4. Operate equipped mobile veterinary services between soums to analyze for animal diseases and provide a timely response.

4.3.2.5. Introduce internationally acceptable methodology for the process of hygiene certification for livestock, livestock products, and ensuring the safety of exports and imports.

4.3.2.6. Increase the quality of prevention work and the responsibilities of veterinary workers through defining quality of livestock immunization activities based on selective lab assessment and monitoring.

4.3.2.7. Use GIS tools for mapping main animal disease zones that are newly or repeatedly recorded and their outbreak locations.

4.3.3 Bringing livestock medicine and veterinary tools to international standards

4.3.3.1. Meet international method and technology standards for testing and analysis of veterinary medicines and bio-preparations and ensure the quality and safety of animal medicines.

4.3.3.2. Locally produce preventive vaccinations for diseases that are new or repeatedly occurring.

4.3.3.3. Use innovative techniques and technologies within veterinary medicine factories; ensure implementation of manufacturing standards on the production of medicines and ensure that the quality of medicinal products meets the required international standards.

4.3.3.4. Set a structure and network for supplying animal medicine and relevant medical supplies.

4.4 Within the fourth priority, four objectives are stated below, with associated activities

Responding to pressures of climate change, social development trends and economic demand, Mongolia will reduce livestock sector vulnerability through extensive livestock management as the dominant form of pasture management, developing intensive production within limited regions by ensuring sustainable use of pasture, and through possessing, improving, protecting and rehabilitating degraded range land.

4.4.1 Improving pasture management

4.4.1.1 Set a single management system for the sustainable use of pasture resources, implement sub-programs, prepare a pasture use map and cadastre at regional, aimag and soum level, define maximum potential stock numbers and develop an information database.

4.4.1.2 Create a legal framework for regulating pasture and protect at least 30% of land as state, aimag and soum level *otor* reserve area for use during times of hardship.

4.4.1.3 Link animal numbers and types of herd with pasture carrying capacity and limit the number of animals in areas where pasture capacity is already exceeded, and implemented related economic incentives to maintain this provision.

4.4.1.4 Create a legal framework on pasture use fees collected from herders and people with livestock, based on regional characteristics and type of herd and use some portion of it for improving pasture condition.

4.4.1.5 Define clear borders between sites of extensive and intensive livestock production at aimag, capital, soum and district level and enforce it.

4.4.1.6 Combat pasture rodents using technology that is not harmful to the environment or human health.

4.4.2 Increasing fodder and hay production

4.4.2.1 Improving fodder supplies by establishing a full nutrient fodder industry and small sized enterprises which are based on domestic raw materials.

4.4.2.2 Encourage the cultivation of high nutrient animal feed and introduce processing technology that utilizes agricultural by-product materials generated from cropping activities, to supplement livestock .

4.4.2.3 Encourage the use of new bundling and storage technology for hay without decreasing quality and prepare small, high quality feed for consistent supply of the state and aimag fodder reserve.

4.4.2.4 Create a hay and fodder reserve in every soum and aimag for emergency situations. In an emergency, utilize local level reserves first and then State reserves can be accessed if insufficient.

4.4.2.5 Permit Gobi aimags to prepare fodder from the Khangai region and organize activities to provide required technical support with concessional conditions.

4.4.3. Improve livestock water supply

4.4.3.1 Following herders' ideas and initiatives, implement exploration work to find appropriate sites and develop new water wells by professional organizations with state budget.

4.4.3.2 Share costs of building new wells with users in order to increase their ownership.

4.4.3.3. Transfer responsibility for use, protection and maintenance of wells, which have been newly built or rehabilitated by state funds, to herder groups and communities or local groups based on agreements.

4.4.3.4. Train herders in manual well development and create water reservoirs to catch rain or snow water.

4.4.4. Create livestock risk management capacity

4.4.4.1. Develop innovative methods for livestock husbandry to adapt to climatic and ecological changes; arrange training and practical activities for herders.

4.4.4.2. Implement concerted monitoring, information and prevention activities in soums of the Gobi and steppe regions, which have more frequent weather disasters and higher natural risks.

4.4.4.3. Develop the livestock insurance system; introduce a re-insurance scheme and promote awareness activities on the importance of insurance to herders to generate interest for volunteer livestock insurance.

4.4.4.4. Breed fast-growing meat producing livestock by transferring meat production methods such as intense feeding at a younger age and to reduce the number of livestock in winter.

4.4.4.5. Provide state support to herders who live in the Gobi and steppe regions for building two different types of herd shelter for sheep and goats.

4.5 Within the fifth priority, three objectives are stated below, with associated activities

Develop targeted markets for livestock and livestock products, establish proper processing and marketing systems and increase economic turnover.

4.5.1. Develop a system for the preparation of livestock and raw materials.

4.5.1.1. Standardize preparation processes for livestock and raw materials.

4.5.1.2. Establish expedient structures to control and warrant the quality of livestock and livestock products.

4.5.1.3. Establish a small abattoir and hide pre-processing mill in each soum, and create a “Comprehensive network on livestock, meat processing, refrigerated transport and marketing”.

4.5.1.4. Increase usage of secondary products and support standards in processing in order to sell beside traditional meat products.

4.5.1.5. Organize training concerning livestock raw material preparation and transportation, focusing on quality in each area, and provide human resources such as raw material preparation specialists.

4.5.1.6. Establish an information network for customers and suppliers for meat and other raw materials; including prices for classifications or categories in each local area on a monthly basis; and include the participation of local organizations and increase their role and responsibilities.

4.5.2. Create and implement an economic lever to provide incentive for the production of quality livestock products and raw materials

4.5.2.1. Government will provide incentives to those who undertake activities such as the following:

- A person or legal body who has raised and sold at market nucleus herd animals and young, breeding male or female livestock with certified origin
- herders, farmers and cooperatives who treat their livestock and supply good quality products to domestic industries
- herders and farmers who consistently raise camel and cattle offspring
- person or legal body who develops new wells of their own enterprise and funds
- producers who make good quality livestock fodder using upgraded technology

4.5.2.2. Create a price structure based on classification of raw material and their standard of preparation.

4.5.2.3. Support soum level herder initiatives for pre-processing cooperatives and processing factories, through credit policy and investment and provide assistance for the development of cottage industries.

4.5.3. Modify and develop livestock industry marketing to capture the intended market

4.5.3.1. Undertake basic market investigations of livestock products and determine intended market.

4.5.3.2. According to the “Policy on industrialization”, set a minimum level of livestock raw material processing to meet with international standard.

4.5.3.3. Based on the potential of livestock and livestock raw materials, fully utilize and increase the capacity of processing industries and support export of products.

4.5.3.4 Register some species of livestock and livestock products in a “Geographic index” for improving competitiveness in the global market.

4.5.3.5. Support cooperation between herders, producers and academic organizations that results in activities that are intended for the improvement of the dedicated product market industry. .

4.5.3.6. Support activities for the appropriate use of livestock raw materials in remote and/or isolated areas and investigate and implement ways to increase export potential for products.

4.5.3.7 Support direct relationships between herders and industries to create a market network.

Five: Implementation time frame and expected outcomes of the program

5.1. The program will be implemented in two phases from 2010-2021. The first phase (2010-2015) of the program will be also implemented in two sub-phases.

5.2. The first phase (2010-2015) will achieve the following outcomes from the five priority areas

5.2.1. Establish favorable legal conditions that will promote the implementation of livestock sector related laws and organizational structures, expand production and economic growth through advancing production, concerted policy on technology transfer, preventing animal diseases and running animal breeding and treatment operations scientifically.

5.2.2. Set up a proper professional service provision structure; improve accessibility, quality and results of those services; Create an opportunity where the livestock sector will supply market responsive, quality and safe raw materials and increase export potential; and improve herder family income and self sufficiency.

5.2.3. Gain certification from the World Organization for Animal Health regarding Mongolia’s disease free status for sheep and goat pox, and Bovine spongiform encephalopathy (BSE); and as free from foot and mouth disease and ‘not used vaccination’ status in the western aimags. To cure cattle and camels

from brucellosis, to cure *bog* (small ruminants) and horses from glanders, horses equine infectious anemia in western region and keep disease-free condition.

5.2.4. Encourage managed possession and use of pastureland to increase production of hay and fodder; upgrade livestock water supplies; establish livestock industry's capacity to adapt to climate change by decreasing the exposure to risk.

5.2.5. Improve herders' living conditions through State policies related to the creation of market structures for livestock products and raw materials, and protection against falls in livestock product prices.

5.3. The Second phase (2016-2021) will achieve the following outcomes

5.3.1. Adopt a law on "Livestock husbandry development"; create a legal environment for support and encourage a structure of livestock husbandry industry development.

5.3.2. Register all livestock and create a database and monitoring structure regarding the origin of livestock, raw materials and products and information regarding their health and condition to supply healthy, natural products for the population and for export; improve conditions for enriching, preserving, protecting and the appropriate use of livestock genetic resources; provide domestic breeding products to satisfy internal demand instead of using imported products.

5.3.3. Upgrade the animal diseases information system regarding registering and informing on new and re-spreading diseases; improve laboratory capacity; provide bio-security status and produce vaccines and diagnostic devices for contagious diseases; create a network for supplying veterinary drugs and sharing techniques. Will content status of the Brucellosis -free country.

5.3.4. With regard to climate change, social development trends and economic demands, create favorable investment and business conditions for development of the pasture and intensive livestock industries simultaneously; decrease the exposure to natural risk and increase the productivity of the livestock industry.

5.3.5. Fully process raw materials domestically and develop export oriented production in order to substitute imported products.

Six: Indicators of program implementation

6.1. The main indicators of this program

Indicator	Unit	As of 2008	Targeted level		
			Year 2012	Year 2015	Year 2021
1.First priority area: Draw special attention from the State to the livestock sector as the main traditional economic activity of the country, to assist in the formulation of a favorable legal, economic and institutional environment for sustainable development, and the development of good governance in the livestock sector					
1.1 Reform Livestock Sector	By activity implementation				
1.2 Strengthen local veterinary service					
- State Service Office	Number	0	338	-	-
- Private Sector Service (new)	Number	751	60	75	135
1.3 Improve knowledge of veterinarians and herders					
- New specialist and retrained specialists	Number	104	1,272	1,908	2,120
- Graduates of temporary schools	Number	25	6,800	12,200	17,000

Indicator	Unit	As of 2008	Targeted level		
			Year 2012	Year 2015	Year 2021
2.Second Priority Area: Improve animal breeding services based on social need/demand, increasing the productivity and quality of livestock products to increase competitiveness of the sector					
2.1 Protect livestock gene pool: - National Center for Livestock Gene pool - Establishment of biotechnology and animal breeding branches in regions - Number of livestock that will be artificially inseminated	Number Number Number	0 0 3,200	1 3 16,000	- 2 24,000	- - 120,000
2.2. Use locally made and imported goods for breeding purposes - Imported semen - Locally produced semen	Num Num	7,000 21,000	20,000 24,000	30,000 60,000	- 195,000
2.3 Maintain livestock number at the beginning of the year, by herd type: - camel - horse - cattle - sheep - goat	'000 head Percentage Percentage Percentage Percentage Percentage	43288 0,6 5,1 5,8 42,4 46.1	44408.5	43937.9 0.7 4.9 7.9 46.0 40.5	36393,1 0,8 6,4 12,2 45,6 35,0
2.4 Production from individual animal - Milk from pure/ mixed cow - Cashmere - Low micron wool - Thick micron wool	305 kg/day gram Kg kg	1769 290 3,9 1,1	2217 290 4.1 1.2	2673 300 4.4 1.3	3,200 310 4,9 1,5
2.5 Establish animal registration database and network - unit in the network - registered animal	Num Percentage	0 0.3	338 34	- 50	- 80
Third priority area: Raise the veterinary service standard to international levels and protect public health through securing Mongolian livestock health					
3.1 Obtain certificate from Animal Health Organizations as disease-free or low-risk country from listed animal disease - Contagious bovine pleuropneumonia - ??? - Foot and mouth - Sheep and goat pox		0 0 0 0	Certificate Certificate	Certificate	Certificate

Indicator	Unit	As of 2008	Targeted level		
			Year 2012	Year 2015	Year 2021
3.2 Cure livestock from the following diseases					
- Cattle and camel from brucellosis	Percentage	98	98.5	100	-
- Horse from glanders	Percentage	97,5	99.5	100	-
-Horses from equine infectious anemia	Percentage	99.3	99.8	100	-
- Dairy cattle from leucosis	Percentage	75,0	80.0	100	-
- Small ruminants from brucellosis	Percentage	99,5	99.6	99,7	100
- Number of herder families with brucellosis (currently 3.5-11.7%)	Percentage	7.6	2.5	0.3	0.1
3.3 Achieve no outbreaks of infectious animal disease	Based on implementation of program				
3.4 Enable every soum and district to carry out veterinary, sanitation and quality assurance testing.	Number	120	45	67	106
3.5 Establish mobile services for diagnosing animal diseases.	Number	0	25	-	-
3.6 Produce locally made animal medicines and vaccinations	Percentage	70	75	85	100
Fourth Priority Area: Develop livestock production that is adaptable to climatic and ecological changes with strengthened risk management capacity					
4.1 Establish country, aimag and soum level reserved grazing areas	Percentage	0,5	2.0	5.0	10
4.2 Define maximum livestock numbers based on herd type and pasture carrying capacity	Based on implementation of program	-	-	+	-
4.3 Create hay and fodder storage facilities in every soum and aimag	Number	38	40	60	200
4.4. Take measures to improve pasture quality					
- New wells	Number	1,314	2,400	3,600	2,686
-Total area where combating rodents	'000 ha	700	2,000	3,000	10,000
4.5 Reform livestock insurance structure					
- number of herders holding index-based livestock insurance	Percentage	3,3	6.5	10,0	15,0
4.6 Increase volume of fodder preparation					
- Net increase of prepared fodder	Unit	560.5	616.5	700.0	900.0
- Fodder prepared using processing technology	Percentage	9,6	12	30	40
Fifth priority area: Develop targeted markets for livestock and livestock products; establish proper processing and marketing structures and increase economic turnover.					
5.1 Establish abattoir	Number	0	45	112	338

Indicator	Unit	As of 2008	Targeted level		
			Year 2012	Year 2015	Year 2021
5.2					
- total raw meat, of which:	'000 Tonnes	223,1	256.3	353,8	324,0
- processed	'000 Tonnes	15,1	34.8	97,0	157,0
- exported	'000 Tonnes	10,2	21.0	33,0	50,0
5.3 - total volume of milk, of which:	'000 Tonnes	457,3	447.9	523,8	622,9
- processed milk	'000 Tonnes	16,5	26.9	52,4	124,6
5.4 Give incentives based on the quality of products with a certificate of origin and which are supplied to the local industry.	Based on implementation	-	-	-	-
5.5 Establish livestock product exchange network	Based on implementation	-	-	-	-

This program will achieve its targeted results based on the adoption of a legal framework and secure financial resources.

Seven: Management and structure of program

7.1. The supervision and coordination function of the program will be the national committee, headed by a member of Cabinet of the Ministry of Food, Agriculture and Light industry.

7.2 Responsibility for program implementation will be the duty of the relevant central government administration and professional government organizations.

7.3. Every governor will have responsibility to coordinate the program in their aimag, soum and at district level and the respective local professional government organizations will implement the program in their area.

7.4. The program action plan will be approved by the Ministry of Food, Agriculture and Light Industry and every aimag, soum and district will report results annually.

Chapter Eight: Financing

The program will use the following financial resources for implementation:

- 8.1. state budget;
- 8.2. local budget;
- 8.3. investment of domestic and international enterprises; and
- 8.4. foreign countries and international organizations grants and credits.

Nine: Reporting, monitoring and review of program implementation

9.1. Program implementation reports shall be submitted by aimag, city and soum professional organizations to the central government administration by January each year. Central government administration shall deliver reports to Cabinet and State Great Khural (Parliament) during the first quarter of each year.

9.2. State administration will undertake control and analysis during program implementation and the Government has the responsibility for reporting program implementation results.

9.3. If necessary, a third party could monitor program progress and report to Government.

9.4 Ongoing revision will made of the program based on implementation results.