

**MONGOLIA: AN AGRICULTURAL MARKETING  
SYSTEM IN TRANSITION**

Dorilig Shombodon  
Gary W. Williams

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Dr. Shombodon is a consultant for the Mongolian Business Development Agency and a visiting scholar in the Department of Agricultural Economics at Texas A&M University through the International Research and Exchanges Board (IREX) program. Dr. Williams is Professor and Director of the Texas Agricultural Market Research Center. Research for this report was supported in part by a grant from IREX with funds provided by the Henry Luce Foundation. None of these organizations are responsible for the views expressed herein.

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**Abstract:** The collapse of the Soviet Union in the early 1990s, coupled with a rapid withdrawal of Russian troops and a sudden cessation of substantial Russian economic subsidies had a profound effect on the Mongolian agricultural economy and marketing system. This report details those changes and makes recommendations about changes still needed for the establishment of an efficient and effective agricultural marketing system in Mongolia. The report overviews the current environment in Mongolia within which changes in the agricultural marketing system are taking place, discusses the current structure of the agricultural sector and the agricultural marketing system in Mongolia, considers current and potential government policy related to the marketing and trade of agricultural products in Mongolia, and finally provides some recommendations for improving the Mongolian agricultural marketing system.

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## MONGOLIA: AN AGRICULTURAL MARKETING SYSTEM IN TRANSITION

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### Executive Summary

Mongolia is a remote, landlocked, agriculturally based, and sparsely populated country with vast semi-desert and desert plains, mountains in the west and southwest, and the Gobi Desert in the southeast. Only 1% of Mongolian land area is arable, 80% is permanent pasture, and 9% is forested. The modern Mongolia derives from a small tribe whose leader, Ghengis Khan, began a conquest that would eventually encompass an enormous empire stretching from Asia to Europe, as far west as the Black Sea and as far south as India and the Himalayas. Chinese domination from the 15<sup>th</sup> century faded to domination by and economic dependence on the Soviet Union in the 20<sup>th</sup> century.

Within months of the collapse of the Soviet Union in the early 1990s, Mongolia underwent its own relatively peaceful democratic revolution which has had a profound effect on the Mongolian agricultural economy and marketing system. A new constitution and efforts at economic restructuring has forced the development of more efficient financial and market systems. A major problem continues to be the availability of rural credit. Mongolian GDP grew by 19.8% between 1993 and 1998, with agriculture growing by 27%.

The transition to a market economy has instigated considerable social change in Mongolia. A sharp increase in migration towards the central economic region from the remote aimags (Mongolian provinces) results from increasingly high prices for material, fuel, food, and consumer goods and poor living standards in the remote areas. An increasing rate of unemployment and hyperinflation have both severely impacted the standard of living in the country.

The open market policy has promoted technical transfer through joint ventures or enterprises with foreign investment with concessions granted by the Government. Mongolia enjoys an almost pristine natural environment but suffers from poor soils for agricultural production, limited natural fresh water resources, and problems of deforestation, overgrazing, and the conversion of virgin land to agricultural production in some areas which have all increased soil erosion from wind and rain.

### The Mongolian Agricultural Sector

The agriculture share of GDP increased from 16% to 33% between 1989 and 1998 on the strength of a 33% increase in livestock production even as crop production dropped by nearly 60%. In the livestock sector, the number of herding households and the national livestock herd have both surged to record levels. As state and collective farms were privatized, the large livestock operations were transformed into many individual herding households. About 60% of all herding households owned less than 100 animals in 1998, less than required for self-sufficiency. Mongolian herding households traditionally raise all five main species of livestock (i.e., camels, horses, cattle, sheep,

and goats). Camels and horses are primarily used as draft animals. Sheep and goats are raised for income and/or to provide families with food and fiber. Cattle are used for both purposes.

Crop production is a small component of Mongolian agriculture. Only 1% of the total land area is arable, only 24% of which is actually cultivated. Major crops produced in Mongolia include wheat, potatoes, vegetables, and fodder crops. A shortage of credit, poor weather, strong competition from imports, and the relative profitability of producing cashmere and other products from livestock have combined to reduce the area planted to crops in Mongolia since the transition to democracy.

### **The Mongolian Agricultural Marketing System**

Before the 1990s, a well-organized system of planning and procurement agencies, government ministries, industry boards, and state and collective farms insured the production and movement of agricultural products from farms to consumers. The socialist system provided little incentive for producers, procurement agencies, or processors to expand the range of their market activities. Each was concerned with simply implementing the state plan in terms of quantity and quality.

The current livestock and product marketing system, however, is in disarray as the economy struggles to transition to a market-based system. The Government no longer takes responsibility for production planning or the procurement of livestock or livestock products. State and collective farms have been replaced by numerous, small, private herding households, firms and cooperatives, and individual farmers. Management and financial inefficiencies have forced the many local level trade and procurement agencies to cease operations. Private commercial firms and individual traders now handle the marketing of livestock products between domestic producers and domestic and foreign buyers. Lack of market coordination, planning, and information is currently hampering the establishment of a more efficient, operational livestock marketing system.

Cashmere has become the most marketable agricultural product in Mongolia with the greatest demand. Producers sell cashmere directly to buyers in local (soum), provincial (aimag), or central markets or to Chinese traders at border trading points. Cashmere then moves directly to processors or other wholesalers or further up the market channel before being purchased for processing or sold at border trading points.

The Mongolia milk market is localized around the large urban areas. Producers sell much of their milk directly to consumers and institutional users or to large milk processors in large urban areas who then sell at wholesale and retail to end users. Most slaughter livestock are sold through soum or aimag markets to processors. Traders, brokers, and other buyers also purchase livestock from producers for city food markets or commercial slaughter houses. Slaughterers sell their meat products to a retail outlets or foreign buyers for export to Russia, Japan, and Jordan.

The simple marketing strategy of herding households is to maximize the size of their herds, given the labor, land, and other constraints they face. Herders often sell their cashmere, hides, and skins to representatives of local cooperatives, trading companies, or processors who visit their camps in the peak period of shearing and slaughtering. Many traders also work independently as private

brokers buying raw materials from herders and selling them to buyers in other markets or to processors. Buyers generally offer low prices for livestock products and high prices for the consumer goods they offer in exchange. Herders sometimes choose to bring their own livestock products to soum (local) centers for sale to buyers.

A network of agricultural cooperatives buy livestock products from member herding households at local market prices and sell them in central markets or at border trading points for better prices than individual herders can obtain. Cooperatives are not financially strong enough to procure and handle all livestock products in each soum, however. Some trading companies have established a network for purchasing livestock products in various aimags. Although such commercial procurement networks have injected some organization and coordination into the chaotic Mongolian livestock marketing system, the lack of credit severely limits their ability to handle a large share of the available supplies of livestock and livestock products.

Processors are the most important buyers of livestock and livestock products in the aimag and central markets. Cashmere processors have enough capacity to process the entire annual cashmere harvest in terms of primary processing and about 40% in terms of final processing. Milk processing capacity has declined in recent years. The few remaining milk processors generally contract with dairy farms to purchase their output and transport the locally purchased milk using their own equipment. Because the volume of meat production has been declining, the livestock slaughtering capacity utilization ratio has also been declining. The number of tanneries in Mongolia, however, has increased since 1990.

The increasing border trading with China is an indication of the competitiveness of Chinese traders in Mongolian livestock product markets. Cashmere has become Mongolia's most important agricultural export. Although meat has been a traditional Mongolian export, meat exports have declined since the transition to a market-based economy.

Both potatoes and vegetables are sold directly by producers to food markets and other retailers. There are no potato or vegetable processors or wholesalers except storage companies. Because local markets are small and the local population is generally self-sufficient in potatoes and vegetables, city food markets are the key buyers and provide both wholesale and retail functions in the market. Few grain millers and food processors operate in Mongolia and most face major problems in obtaining the necessary working capital to fund the purchase of raw materials. Most also are currently running at well under capacity.

Herders use various means to transport their livestock to market, including horses, motorbikes, carts, cars, and/or trucks. Some herders transport livestock products, especially cashmere, meat, and milk products, to central markets on any available commercial transport and travel as passengers with their luggage and products. Transportation represents 89% of the cost of livestock production in Mongolia.

## **Current Problems in the Mongolian Agricultural Marketing System**

Problems in the Mongolian agricultural marketing system related to producers include: (1) insufficient productivity; (2) long distances between herder camps; (3) low livestock product output; (4) few joint marketing incentives; and (5) little knowledge of efficient marketing practices.

Problems related to processors include: (1) a lack of marketing strategies; (2) inactive operations; (3) poor financial conditions; (4) lack of competitiveness; and (5) long distances from producers.

Problems related to market channels include: (1) incompleteness and disorganization; (2) lack of coordination among buyers and sellers; (3) lack of contract-based marketing activities; (4) lack of organization in wholesaling and in the activities of intermediaries; (5) poor and undependable transport services and high transport service fees; and (6) strong competition from Chinese traders.

Problems related to policy include: (1) uncertainty regarding public investments in the development of market channels and distribution of agricultural products; (2) the lack of access to credit by producers and processors; (3) inconsistent and unclear policy and policy objectives with regard to the export of agricultural products; (4) the lack of public financing of infrastructure development; and (5) insufficient quality control systems.

## **Mongolian Agricultural Policy**

Mongolian agricultural policy has basically been one of free and open markets. With the implementation of the National Industry Rehabilitation and Development Policy (NIRDP) in 1998, however, Mongolian public policy has begun to focus on issues of sustainable development. Little has yet been done to redress existing problems in the agricultural marketing system. Mongolian foreign trade policy has also recently begun to focus on the need to boost agricultural exports but implementation of the related policies and programs has been slow.

The main objectives of the NIRDP include: (1) an increase in agricultural incomes and employment and conservation of natural resources; (2) increasing livestock sector productivity through animal quality and breeding improvement; and (3) rehabilitation of crop production. The programs authorized under the NIRDP are designed to: (1) increase the output of finished products through processing livestock raw materials; (2) increase output of new products that are competitive in world markets through product development and mobilization of unused production resources; (3) increase the volumes, types, brand names, and safety of food products; (4) improve veterinary services and prevention of animal diseases; and (5) promote agricultural cooperatives. The production-oriented NRIDP will be ineffective at achieving development in the rural sector, however, without counterpart policy to resolve the problems faced by agricultural producers and processors in marketing their output.

Mongolian agricultural trade policy has vacillated from free and open markets to complete bans on exports and restrictions on imports to the current policy of relatively low export and import tariffs. Mongolia has faced a growing foreign trade deficit since 1996 largely as the result of the restrictive

import policies of its primary trading partners, Russia and China. This continuing trade imbalance is an indication that changes in government policy are needed. Mongolia acceded to the World Trade Organization (WTO) in 1996 in an effort to coordinate its external economic relations in the global integrated economy.

One consequence of the lack of government support for and protection of the domestic agricultural market in Mongolia is growing imports of agricultural products, particularly cereals (wheat), potatoes, and vegetables. More effective import restrictions may be necessary to protect domestic producers from growing import competition and promote the development of small- and medium-sized agricultural enterprises in Mongolia.

## **Conclusions and Recommendations**

As Mongolia transitions to a market economy, market mechanisms and adjustments have begun to operate in the agricultural sector. The demand for some types of livestock products, especially cashmere, is growing rapidly. Herding communities have reacted quickly to the increase in demand. The inventory of goats, for example, has grown rapidly resulting in rapid growth of raw cashmere production. Mongolia currently supplies about 25% of world cashmere products. At the same time, Mongolian cashmere producers and processors are facing strong competition from other countries like China which accounts for roughly 60% of world cashmere supplies.

While cashmere appears to be a success story for Mongolia, most other agricultural sectors are in decline. Exports of many livestock products have also declined while production has increased. In general, ineffective foreign trade policy, a lack of understanding of the trade policies of neighboring countries, and a delay in negotiations within the GATT have created distortions in Mongolia's terms of trade and foreign trade imbalances. The low 5% ad valorem import tax on all importables (except alcoholic beverages) and the equally low specific export tax implemented in 1997 for raw cashmere are inadequate to foster agribusiness development, fail to protect domestic agricultural markets from unfair market competition, and keep Mongolia from achieving a more reasonable level of exports. Clearly, Mongolia must devise policies and programs to counteract the effects of the policies of other countries and recapture export markets for meat and other agricultural products.

This study of the current conditions in agricultural marketing system of Mongolia leads to several policy recommendations. First, the status of Mongolian government policy related to the marketing and trade of agricultural products needs to be clarified. At the same time, Mongolia must engage fully in the negotiation of trade barrier reduction within the GATT framework. Development of agricultural market channels must be promoted by government and non-governmental institutions through information, education and extension services as well as market research. Finally, a study of the feasibility and market effects of supporting domestic producers and agribusinesses through policy mechanisms broadly used in the U.S. such as income support, price support, and credit programs is critically needed in Mongolia.

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## MONGOLIA: AN AGRICULTURAL MARKETING SYSTEM IN TRANSITION

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The collapse of the Soviet Union in the early 1990s, coupled with a rapid withdrawal of Russian troops and a sudden cessation of substantial Russian economic subsidies, sent shock waves through the Mongolian economy. Within months, Mongolia, a traditionally agricultural country, underwent its own relatively peaceful democratic revolution which included legalization of multiple and opposing political parties, a dramatically rewritten constitution, a set of free and relatively fair legislative and presidential elections, the opening of a market economy, and freedom of the press.

The events of the early 1990s had a profound effect on the Mongolian agricultural economy and marketing system. Following an overview of the current environment in Mongolia within which changes in the agricultural marketing system are taking place, the current structure of the agricultural sector and the agricultural marketing system in Mongolia are discussed, including an analysis of agricultural production, agricultural marketing channels, the movement of agricultural commodities and processed products through those channels, and current problems in marketing agricultural products in Mongolia. Then a consideration of current and potential government policy related to the marketing and trade of agricultural products in Mongolia is followed by some recommendations for improving the Mongolian agricultural marketing system.

### **Current Environment of the Mongolian Agricultural Sector**

An understanding of the agricultural sector of Mongolia and the changes taking place in the agricultural marketing system requires some understanding of the many dimensions of the geographic, historical, political/legal, economic, demographic, social/cultural, technological, and natural environments within which they currently operate.

#### *Geographic Environment<sup>1</sup>*

Mongolia is a remote, landlocked, and sparsely populated country with vast semidesert and desert plains, mountains in the west and southwest, and the Gobi Desert in southeast (Figure 1). With an average altitude of just less than a mile (5,184 feet), the Mongolian terrain slopes from the high Altai Mountains on the west and the north to plains and depressions in the east and the south. Hutyen Orgil (sometimes called Nayramadlin Orgil – Mount Friendship) in extreme western Mongolia, where the Mongolian, the Soviet, and the Chinese borders meet, is the highest point (14,350 feet). The lowest is 1,700 feet, an otherwise undistinguished spot in the eastern Mongolian plain.

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<sup>1</sup> This section based on Worden and Savada and CIA.

The Mongolian landscape includes one of Asia's largest freshwater lakes (Hovsgol Nuur), many salt lakes, marshes, sand dunes, rolling grasslands, alpine forests, and permanent montane glaciers. Northern and western Mongolia are seismically active zones, with frequent earthquakes and many hot springs and extinct volcanoes.

Of the 604,250 square miles of land area that make up Mongolia, only 1% is arable, 80% is permanent pasture, and 9% is forested. Only about 310 square miles are irrigated. Mongolia has three major mountain ranges. The highest is the Altai Mountains, which stretch across the western and the southwestern regions of the country on a northwest-to-southeast axis. The Hangayn Nuruu, mountains also trending northwest to southeast, occupy much of central and north-central Mongolia. These are older, lower, and more eroded mountains, with many forests and alpine pastures. The Hentiyn Nuruu, mountains near the Soviet border to the northeast of Ulaanbaatar, are lower still. Much of eastern Mongolia is occupied by plains, and the lowest area is a southwest-to-northeast trending depression that reaches from the Gobi region in the south to the eastern frontier.

The rivers in Mongolia drain in three directions: north to the Arctic Ocean, east to the Pacific, or south to the deserts and the depressions of Inner Asia. Rivers are most extensively developed in the north. The Selenge-Moron, Mongolia's major river system, drains into Lake Baykal. Some minor tributaries of Siberia's Yenisey River also rise in the mountains of northwestern Mongolia. Rivers in northeastern Mongolia drain into the Pacific through the Argun and Amur (Heilong Jiang) rivers, while the few streams of southern and southwestern Mongolia do not reach the sea but run into salt lakes or deserts.

### *Historical Environment<sup>2</sup>*

The current State of Mongolia was formerly known as Outer Mongolia. The name Mongol comes from a small tribe whose leader, Ghengis Khan, began a conquest that would eventually encompass an enormous empire stretching from Asia to Europe, as far west as the Black Sea and as far south as India and the Himalayas. The Mongol empire reached its zenith during the 13th century under Kublai Khan but fell into decline during the next century from internecine war and invasions from China. In 1689, the Mongol empire finally fell under Manchu rule. Following the Chinese Revolution of 1911 and the fall of the Manchus in 1912, however, the northern Mongol princes expelled the Chinese officials and declared independence under the Khutukhtu, or "Living Buddha."

In 1921, Soviet troops entered Mongolia and facilitated the establishment of a republic by Mongolian revolutionaries in 1924. Although China made a claim to Mongolia at the time, it was too weak militarily to assert it. Under the 1945 Chinese-Russian Treaty, China agreed to give up all claims to Outer Mongolia, which, after a plebiscite, became a nominally independent country. Allied with the U.S.S.R. in its disputes with China, Mongolia began mobilizing troops along its borders in 1968 when the two powers became involved in border clashes on the Kazakh-Sinkiang

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<sup>2</sup> This section is based on Worden and Savada.

frontier to the west and at the Amur and Ussuri Rivers. A 20-year treaty of friendship and cooperation, signed in 1966, entitled Mongolia to call upon the U.S.S.R. for military aid in the event of invasion.

In 1989, democratic revolution began in Mongolia, led by Sanjaasurengiyn Zorig. Free elections held in August of 1990 produced a multiparty government that was still largely Communist. With the collapse of the U.S.S.R. in 1990, however, Mongolia was deprived of Soviet aid forcing many Mongolian factories to shut down and pushing unemployment to 30%. Primarily in reaction to the economic turmoil, the Communist Mongolian People's Revolutionary Party (MPRP) won a significant majority in parliamentary elections in 1992. In 1996, however, the Democratic Alliance, an electoral coalition, defeated the MPRP, breaking with Communist rule for the first time since 1921. But in 1997, a former Communist and chairman of the People's Revolutionary Party, Ntσαaagiyn Bagabandi, was elected president, further strengthening the hand of the anti-reformers.

Disagreement within Mongolia's ruling coalition over the pace and direction of market reforms in April 1998 caused a shake-up that thrust Tsakhiagiyn Elbegdorj, a pro-reform politician, into the prime minister's position. But parliamentary cross-purposes led to his resignation, and a succession of prime ministers followed. In July 2000, the Mongolian People's Revolutionary Party (formerly the Communist Party) nearly swept parliamentary elections, winning 72 out of 76 seats. MPRP leader Nambariin Enkhbayar has vowed that although he planned to slow reforms and privatization, the country would not revert to Communism.

### *Economic Environment*

Along with the transformation from socialism to democracy in Mongolia, a new constitution was enacted in 1991. The new constitution guarantees a more market based economy in Mongolia. In part, Article 5 of the new Constitution states:

- “1. Mongolia shall have an economy based on different forms of property, which takes into account universal trends of world economic development and national specifics.
2. The State recognizes all forms of both public and private property and shall protect the rights of the owner by law.”

The new market orientation of the economy along with the liberalization of foreign trade has given Mongolian economic entities the right to make their own economic decisions and the freedom to operate in accordance with the forces of demand and supply. The liberalization of prices, domestic markets, and trade and most other economic activities, privatization of manufacturing and other business entities, and the limitation of government involvement in market operations have all contributed to increased economic growth and greater economic stability in Mongolia. The privatization of public property and protection of private property rights were also basic components of the transition to a market economy. As a consequence, the private sector now produces more than 60% of the national gross domestic product (GDP).

The economic restructuring has forced the development a more efficient financial system consisting of state budget, tax, customs and banking organizations, capable of providing sound budgetary policy and of achieving key policy targets at macro- and microeconomic levels through taxation, expenditure financing, and state management. A major problem continues to be the availability of credit in the rural economy. Mongolian agricultural banks which control about 75% of the available rural credit in Mongolia have been faced with increasing costs, increasing uncertainty, and narrowing interest margins (Figure 2). As a result, small- and medium-size producers and processors have encountered increasing shortages of credit for financing their operations.

The fundamental objective of Mongolia's policy concerning foreign economic relations is in the optimal use of external factors to achieve adequate solutions for long-term and current economic goals within the context of sustainable development and with a view to eventually securing a proper place for its economy in regional economic integration (*Mongolian Investments*).

Along with opening its markets to the international community, Mongolia is receiving aid and grants from the International Monetary Fund (IMF), the World Bank, the ADB and other donor organizations and countries. The international loans are diversified in type and conditions and are an important means of enhancing the external trade balance and reducing the budget deficit. The international loans are directed towards economic development with emphasis on infrastructure which is of critical importance to the economy of Mongolia.

According to recent statistics, the number of donor countries and international institutions that support the economic policies currently pursued by the Government of Mongolia and grant development aid and loans has reached nearly 30. Japan, the ADB, the World Bank, and Germany are the major donors. In general, the Government has pursued a policy of utilizing donor assistance primarily for private sector development and for enhancing the infrastructure of enterprises, electricity, telecommunication, road and transportation networks and social sectors to create favorable conditions for foreign investors. During the period of 1990 to 1993, international loans were provided primarily for the purpose of dealing with emergency situations such as shortages of goods and electricity, and other services. Between 1994 and 1995, loans were disbursed to implement mid-term projects, renovate machinery, equipment and production facilities, to restore small and medium enterprises (SMEs), and to conduct development surveys. Since 1996, loans have been received for policy-related projects such as improving the national fiscal system and implementing long-term structural transformation, particularly of highways, railroads, and coal mines. In total, foreign aid and loans of US\$ 1.4 billion have been committed by donor countries, about US\$ 1 billion of which have been used for various economic development activities.

Since 1990, the privatization of state property, private sector development, the development of infrastructure and other activities financed by foreign assistance, and liberalization of trade together have resulted in the accumulation of real domestic savings in the Mongolian economy. New tax laws enacted by the Parliament to reduce individual and private business tax burdens have created favorable conditions for an increase in savings. The forecast by the private sector is for a sharp increase in domestic savings in Mongolia beginning in the year 2010.

Mongolian GDP (at 1993 constant prices) grew by 19.8% between 1993 and 1998, nearly a 4% annual average growth rate. Over the same five year period, the highest growth rates of 26.2% and 27.2% were recorded for the industrial and agricultural sectors, respectively (Figure 3). The growth rates for most other were lower at between 11.6% and 18.7%. The per capita GDP (at 1993 prices) reached 83,100 togrogs or about US\$ 75 in 1998 (National Statistical Office of Mongolia). Nevertheless, only the agricultural and services sectors have now exceeded their 1989 levels (Figure 3). Agriculture replaced the industrial sector as the dominant sector of the economy in 1992 and now accounts for 38% of national GDP compared to 32% for the industrial sector (Figure 4).

In 1999, total industrial output was 237.0 billion togrog (at 1995 constant prices), a growth of 2.7 billion togrog over the previous year. Total industrial output has increased in Mongolia on the strength of growth in various industries, including electric and thermal energy and steam, mining of metal ores, extraction of crude petroleum and natural gas, other mining and quarrying, manufacture of textiles, medical precision and optical instruments, watches and clocks. Output in other industrial sectors declined, however, including some textile sub-sectors, for example, knitted goods (a 97.6% decline), scoured wool (a 144.9% decline), and carpet (a 7.0% decline).

In 1996, Mongolia became a member of the World Trade Organization (WTO). Accession by Mongolia to the WTO was considered to be a critical step in Mongolia's effort to coordinate its external economic relations in the global integrated economy.

In 1999, total foreign trade amounted to US\$ 871.1 million, a 2.7% increase from a year earlier. With exports of US\$ 358.3 million and imports of US\$ 512.8 million, the external trade balance stood at US\$ 154.5 million in 1999. Even though imports increased by 1.9% between 1998 and 1999, exports increased by even more (3.8%) so that the trade deficit actually narrowed slightly between 1998 and 1999 by US\$ 3.6 million. An increase in cashmere production in 1999 boosted exports of textiles and textile articles by 58.7% or US\$ 45.7 million in 1999.

### *Political/Legal Environment*

In accordance with the new Constitution, laws necessary for regulating business relations have been approved by the Mongolian Parliament in recent years. In addition, all political parties have recognized that the development of an open market economy is critical for achieving overall economic development.

With the aim of fostering economic development, the Mongolian Government approved essential industrial programs in 1998 such as the National Industry Rehabilitation and Development Policy (Resolution No. 157) and the Export-Oriented Production Support Program (Resolution No. 158). The Government supports agriculture through crop and vegetable production and animal breeding programs. These policies are based on the perceived requirements of national independence, national security, and sustainable social and economic development through increased production

of products for both domestic and export markets. These and other policies support environmentally friendly production in accordance with current global trends.

Government agricultural policy is focused mainly on the cashmere market. The Mongolian cashmere market, which accounts for about 25% of the world supply of cashmere products, is facing strong competition from Chinese traders. Consequently, the Mongolian Government has experimented with various policies in an attempt to foster the competitiveness of the Mongolian cashmere industry. In

1991 as the country began its transition to democracy under the new constitution, the Government launched a policy of liberalizing all agricultural prices which resulted in a sharp increase in the price of cashmere as a result of highly attractive prices offered by Chinese importers. The result was a substantial increase in the incomes of herding households but shortages of raw materials to domestic cashmere processing factories.

In an attempt to redress the domestic supply problem, the Mongolian Government enacted a total ban on raw cashmere exports in 1994. One consequence was an increase in foreign investments in the Mongolian cashmere industry. Other consequences, however, included severe criticism by international financial organizations such as the Asian Development Bank (ADB) and the World Bank and a decline in the incomes of herding communities.

The cashmere export ban was finally removed in 1996 and free trade became the policy until the following year when the Government introduced a customs duty of 4,000 togrog/kg (nearly US\$ 4/kg) for raw cashmere exports, equaling about 30% of the value of raw cashmere. Because the market price of raw cashmere has continued to increase, the fixed customs duty now comprises only about 10% of the value of raw cashmere.

The Mongolian government faces a continuing dilemma of trying to support producers without harming processors and vice versa. So far, a policy that will support both groups and also promote cashmere exports has proved elusive. At the same time, the government has done little to address production and marketing problems in other sectors of the agricultural economy.

### *Demographic Environment*

The transition to a market economy has instigated considerable demographic changes in Mongolia (Zuunnii Medee). The population of Mongolia reached 2.38 million in 1999, a 16.6% increase since 1989. The population estimate of July 2000 put the population at 2,650,952. Between 1989 and 1999, the number of families increased by 26.8% to a total of 542,3000, 49.2% of which live in houses and the rest (50.8%) in *gers* (residences typical of nomadic peoples such as tents). About three-fourths of the total population are under age 30, with 30% under 14 and over 40% under 17

years old. About 54% of the population is between 18 and 59 years old and only 6% is 60 years or older.

The democratic changes and economic reforms that have occurred have accelerated and shifted the internal migration process. The population now tends to migrate towards the central economic region from the remote aimags (Mongolian provinces). This trend is the result of increasingly high prices for material, fuel, food, and consumer goods and of poor living standards in the remote areas. At the same time, migrants can sell their livestock at higher prices in urban central markets while finding greater employment opportunities and access to social welfare programs.

Life in sparsely populated Mongolia has become more urbanized. Nearly half of the people live in the capital, Ulaanbaatar, and in other provincial centers. In 1999, about 32.5% of the total population lived in the capital city of Ulaanbaatar compared to 26.8% in 1989 and 24.1% in 1979. This growth is evidence of the growing market for industrial and consumer goods in the capital city. Over the same period, however, the share of the population living in rural areas increased from 43% to 48.1%, evidence of a growing rural-urban polarization. While semi-nomadic life still predominates in the countryside, settled agricultural communities are becoming more common.

Ethnic Mongols account for about 85% of the population and consist of Khalkha and other groups, all distinguished primarily by dialects of the Mongol language. Mongol is an Altaic language – from the Altaic Mountains of Central Asia, a language family comprising the Turkic, Tungusic, and Mongolic subfamilies – and is related to Turkic (Uzbek, Turkish, and Kazakh), Korean, and, possibly, Japanese (CIA). The Khalkha make up 90% of the ethnic Mongol population. The remaining 10% include Durbet Mongols and others in the north and Dariganga Mongols in the east. Turkic speakers (Kazakhs, Turvins, and Khotans) constitute 7% of Mongolia's population. The rest are Tungusic-speakers, Chinese, and Russians. Most Russians left the country following the withdrawal of economic aid and collapse of the Soviet Union in 1991, however.

Although the traditionally predominant religion in Mongolia, Tibetan Buddhist Lamaism was suppressed under the communist regime until 1990, with only one showcase monastery allowed to remain. Since 1990, as liberalization began, Buddhism has enjoyed a resurgence (CIA). Mongolians are highly literate for a developing country with 83% of the population over the age of 15 able to read and write, including 89% of the male and 77% of the female population (CIA).

### *Social and Cultural Environment*

The Mongolian “Social Protection System,” consisting of social and health insurance and compensation funds as well as poverty alleviation programs, has been completely restructured to reflect the shift to free and open markets. Mongolia also benefits from comparatively well-developed education, health, and cultural networks.



The transition to a market economy also substantially influenced social conditions in Mongolia. For example, the unemployment rate increased to 8.7% in 1994 and then dropped and fluctuated between 5.4% and 6.5% during 1995 and 1996 and between 5.8% and 7.5% during 1997 and 1998. Large scale failure of the economy to grow along with hyperinflation accompanied the transition and negatively impacted the standard of living in the country. Since 1991, a government Household Budget Survey (HBS) has provided data for the calculation of a poverty indicator for Mongolia<sup>3</sup> using the consumer basket method. According to the HBS, the number of individuals living above the poverty line increased from 14.5% to 19.6% between 1991 and 1996. An alternative assessment of poverty in Mongolia by the World Bank, based on the Living Standards Measurement Survey (LSMS), indicated that 36% of the total population was considered to be poor in 1995 (World Bank).

### *Technology Environment*

The open market policy of the Mongolian government has created favorable conditions for technical transfer through joint ventures or enterprises with full foreign investment with concessions granted by the Government. The Mongolian Government and business community are trying to develop export-oriented industries and modernize existing factories by re-equipping them with advanced technologies and techniques.

The adoption and spread of communications technology has been fostered by new communication laws in October 1995. The new laws privatized and separated the former state communication system into two companies: the “Mongolian Postal Service” and the “Mongolian Telecommunications Joint Stock Company,” of which 40% of the shares now belong to the South Korean Telecom Company. The Mongolian Postal Service has 23 post offices in all aimag (provincial) centers and cities and 23 various service centers in Ulaanbaatar districts and townships.

The installation of eight EM-48 stations, 12 stations in Ulaanbaatar and 23 stations in aimag centers, has enabled direct telephone and fax connections between the aimags, Ulaanbaatar, and foreign countries. An Intelsat system ground station together with digital microwave lines and an international direct dial system were developed with Japanese aid. The system allows Mongolia to communicate with over 130 countries by using over 140 communication channels.

### *Natural Environment*

Mongolia is one of few countries with almost untouched nature. The traditional nomadic lifestyle centered around animal husbandry was typical of rural Mongolia through much of the twentieth century. Such a lifestyle depends on nature for subsistence, creating a symbiosis between

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<sup>3</sup> The monthly poverty line indicator has been officially increased from 125 Tgs in rural areas and 210 Tgs in urban areas in 1991 to 9,000-9,720 Tgs and 10,380-10,400 Tgs in February 1997, respectively.

humankind and nature. Since the beginning of democratic reforms in 1990, the Mongolian Government has begun paying more attention to the protection of the ecosystem of the country. At the 1992 United Nations Earth Summit in Rio de Janeiro, Mongolia proposed that its entire territory be declared a special biosphere preserve. The geographical location of Mongolia between Russia and China and a scarce population inhabiting a vast, largely undeveloped territory creates problems for marketing and transporting goods within and through Mongolia. Although investments in infrastructure are being made to mitigate these problems, the potential environmental impacts are not clear.

Besides the poor soils for agricultural production, Mongolia suffers from a number of natural limitations to agricultural activities, including limited natural fresh water resources. Also, deforestation, overgrazing, and the conversion of virgin land to agricultural production in some areas have all increased soil erosion from wind and rain. Decertification and mining activities have also had a deleterious effect on the environment. The policies of the former communist regime promoting rapid urbanization and industrial growth have raised concerns about their continuing negative effects on the environment. For example, the burning of soft coal in power plants and the lack of enforcement of environmental laws have severely polluted the air in Ulaanbaatar.

### **The Mongolian Agricultural Sector**

In contrast to most developing countries, agriculture has become an increasingly important component of the overall economy over the last decade. The share of agriculture in the national GDP increased from 15.5% in 1989 to 36.7% in 1995 with a slight decrease to 32.8% in 1998. Some of that growth is the result of a 5.4% growth in total agricultural output between 1989 and 1998 that included a 33.1% increase in livestock production and a 58.5% drop in crop production (Table 1). The remainder of the growth in the agriculture share of the GDP, however, is a consequence of a sharp decline in industrial output following the transition to a market economy in the early 1990s.

#### *Livestock Production*

Mongolian herding households are what remains of the centuries old Mongolian nomadic civilization. With the privatization of state and collectively owned animals, the number of herding households and herders has increased sharply in recent years (Table 2). Between 1990 and 1998, the number of herding (nomadic) households in Mongolia increased by over 150% to 187,124 while the number of individual herders increased by over 180% to 414,433. Over the same period, however, the total number of households raising livestock grew by only 5.4% primarily because the number of non-nomadic households raising livestock dropped in half. As state and collective farms have been privatized, the large livestock operations have been transformed into numerous individual herding households which has been accompanied by a more rapid increase in the national livestock

herd than previously experienced. At the same time, many previously absentee livestock owners whose animals were being raised by others have become active herders themselves. By 1998, the private sector accounted for 95.3% of all livestock in Mongolia. Currently, of the roughly 1.2 million rural population, about 35% are active livestock herders.

The dynamics of the livestock population in Mongolia now reflect the growing influence of market factors on decision-making in the livestock sector. According to the 1999 livestock census, livestock numbered 33.5 million head in Mongolia, including 355,400 camels, 3.2 million horses, 3.8 million cattle, 15.2 million sheep, and 11.0 million goats. Over the last decade, the national livestock herd increased by 33.3% as a result of a doubling of the goat population, a 39% increase in the number of horses, a 38% increase in the number of cattle, and a 3% increase in the number of sheep (Figure 5). The camel herd, on the other hand, declined by 36% over the same period. Between 1998 and 1999, the total number of livestock in Mongolia increased by 1.9% or 617,300 head.

The number of livestock owned continues to be an important indicator of the wealth of the Mongolian rural household. The number of livestock owned per household varies widely in Mongolia from less than ten to over 2,000 animals. About 60% of all livestock households owned less than 100 animals in 1998, less than required for self-sufficiency (Table 3). Nearly 25% owned between 100 and 200 animals, a number adequate for a livestock household to be self-sufficient. The remaining 15.4% of livestock households owned over 200 head of livestock and, thus, are capable of generating some surplus income in addition to providing for household needs. Households that own more than 1,000 head generally operate more as a commercial family business.

According to official government statistics, nearly all rural households, regardless of their household size or level of expenditure are in debt with expenditures outstripping monthly income each month on average (Table 4). With cash expenditures higher than cash income each month, rural households must be largely self-sufficient in providing food and shelter for their family members.

Mongolian herding households traditionally raise all five main species of livestock (i.e., camels, horses, cattle, sheep, and goats). Camels and horses are primarily used as draft animals. Sheep and goats, on the other hand, are raised to generate income and/or to provide families with food and fiber. Cattle are used for both purposes. In general, herding households do not tend to specialize in breeding certain animal species. However, the herd structure of the household tends to vary depending on ecological and economic conditions.

Livestock herds in Erdene soum, Gobi-Altai aimag in the Gobi regions are predominantly goats (56.1%) for cashmere production while the share of goats in the herds in other regions averages about 20% (Table 5). Herders of Bulnai soum in the High Mountain region raise yaks and produce milk products to market them in central markets in winter. The shares of horses and cattle in the herds in Altanbulag soum, Tov aimag are comparatively high given their proximity to the fresh milk and *airag* (fermented mare milk) market in the Capital city. The number of herding households, herders, and livestock by production region in Mongolia is provided in Table 6.

Nearly 98% of all agricultural land in Mongolia is natural pasture and about 1% is used for producing hay. Together they total 127.8 million hectares. The pastures are of comparatively low productivity, yielding an average of only 0.37 metric tons (mt) of pasture grasses per hectare (ha) in the summer and fall and only 0.24 mt/ha in the winter and spring (Jigjidsuren). The low productivity of Mongolian livestock pastures is a natural limitation to the growth of extensive livestock operations, and, consequently, for income generation by herders.

### *Crop Production*

Crop production in Mongolia is a small component of the Mongolian agricultural sector. The land dedicated to crop production expanded rapidly between 1960 and 1980 in connection with the cultivation of virgin lands. Currently, however, crop land accounts for only one percent of the total agricultural area in Mongolia and shows little sign of increase. In 1998, only 24.2% of the total potential arable crop land was actually cultivated.

The area planted to cereals/wheat and potatoes decreased by 54.4% and 35.7%, respectively, between 1989 and 1998 (Figure 6). The small area planted to vegetables increased by 31% over that period, primarily as the result of a "Green Revolution" that occurred in 1997-98. Crop production declined again in 1999, including a 14% decline in cereal production to 171,300 mt, a 2.2% decline in potato production to 63,800 mt, and a 17% decline in vegetable production to about 39,000 mt. Several factors account for the sharp decline in Mongolian crop production: (1) a lack of working capital and credit to finance production, (2) unfavorable weather conditions in a number of years and particularly in 1998 and 1999, and (3) strong competition from imports, mainly from China, of flour, potatoes, and vegetables. One consequence has been an increasing dependence of the Mongolian economy on imported supplies of grains and other food products. While Mongolia was self-sufficient in flour production from 1963 through 1989, for example, domestic flour mills currently supply only about 50% of the total market requirements.

The major cereal crop producing aimags (provinces) are Selenge (43%), Tov (25%), Bulgan (8%), Uvs (5%), and Hentii (4.5%) to the north and west of the capital city of Ulaanbaatar (Table 7). Little crop production occurs to the south, southwest, or southeast of Ulaanbaatar.

Seeds and fuel represent the largest out-of-pocket costs in the production of most crops in Mongolia. In wheat production, for example, fuel and seeds represent nearly 60% of the variable costs which account for over 70% of total costs (Table 8). The lack of credit to purchase those two inputs in particular severely limits the current growth potential of crop production in Mongolia.

## **The Mongolian Agricultural Marketing System**

The transition of Mongolia from a socialist to a democratic market economy in the early 1990s also substantially transformed the system of procuring, marketing, and distributing agricultural commodities in Mongolia. Although similar in some ways, the livestock and crop marketing systems in Mongolia both before and after the upheaval of the early 1990s differ substantially.

### *Livestock and Livestock Product Procurement, Marketing, and Distribution System*

Before the 1990s, a well-organized system consisting of planning and procurement agencies, government ministries, industry boards, and state and collective farms insured the production and movement of agricultural products from farms to consumers. The transition of the Mongolian economy to free markets is forcing a major restructuring of the livestock product marketing system.

### **Livestock and Product Marketing Under the Socialist System**

Under the Socialist system, livestock product procurement was done in accordance with a state plan and many groups and organizations were involved at the local (soum), provincial (aimag), and national levels (Table 9). Given the proposals of the planning agencies, the Mongolian Parliament (State Ih Hural) approved an annual state plan for the production, procurement, distribution, and processing of livestock products for each aimag from which the hurals (government bodies) of each aimag and soum were required to develop and approve implementation plans at their respective levels.

The Procurement Agency of each soum contracted with the negdels<sup>4</sup>, state farms<sup>5</sup>, and individual herders to purchase their livestock, with slaughterers to supply them with live animals, and with processors to supply them with livestock products (cashmere and other fibers, hides and skins, meat, and other products) according to the state plan. These agencies also contracted with transporters to haul live animals and products between and among the various groups. All transactions were settled in cash for which bank loans were made available. Agriculture and Food Industry Boards and Trade and Procurement Boards operated as intermediaries between the state and each soum and coordinated and controlled production and procurement activities at the aimag and soum levels.

Given the strict state plan, the deadlines imposed, and fixed prices, there was little incentive or need for producers, procurement agencies, or processors to expand the range of their market activities. Each was concerned with simply implementing the state plan in terms of quantity and quality. A somewhat different system was in place for the fresh milk market which was important primarily in the larger cities. The milk factory in Ulaanbaatar purchased and transported milk from farms

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<sup>4</sup> In 1986, a total of 255 negdels (collective farms) owned 69% of all livestock.

<sup>5</sup> In 1986, a total of 69 state farms owned 5.9% of all livestock.

located at distances of up to 250 km (155 miles) away using their own equipment. Producers near aimag centers transported their own milk to processing facilities.

## **The Current Livestock and Product Marketing System**

The current livestock and product marketing system is in disarray as the economy struggles to transition to a market-based system. The Government no longer takes responsibility for production planning or the procurement of livestock or livestock products. State and collective farms have been replaced by numerous, small, private herding households, firms and cooperatives, and individual farmers. Management and financial inefficiencies have forced the many soum-level trade and procurement agencies to cease operations. Private commercial firms and individual traders now handle the marketing of livestock products between domestic producers and domestic and foreign (primarily Chinese) buyers. Lack of market coordination, planning, and information is currently hampering the establishment of a more efficient, operational livestock marketing system.

### *Cashmere, Wool, Hides and Skins<sup>6</sup>*

Cashmere has become the most marketable agricultural product in Mongolia with the greatest demand over the last decade. Consequently, Mongolian producers have increasingly switched from producing products required under the Socialist plans of the previous several decades to goats and other livestock. About 60% of Mongolian goats is raised in the aimags of Bayanhongor (1.25 million head), Gobi-Altai (1.03 million head), Ovorhangai (952,600 head), Omnogovi (923,700 head), Dundgovi (856,500 head), Hovd (770,900 head), and Zavhan (751,900 head).

High prices for cashmere mean that most Mongolian market agents are involved in the buying and selling of cashmere. As a result, producers/herders have ample market outlets for their cashmere. Producers sell cashmere directly to buyers in local (soum), provincial (aimag), or central markets or to Chinese traders at border trading points (Figure 7). Cashmere then moves from the first point of sale either directly to processors or other wholesalers or further up the market channel (soum to aimag to central markets) before being purchased for processing or sold at border trading points. Many of the same market agents handle different livestock products at different times of the year - cashmere and camel wool in the spring and early summer, sheep wool in summer, and hides and skins in the late autumn and early winter.

The flow of cashmere and other livestock products through the market channel ultimately is derived from consumer demand which is heavily influenced by the price levels in the different markets. High demand and prices for cashmere in recent years has generated strong competition for available cashmere supplies in Mongolian markets forcing processors to send their own representatives to aimag centers to compete for supplies. Such is generally not the case for other livestock products.

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<sup>6</sup> Because the way in which cashmere is marketed in Mongolia is similar to how wool, hides, and skins are marketed, this section focuses on cashmere.

Most cashmere processors also process camel and sheep wool along with cattle, horse, and yak hair and other coarse fibers. Camel wool has fine fibers and a strong demand. Although sheep wool continues to be a valuable raw material in terms of quantity and quality in Mongolia, the demand for sheep wool is declining because many of the factories that process sheep wool are facing difficult economic circumstances. The demand for cattle, horse, and yak hair and similar fibers is also on the decline. In addition, high transport costs are depressing the demand for all types of wool.

While cattle and horse hides and sheep and goat skins are still in high demand, their supply is derived from the demand for meat. Consequently, the supply of hides and skins is generally highest in the fall and winter. In this market, Chinese traders dominate the financially weak domestic processors in purchasing available supplies.

A substantial profit margin motivates market operators to participate in handling cashmere and other livestock products between local and central markets or border trade points. Unfortunately, few groups keep records on the share of cashmere and other livestock products that moves through the various parts of the market system. The National Customs Department checks and keeps record of what products are exported to where and in what quantity. A common estimate is that domestic processors buy two thirds of the total cashmere and Chinese traders purchase the remainder.

#### *Milk and Meat*

The Mongolia milk market is localized around big cities, especially Ulaanbaatar, Darhan, and Erdenet. Producers sell much of their milk directly to consumers and institutional users such as nurseries, kindergartens, and hospitals. They also sell milk to large milk processors in and around the large urban areas who then sell at wholesale and retail to end users.

The meat market channel is the longest and widest among the market channels for livestock products. The meat market channel begins at soum centers all over the country. Livestock producers sell some of their animals directly to end users who process their own meat. More commonly, however, livestock are sold through soum or aimag markets to end users. Increasingly, traders, brokers, and other buyers purchase livestock from producers for city food markets or commercial slaughter houses. Slaughterers sell their meat products to a growing number of retail outlets or to foreign buyers for export to Russia, Japan, and Jordan.

#### *Crop and Crop Product Procurement, Marketing, and Distribution System*

In contrast to that of livestock and livestock products, the Mongolian crop marketing system has undergone a rapid transition from the socialist system to free markets.

## **Crop and Crop Product Marketing Under the Socialist System**

Under the Socialist system, the processes of planning, producing, and selling of both livestock and crop products were similar. Marketing crop products was easier to manage, however, given the geographic concentration of production on state-owned farms in the central region of the country. In 1986, these farms accounted for 70% of the cereals, 72% of the potatoes, and 66% of the vegetables grown in Mongolia. The negdels (collective farms) produced 15%, 13%, and 20%, respectively, of these same crops. Producers contracted with processors for the quantity and quality of crop products to deliver in accordance with the state plan. If producers delivered crops that did not meet the state standards, processors had the right to refuse. For all crops meeting state standards, however, processors were required to pay producers at fixed state prices. Trucks from separate transportation organizations were used to deliver crops from producers to processors. During the harvest season, a Government Commission coordinated all activities of producers, processors, transport organizations and other Ministries related to harvesting, sales, and transportation.

## **The Current Crop and Crop Product Marketing System**

Since the shift to a free market system, crop producers have enjoyed a number of advantages over livestock producers in the marketing of their products. First, many of the state and collective crop farms have privatized and adopted a company management structure. Second, crop farms are comparatively large, are relatively efficient, and have experience in marketing crops. Third, the privatization process has also transformed many state-owned processing plants like flour mills into private business enterprises. Fourth, crop farms and processors are located in close proximity making frequent communication possible. Finally, state crop purchases have been replaced by private transactions between producers and processors.

There are only a few big flour mills primarily in the larger urban areas, including Ulaanbaatar, Darhan, Selenge, Bulgan, Hentii, Dornod, Hovsgol, and Uvs aimag centers and Harhorin. Each purchases grain from neighboring cereal farms. The flour mills in the Ulaanbaatar, Darhan and Selenge aimag centers are close enough geographically that they compete for supplies of wheat, especially in drought years. The many other small flour mills in soum centers primarily serve customers in their local areas. The close business relationship between wheat producers and flour mills in Mongolia preclude the involvement of private traders in the buying and selling of wheat. Wheat mills sell flour, bakery products, and confectioneries through wholesale to retail or directly to retail businesses like pastry shops and bakeries.

The potato and vegetable marketing system in Mongolia is somewhat different than that for wheat. Both products go directly from producers to food markets and other retailers for human consumption. There are no potato or vegetable processors or wholesalers except storage companies. Producers sell their potatoes and vegetables directly to consumers or to city food markets, retail shops, and/or storage houses. Because local markets are small and the local population is generally self-sufficient in potatoes and vegetables, city food markets are the key buyers and provide both wholesale and retail functions in the market. Storage houses purchase potatoes and vegetables to



provide supplies to the market in the off-season (winter and spring). Individual traders participate actively in potato and vegetable markets and make profits on the differences in the prices between the local and central markets. Small private shops and kiosks are the main retail outlets.

## **Components of the Mongolian Agricultural Marketing System**

A number of individuals, organizations, companies, and agencies participate in the marketing of agricultural products in Mongolia. This section provides some details on the roles and the contributions of the various participants to the movement of agricultural products from producers to consumers in Mongolia.

### *Live Animals and Livestock Product Markets*

The marketing of live animal and animal products in Mongolia is concentrated in either local or central markets. Herding households provide the basic supply of live animals at the local level while a number of groups perform basic live animal procurement and/or processing functions at the local (soum) level. The procurement and processing of livestock, however, also occurs through provincial (aimag) or national central markets. In addition, meat, cashmere, and other livestock products are sold for exports and are purchased by Chinese and Russian border traders.

### **Local Markets**

Herding households generate cash income mainly by marketing their livestock products. About 72% of the cash income of herding households is used to purchase foodstuffs (Figure 8). The simple marketing strategy of herding households is to maximize the size of their herds, given the labor, land, and other constraints they face. The size of the herds managed by herding households varies widely up to about 500 head (see Table 3). Only about 2% of all livestock herds in Mongolia are greater than 500 head.

Livestock and livestock marketing is also highly seasonal in Mongolia. For example, herders harvest cashmere and wool in March to June. The milking season lasts from June to early October. Most animals are slaughtered for meat between July and December each year (Table 10).

Most herders usually sell their products to local buyers in one of two ways. They often sell their cashmere, hides and skins to representatives of local cooperatives and trading companies or to individual traders who visit their camps in the peak period of shearing and slaughtering. In exchange for these products, the buyers usually offer herders consumer goods, particularly foodstuff such as flour, rice, tea, sugar, and tobacco. These buyers generally offer low prices for livestock products and high prices for the consumer goods they offer in exchange. Buyers often face some

uncertainty that herders will have the products they want in sufficient quantities and qualities when they visit. The cost of transporting their purchases to processors can also be quite high.

Given their geographic location, their economic situation, and the prices offered by visiting buyers, herders may choose to bring their livestock products to soum centers. A shortage of cash, food, or other goods may prompt herders to bring their products to soum centers rather than wait for visiting buyers. Potential buyers in soum centers include local cooperatives and trading companies and individual traders, as well as local (soum) processors.

### *Cooperatives*

Agricultural cooperatives form a network in Mongolia in which 170 cooperatives with 90,000 member herders and producers operate in all aimags except Selenge, Darhan-Uul, Orhon and Gobi-Sumber. The National Association of Agricultural Co-operatives coordinates their activities.

Agricultural cooperatives provide financial and competitive advantages to their members. They buy livestock from member herding households at local market prices. They then sell the livestock products usually in central markets or at border trading points for better prices than individual herders can obtain. At the end of the financial year, agricultural cooperatives give dividends to member households, depending on the quantity and quality of their products sold by the cooperative. Herders who do not participate as members of cooperatives do not receive any portion of the dividends paid to cooperative members.

Unfortunately, agricultural cooperatives are not financially strong enough to procure and handle all livestock products in each soum. In addition, financial credit has been largely unavailable to cooperatives. Consequently, cooperatives still account for a small share of the total sales of agricultural products in Mongolia. In 1998, for example, the total revenues of all agricultural cooperatives was only about 4.1 billion togrogs (about US\$ 4 million) of which 1.2 billion togrogs were for consumer goods and 2.9 billion togrogs were for agricultural products. In that same year, cooperatives accounted for only 4% of all cashmere sold, 3.6% of the sheep wool, 1.3% of the meat, 1.8% of all cereal grains, 0.3% of the potatoes, and 0.1% of the vegetables.

### *Trading Companies*

Private trading companies replaced the former State Procurement Agencies in the procurement of livestock products in many soums. While these companies have comparatively good facilities for handling livestock materials, many also face difficult financial circumstances.

Some trading companies have established a network for purchasing livestock products in various aimags. For instance, the Erdenet Tegsh company in Azhan aimag has two branches - one in the aimag center and one in Tosontsengel soum - and an agent in each soum. Although such commercial procurement networks have injected some organization and coordination into the chaotic Mongolian livestock marketing system, the lack of credit severely limits their ability to handle a large share of the available supplies of livestock and livestock products.

### *Individual Traders*

Many individual traders work independently as private brokers buying raw materials from herders and selling them to buyers in other markets or to processors. These traders may visit herding households in the rural areas or purchase raw materials in soum and aimag centers.

### *Local (soum) Processors*

A few processors of livestock raw materials are located in some soum centers such as the felt factories in Ihtamir soum, Arkhangai aimag and in Ikh-Uul soum, Hovsgol aimag. One of the authors (Shombodon) visited the Ihtamir felt factory in March 1999. The factory has 39 employees and capacity to produce 200,000 meters of felt annually. In recent years, the factory has utilized only 10% of its installed annual capacity and has purchased only about 15-27 mt of yak molt and 120-170 mt of sheep wool each year. The factory purchases its supplies of raw materials in one of four ways: (1) during the Bag (the rural sub-district) meetings; (2) from single herders at the factory; (3) from neighboring aimags and soums; or (4) from the Ulaanbaatar market.

The Ihtamir felt factory purchased 60-70% of its yak moult and 80% of its sheep wool from Ulaanbaatar and Erdenet in 1998 primarily because the factory required relatively large volumes. The factory also buys low quality sheep wool from Ulaanbaatar and Erdenet carpet factories at cheaper prices. In March 1999, the factory bought 700 kg of yak molt from Ulaanbaatar market. This factory has found that consolidating sufficient loads of raw materials across often long distances between herding households is much too costly. As with most private operations in Mongolia in recent years, this factory had a difficult time obtaining credit for its operations during the peak of the harvesting season. In addition, business relationships between local herders and the Ihtamir factory are difficult. Based on an informal survey conducted by one of the authors (Shombodon), only 23% of the herders in the soum recognize the felt factory as a permanent partner. At the same time, the factory buys only 25% of the yak wool available in the soum.

### **Aimag (Provincial) Markets and Central Markets**

Herders often take their livestock and livestock products to aimag market centers or to central markets in the large urban areas like Ulaanbaatar, Darkhan, and Erdenet. Herders also tend to take their livestock and products to aimag or central markets when they need to be examined by doctors or when they bring their children to universities or institutes. Sometimes herders bring their products to these markets in an effort to buy cheap goods before family celebrations such as Tsagaan Sar, weddings, or other special events. Nevertheless, not all herders bring their products to aimag and central markets because of the long distances, the relatively small amounts of products some households have to sell, and the limited amount of family labor available to some households.

Herders generally bring their livestock and products to market with horses and or motorbikes if the volume of products is small or with pack animals, carts, and trucks if the volume is large. According

to national statistics, an average of only 1 in 25 herding households has an automobile while 1 in 8 has a motorbike.

Herders also tend to sell perishable products such as milk, yogurt, and *airag* (fermented mare's milk) in the closest available market. Consequently, herders tend to come to towns and cities to market their milk and milk products during the summer months.

Few live animals for slaughter are sold in local markets because most rural households are self-sufficient in meat and because only the wealthy herding households have surplus animals to market for meat. Consequently, most livestock for slaughter are brought to aimag and central markets for sale. Some bring frozen meat and meat products to these markets by truck in November and December. Others drive their surplus animals to the central markets in Ulaanbaatar, Darhan and Erdenet. In the fall of 1999, over 20,000 animals were driven from the western aimags to Ulaanbaatar for sale.

The aimag centers and central markets of the major urban areas are usually open air markets. In Ulaanbaatar, there are five open air markets for livestock and livestock products, including Tsaiz, Sudalt, Tavan-Erdene, Orkhon, and Bayangol. The Tsaiz is largest and most active.

The Tasiz market is a state-owned enterprise under the Defense Ministry. Traders rent spaces in the market at a rate of 46,800 togrog (about US\$ 45) per month. In April 1999, there were about 65 traders actively purchasing livestock products in the Tasiz market. Competition by Chinese traders keeps the cashmere trading active in Tasiz. Other livestock products, especially wool, are usually available in smaller amounts so that trading is often slow for these products in the Tasiz market. Much time may be required for individual traders to accumulate enough supply of these other products to be able to make a standard sale on consignment of 1-2 tons.

The Sudalt market is a private operation in which livestock are generally purchased in accordance with orders of factories and Chinese traders all year. The Tavan Erdene market operates much as the Tsaiz market except that hides and skins are actively traded in the Tavan Erdene market.

Buyers in the aimag and central markets include processing factory buyers, independent traders, and border traders, and foreign buyers.

### *Processing Factories*

The most important buyers of livestock and livestock products in the aimag and central markets are the cashmere, wool, hides and skins, milk, and meat processing factories.

Currently a total of 32 cashmere processing factories purchase the bulk of the cashmere in Mongolia, of which 4 are wholly owned domestic firms and 28 are joint ventures with foreign companies, including 11 Chinese, 4 American, 4 Japanese, 3 Italian, 2 British, 1 Russian, and 1 Liechtenstein. Only half of the factories are currently in operation. All together, the cashmere processors in

Mongolia have enough capacity to process the entire annual cashmere harvest (about 3,000 mt) in terms of primary processing and about 40% in terms of final processing.

The main cashmere processors are Gobi, Buyan, Mongol-Amical, Monfort, and Tuul. While these factories usually buy cashmere as delivered to the factory, increasing competition for the available supplies has forced many of them to establish purchasing offices in the various aimags. Currently, Gobi has its own purchasing agencies in 18 rural aimags. Mongol Amical established 21 purchasing agencies and storage facilities in 11 aimags: Arhangai, Bayanhongor, Bayan-Olgii, Gobi-Altai, Zavhan, Dundgovi, Hentii, Suhbaatar, Hovd, Hovsgol, and Uvs aimags. Monfort, an American joint venture, sends cashmere purchasing agents to Zavhan, Bayanhongor, and Hovsgol aimags during the peak cashmere harvesting period.

The main wool processors are located in Ulaanbaatar (Table 11). Mongolia has enough installed capacity to process up to 5 times the annual wool harvest with most processors operating at only 20% to 40% of capacity. Under the former socialist system, these factories operated in close cooperation under the Wool Processors Concern. They are currently independent companies and compete for raw materials. There are also carpet factories in Erdenet, Choibalsan (now out of business) and felt and felt boots factories in Hovd aimag.

A few cashmere and wool processing factories are located in aimag centers. Altain Temee Co. Ltd., for example, is located in Gobi-Altai aimag. In 1994-98, the Altain Temee established a wool and cashmere processing factory with capacity to scour 650 tons of wool/cashmere, dehair 140-200 tons of cashmere, and produce 15,000 garments (Dashravdan). The plant has modern equipment to process a combination of camel and sheep wool as well as goat and yak cashmere fibers. The plant also produces good quality semi-processed goods that meet the requirements of importers. The plant is located near large supplies of raw materials and boasts a comparatively strong financial position and ability to pay cash for raw materials. Altain Temee has a reputation for offering competitive prices for wool and cashmere fibers and operates its own transport service to collect wool/cashmere from soums and neighboring aimags. The company maintains a good relationship with producers and has well trained and experienced managers. The company is an important source of support to the local government due to its high tax contribution to the local budget.

In 1998, limited cash resources forced Altain Temee to operate at only 25% of its wool/cashmere processing capacity. The company currently plans to expand utilization to 40-45% of capacity. Because Altain Temee has no spinning facilities, the company purchases yarns from the Eermel Company in Ulaanbaatar. The yarns are brought back to the plant in Gobi-Altai aimag for the knitting of garments which are sold mainly in the capital city of Ulaanbaatar. The transportation of yarns and finished goods between Ulaanbaatar and the Gobi-Altai aimag center increases production costs substantially and limits the utilization of the Altain Temee knitting facilities. In all, the factory has produced only 20,000 garments since 1994 despite having the capacity to produce 15,000 garments annually. To overcome this problem, the company plans to move its knitting facilities to Ulaanbaatar to be closer to its central and export markets. The Altain Temee company has received an order from two companies in Nagoya, Japan, to buy 5-15 tons of yak hair and cashmere tops monthly. To meet this order, the company is planning to increase purchasing of raw materials in the

future. Unfortunately, the company has little chance of obtaining a bank loan (50.0 million togrog as a minimum) needed for shifting the knitting facilities to Ulaanbaatar.

Since 1990, the number of tanneries in Mongolia has increased sharply with 71 of over 100 leather processing factories located in Ulaanbaatar. All aimags except Arhangai, Bayanhongor, Bulgan, Dundgovi, and Uvs have 1-6 small tanneries. The largest of the tanneries are all located in Ulaanbaatar with the exception of the Nehii Tannery located in Darhan (Table 12). At present, nearly all of the largest tanneries have ceased operations due to bad financial situations and high prices for raw materials. Managers of the factories complain that prices for hides and skins in the country have increased much beyond world price levels.

The total annual milk processing capacity in Mongolia is 130-140 million liters. Ulaanbaatar accounts for 50.0 million liters of capacity, Darhan for 5.0 million liters of capacity, Choibalsan for 3 million liters of capacity, and 12 aimag centers for 78 million liters (an average of 6.5 million liters per aimag)(Moyobyy). Nevertheless, many milk processors have ceased operations. The few milk processors operating in Ulaanbaatar and other large cities contract with dairy farms to purchase their output and transport the locally purchased milk using their own equipment.

The total annual meat processing capacity in Mongolia is at least 258,000 mt per shift. Ulaanbaatar Mahkimpex has an annual capacity of 120,000 mt. Two slaughtering plants in Darhan and Choibalsan each have an annual meat processing capacity of 50,090 mt. The slaughtering plant in Bagahangai has a 23,000 mt capacity while those in Uliastai, Sainshand, and Olgii each have an annual capacity of only 5,000 mt. Nevertheless, the volume of meat produced in Mongolia has been declining. Between 1990 and 1995, Mongolian meat production dropped from 23,200 mt to 11,300 mt (Bakei and Jaina). Figure 9 shows the location of the major slaughtering plants in Mongolia. In most cases, Mahkimpex and other meat processing factories send their own brokers to the aimags and soums to purchase livestock. They usually purchase livestock at light weights in late May and early June and place the animals on feed as they are driven to the slaughterhouses.

### *Independent Traders*

Since the transition from socialism in the early 1990s, independent traders have become important as livestock buyers. Initially, these traders visited individual herders to purchase livestock. However, the risk that individual herders may not have the animals they need in the numbers required along with the cost of consolidating sufficient numbers of livestock from a large number of herders has forced most independent traders to rely primarily on the aimag and soum center markets for livestock to purchase.

Independent traders also often purchase livestock products. They usually sell the wool, fibers, and other raw materials to processing factories and to Chinese traders in central markets or at border trading points, depending on the price. Many individual traders buy livestock products on behalf of Chinese traders.

### *Border Traders*

Most Mongolian livestock and livestock product producers, buyers, and sellers have access to the nine border trading points along the Mongolian/Chinese border and the eight along the Mongolian/Russian border. Most of the meat is purchased by Russian traders at the Mongolian/Russian border points (Table 13). Most of the other livestock products is purchased by Chinese traders at the Mongolian/Chinese trading points.

Trading at Mongolian/Chinese trading points is increasing. For example, cashmere sold to China at border trading points increased from 78.8 mt in 1995 to 393.3 mt in 1996, and 824.5 mt in 1997. After a sharp drop to only 16.2 mt in 1998, purchases of cashmere by Chinese traders jumped again to over 800 mt between January and September of 1999 (Sumjya). According to a 1998 estimate by the Mongolian Wool and Cashmere Federation, Mongolian cashmere processors purchased 66% of the goat cashmere supply that year (1,720 mt) and the rest (872 mt) was sold to China through illegal border trading because of the high export tax of 4,000 togrogs/kg and weak customs controls.

The increasing border trading with China is an indication of the competitiveness of Chinese traders in Mongolian livestock product markets. Chinese traders usually hire local people to buy cashmere and other raw materials. Local traders say that competition by Chinese traders is so strong that they control market prices for livestock products. Consequently, Mongolian producer associations and leading processors demand that the Government of Mongolia to protect domestic agricultural markets.

### **Foreign Markets**

In recent years, cashmere has become Mongolia's most important agricultural export. According to official statistics, cashmere exports increased from 400 mt to between 1,100 mt and 1,400 mt between 1990 and 1997 before declining to 800 mt again in 1998. Mongolian cashmere processors such as Gobi, Buyan, Mongol-Amical, Monfort, and others export processed cashmere.

Meat is a traditional export product of Mongolia. Between 1975 and 1985, Mongolia exported between 35,700 to 45,900 mt of meat each year. Following the privatization of state and collective farms, meat exports gradually declined from 24,300 mt in 1990 to only 2,200 mt in 1995. Exports have rebounded somewhat in recent years, reaching 3,600 mt in 1996, 7,100 mt in 1997, and 7,200 mt in 1998 (National Statistical Office of Mongolia).

In addition, Mongolia exported 5,400 mt of sheep wool in 1998 along with 700 mt of camel wool, 300 mt of horse mane, 204,300 cow hides, 89,100 sheep skins, and 44,000 goat skins (National Statistical Office of Mongolia). Except for horse hides, exports of these products declined in comparison with previous years.

### *Crop and Crop Product Markets*

The milling of grains was one of the more decentralized activities within the agro-processing sector under the former socialist system. A large volume of storage capacity protected grain millers from market shortages and allowed them to profit from seasonal price variations (Table 14). The larger mills were also involved in the manufacturing of livestock feeds using bran mixed with concentrates.

Mongolian grain millers have faced major difficulties during the transition from socialism to open markets in obtaining the necessary working capital to fund the purchase of raw materials. Consequently, the mills often run at well under capacity. In response, a number of smaller mills have been established with Chinese equipment and technology. These smaller mills have been highly competitive because they have superior access to funds for raw materials and lower operating costs. These smaller mills, together with the private bakeries that they supply, have kept the decline in the consumption of bakery products to only 15% over the transition period (ASD Project).

Of the 185 grain mills existing in 1995, nearly two-thirds had less than 15 employees. Only 17% of the mills had more than 120 employees. More than half of these large mills was located in Tov aimag. In contrast, all but one of the 34 grain mills in Ulaanbaatar had less than 15 employees.

The Dornod Guril Company flour mill in the Dornod aimag is a good example of a mill that has struggled during the transition from socialism to open markets. Now recognized as one of the best managed companies in the region, the mill was established in 1959, renovated in the 1970s and 1980s, and privatized in 1995. The mill produces 9,000 mt of flour and 6,000 mt of bran annually. Flour production dropped in 1998 following a shortage of wheat and high average wheat prices of about 85,000 togrogs/mt (about US\$ 2.00-2.50/bushel). In general, flour production in Mongolia has struggled to reach levels achieved prior to the transition to open markets primarily because privatization created milling units that are too small to be efficient and competitive. The mills also utilize outdated equipment and have limited access to credit. Because of the 1998 shortage of wheat, the Dornod Guril Company decided to grow its own wheat with expectations of covering 30% of its needs by the year 2000 (Hevert).

### *Transportation of Agricultural Products*

Herders use various means to transport their livestock to market. Horses and motorbikes are the normal means of transportation for herders driving their livestock to soum centers. Large volumes of livestock may also require carts, cars, and/or trucks. Some herders transport livestock products, especially cashmere, meat, and milk products to central markets on any available commercial transport and travel as passengers with their luggage and products. In some cases, herders and independent traders hire vehicles to transport livestock or meat to central markets. Transportation represents 89% of the cost of livestock production in Mongolia (Figure 10).



Cooperatives and processors usually use their own vehicles to transport livestock products to market. Those which are located near railways usually transport livestock products by train. Buyers for meat processing factories and experienced herders drive live animals to slaughtering plants and to central markets.

Crop products are transported to central markets in two different ways. Large producers usually pay the cost of transporting their cereals, potatoes, and vegetables, and other crops with their own or hired vehicles. Many owners of private vehicles offer producers their services in transporting their crops to the various markets and buyers. The State Commission for Crop Harvesting is still responsible for coordination of crop transportation. Small producers located along the railway line, however, take their potatoes, vegetables, and other crops with them by train to central food markets.

### **Current Problems in the Mongolian Agricultural Marketing System**

Complex problems in the Mongolian agricultural marketing system are depressing prices, limiting market opportunities for both producers and processors, and negatively impacting livestock product exports. Problems include those related to producers, processors, market channels, and policy.

Problems in the Mongolian agricultural marketing system related to producers include: (1) insufficient productivity; (2) long distances between herder camps; (3) low livestock product output; (4) few joint marketing incentives; and (5) little knowledge of efficient marketing practices.

Problems related to processors include: (1) a lack of marketing strategies; (2) inactive operations; (3) poor financial conditions; (4) lack of competitiveness; and (5) long distances from producers.

Problems related to market channels include: (1) incompleteness and disorganization; (2) lack of coordination among buyers and sellers; (3) lack of contract-based marketing activities; (4) lack of organization in wholesaling and in the activities of intermediaries; (5) poor and undependable transport services and high transport service fees; and (6) strong competition from Chinese traders.

Problems related to policy include: (1) uncertainty regarding public investments in the development of market channels and distribution of agricultural products; (2) the lack of access to credit by producers and processors; (3) inconsistent and unclear policy and policy objectives with regard to the export of agricultural products; (4) the lack of public financing of infrastructure development; and (5) insufficient quality control systems.

Disorganization in market channels and insufficient coordination of the buying and selling activities in the market create uncertainty regarding when products will be available on the market from producers in what quantities and when buyers will be in the market purchasing products. High transport costs and long distances are a major factor currently limiting a more orderly flow of products through Mongolian agricultural market channels. Another major factor limiting a more

orderly marketing process in Mongolia is the current disarray in Mongolian agricultural policy related to the production, marketing, and export of agricultural products.

### **Mongolian Agricultural Policy**

Until recently, Mongolian agricultural policy was basically one of free and open markets. With the implementation of the National Industry Rehabilitation and Development Policy in 1998, public policy in Mongolia has begun to focus on issues of sustainable development. Little has yet been done to redress existing problems in the agricultural marketing system. Mongolian foreign trade policy has also recently begun to focus on the need to boost agricultural exports but implementation of the related policies and programs has been slow.

#### *Agricultural Development Policy*

During the early transition period, the Mongolian Government implemented a number of important measures directed at developing agricultural markets in rural areas such as the privatization of livestock and other assets of *negdels* (agricultural cooperatives) and state farms between 1991 and 1993 and the liberalization of prices and trading of agricultural products beginning in 1991.

Despite such government actions and perhaps as a result of the way they were implemented, Mongolia was unable to avoid a severe economic crisis in the early 1990s. The Government of Mongolia subsequently established a policy to rehabilitate national industries and has implemented a number of government programs and sub-programs as a result.

The National Industry Rehabilitation and Development Policy (NIRDP) implemented in 1998<sup>7</sup> recognizes sustainable social and economic development as necessary for achieving the public goals of national independence and security. The policy aims to increase the output of ecologically clean and high quality products for export and domestic markets. The main objectives of agricultural development identified in the NIRDP include (Table 15):

- An increase in agricultural incomes and employment and conservation of natural resources;
- Increasing livestock sector productivity through animal quality and breeding improvement;
- Rehabilitation of crop production.

The programs under the NIRDP designed to achieve these objectives focus on:

- An increase in the output of finished products through processing livestock raw materials;
- The production of new products that are competitive in world markets through product development and mobilization of unused production resources;

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<sup>7</sup> Mongolian Government Resolution No. 157, August 21, 1998.

- The enhancement of food product volumes, types, brand names, and safety in terms of hygiene and security as well as an improvement in food product packaging and labeling;
- The improvement of veterinary services and prevention of animal diseases; and
- The promotion of agricultural cooperatives.

However, the production-oriented NRIDP and related programs will be ineffective at achieving development in the rural sector without counterpart policy to resolve the problems faced by agricultural producers and processors in marketing their output.

### *Agricultural Trade Policy*

Mongolian foreign trade policy is described as the optimal use of external factors in the light of sustainable development in eventually securing a proper place for Mongolia in regional economic integration efforts (Ministry of Foreign Affairs). The policy focuses on enhancing the export potential particularly of processed mineral resources, including gold, copper, molybdenum, uranium and related finished manufactured products as well as of agricultural raw materials for processing that are competitive in the World market.

The new Export-oriented Production Support Program (EPSP)<sup>8</sup> aims to boost exports of ecologically clean and finished products that are competitive in international markets through deep processing of mineral and agricultural raw materials. Unfortunately, the implementation of the EPSP has been ineffective. According to the Ministry of Foreign Affairs, Mongolia does not have trade agreements with its main trade partners such as China, Russia, the U.S., Japan, the Republic of Korea, Germany, the UK, Italy, and France. A trade agreement has been signed with Vietnam, however, as well as agreements on economic cooperation with Indonesia and Malaysia and agreements on the promotion and protection of investments with Austria, Singapore, Germany, and Malaysia.

In 1996, Mongolia acceded to the General Agreement on Tariffs and Trade (GATT) (Ministry of Foreign Affairs). While membership in the World Trade Organization (WTO) is providing Mongolia an opportunity to coordinate its external economic relations in the global integrated economy, the government has been slow to embrace core concepts such as mutual tariff reductions. Mongolia has faced a growing foreign trade deficit since 1996 (National Statistical Office of Mongolia). The deficit reached 18.6% of total Mongolian trade in 1998 and 17.7% in 1999 compared to a surplus of 6.5% in 1995 (Table 16). Mongolia's trade deficit with Russia has exceeded 50% of the total trade between the two countries since 1995 (Figure 11). On the other hand, Mongolia enjoys a trade surplus with China which has grown from 10.2% of the total trade between those two countries in 1996 to 45.7% in 1999 (Figure 12).

Russia maintains high tariff rates on imports of Mongolian agricultural products and finished goods which have substantially restricted trade between those two countries. The continuing trade

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<sup>8</sup> Mongolian Government Resolution No. 158, August 21, 1998.

imbalance between Mongolia and its trading partners is an indication that the terms of trade faced by Mongolia are distorted and that changes in government policy are needed.

Mongolia introduced single rate customs tariffs in 1992. The Mongolian customs tariff nomenclature has been based on the Harmonized System since January 1993. Initially, all export products, except scrap ferrous and black metals, were free of customs tariffs. However, strong competition by Chinese traders drove the Government of Mongolia to implement trade policies to protect the Mongolian raw cashmere market. In 1994, the Mongolian government imposed a complete ban on exports of raw cashmere which not only improved the supply of cashmere to domestic processors but also attracted foreign investment into the domestic cashmere processing industry. More than 20 firms process cashmere in Mongolia, all of which were established after 1990 except the Gobi factory. A majority of the cashmere processors are joint ventures with foreign companies. There is currently sufficient capacity in Mongolia to process the entire annual production of raw cashmere, including initial processing, scouring, and dehairing. However, Mongolia has capacity to utilize only about 50% of the processed cashmere for the production of final products. The major processing factories, including Gobi, Mon-Amical, Buyan, and Monfort, account for 60% of the total national cashmere processing capacity. Semi-processed cashmere and cashmere garments are important Mongolian exports, particularly to Japan, the UK, and the U.S.

The raw cashmere export ban also reduced prices for the raw materials in the domestic market which negatively impacted the incomes of herding households. Under pressure from international financial organizations such as the Asian Development Bank (ADB) and the World Bank, the export ban was removed in 1996 and exports were allowed free of government intervention.

In 1997, however, the government imposed a fixed tax of 4,000 togrog/kg (nearly US\$ 4/kg or US\$ 1.80/lb) on raw cashmere exports that is still in effect. When it was implemented, the tax equaled 33% of the prevailing raw cashmere price of about 12,000 togrog/kg (about US\$ 12/kg or US\$ 5.44/lb) which protected the domestic industry for a time. As the price of cashmere has increased over time, however, the export tax has become less restrictive and now equals only about 10% of the current raw cashmere price. Chinese traders currently buy about one-third of the total raw cashmere supply. Competition by the Chinese traders has made acquiring adequate supplies of cashmere for domestic processing at reasonable prices difficult even for foreign invested companies and joint ventures operating in Mongolia. Cashmere processors are pressuring the government to provide additional protection from aggressive Chinese purchasing of raw cashmere.

Mongolia also imposes import tariffs on agricultural and other products. The import tariff rates have changed several times in recent years. Until 1997, a 15% ad valorem tariff was effective for imported goods with discounts and exemptions for certain items. In May of 1997, the Mongolian Parliament introduced zero tariff rates for all imported goods except alcoholic beverages. In the same year, however, a 5% ad valorem import tariff rate was established and is currently effective for all imported items. Clearly, the Mongolian import policy is not differentiated by industry and is intended mainly to generate budget revenues rather than to protect farm producers' interests. This average import tax rate is almost equal to the U.S. average import duty rate of 5.5% (Tweeten).

One consequence of the lack of government support for and protection of the domestic agricultural market in Mongolia is growing imports of agricultural products. Between 1997 and 1999, Mongolia imported more than 80,000 mt of cereals compared to only 27,100 mt of wheat exports in 1990 and 8,300 mt of wheat exports in 1995. Potato imports have also reached more than 40,000 mt. In the late 1980s, Mongolia exported potatoes. More effective import restrictions may be necessary to protect domestic producers from growing import competition. In addition, protection against imports may be necessary to promote the development of small- and medium-sized agricultural enterprises in Mongolia in the post-socialist economy. Such import restrictions would also create a more favorable climate for many financially struggling Mongolian agricultural processing industries to develop and compete. Restrictions on Mongolian imports of agricultural products are justified given the competitive trade policies of Mongolian trade partners. Also, given the difficult financial condition of the Mongolian government, such import measures are more feasible as a means of supporting the growth and development of the Mongolian agricultural sector than programs financed from government funds.

Although common in many countries like the U.S. and the European Union, the protection of agriculture is often criticized for causing distortions in the world market. Mongolia is such a small country in world markets, however, that its trade policies are unlikely to have any discernible effect on world markets. Although they might be seen as creating distortions in the Mongolian agricultural sector, more restrictive import policies may act as temporary means to reduce existing distortions in the market as Mongolia transitions from socialism to democracy.

### **Conclusions and Recommendations**

As Mongolia transitions to a market economy, market mechanisms and adjustments have begun to operate in the agricultural sector. The demand for some types of livestock products, especially cashmere, is growing rapidly. Herding communities have reacted quickly to the increase in demand. The inventory of goats, for example, has grown rapidly resulting in rapid growth of raw cashmere production, reaching about 3,500 mt annually. Mongolia currently supplies about 25% of world cashmere products. At the same time, Mongolian cashmere producers and processors are facing strong competition from other countries like China which accounts for roughly 60% of world cashmere supplies. The other 15% is produced by Iran, Afghanistan, Russia, Kazakhstan, Turkey, Pakistan, Australia, and New Zealand (van Gelder).

While cashmere appears to be a success story for Mongolia, most other sectors of Mongolian agriculture are in decline. The primary reason for the decline is the failure of the economy to grow and the falling standard of living in the country which has precipitated the economic failure of many Mongolian agricultural processing industries. At the same time, exports of many livestock products have declined while production has increased. For example, exports of unscoured sheep wool declined by 42% between 1995 and 1999. Also, meat exports dropped from 24,300 mt to 2,200 mt between 1990 and 1995 with some recovery to 15,000 mt by 1999.

In general, ineffective foreign trade policy, a lack of understanding of the trade policies of neighboring countries, and a delay in negotiations within the GATT have created distortions in Mongolia's terms of trade and foreign trade imbalances. The low 5% ad valorem import tax on all importables (except alcoholic beverages) and the equally low specific export tax implemented in 1997 for raw cashmere are inadequate to foster agribusiness development, fail to protect domestic agricultural markets from unfair market competition, and keep Mongolia from achieving a more reasonable level of exports. For example, the recent decline in meat exports has occurred at the same time that Mongolia's neighbors are importing large volumes of meat. In 1995, Russia imported 218,000 mt of beef and 3,900 mt of mutton and goat meat while China imported 58,329 mt of beef and 18,338 mt of mutton and goat meat (Batsuur and Tornon). Clearly, Mongolia must devise policies and programs to counteract the effects of the policies of other countries and recapture export markets for meat and other agricultural products.

As a beginning, Mongolia can learn much from studying the agricultural policy experiences of the United States (e.g. Padberg, Ritson, and Albisu). The most important tools of U.S. agricultural policy that Mongolia must study and adapt for the conditions and circumstances of Mongolian agriculture include the following (see Knutson, *et al.*):

- Domestic farm programs designed to raise or stabilize farm prices and incomes;
- Conservation and environmental programs designed to conserve natural agricultural resources and protect the environment;
- International trade policies designed to create a more favorable trading environment for farm products;
- Marketing and demand expansion programs designed to improve opportunities in domestic and foreign agricultural markets;
- Food assistance, nutrition, and safety programs designed to improve the standard of living for all consumers of food and natural fibers; and
- Credit programs designed to ensure agriculture an adequate supply of debt capital at a reasonable cost.

This study of the current conditions in agricultural marketing system of Mongolia leads to several recommendations related to Mongolian agricultural policy:

1. Clarify Mongolian government policy related to the marketing and trade of agricultural products by:
  - Identifying Mongolia's specific agricultural comparative advantages and disadvantages;
  - Defining Mongolia's terms of trade with respect to its trade partners; and
  - Investigating the opportunities for agricultural export promotion and import substitution.
2. Negotiate the elimination of trade barriers within the framework of the GATT;
3. Facilitate market channel development in Mongolia through government and non-governmental institutions able to provide information, education and extension services as

well as market research. One alternative would be the establishment of agricultural marketing boards in Mongolia; and

4. Study the feasibility and market effects of supporting domestic producers and agribusinesses through policy mechanisms broadly used in the U.S. such as income support; price support; and credit programs.

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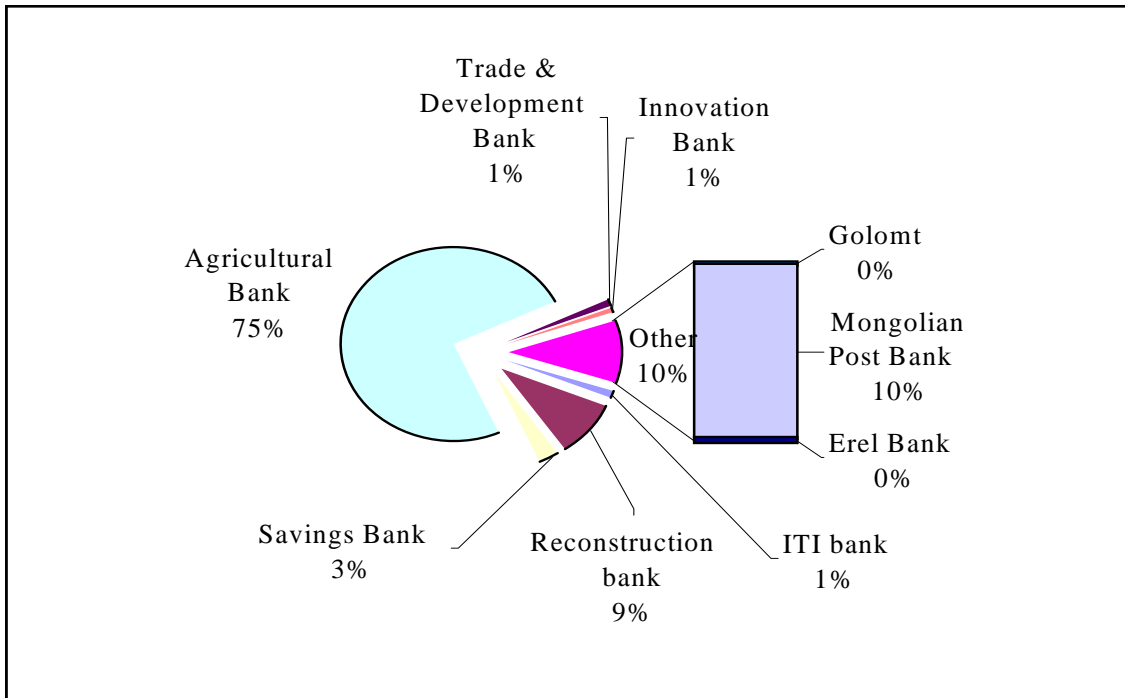
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Figure 1: Political Map of Mongolia.

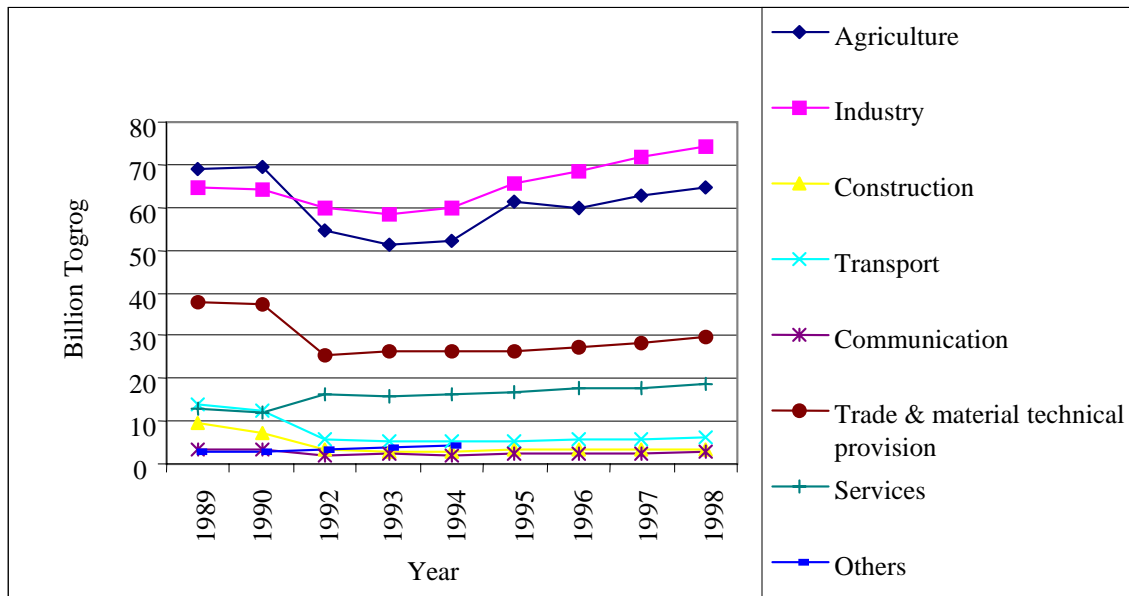


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**Figure 2: Sources of Rural Credit in Mongolia.**



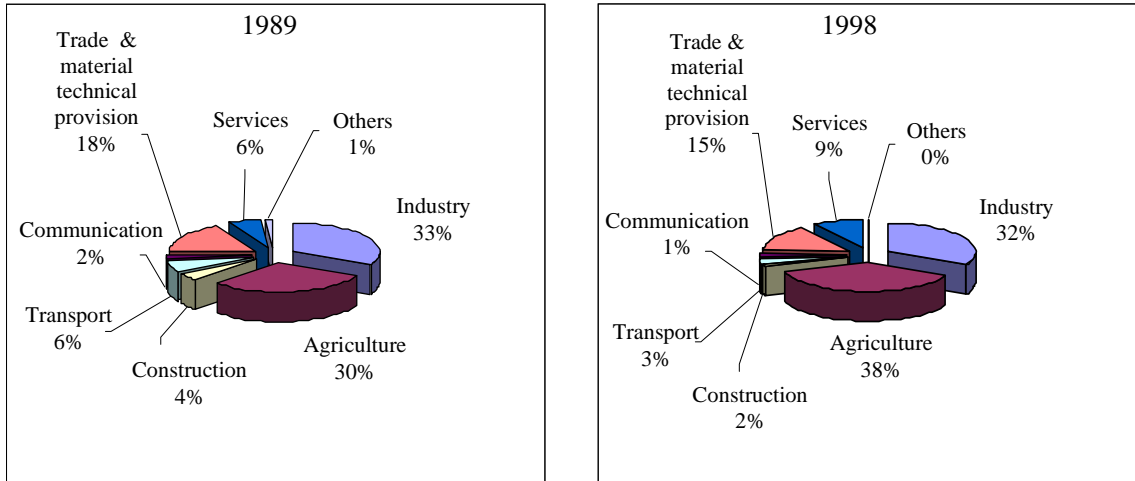
**Figure 3: Real GDP in Mongolia by Sector (1993 constant prices), 1989-1998.**



Source: State Statistical Office.

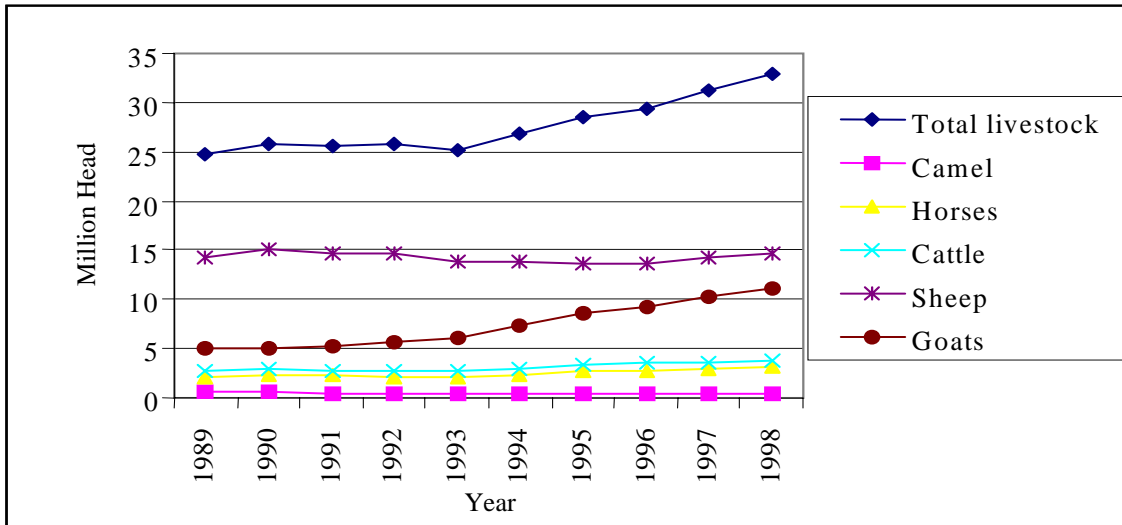


**Figure 4: The Structure of Mongolian GDP, 1989 and 1998.**

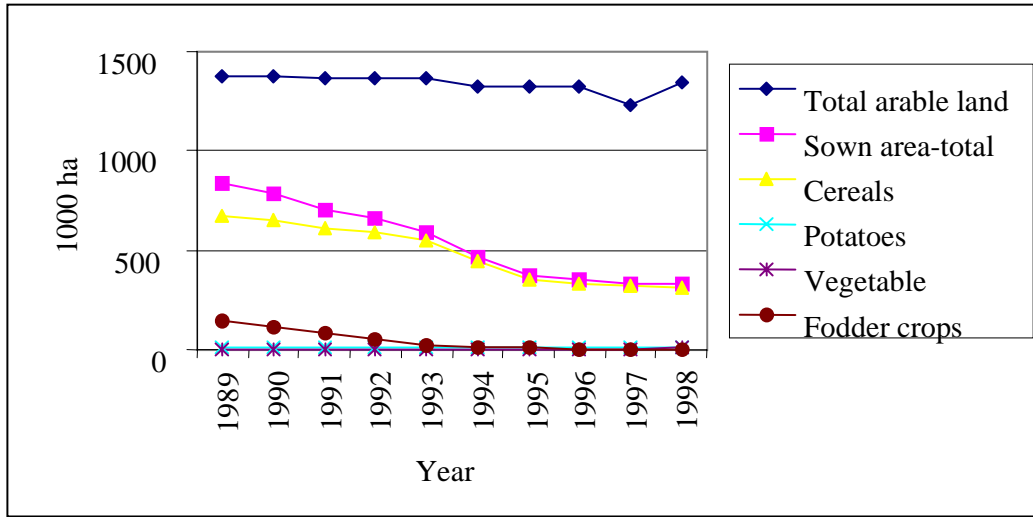


Source: State Statistical Office.

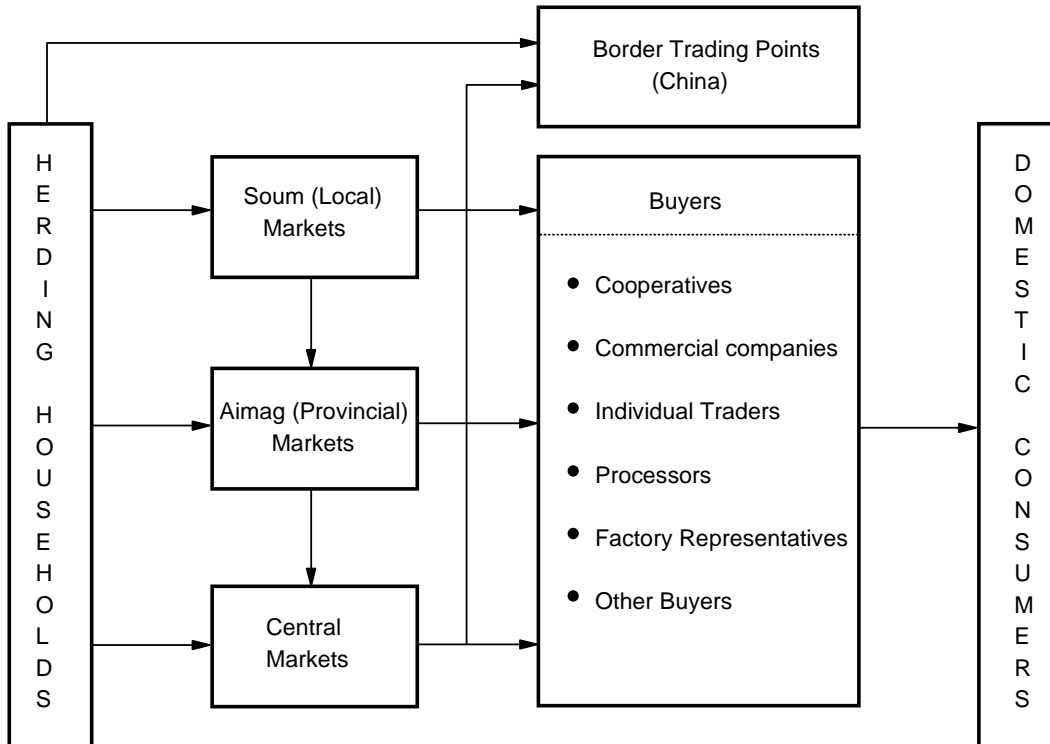
**Figure 5: Mongolian Livestock Inventories, 1989-1998.**



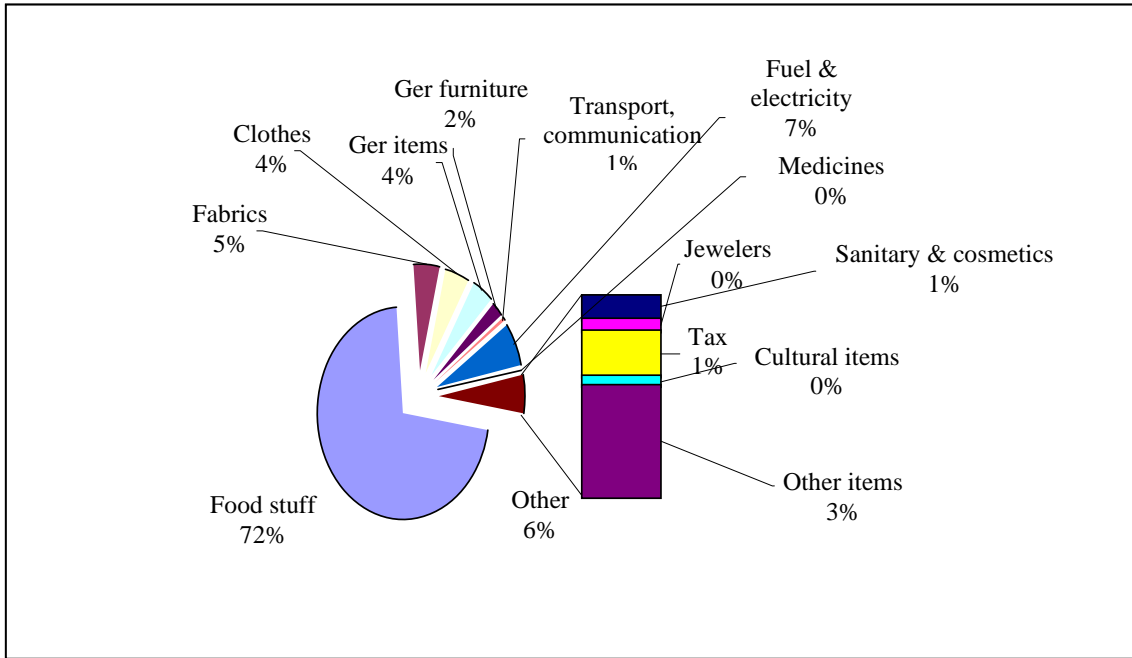
**Figure 6: Area Planted to Selected Crops in Mongolia, 1989-1998.**



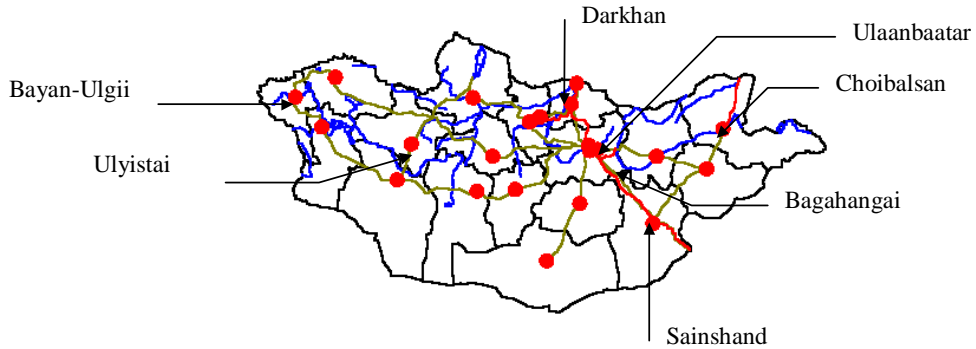
**Figure 7: Mongolian Market Channels for Cashmere, Wool, Hides and Skins.**



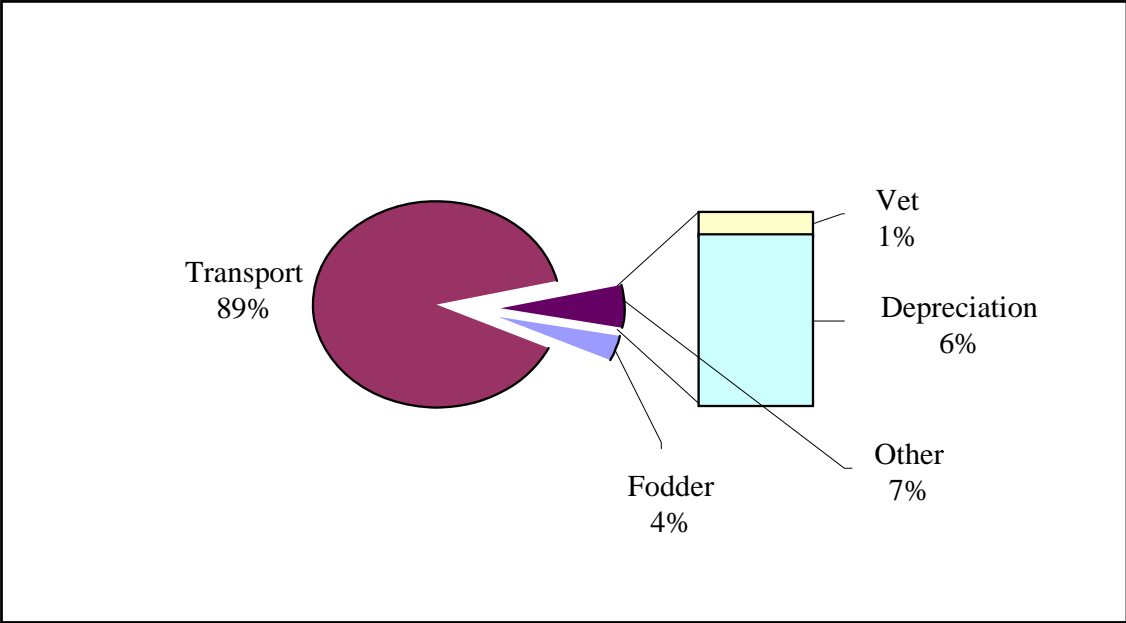
**Figure 8: Composition of Herding Family Expenses in Mongolia.**



**Figure 9: Location of Livestock Slaughtering Plants in Mongolia.**



**Figure 10: Composition of Livestock Production Costs in Mongolia.**



**Figure 11: Trade Balance between Mongolia and Russia, 1990-1999.**

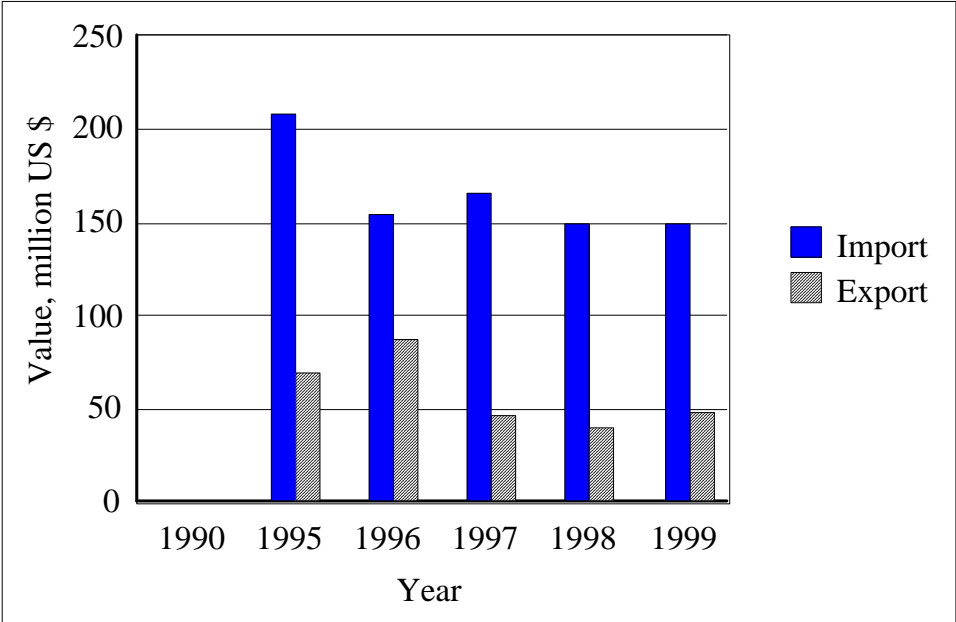
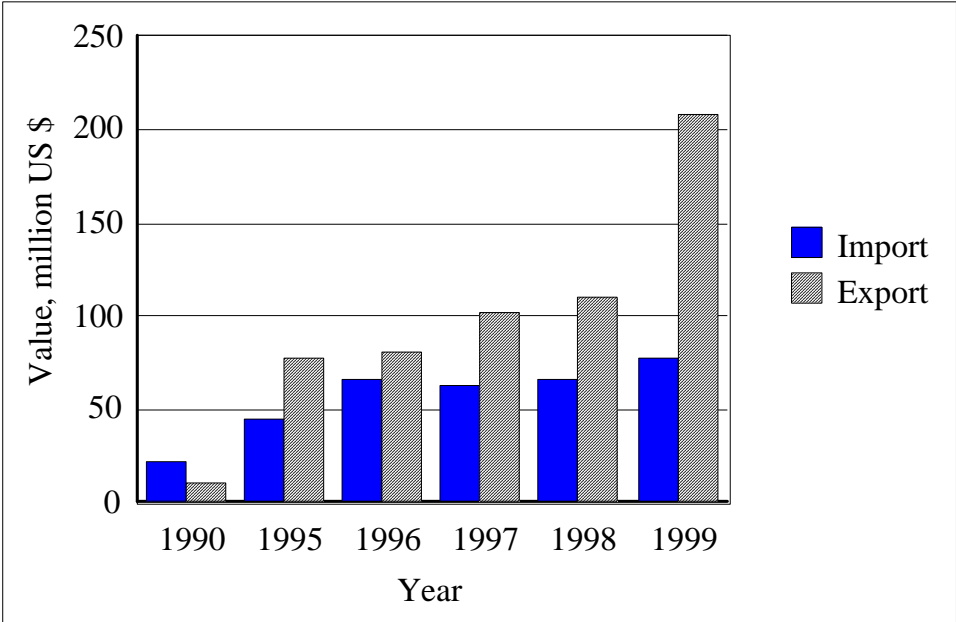




Figure 12: Trade Balance between Mongolia and China, 1990-1999.



**Table 1: Value of Agricultural Output in Mongolia, 1989-1998.**

	1989	1995	1998	Change from 1989 to 1998
	----- million togrogs -----			%
Total agricultural output	113,510.9	102,790.1	119,594.9	5.4
Livestock	79,117.1	87,838.7	105,316.7	33.1
Crops	34,393.8	14,951.4	14,278.2	-58.5

**Table 2: Number of Herding Households and Herders in Mongolia, 1990 and 1998.**

	1990	1998	Change
	----- number -----		%
Total Livestock Herders	147,508	414,433	180.9
Total Livestock Households	260,873	274,987	5.4
Herding (nomadic) Households	74,710	187,147	150.5
Non-herding Households	186,163	87,840	-52.8

**Table 3: Number of Herding Households by Size of Livestock Herds, 1998.**

Number of livestock	Number of households	Percentage
Total	274,987	100.0
< 10	31,668	11.5
11 to 30	36,837	13.4
31 - 50	33,733	12.3
51 - 100	62,941	22.9
101 - 200	67,466	24.5
201 - 500	36,275	13.2
501 - 999	5,112	1.9
1000 - 1499	860	0.3
1500 - 2000	62	0.0
> 2001	33	0.0

**Table 4: Mongolian Rural Households by Monthly Income and Expenditure, 1998.**

Per capita expenditure groups	Household size	Share of total number of households	Per household, monthly		
			Income	Expenditure	Net income
togrog/month	persons/family	%	----- togrog -----		
< 7,000	5.9	10.4	25,416	29,771	-2,575
7,001-14,000	5.6	32.7	53,796	59,992	-6,196
14,001-21,000	4.8	25.0	67,751	82,600	-14,849
21,001-28,000	4.5	12.8	93,854	109,746	-15,892
28,001-35,000	4.6	7.2	138,717	142,322	-3,605
35,001-42,000	4.1	4.4	135,774	157,427	-21,653
42,001-49,000	3.9	2.5	166,828	172,259	-5,431
49,001-56,000	3.9	1.4	208,927	201,060	7,867
56,001-63,000	4.0	1.0	188,642	236,741	-48,099
>63,001	4.2	2.7	371,029	377,532	-6,503

Source: National Statistical Office of Mongolia

**Table 5: Livestock Inventories by Major Producing Region, 1998.**

	Erdene soum, Gobi-Altai aimag	Bulnai soum, Zavhan aimag	Tsetsen-Uul, Zavhan aimag	Altanbulag, Tov aimag
	----- % -----			
Camel	2.2	0.1	0.5	0.3
Horses	4.0	11.4	5.2	14.3
Cattle/yaks	3.1	21.5	8.0	11.9
Sheep	34.6	48.3	62.0	51.4
Goats	56.1	18.7	24.3	22.2
Total	100.0	100.0	100.0	100.0

**Table 6: Number of Mongolian Herding Households, Herders, and Livestock by Aimag, 1998.**

Aimag name	Herding households	Herders	Total livestock	Of which				
				Camel	Horses	Cattle	Sheep	Goats
	number	number		----- 1,000 head -----				
Arhangai	17,638	35,882	2,119.3	0.8	271.6	428.1	914.2	504.6
Bayan-Olgii	10,258	22,006	1,345.9	8.2	79.8	115.0	650.6	492.3
Bayanhongor	14,090	30,243	2,511.3	38.7	157.4	196.9	866.0	1,252.3
Bulgan	7,701	16,719	1,458.9	1.0	194.8	247.9	710.6	304.6
Gobi-Altai	9,565	23,384	2,113.1	35.3	106.5	85.2	857.1	1,029.0
Dornogovi	3,868	8,935	1,017.8	29.5	110.7	93.6	439.6	344.4
Dornod	4,175	8,874	735.7	6.0	95.4	132.9	385.2	116.2
Dundgovi	8,156	19,121	2,212.8	29.4	218.0	137.4	971.5	856.5
Zavhan	13,284	32,102	2,603.6	11.1	205.0	281.9	1,353.7	751.9
Ovorhangai	18,723	38,068	2,921.5	19.5	279.1	282.4	1,387.9	952.6
Omnogovi	6,907	14,915	1,603.8	97.7	113.6	41.6	427.2	923.7
Suhbaatar	7,087	16,941	1,288.2	12.1	169.4	184.7	605.6	316.4
Sekenge	2,719	4,796	569.4	0.4	44.0	103.5	302.5	119.0
Tov	10,093	21,286	2,238.5	4.1	302.7	263.5	1,172.6	495.6
Uvs	11,473	26,249	1,940.1	24.3	126.5	184.3	983.3	621.7
Hovd	10,313	25,332	1,795.9	24.9	105.3	146.0	748.8	770.9
Hovsgol	18,198	41,550	2,295.8	5.4	235.6	458.5	934.0	662.3
Hentii	7,794	16,786	1,388.7	7.3	183.2	216.9	626.9	354.4
Darhan-Uul	1,168	3,001	168.2	0.1	12.2	31.1	84.3	40.5
Ulaanbaatar	1,967	4,285	301.0	0.1	24.0	57.0	142.5	77.4
Orhon	1,449	2,881	2,132.3	0.1	10.9	24.0	63.4	33.9
Govisumber	521	1,077	135.7	0.5	13.4	13.4	66.7	41.7
Total	187,147	414,433	32,897.5	356.5	3,059.1	3,725.8	14,694.2	11,061.9

**Table 7: Mongolian Area Planted to Selected Crops by Aimag, 1998.**

Aimag	Total of shown areas	Of which:			
		Cereals	Potatoes	Vegetable	Fodder crops
----- hectares -----					
			-		
Arhangai	2,678.5	2,321.0	252.0	105.5	--
Bayan-Olgii	509.4	12.9	183.7	48.3	264.5
Bayanhongor	183.2	1.0	135.2	47.0	--
Bulgan	27,519.0	26,952.2	436.4	130.4	--
Gobi-Altai	1,347.5	814.2	211.6	106.2	215.5
Dornogovi	43.1	--	24.8	18.3	--
Dornod	8,162.3	6,870.0	222.2	94.1	--
Dundgovi	32.0	--	24.8	6.6	0.6
Zavhan	1,094.8	375.5	204.4	43.4	471.5
Ovorhangai	3,629.2	3,374.0	189.5	65.7	--
Omnogovi	142.0	--	93.2	48.8	--
Suhbaatar	5,027.2	4,931.0	73.1	23.1	--
Sekenge	140,145.0	136,360.0	1,032.1	702.9	2,000.0
Tov	82,237.0	77,997.0	1,642.4	1,792.6	805.0
Uvs	16,664.2	16,102.0	212.6	148.6	201.0
Hovd	2,940.0	1,384.6	791.4	412.9	349.5
Hovsgol	3,430.6	2,970.9	245.0	214.7	--
Hentii	14,815.9	14,195.0	250.3	134.6	--
Darhan-Uul	11,410.0	10,620.5	403.9	385.6	--
Ulaanbaatar	2,216.8	--	1,225.4	721.4	270.0
Orhon	2,369.5	1,649.0	239.8	205.7	275.0
Govisumber	26.2	--	21.8	4.4	--
<b>Total</b>	<b>326,623.4</b>	<b>306,930.8</b>	<b>8,115.6</b>	<b>5,460.8</b>	<b>4,852.6</b>

**Table 8: Mongolian Cost of Wheat Production.**

Cost items	Amount		Cost items	Amount	
<b>Variable costs</b>	1,000 togrog/ha	%	<b>Fixed costs</b>	1,000 togrog/ha	%
Stock in production	6.2	13.0	Insurance	0.25	1.3
Salary	5.2	10.7	Labor safety	0.37	1.9
Social insurance	2.1	4.4	Spare parts	6.94	35.5
Seeds	15.9	33.0	Depreciation	5.76	29.4
Fertilizer	1.2	2.4	Electricity	0.52	2.7
Fuel	11.8	24.5	Tax	0.00	0.0
Herbicides	2.7	5.6	Loan interest	1.36	7.0
Transport	2.3	4.8	Other items	4.36	22.3
Raw materials	0.7	1.5	<i>Total fixed costs</i>	19.56	100.0
<i>Total variable costs</i>	48.1	100.0	<b>Total costs</b>	67.70	100.0

**Table 9: Organizations Involved in Procurement of Livestock Products before 1990.**

Level	Types of Organizations			
	Planning	Agricultural	Procurement	Industrial
State	Planning Commission of State Government	Ministry of Agriculture and Food Industry	Ministry of Trade and Procurement	Ministry of Light Industry (factories)
Aimag	Planning Commission of Aimag Government	Agriculture and Food Industry Boards	Trade and Procurement Boards	
Soum	Soum Government	State and Collective Farms	Trade and Procurement Agencies	

**Table 10: Seasonal Production Cycle of Livestock in Mongolia.**

	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Shearing and combing animals:										
camel long wool at knees & neck	* * *	* * *								
camel body wool			* *	* *						
goat down	* * *	* * *	* *							
goat hair				* * *						
cattle hair	* *	* * *								
horse hair		* * *	* *							
moult wool of sheep				* * *	*					
limb's wool						* *				
live wool of sheep							* *			
Milking:										
camels				* *	* * *	* * *	* * *	* * *	* * *	* * *
mares				* *	* * *	* * *	* * *	* *		
smallstock				* * *	* *					
cows				* * *	* * *	* * *	* * *			
Livestock purchase & slaughtering:										
purchase			* *	*						
driving and fattening			* *	* * *	* * *	* * *	* * *	* * *		
slaughtering					* *	* * *	* * *	* * *	* * *	* *

\* Duration of production cycle according to Purev

\* Duration of production cycle according to Shombodon



**Table 11: Wool Processing Facilities in Ulaanbaatar.**

Factory name	Activity	Annual capacity
Mon-Noos	Scouring	6,000 metric tons
Eermel	Spinning	300 tons of yarns
Ulaanbaatar Carpet	Carpet	240,000 sq. meter of carpet
Mon-Textile	Textiles	1,020,000 meters
Mongolian felt boots	felt and felt boots	30,000 pairs of boots, 47,000 meters of felts
Felt and felt boots	felt and felt boots	5,155 pairs of boots, 1,583 meters of felts
Non-woven factory	felt, fleecy stockinet, and fetr <sup>1</sup>	1,120,000 meters of felt and fleecy stockinet, 500,000 meters of fetr <sup>1</sup>

<sup>1</sup> “Fetr” is felt used to make the upper part of felt boots.

Source: Nyamaa

**Table 12: Location and Capacity of Largest Tanneries in Mongolia.**

Tannery	Location	Capacity	Of which		
			Sheepskins	Goatskins	Cattle and horse hides
			----- 1,000 pieces -----		
Mongol Savhi (leather)	Ulaanbaatar	1,840	1,840		
Mongol. Shevro	Ulaanbaatar	1,200	400	800	
Mongol Bulgar	Ulaanbaatar	375			375
Mongol Shir	Ulaanbaatar	185			185
Sor	Ulaanbaatar	270	270		
Nehii	Darhan	1,500	1,500		
Orhon	Ulaanbaatar	350	350		
<b>Total</b>		<b>5,720</b>	<b>4,360</b>	<b>800</b>	<b>560</b>

Source: Handsuren.

**Table 13: Mongolian Border Trading of Raw Livestock Products, 1998 and 1999.**

Livestock Products	Unit	To China		To Russia	
		1998	Jan. to Oct 1999	1998	Jan. to Oct 1999
Raw goat cashmere	mt	9.08	741.49		
Dehaired goat cashmere	mt	110.38	313.84		
Unscoured sheep wool	mt	4773.2	5371.47		
Camel body wool	mt	214.67	268.14		
Camel course hair	mt	425.96	541.17		
Horse main	mt	260.4	204.04		8.0
Horse tail	mt	24.58	30.65		
Horse and cattle molt	mt	420.56	425.23		
Cow hides	number	41,991	18,313		
Horse hides	number	107,304	59,728		
Camel hides	number	5,921	69,875		
Sheep skins	number	2,304,487	1,074,943		
Goat and kid skins	number	66,579	21,476		
All types meats	mt	27	32.5	7,340.95	8,864.0

Source: National Customs Office

**Table 14: Mongolian Flour Milling and Storage Capacity.**

	Milling Capacity	Storage Capacity	
		Grains	Flour
		1,000 mt	
Altantaria, Ulaanbaatar	40.5	64.0	1.0
Selenge Guril, Tejeel	40.5	82.0	1.0
Harhorin, Ovorhangai	16.0	12.0	0.8
Bulgan	11.5	38.7	0.4
Ulaangom, Uvs	10.1	4.0	0.4
Dotnod Guril	9.0	7.0	0.4
Moron, Hovsgol	9.0	6.5	0.4
Ondorhaan, Hentii	9.0	4.0	1.0
Darhna	50.0	--	--
Total	195.6	218.2	5.8

Source: Suvdaa

**Table 15: Policy Action Matrix for Implementation in Mongolian Agriculture.**

Objectives	Strategies	Actions
Increase agricultural incomes and employment and conserve natural resources.	Prepare/implement the National Land Reform Program.	Implement the Cadastral Survey and Land Registration Project.
		Perfect land tenure legislation.
	Develop an effective and sustainable rural finance system.	Complete bank restructuring and prepare long-term strategy for development of the financial system.  Implement the Rural Finance Project.
Increase the productivity of livestock sector through improvement of animal quality and breeds	Implement National Programs on Improvement of Animal Quality and Breeding Services and on Animal Health.	Implement Diagnosis and Prevention of Parasite Animal Diseases Project.
		Implement Eradication of Zoonosis Project.
		Implement Agricultural Sector Development Program Project.
		Implement Carrying Capacity of Natural Pasture and Ecology Project.
Rehabilitate crop production	Implementation of Rehabilitation of Crop Production Program	Implement Wheat and Vegetable Seeds Project
		Implement Agricultural Sector Development Program Project.
		Implement Renovation of Crop Production Project.

Source: Ministry of Foreign Affairs.

**Table 16: Total Foreign Trade Balance of Mongolia, 1990-1999.**

	1990	1995	1996	1997	1998	1999
----- million US\$ at current prices -----						
<b>Total</b>						
Import	924	415.3	450.9	468.3	503.3	512.8
Export	660.7	473.3	424.3	451.5	345.2	358.3
Total	1584.7	888.6	875.2	919.8	848.5	871.1
Export-import	-263.3	58	-26.6	-16.8	-158.1	-154.5
Trade balance deficit, %	-16.6	6.5	-3.0	-1.8	-18.6	-17.7
<b>Trade with China</b>						
Import	22.3	44.5	66	63.3	66.6	77.6
Export	11.3	77.8	81	101.6	110.1	208.2
Total	33.6	122.3	147	164.9	176.7	285.8
Export-import	-11	33.3	15	38.3	43.5	130.6
Trade balance deficit, %	-32.7	27.2	10.2	23.2	24.6	45.7
<b>Trade with Russia</b>						
Import		208	154.9	165.9	150.2	149.8
Export		68.9	87.5	46.6	40.6	48.2
Total		276.9	242.4	212.5	190.8	198
Export-import		-139.1	-67.4	-119.3	-109.6	-101.6
Trade balance deficit, %		-50.2	-27.8	-56.1	-57.4	-51.3