

## **Sector Study: “Food Technology, Packaging and Safety in MONGOLIA”**

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## **1. Food Industry in Mongolia**

### **1.1. Production**

#### ***1.1.1. Agriculture***

Agricultural production, one of the major sources of the country's economic development, faced substantial difficulties in the 1990s during which domestic production virtually collapsed. The Mongolian Government took direct and immediate action to halt the collapse of the sector and ensure its further growth.

Livestock and croplands were privatized. Various programs were implemented at the national level to increase employment in the sector, address the issues of poverty, withstand natural disasters, introduce new technology and machinery, ensure food security, protect vegetation, and control pests and disease. These measures have resulted in the increase of agricultural outputs (44% since 1995 and 7.5% since 2003). The share of the agricultural sector in the 2006 GDP was 18.7%.

Between 1990 and 1996, all state owned crop farms were put on public sale in an effort to promote private ownership. However, investors avoided this industry, and production dropped steadily to 139,000 tons in 2000 and 2001. Considering the minimal interest of investors, agricultural production continues to represent a rational resource allocation. The remaining domestic wheat production is supported by Government subsidies. Russia and Kazakhstan periodically provide Mongolia with wheat priced to compete with or to undercut domestic wheat prices.

Horticulture production, which includes potatoes and vegetables, is increasingly achieved on small family-owned plots in addition to small commercial greenhouses. Private investments in vegetable production have expanded strongly. This is especially so in areas where the Government does not intervene and in which capital requirements are modest.

To date 20.2 percent of GDP is produced by the agricultural sector, of which 90.1 percent accounts for livestock husbandry. By the end of 2006, in total 34.8 million livestock heads were counted, which was higher by 14.5 percent or 4.4 million heads compared to 2005. According to the 2006 livestock census 253.5 thousand camels, 2,114.8 thousand horses, 2,167.9 thousand cattle, 14,815.1 thousand sheep, 15,451.7 thousand goats. The number of horses increased by 85.7 thousand, cattle by 204.3 thousand, sheep by 1.9 million, goats by 2.2 million respectively. But camel decreased by 0.7 thousand heads compared with 2005.

Agricultural production currently comprises of 30% meat products, and casings, 27%, dairy products, 2%, skin and hides, 1%, animal and plant oils, 31%, flour and flour product, 2%, fruit and vegetables, and 2% livestock feed and starches.

*Gross agricultural output*

**Table #1**

Sector	2001	2002	2003	2004	2005
At current prices (In mln MNT)					
Livestock	318,507.7	284,921.5	315,968.1	380,024.2	622 829.4
Crops	75,680.8	73,274.7	94,977.2	94,820.4	112 701.9
<b>Total</b>	<b>394,188.5</b>	<b>358,196.2</b>	<b>410,945.3</b>	<b>474,844.6</b>	<b>735 531.3</b>

*Livestock*

Currently, Mongolia has 30.4 million heads of livestock which is being produced annually about 200 thousand metric tons of meat, 328.000 metric tons of milk, 8.4 millions of skin and hide, 17,000 metric tons of sheep wool, 3.0 thousands metric tons of cashmere. In this regard, the Government’s policy intends to improve capacity in order to protect livestock from natural disaster’s risks, consequently to increase aid and loan assistance through attracting foreign investors and donor’s attention, to promote national investment, to promote efficiency and productivity through introduction of some elements of intensification. During the last few years, the policy was directed to support the initiatives of rural people to cooperate, and start settled intensified farming based on new technologies for improving livestock production and herding methods. Mongolia is the second biggest raw cashmere producer in the world after China. Mongolia prepares around 3,000 tons of cashmere per year. Mongolia produces more than 21% of the world output of cashmere and also exports high quality skins, hides, wool, meat and other animal products.

Some 40% of the Mongolian labor force continues to be employed in mostly nomadic livestock herding (30.3mln heads of livestock recorded in 2005).

**Table #2**

**Number of livestock and household animals**

Type	2001	2002	2003	2004	2005	2006
Livestock (in thousands)						
Camel	285.2	253	256.7	256.6	254.2	253.5
Horse	2,191.8	1,988.9	1,968.9	2,005.3	2,029.1	2114.8
Cattle	2,069.6	1,884.3	1,792.8	1,841.6	1,963.6	2167.9
Sheep	11,937.3	10,636.6	10,756.4	11,686.4	12,884.5	14815.1
Goat	9,591.3	9,134.8	10,652.9	12,238	13,267.4	15451.7
<b>Total</b>	<b>26,075.3</b>	<b>23,897.6</b>	<b>25,427.7</b>	<b>28,027.9</b>	<b>30,398.8</b>	<b>34802.9</b>

### 1.1.2. Crops

Before 1990 the sector’s output was 700.0-880.0 thousand tones of crop, 100.0-120.0 thousand tones of potato, and 500.0-700.0 tones of livestock fodder. Before 1990 land cultivation sector’s policy was to fully meet domestic demand for crop, potato, vegetables, and livestock fodder as well as to export while in 1990-1996 consistent with the principle of the “closer the property the better is its operation”, land cultivation entities were transformed into joint stock companies with state ownership. Land cultivation production dropped significantly due to reduced direct and indirect support from the Government and lack of management skills and capacity to run the business in the market economy.

**Table #3**

*TOTAL CROPS, by type of plants*

Type	<i>Thousand tons</i>			
	2003	2004	2005	2006
Cereals-Total	165.0	138.5	75.5	138.6
Wheat	160.4	135.6	73.5	127.8
Barley	2.0	2.8	1.7	8.3
Oats	0.9	0.3	0.5	1.8
Potatoes	78.7	80.2	82.8	109.1
Vegetables	59.6	49.2	64.2	70.4
Fodder crops	8.4	9.6	8.3	10.2
Technical crops	0.8	5.9	1.2	11.1

In recent years, the Government of Mongolia has determined the replacement of the crop farming /land cultivation sector/ as a prioritized direction of the agricultural policy. The main policies among the development of the agricultural sector are focusing on the effective use of soil resource, climate and economic resource, the improvement of the agricultural production and introduction of the new and advanced technology.

**Table #4**

*Number of Agriculture, Hunting and Forestry Establishments, at the end of the year*

Sectors	2003	2004	2005	2006
Total	31,478	34,218	39,677	48,879
Agriculture, hunting and forestry	1,928	1,958	2,208	2,389

Since 2003, total sown area was decreased by about 20.0 thousand hectares in every year and in 2006, there were 162.0 thousand hectares of sown area, which consists of 126.2 thousand hectares of cereals, 10.7 thousand hectares of potatoes, 5.9 thousand hectares of vegetables, 3.9 thousand hectares of fodder crops. Compared with 2005, total sown area was decreased by 27.5 thousand hectares or 14.5 percent. In 2003-2005, there

were total amount of 165.0-75.5 thousand tones of cereals, 78.7-82.8 thousand tones of potatoes, 59.6-64.2 thousand tones of vegetables were harvested and in 2006 there were 138.6 thousand tones of cereals, 109.1 thousand tones of potatoes, 70.4 thousand tones of vegetables, 10.2 thousand tones of fodder crops were harvested. As well 983.3 thousand tones of hay harvest and 34.0 thousand tones of hand-made fodder were prepared. Compared with 2005 the volume of cereals, potatoes and vegetables were increased by 63.1 thousand tones or 83.6 percent and 26.2 thousand tones or 31.7 percent and 6.3 thousand tones or 9.8 percent respectively. Also the volume of hay harvest was increased by 138.2 thousand tones or 16.4 percent, but hand-made fodder was decreased by 1.2 thousand tones or 3.4 percent.

**Table #5**

*Gross Agricultural Output, at current prices*

Sectors	2003	2004	2005	2006
Total	423,555.8	595,731.0	754,293.7	927,890.1
Of which:				
Livestock	328,578.6	491,785.3	641,785.3	781,436.7
Crops	94,977.2	103,945.7	112,701.9	146,453.4

Yields of cereals, potatoes per hectare staple agricultural crops were harvested 11.0 centners and 101.7 centners respectively. Compared with 2005 the yield of cereals and potatoes per hectare staple increased by 6.3 and 16.9 centners respectively. In 2006, the development of the agro-technology and technological innovations made to the agricultural sector had a positive impact on the level of crop. In addition, suitable climate condition had a positive effect on total amount of vegetables and sown area and amount of crop for per hectare has been increased.

There is a network of flourmills with a total capacity of more than 300,000 tons of flour per year. There is also a network of 8 larger grain storage facilities with a total capacity of 250,000 tons of cereals. Mongolia is producing one third of the total domestic consumption of flour. The total annual capacity often-bigger flour factories are 163.0 thousand tons.

**1.1.3. Meat and meat products**

Meat and meat product manufacturing has an important place in the food sector and is considered to be the most potential sector for future development. Mongolia produces 200-250 thousand tons of meat and fully supplies the domestic consumption of meat. The production of meat is composed of 30% beef, 40% mutton, 10% of goat meat and 15% of horse meat. There are 28 medium and large slaughterhouses with a total capacity of about 85,000 tons of carcass meat per year. However, they only use 20% of their total capacity. In total, there are over 70 SMEs that produce meat products. As far as the food supply to the population is concerned, local meat production meets all the domestic demand and some meat products are exported.

Among the larger meat slaughtering companies, Makh Impex JSC has a capacity of producing 120.0 tons of carcass meat per day, slaughtering 400 large animals (camel, horse, cattle) livestock and 4,000 small animals (goat and sheep) livestock in one shift. Bagahangai meat processing company has a capacity of slaughtering 200 large animals and producing 25.0 tons of carcass meat. The “Darkhan makh expo” JSC has a capacity of slaughtering 400 large animals and 2,000 small animals livestock or producing 80.0 tons of carcass meat per day. By the end 2003, “Meat market” Co., Ltd placed into operation its new meat processing factory with production capacity of slaughtering 50 tons of meat and 10 tons of internal organs in a shift, which was equipped most advanced and sophisticated facilities of modern meat processing industry that meets international standards of meat and meat products.

#### ***1.1.4. Milk and milk production***

Many small and medium factories and business entities manufacturing milk products are established in the aimag, towns and soums, providing solid basis for the further development of the dairy industry. In 2006, the total output of processed milk was 7.1 mln litres, which is 5 times more than 2000.

There are about 88 small and medium sized dairy plants, with a total daily capacity of about 50.0 tones of fresh milk, producing butter, cheese and other dairy products. Local dairy production has not been able to meet the population’s needs fully. Mon-Fresh factory of Monsonic Group and a New Zealand-Mongolian joint venture, NZM-Food Company introduced tetra-pack technology and are now producing milk and fruit juice using UHT technology.

Mongolia produces 300 million liters of milk per year but the ten dairy plants in the country get only 3-5 percent of this. The rest is locally consumed fresh or domestically used in various forms. Milk consumption varies widely between rural and urban people. Somebody in the countryside uses on an average 200 liters of milk per year while for a city dweller this goes down to 50 liters. This is considerably less than in many countries. More than two-thirds of the demand for milk products in urban areas is met by imports from both China and Russia. These include liquid milk in packets as well as yoghurt in cups, and other products. Specialists of the Mongolian Food Association are, however, skeptical about the quality of these imports. There are no proper measures in force to ensure standards during imports and they feel it is high time for the Ministry of Health to impose strict safety controls.

#### **1.2. Turnover**

For 2006 the total external trade turnover equaled 3,028.4 million US dollars, of which exports 1,542.8 million US dollars and imports 1,485.6 million US dollars. Compared to the previous year, total external trade turnover increase by 34.6 percent, of which exports increased by 44.9 percent and imports by 25.4 percent respectively. The

export turnover of agricultural products, vegetable origin and food products have remained relatively constant for the last 4 years period as indicated in Table #6.

**Table #6**

*COMPOSITION OF EXPORTS, by groups of commodities*

Sectors	2003	2004	2005	2006
Total	100.0	100.0	100.0	100.0
Live animals, animals origin products	3.7	2.1	1.8	1.7
Vegetable origin Products	0.2	0.7	0.1	0.6
Animal and vegetable fat and oil	0.0	0.0	0.0	0.0
Food products	0.0	0.1	0.2	0.1

In comparison to the total exports the imports of food products is larger in Mongolia by 6 times. Therefore, there are significant concerns over the quality of the imported food products.

**Table #7**

*COMPOSITION OF IMPORT, by groups of commodities*

Sectors	2003	2004	2005	2006
Total	100.0	100.0	100.0	100.0
Live animals, animals origin products	0.8	0.6	0.5	0.6
Vegetable origin Products	4.7	6.9	4.7	4.3
Animal and vegetable fat and oil	1.3	0.9	1.1	0.8
Food products	7.7	7.2	6.6	6.5

Table #8 shows the break of main import food products; consequently, there can be observed an increase in the amount of imported wheat and flour, significant amounts of butter, while slight decreases in the imports of potato for 2006.

**Table #8**

*MAIN IMPORT COMMODITIES*

Food Commodities	Unit	2003	2004	2005	2006
Wheat	Thousand tons	61.5	114.9	97.5	102.2
Flour	Thousand	75.2	79.3	103.9	105.6

	tons				
Vegetable oil	Thousand tons	0.1	0.6	0.2	0.1
Margarine	Thousand tons	3.0	3.6	4.6	5.1
Butter	Tons	55.1	5.0	8.4	104.6
Granulated Sugar	Thousand tons	19.0	33.7	26.8	26.3
Candy	Thousand tons	5.1	5.6	6.0	5.4
Flavored flour product	Thousand tons	5.2	5.8	6.1	6.7
Canned fruits, nuts	Thousand tons	0.1	0.0	0.1	0.0
Rice	Thousand tons	14.8	26.7	13.8	19.1
Millet	Thousand tons	6.2	7.8	8.4	7.2
Green tea	Thousand tons	1.9	2.2	1.5	2.0
Potato	Thousand tons	40.2	38.4	41.0	35.6
Onion, garlic	Thousand tons	7.1	9.5	5.5	4.3
Fresh fruit		23.3	22.9	22.6	15.3
Of which apple, pear	Thousand tons	17.1	16.5	16.3	9.4
Soft drinks	Million liters	5.0	4.9	4.2	5.5
Alcoholic beverages	Million liters	17.2	19.5	9.4	12.0
Of which beer		15.7	12.9	7.8	10.8

### 1.3. Employment

As Table #10 shows up to 14% of total industrial workers are engaged in the food sector, equaling 391.4 thousand persons in the agriculture, hunting and forestry industry out of 1,009,900 employees or total workforce for 2006.

**Table #9**

*Employees, by sectors, at the end of the year:*

	<i>Thousand persons</i>			
<b>Sectors</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Total	926.5	950.5	968.1	1,009.9
Agriculture, hunting and forestry	387.5	381.8	386.2	391.4

Productivity is the measurement of efficiency of production, which determines the amount of produced goods and services per unit of input. Consequently according to Table #12, the productivity in the agriculture, hunting and forestry industry was quite high, especially in respect to raising and breeding of livestock.

**Table #10**

*Labor Productivity, at current prices, by sectors*

Sectors	<i>Thousand tugrugs</i>			
	2003	2004	2005	2006
At the National Level	1,646.6	2,073.1	2,631.2	3,207.4
Agriculture, hunting and forestry	4,015.4	4,896.0	1,961.0	1,820.3
Livestock	656.9	1,005.8	1,305.4	1,469.9

***Labor Laws and Social Safety Nets***

The Labor Law, adopted in 1999, defines labor rights and imposes labor obligations on all entities operating in Mongolia. Sanctions for violations set forth in the law are low, ranging from 5,000MNT (4USD) for an officer involved in illegal practices, to 250,000MNT (228USD) for a company (depending on type and severity of offence).

The Law on Social Insurance, adopted in 1994 and amended in 1996, 1997, and 1999, provides for the payment of benefits to insured persons concerning pensions, industrial injury, unemployment, and health related issues. The cost of the program is covered by a 19% employer levy on formal sector wages, a 7% contribution by employees, and voluntary contributions from those outside the formal sector. Although the percentage of contributions is relatively high by transition and developing country standards, benefits are modest.

**1.4 Consumption**

Mongolia’s annual demand for vegetables is approximately 100,000 tons of potatoes and 160,000 tons of other vegetables. In 2006, there were 84,400 tons of potatoes and 62,500 tons of other vegetable produced supplying 70% and 50% respectively of domestic requirements. In reality, most herders living in rural areas are not used to eating vegetables nor do they have the facilities to store vegetables during winter, so actual consumption could be lower than this estimate. The estimated annual consumption of flour is 241,200 tons requiring 340,000 tons of wheat. A further 15,000 tons is needed in spirit production and some 70-75,000 tons of seed wheat is needed to produce the annual production of 425-430,000 tons of wheat. To produce this quantity of cereals and vegetables, it would require a non-irrigated area of about 350-400,000 ha for wheat, 8-10,000 ha and potatoes a similar area for vegetables. However, if wheat was grown under irrigated conditions, a yield of more than 3.5 tons/ha is possible, reducing the required planted area.

**Table #11**

*TOTAL LIVESTOCK SLAUGHTERED FOR CONSUMPTION, by type, end of year  
Thousand heads*

Type	2003	2004	2005	2006
<b>Total</b>	<b>5,034.5</b>	<b>6,404.9</b>	<b>6,284.0</b>	<b>5,898.0</b>
Camel	20.7	33.3	33.4	29.3
Horse	193.6	317.6	324.5	277.9
Cattle	388.7	454.2	389.2	367.8
Sheep	3,104.4	3,204.3	2,918.2	2,896.1
Goat	1,327.1	2,395.5	2,618.8	2,326.9

Wheat flour and wheat products represent 46% of daily food consumption in urban households and 70% in rural households. As such, it is considered an essential food item and has been categorized as a “strategic food product” under the Mongolian Law on Food. As wheat comprises 84.5% of the cropped area and more than 90% of total crop production, it is crucially important in the agricultural sector. There is less investment in the production of potatoes, vegetables, and fruit and in fodder for livestock. There is also lower consumption of these compared with flour as a daily food source for humans.

**Table #12**

*MAIN AGRICULTURAL PRODUCTION PER CAPITA*

Commodities	2003	2004	2005	2006
Meat, by slaughter weight	59.4	77.5	72.2	66.2
Milk	139.5	161.3	167.2	185.9
Eggs, pcs	2.9	6.4	8.4	7.4
Cereals	50.6	55.0	29.5	53.7
Potato	31.6	31.8	32.3	42.3
Vegetables	23.9	19.5	25.0	27.3

## 1.5. Commercial trade

In 2006, consumer price overall index (CPI) increased by 6.0%, of which foodstuff has shown an increase by 3.3%. The CPI is a measure of the average change in prices over time fixed in terms of quantity and quality of goods and services purchased by all consumers. Table #15 shows relatively marginal increases in the prices of consumer goods, except for dairy products such as kefir and condensed, which have increased by 26% and 4.4% respectively in 2006.

**Table #13**

*ANNUAL AVERAGE PRICES OF MAIN GOODS, in ULAANBAATAR*

Goods & services	<i>Tugrugs</i>			
	2003	2004	2005	2006
Flour, grade 1, kg	331	455	417	405
Bread "Atar"	269	298	318	320
Rice, kg	453	595	707	681
Mutton, kg	1,352	1,596	2,124	2,273
Beef, kg	1,435	1,724	2,348	2,500
Milk, liter	482	468	488	525
<b>Kefir, Liter</b>	<b>514</b>	<b>518</b>	<b>557</b>	<b>707</b>
<b>Condensed milk, kg</b>	<b>3,404</b>	<b>3,450</b>	<b>3,601</b>	<b>3,760</b>
Sugar, kg	558	578	630	897
Green tea, 2 kg	1,957	1,995	2,599	2,673
Apple, kg	763	860	814	1,080
Potato, kg	396	337	471	529
Cabbage, kg	500	475	503	509
Carrot, kg	491	410	649	544
Turnip, kg	510	436	734	544
Onion, kg	524	467	434	548
Salt, white, kg	223	221	250	252
Vegetable oil, liter	1,368	1,484	1,600	1,543
Egg, piece	98	107	150	127
Alcohol, domestic, 0.5 liters	-	2,822	3,000	2,940

The wholesale and retail trade channels along with the repair of motor vehicles and household good business establishments comprise a significant amount of business establishments in Mongolia, constituting 41% out of all business establishments. As Table #14 shows the total output of domestic trade channels are quite substantial amounting 236.5 billion tugrugs for wholesale trade and 249.9 billion tugrugs for retail trade for 2006.

**Table #14**

*Number of Wholesale, Retail trade, Repair of motor vehicles, Household goods Establishments, at the end of the year*

Sectors	2003	2004	2005	2006
Total	31,478	34,218	39,677	48,879
Wholesale, Retail Trade, Repair of motor vehicles, Household goods	13,339	14,404	17,122	20,529

Retailing in the key city markets is changing radically. Well-stocked supermarkets with imported produce now dominate, though many imported dairy products appear to be close to, or past their sell-by date. Two large food and beverage companies, one supermarket-based, the other the main producer of vodka, recently diversified into producing UHT milk and fruit juices. Their business model is based on reconstituting imported full-cream milk powder, which is marketed as ‘fresh’ milk. When the powder comes from EU countries, the export subsidy alone (130 Tugrugs or 11 US cents per liter of LME) is more than most Mongolia herders are paid for their summer milk – when they can sell it. A generation of urban Mongolians has grown up drinking UHT milk, either reconstituted in Mongolia, or imported from Siberia and South Korea. Also, consumers now say they are concerned about the quality and safety of local milk and traditional dairy products and prefer imported products. Urban Mongolians consume just one quarter as much LME as their rural counterparts. The informal milk market is important for the older generation, though quality is often uncertain. Raw milk and traditional products account for about half urban consumption. The informal market is important not only as a supplier of milk and dairy products, but also a source of regular income, especially for female-headed households, and jobs.

**Table #15**

*Total Output of Domestic Trade Channels:*

Types of trading channel	<i>Bln Tugrugs</i>			
	2003	2004	2005	2006
Wholesale trade	112.6	137.7	188.4	236.5
Retail trade	222.7	237.1	227.4	249.9

## 1.6. Distribution Channels

**Table #16**

*Number of Active Establishments, by sectors of economic activities*

Sectors	2003	2004	2005	2006
TOTAL	26,552	25,356	22,547	30,817
Agriculture, Hunting, Forestry and Fish	1,432	1,304	1,300	1,402

### ***Description of products in the distribution chains***

The following is a brief outline of products undergoing distribution chains before reaching the customers in Mongolia.

#### ***1. Production:***

- Receipt of products, its storing and packaging;
- Recording and assigning of the production date on the products;

#### ***2. Distribution according to the orders;***

#### ***3. Transportation;***

#### ***4. Check the stocks for supply;***

#### ***5. Distribution of products to the stores and supermarkets;***

#### ***6. Distribution of products to the store sections and stocks;***

#### ***6. Issuing of bar codes to the products;***

#### ***7. Reading of the bar codes at the counter to be sold to the consumers.***

#### ***Implementation of Bar Coding at the MNCCI:***

The GS1 system of standard numbering and bar coding provides businesses with a common coding language and communication tool that allows companies to transmit and collect information efficiently and effectively. The GS1 standard numbering is the allocation of a unique non-significant number to a product, location or service so that it can be identified distinctly anywhere in the world. This unique number is represented in bar code form for speedy and accurate input of data into a computerized system. The GS1 system also provides for standardization of supplementary information about products and shipments such as unique container identification, production date, best-before date, batch number, serial number, dimensions, delivery location, etc. Communication is also more efficient with standardized electronic messages. The GS1 is a multi-sectorial system used by more than 108 countries worldwide, with the number still growing each year. In Mongolia, the GS1 system is managed and promoted by the GS1 Mongolia Association at the Mongolian National Chamber of Commerce and Industry. The Barcode & Logistics Bureau purposes to implement GS1 system in supply chain activities and develop trade and transport logistics measures in accordance with the policies of international organization in Mongolia.

#### ***Main activities are:***

- Define the trade logistic development to enhance service quality;
- Develop the logistic sector's policy environment;
- Strengthen sector management and human resource management;
- Endorse proposals and initiatives from the private sector
- Allocation of GS1 numbers;
- Promotion of the GS1 standards on product numbering and bar coding;
- Publication and dissemination of information on the development of bar code technology in Mongolia;

- Close liaison with GS1 numbering organizations in other countries on the development of standard product numbering and bar-coding.

## 2. Food Machinery Industry, Equipment and Installation for Food Industry

The food machinery and equipment is largely imported to Mongolia as the following statistics show:

**Table #17**

*Imports of food machinery and equipment, by country:*

Commodity description and countries	2006		Commodity description and countries	2007	
	Quantity	Amount /thousand USD/		Quantity	Amount /thousand USD/
<b>Harvesting or threshing machinery, including straw or fodder balers; grass or hay mowers; machines for cleaning</b>	<b>30,967</b>	<b>1,639.3</b>	<b>Harvesting or threshing machinery, including straw or fodder balers; grass or hay mowers; machines for cleaning</b>	<b>366</b>	<b>604.6</b>
United States of America	13	0.5	United States of America	15	53.9
Republic of Korea	4	10.5	Republic of Korea	2	1.5
Canada	3	13.2	Canada	40	81.4
Russian Federation	30,170	1,081.9	Russian Federation	11	7.7
Ukraine	20	16.2	Ukraine	19	19.9
Federal Republic of Germany	7	1.7	Federal Republic of Germany	15	0.4
China	1	0.0	China	243	439
Japan	6	0.2	Japan	21	0.7
Belarus	20	48.9	Belarus	-	-
Singapore	82	0.7	Singapore	-	-
Finland	4	2.9	Finland	-	-
Switzerland	1	0.0	Switzerland	-	-
India	6	0.2	India	-	-
<b>Other agricultural, horticultural, forestry, poultry-keeping or bee-keeping machinery</b>	<b>275</b>	<b>621</b>	<b>Other agricultural, horticultural, forestry, poultry-keeping or bee-keeping machinery</b>	<b>1,967</b>	<b>1,138.7</b>
Republic of Korea	4	0.4	Republic of Korea	1	11.4
Canada	-	-	Canada	2	3.7
Ukraine	-	-	Ukraine	12	31.8
China	167	539.1	China	1,950	939.8
Czech Republic	1	66.4	Czech Republic	2	152
Turkey	1	11.4	Turkey	-	-
Federal Republic of	102	3.8			

Germany					
<b>Machinery used in the milling industry</b>	<b>3,691</b>	<b>567.4</b>	<b>Machinery used in the milling industry</b>	<b>3,908</b>	<b>203.5</b>
Republic of Korea	-	-	Republic of Korea	1	0.7
Canada	3,438	289.9	Canada	23	28.1
Poland	-	-	Poland	5	1.3
China	242	41.9	China	1,022	46.2
Czech Republic	-	-	Czech Republic	2,825	126.1
Japan	-	-	Japan	32	1.1
United Kingdom	1	147.3	United Kingdom	-	-
<b>Machinery for the industrial preparation or manufacture of food or drink</b>	<b>5,162</b>	<b>6,301.8</b>	<b>Machinery for the industrial preparation or manufacture of food or drink</b>	<b>3,408</b>	<b>1,973.8</b>
United States of America	3	4	United States of America	2	0.6
Belarus	-	-	Belarus	4	1.8
Belgium	-	-	Belgium	1	0.3
Republic of Korea	596	50	Republic of Korea	32	4.5
Italy	1	6.8	Italy	38	13.2
Canada	-	-	Canada	1	0.0
Netherlands	-	-	Netherlands	2	5.8
Russian Federation	2,468	64	Russian Federation	395	107.5
Poland	-	-	Poland	1	0.4
Taiwan	11	55	Taiwan	2	28.3
Federal Republic of Germany	1,615	2,875.5	Federal Republic of Germany	2,172	1,571.3
China	345	1,646.9	China	697	211.6
Czech Republic	14	1,545.6	Czech Republic	15	6.3
Sweden	-	-	Sweden	2	15.5
Switzerland	1	0.4	Switzerland	44	6.7
Japan	25	14.6	Japan	-	-

The above table shows decrease in the imports of the harvesting threshing machinery, including straw or fodder balers; grass or hay mowers; machines for cleaning in 2007 from that of the previous year, while showing increase in the imports of other agricultural, horticultural, forestry, poultry-keeping or bee-keeping machinery in the same year. In addition, it can be seen that there is a significant increase in the imports of the machinery for the industrial preparation or manufacture of food or drink for 2007.

**Table #18**

**NUMBER OF AGRICULTURAL TECHNIQUES**

*Thousand pieces*

<b>Indicators</b>	<b>1996</b>	<b>2000</b>	<b>2003</b>	<b>2006</b>
Tractors	7.0	4.7	4.2	3.9
Grain harvester	1.4	1.1	1.1	0.6
Tractor drills	2.9	2.0	1.6	0.9

**Table #19**

*International Trade, selected countries of the regions:*

*USD millions*

Regions	Exports of Goods		Imports of Goods	
	2000	2004	2000	2004
<b>WORLD</b>	<b>6,355,992t</b>	<b>9,145,027t</b>	<b>6,565,299t</b>	<b>9,376,351t</b>
<i>High income countries:</i>				
Of Which: USA	781,125	818,775	1,257,636	1,525,516
Japan	479,249	565,807	379,511	454,543
Germany	551,505	912,261	502,827	716,926
<i>Low &amp; middle income countries:</i>	<b>1,743,942</b>	<b>2,472,407</b>	<b>1,616,357</b>	<b>2,413,971</b>
<i>East Asia &amp; Pacific countries:</i>	<b>711,644</b>	<b>966,841</b>	<b>620,409</b>	<b>903,670</b>
Of Which Mongolia	355	880	550	990

Mongolia has exported goods and raw materials to 69 foreign countries including European countries (16.1%), Asian countries (56.7%) and countries of American continent (25.9%) And has imported goods originating from 91 countries including European countries (48.7%), Asian countries (44.5%), which are equal to 93.2 percent of total import. Compared to other countries in transition, Mongolia achieved tangible results in trade liberalization. Mongolia's accession to the World Trade Organization (WTO) in January 1997 highlights its relative success in pursuing economic reforms and developing a new trade regime in line with international trading principles. It's allowed Mongolia to become a part of global trade regime, access full information on WTO member countries, benefit from human resource development in trade field, etc.

### **3. Intellectual Property Rights (IPR)**

#### **3.1. IPR in Mongolia**

The Mongolia Government ensures the protection of intellectual property. Mongolia adopted the "Patent Law" and "Copyright law" in 1993 and the "Law on Trademarks and Geographical Indications" in 2003. Copyrights, Patents and Trademarks are registered at the Intellectual Property Office of Mongolia. The office also enforces the laws pertaining to intellectual property rights. Mongolia become a member of the World Intellectual Property Organization in 1979 and joined with eleven International Conventions on intellectual property rights.

*Agreements and Conventions, to which Mongolia has joined, are as follows:*

- Convention on Establishing the World Intellectual Property Organization, 1979;
- Paris Convention on the Protection of Industrial Property, 1985;
- Madrid Agreement Concerning the International Registration of Marks, 1985;
- Patent Cooperation Treaty (PCT), 1992;
- Berne Convention for the Protection of Literary and Artistic Works, 1998;
- Hague Agreement concerning the International Deposit of Industrial Design, 1997;
- Trade related Intellectual Property Rights Aspects Agreement of World Trade Organization, 1997;
- Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, 2000;
- Locarno Agreement Establishing an International Classification for Industrial Designs, 2000;
- Strasbourg Agreement Concerning the International Patent Classification, 2000;
- Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks, 2002;
- Nairobi Treaty on the Protection of the Olympic Symbol, 2002;
- WIPO Performance & Phonograms Treaty, 2002;
- WIPO Copyright Treaty, 2002.

### **3.2. MNCCI: Promotion of IPR**

The Mongolian National Chamber of Commerce and Industry has been appointed as a first Mongolian attorney in 1970. The Patent and Trademark Bureau of the MNCCI maintains very close professional relationship with World Intellectual Property Organization, Intellectual Property Office of Mongolia (IPOM) as well as over 100 foreign firms and law offices worldwide. The Bureau deals with industrial property rights issues such as registering, filing and prosecuting of applications for patents, trademarks, geographical indications and industrial designs, renewal and assignment thereof, recording of ownership changes and licenses as well as their litigation and provides its domestic and foreign customers and clients with legal advice.

Since 2001 the Bureau has been organizing “Best brand of the Year”-award ceremony in cooperation with IPOM focused on promoting private sector’s smart usage of their trademarks in the domestic market and increase the knowledge of brand amongst their competitors and consumers. In regards with enforcement and protection of IPRs the MNCCI has established Cooperation Agreement with Swiss Agency for Development and Cooperation and Shanghai Intellectual Property Administration.