

Japan International Cooperation Agency (JICA)

Ministry of Agriculture and Industry
Government of Mongolia

THE STUDY
ON
STRENGTHENING OF AGRICULTURAL
COOPERATIVES
IN
MONGOLIA

VOLUME-I

MAIN REPORT

NOVEMBER 1997

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MINISTRY OF AGRICULTURE AND INDUSTRY THE STUDY ON STRENGTHENING OF AGRICULTURAL COOPERATIVES IN MONGOLIA VOLUME-I

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CURRENCY EQUIVALENTS

US\$1 = Mongolian Tugrug 800 (Tg) = Japanese Yen 120 (¥)
as of August 1997



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PREFACE

In response to a request from the Government of Mongolia, the Government of Japan decided to conduct a Study on Strengthening of Agricultural Cooperatives and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Mongolia a study team headed by Mr. Kenjiro Onaka, Nippon Koei Co., Ltd., four times between April 1996 and November 1997.

The team held discussions with the officials concerned of the Government of Mongolia, and conducted field surveys at the study area. After the team returned to Japan, further studies were made and the present report was prepared.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of Mongolia for their close cooperation extended to the team.

November, 1997



Kimio Fujita

President

Japan International Cooperation Agency

Mr. Kimio Fujita
President
Japan International Cooperation Agency
Tokyo, Japan

Dear Sir,

Letter of Transmittal

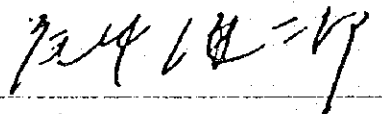
We have the pleasure of submitting the Report on the Study on Strengthening of Agricultural Cooperatives in Mongolia, in accordance with the terms of reference issued by your Agency.

The Study was carried out for a total period of 20 months from April 1996 to November 1997. The Master plan was formulated based on the results of the assessments of the present constraints of herder's societies, agricultural cooperatives, marketing system and socio-economic situation, and identification of necessity of strengthening of agricultural cooperatives in Mongolia that the command economy was transferred to the market economy since 1990.

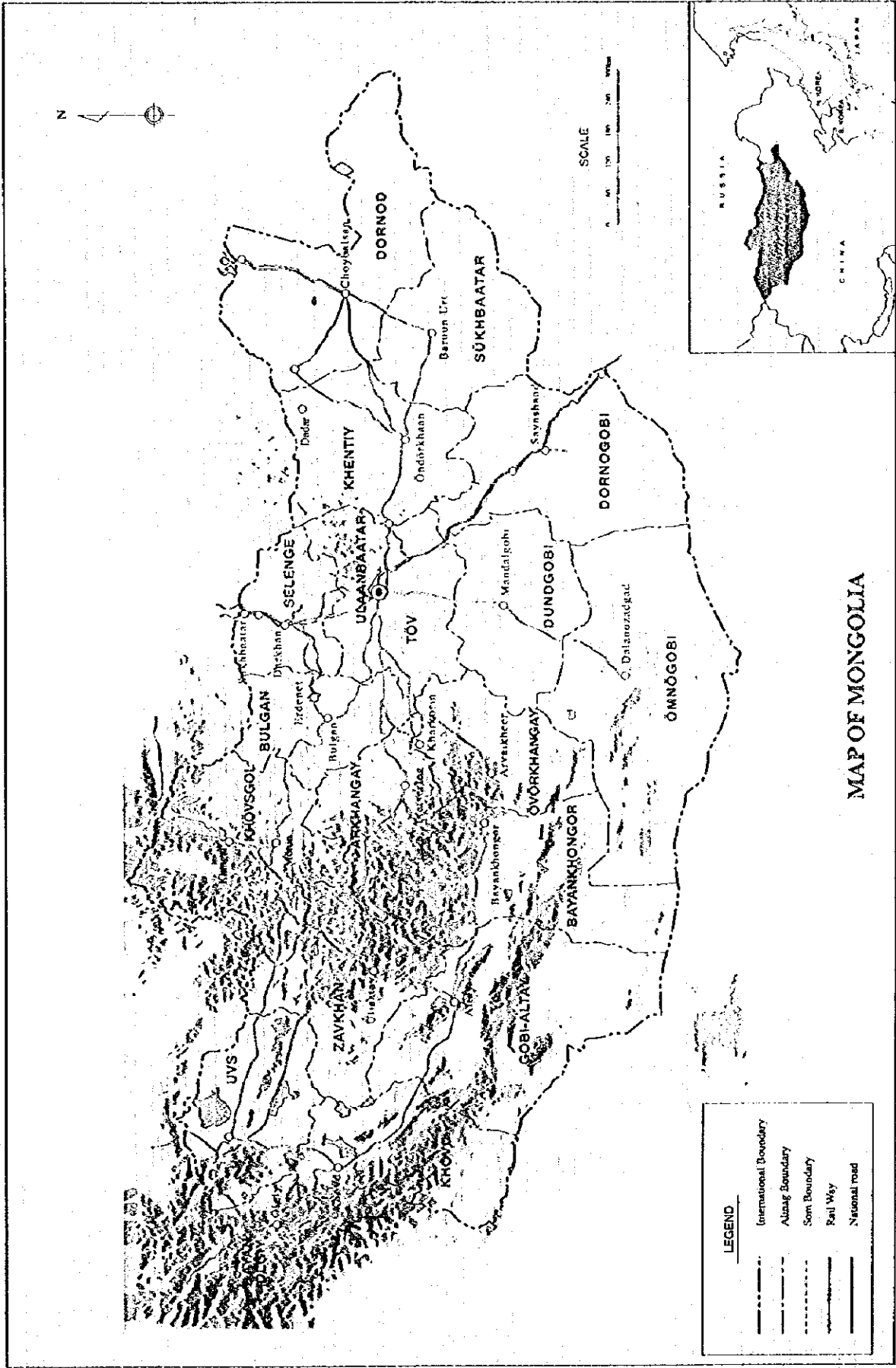
The plan contains business of sales, purchasing, production, processing, cooperative use of facilities and services of education /publicity, welfare services, administrative and legal actions and improvement of marketing system around agricultural cooperatives. In this plan, 18 projects are proposed. Prior to the implementation of these projects, it is proposed as the first step that 10 existing agricultural cooperatives, which are able to improve the socio-economic economy, should be strengthened as " Pioneer Model Agricultural Cooperatives in the future development in the country" in order to efficiently and smoothly strengthen the agricultural cooperatives within the limited fund and manpower resources. At the same time, it is also proposed that Training and Information Center in Ulaanbaatar should be implemented to foster manpower resources, especially cadres of agricultural cooperatives. It is expected that implementation of these projects will bring about great increase of living standard of herders/farmers and local peoples, safe provision of foods to the urban areas, distribution of commodity goods from urban areas to rural areas.

We wish to express our deep appreciation and gratitude to the personnel concerned of your Agency, your Mongolia Office, the Embassy of Japan in Mongolia, the Ministry of Agriculture and Industry in Mongolia and National Association of Mongolian Agricultural Cooperators for the courtesies and cooperation extended to us during our field surveys and studies.

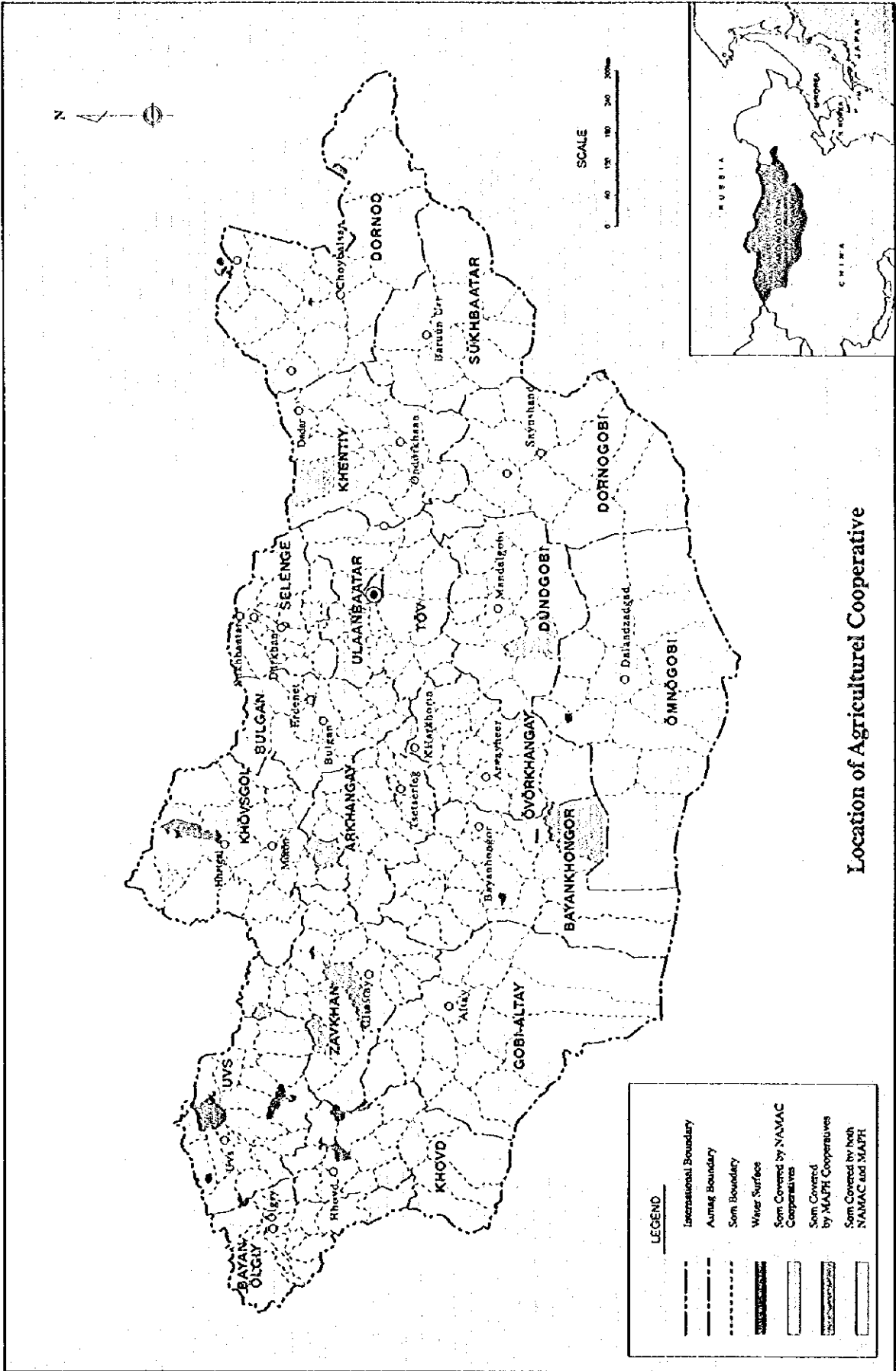
Very truly yours,



Kenjiro Onaka
Team Leader
The Study Team of the Study
on Strengthening of Agricultural
Cooperatives in Mongolia



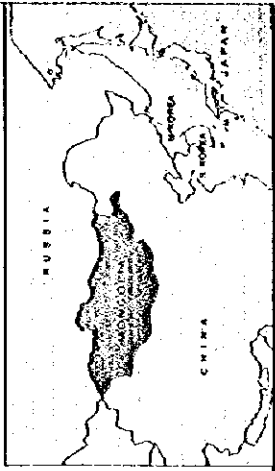
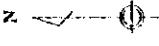
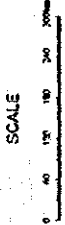
MAP OF MONGOLIA



Location of Agricultural Cooperative

LEGEND

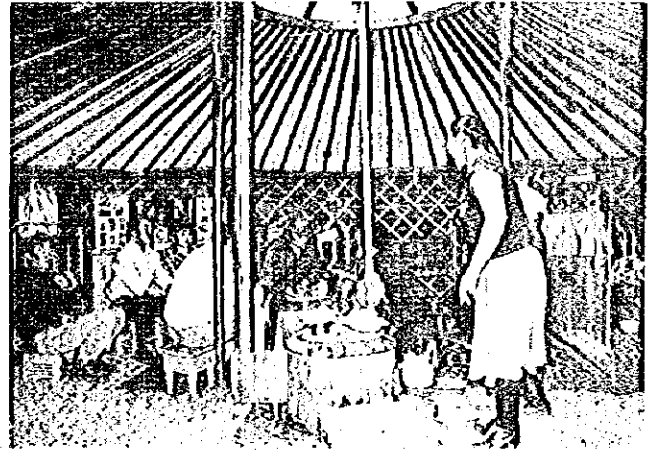
- International Boundary
- - - - - Amug Boundary
- · · · · Som Boundary
- Water Surface
- Som Covered by NAMAC Cooperatives
- Som Covered by MAPH Cooperatives
- Som Covered by both NAMAC and MAPH



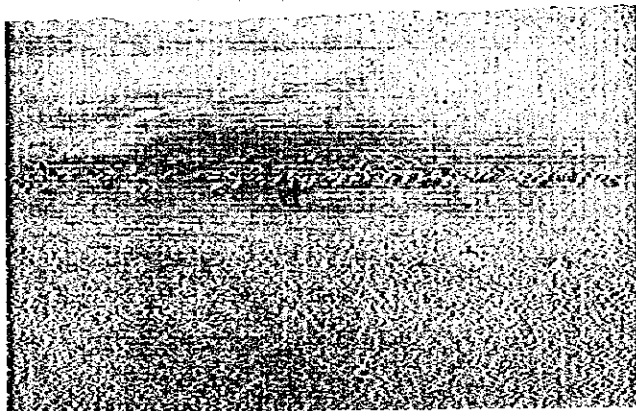
Photos of the Project Area



Grazing Land in Togrog Som,
Khovd Aimag



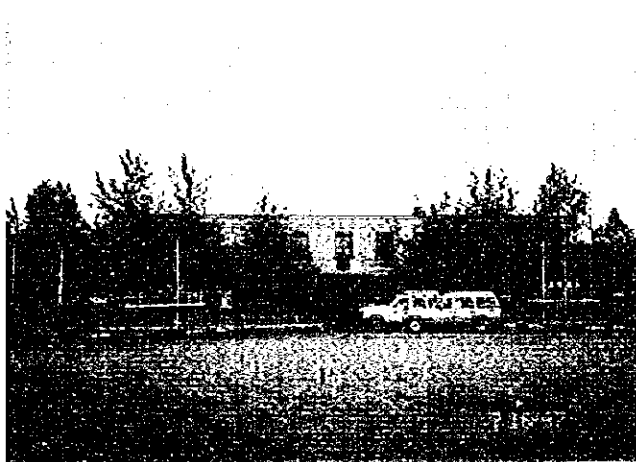
Interview with the Herders in UVS Aimag



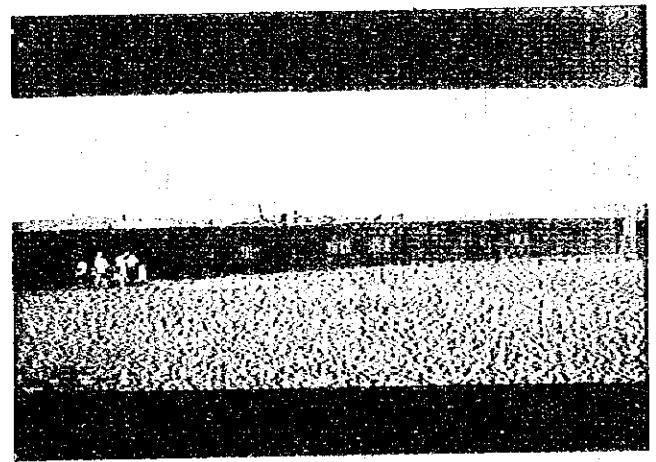
View of Grazing in Gobi Altay Aimag



Collection of Dehaired Cashmere
in Bulgan Aimag

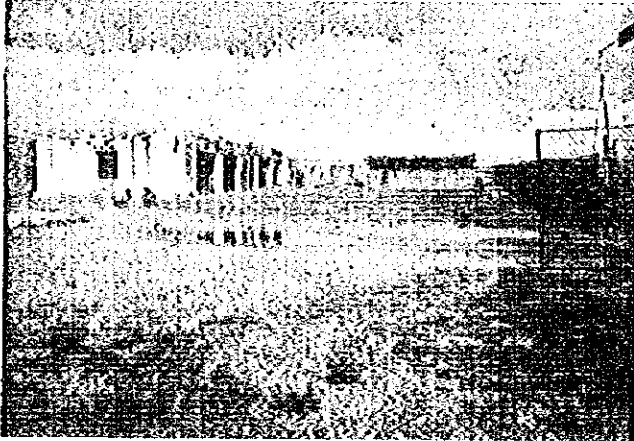


Agricultural Cooperative's Office of
Som and Dornod Galuut

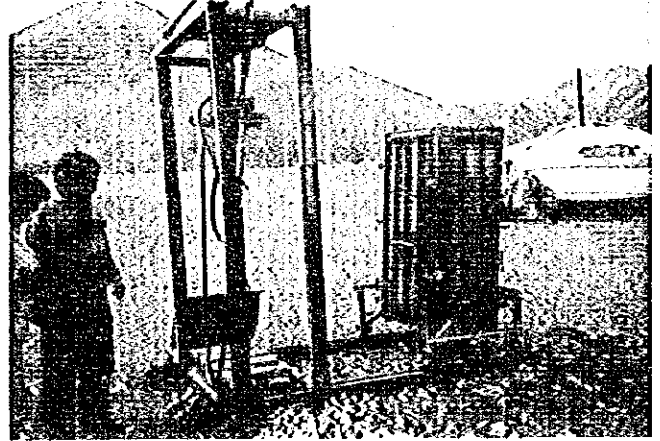


Slaughtering House (Branch Meat,
Hide and Skin, Wool etc)

Views of the Project Area



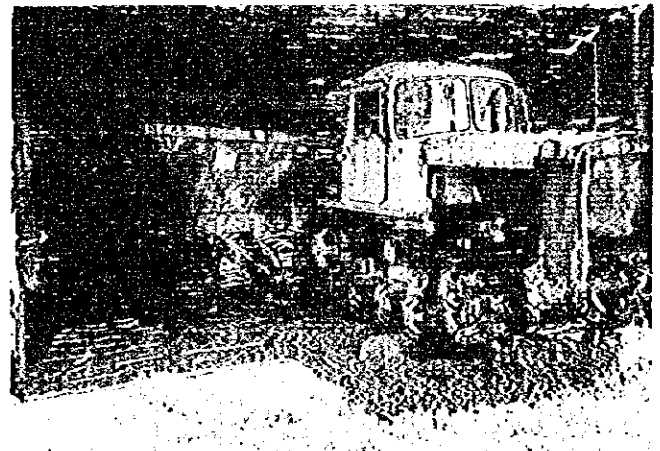
Working Lot of Agricultural Cooperatives



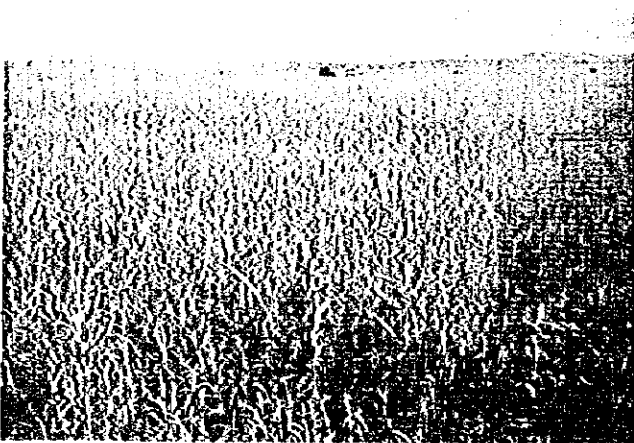
Compress Machine for Wool



Dehaired Wool and the Tractor



Agricultural Tractor in the Workshop



Wheat Field in Sagil Som, UVS Aimag



Small Shop in Sagil Som

SUMMARY

(1) INTRODUCTION

1. This is the Final Report prepared in accordance with the Scope of Work (S/W) for the Study on Strengthening of Agricultural Cooperatives, agreed upon between the Government of Mongolia and the Japan International Cooperation Agency (JICA) on December 18, 1995.

The objectives of the Study are to prepare a Master Plan for development of agricultural cooperatives on a market economy basis, with emphasis on improvement of the marketing purchasing systems for agricultural products and inputs, and to carry out technology transfer to the Mongolian counterpart personnel.

2. The Study was conducted in two phases, Phase-1 and Phase-2, from 1996. The Phase-1 Study was executed from April 1996 to March 1997. In the Phase-1 Study, the JICA Study Team assessed the present situation and constraints of agriculture and livestock farming, herders societies, agricultural cooperatives, marketing system, and socio-economic situation. The team also identified the necessity of strengthening agricultural cooperatives and formulated the basic plan for such strengthening. All the results were compiled in the Interim Report. The objective agricultural cooperatives in this Study are the agricultural cooperatives under the National Association of Mongolian Agricultural Cooperators (NAMAC) and under the Mongolian Association of Private Herders (MAPH). The Phase-2 was carried out from June to September, 1997. Ten model agricultural cooperatives were selected and their detailed survey was conducted. Based on all the results obtained in the Phase-1 and Phase-2 Studies, the Master Plan was formulated as described in this Final Report.

(2) PRESENT CONDITIONS

Economic Conditions

3. In the process of transition from a central command economy to a market economy, Mongolia experienced negative economic growth in the early part of the 1990s. Later in 1994, the GDP growth rate turned positive and in 1995, GDP recorded a 6.3% growth in real term. However, this high growth mainly owed to the rise of international market prices of copper and cashmere, major export commodities of Mongolia. Therefore, this recovery cannot be seen as a stable one.

4. In the industrial sector, electricity, energy and fuel industry, the key industry of the country, recorded a nominal decrease of 2-3%, whereas hide and skin industry, closely related to the agricultural sector, recorded a sharp decline of 50% in 1995 against 1994. Food industry recorded a 40% growth. In general, the recovered industrial production remained at the level of 1/3 of 1990.

5. Gross agricultural product accounted for 50% of the industrial sector though around 2/3 of the rural population depends on agriculture and livestock production. The agricultural sector plays an important role in Mongolian national economy, not only by providing food to the people but also by supplying materials such as cashmere, hide and skin to the industrial sector. The agricultural sector recorded a growth of 6% in real term, with a sharp increase in the livestock subsector of 9.4%, compared to the negative growth of the crop subsector.

6. GDP per capita in 1995 is estimated at US\$ 380. A widening gap is observed in average household income of the rural and urban populations. Although higher inflation of more than 300% in 1992 has been overcome, inflation of around 50% still persists.

National Development Plan

7. The proposal of Policy Outline (Platform of Mongolia) submitted by the new Government led by the Democratic Alliance has been adopted by the Great Khural (National Assembly) in November 1996. The Platform sets the target that, during 1996 - 1998, administrative reform and restructuring of economy all be achieved, aiming at rehabilitation of economy and increase of self sufficiency; and, during 1998 - 2000, an appropriate economic structure shall be established and self-sufficiency in strategic sectors such as electricity, energy and basic food shall be attained. The creation and development of regional economic zones are also emphasized as one of the important strategic goals.

8. The major policy direction clarified in the Platform includes the increase of the number of livestock with appropriate composition of flocks, through strengthened veterinary and breeding services and animal quarantine control. Cooperative effort among herders is also encouraged, and establishment of small and medium scale factories for this purpose are advocated.

Natural Conditions

9. Around 40% of soils in Mongolia are occupied by chestnut soil with shallow effective soil depth.

Climate in Mongolia is roughly divided into 3 categories: Desert, Steppe, and Arctic. Annual average temperature is 4°C in the desert area in the southern part, 0°C, in the central part and less than 0°C in the northern and eastern parts. Annual average precipitation is as small as 218.5 mm concentrating mostly in May and September. The plant growing season is only 5 months from May to September.

Annual average wind velocity in Gobi in the south is 3-4 m/s, which may provide potential for electricity generation by windmill.

Livestock

10. Privatization of livestock and abolition of the state procurement system for meat caused a decreasing trend in the number of slaughtered animals. In contrast, the total number of livestock is in an increasing trend, recording 28.60 million in 1995. Increase in the number of goats is notable, reflecting the stable demand for cashmere.

11. In Mongolia, around 99% of animal feed depend on natural pasturage. Due to the conversion of pasture land to cultivated land, increased number of vehicles and mining development, available pasture land is in a decreasing tendency. As the number of livestock has been increasing rapidly in recent years, livestock population pressure on pasture land is assumed to have reached saturation. Major issues related to the utilization of pasture are summarized as follows:

- 1) Following the abolition of state procurement system, most of the herders tend to concentrate in cities or areas adjacent to main roads for the convenience of marketing products and purchasing daily necessities. This brings about overgrazing of these areas and leads to the deterioration of feed resources.
- 2) Devastation and lack of water resources (well, water tank) also lead to the decrease of available pasture land.

12. Hay production for emergency feed reserve in winter season decreased sharply and SEFF is not functioning as it had been. Therefore, no protection measure is provided for emergency need caused by heavy snow and others.

13. In the past there existed 62 promising breed flocks in the country. Under the privatization scheme, these flocks have been privatized and scattered without appropriate

management for breeding activities, inviting serious concerns for degradation of breeding ability. To solve this problem, the Government has initiated a plan to reorganize the breeding flocks and support systematically the activities of propagating better breeds.

Crop Production

14. The cultivated area is only 1% of the total area and concentrated mostly in Aimags, such as Tov and Selenge Aimags in the central part of the country. Major crops are cereals, dominantly wheat, potatoes and vegetables such as onion, carrot, cabbage and fodder crops.

15. Most of the state crop production farms privatized since 1990 were transformed to newly created private companies. However, due to the collapse of CMEA and lack of foreign currency, most of the farms are facing difficulties in obtaining necessary imported inputs such as farm machineries, fertilizers, agricultural chemicals and fuel required for appropriate farming. Further, lack of operational fund on the part of farms hindered renovation of seeds or use of improved varieties. All these factors accounted for the sharp decline of crop production.

16. Under the above circumstances, crop production in 1995 was 30 %, planted area 45 % and yield 50 % of the respective figures in the peak year of 1989. Wheat production in 1996 was 213,000 tons, equivalent to 30% of that in the peak year.

Marketing

17. There occurred significant changes in the marketing system in Mongolia, corresponding to the transition to the market economy. The following 4 points are mentioned as specific characteristics:

- 1) In the present marketing system, private traders play an important role as the wholesale system is not well developed in the country. Such situation increases the risk of supply shortage and price fluctuation. Especially in the remote western rural areas, manipulation of prices and supply at the time of shortage of goods by private traders is rampant. Since a regional differential of marketing services is expanding, people in the western rural areas have inconvenience in purchasing daily commodities and selling livestock products.
- 2) Most of the large agro-processing factories under the command economy were privatized or are being privatized. However, they suffer from outdated

machinery, over-capacity and lack of proper management personnel. In addition, they face serious shortage of operation fund because of high interest rate of bank, approximately 150% a year.

- 3) One of the major problems of marketing in Mongolia lies in the gap between constant food demand of large cities and seasonal supply from the countryside. This gap is typically found supply and demand in meat in summer season and milk in winter season.
- 4) After transition to the market economy, the share of ACs under NAMAC in marketing of agricultural/livestock products declined sharply.

18. Marketing of meat: Generally 25% of livestock is slaughtered every year. Of the total number of slaughtered animals, only 7% are slaughtered and processed at urban large meat factories and the remaining more than 90% are slaughtered and processed at Som centers or at herders' places. On the other hand, large meat factories supply only 30% of the total consumption in large cities, the rest being dependent on private traders and herders who bring them into cities.

19. Marketing of cashmere: The total annual cashmere production in 1995 is estimated at about 1,800 tons. Cashmere produced in the country side is brought to Ulaanbaatar by mainly four routes: 1) ACs under NAMAC, 2) private traders, 3) agents of cashmere processing companies, and 4) herders themselves. Thirteen percent are collected by ACs, 60% by private traders, 22% by herders themselves and the remainder by agents of the company. Quality is the most important aspect of marketing in the future. There should be a grading system that specifies the relation between quality and price so that the supplier of raw material should recognize the merit of high quality.

20. Marketing of wool and skin/hide: The total annual production of raw wool in 1995 is estimated to be 18,000 tons, but the quality is recognized as low. About 44% of the total was exported to China and the balance was supplied to domestic processing factories. Collection of wool is mostly dependent on private traders. Private traders deal with about 70% of marketed wool and its products. Agricultural cooperatives' share is only 20% of the marketed amount of factories. The total annual production of skin and hides in 1995 is estimated to be 6.5 million sheets, but the quality of Mongolian skin and hide is regarded as lower grade. About 43% of the total skin and hide production was exported to China and the balance was supplied to domestic factories and local stock.

21. Marketing of wheat: Wheat output, once recorded more than 700,000 tons in the time of command economy, drastically declined to about 250,000 tons, equivalent to 2/3 of food requirement of the country, at present. A significant amount of wheat flour is imported from China and other countries.

22. Marketing of vegetables: Just like the case of wheat, potatoes and vegetables have similar problems of decrease in production. These crops are produced mainly by a number of ACs and small scale farmers. However, there appears a shortage of supply of these crops in the rural areas. ACs are expected to take leadership for the increase of production to supply these crops to local people.

23. Marketing of farm inputs: Most of the producers cannot afford to purchase farm inputs due to lack of fund. Further, there are no items to market except some spare parts for the existing farm equipment. These conditions are one of the factors contributing to decreased agricultural production. New machinery is supplied only under the grant aid program from overseas.

24. Marketing of consumer goods: The activities of "Consumers' Cooperatives" which once provided all consumer goods at Som level, are now seriously stagnant owing to lack of operation fund, causing difficulties to the rural population. Also the prices of commodities in the remote areas became very expensive compared to those in the central region. It is estimated that private traders share about 70% of total supply of consumer goods at present.

25. Market information system and regulation related to marketing: Market information provided by the Ministry of Agriculture and Industry (MAI) and the National Statistical Board is published in newspapers and broadcast by radio and TV. Such information, however, is limited to that on prices with less consideration of quality. There exist rules and regulations on marketing activities, but due attention should be paid to ensure the quality and safety of food by laws and regulations.

26. The marketing system consisting of physical distribution and business trade is not fully developed. For the development of marketing system, improvement of business trade is important, especially in the financial aspect, price information and trade conditions are the key issues.

Agricultural Cooperatives under NAMAC

27. Under the command economy, Negdels played an important role not only in production but also in provision of social services to herders. Negdels had the following

merits: 1) realization of full exploitation of the agricultural potential by large scale farm management with intensive production means; 2) stabilization and raising of agricultural production by improvement of the traditional nomadic technology; and 3) improvement of social services to herders in terms of education, culture, and welfare. On the other hand, Negdels had the following demerits: 1) Mutual traditional assistance organization such as "Khot ail" was abolished, 2) A symbiotic relationship among the 5 major livestock was collapsed, and 3) Organization of Negdels became so large and too bureaucratic in the 1980s that its management system became rigid and made herders disincentive in production of livestock.

28. Negdels were dismantled in 1991 and their properties were privatized. Most of Negdels were succeeded with their properties by the Agricultural Cooperative under the "National Union of Agricultural Cooperators (NUAC)", a predecessor of the present NAMAC.

The present organization of NAMAC consists of three-tiers: Unit Agricultural Cooperatives (AC), Aimag Association of Agricultural Cooperatives (AAAC), and NAMAC. There were 252 ACs and 17 AAACs under NAMAC as of the end of 1995. It is estimated that the total number of member households of the ACs is about 51,000 or 33% of the total number of herders in the country. There are ACs in about 70% of all the Soms in the country.

29. Since the establishment of NAMAC, a large number of ACs have dissolved. The main reasons would be: 1) distrust to cadres and their management of ACs, 2) decline of business of ACs, 3) increasing number of members resigning from ACs, and 4) shortage of operation fund. However, former members of about two thirds of the dissolved ACs have an intention or hope to establish a new AC again.

30. The form of management system of ACs consists of the companies with a limited liability, companies with shareholders and cooperatives as of 1995. In the middle of 1995, the Cooperative Law of Mongolia and Law of Partnership and Company were enacted. All the ACs have been re-registered and the form of management system of ACs has been still changing. Although management styles registered are different, actual organizational management and activities remain almost similar, such as one man one vote, distribution of profit based on the actual participation in cooperative activities, priority allocation of profit to welfare services, and being managed following the internationally accepted cooperative principles. NAMAC also follows these guidelines.

31. Thirty percent of chairmen of ACs are more than 50 years old and 75% of them were cadres of Negdels, still reflecting the shade of Negdels in the present ACs.

32. The present ACs under NAMAC perform the activities of production, sales, purchasing, processing, cooperative use, education, publicity, and social services except credit and insurance business. Seventy percent of ACs are engaged in production of livestock and 36% in crop production. Ninety-nine percent of ACs deal with sales business and 78% purchasing business. Processing and social services are undertaken on a small scale.

With respect to sales business, the consignment sales delivered from the AC's members are very small. The ratio of consignment sales to the total production of all the AC's members is estimated at 2% for meat, 13% for cashmere, 10% for wool, and about 2% for skin/hide.

33. It is estimated that sales income and profit per one AC are small, averaging Tg.22.5 million and Tg.2.3 million respectively. However, about 15% of ACs are negative in their balance sheets.

34. Opinions and hopes for future development of ACs by the cadre are summarized as follows: 1) establishment of ACs in all Soms and AAACs in all Aimags; 2) increasing share capital of ACs; 3) provision of veterinary service by AC; 4) reinforcement of processing facilities; and 5) governmental support to operation fund, tax reduction, and others.

35. Taking into consideration the above, the followings are important to develop ACs properly: 1) setting up new AAACs and ACs in all Aimags and Soms; 2) activating stagnant AAACs; and 3) increasing participation of herders in ACs as much as possible. Aiming at this target, the followings are prerequisites: 1) financial status of ACs should be made positive; 2) the consignment sales from the members should be expanded for increasing profit and enhancing social services of ACs; and 3) appropriate leaders of ACs, especially young leaders, who are acquainted with the principles of cooperatives, accounting and marketing technology, and business mind should be fostered without delay.

Agricultural Cooperatives under MAPH

36. In addition to NAMAC, the Mongolian Association of Private Herders (MAPH) was voluntarily established with 64 members in 1991. Though MAPH has also a plan to adopt a three-tier system like NAMAC, at present there is no Aimag Association. MAPH has 57 unit herders' ACs in 7 Aimags in 1997 with a total membership of about 1,500

households. Most of herders' ACs were established during the 3 years from 1995 to 1997, based on the Khot ail in principle. All the herders' ACs are engaged in selling animal raw materials and purchasing consumer goods on a small scale. However, no data are available on finance and management of business for herders' ACs and MAPH.

Administration and Agricultural Support Services

37. In the process of structural reform and transition to the market economy from the command economy, there occurred significant changes in the public administration of Mongolia. In June 1997, the structure of MAI has been reorganized. The new structure of MAI consists of 5 departments. The total number of staff members of MAI including the Minister is 83 at the moment. Apart from the internal structure of MAI, 3 regulating agencies and 3 implementing agencies, and the Agricultural Research and Extension Center are attached to MAI, under the direct supervision of the Minister but separately funded from the Ministry.

The successive reorganization resulted in a sharp decrease of staff members of the Ministry, which has the major roles and functions of formulating policy, planning, programming and monitoring at the central level, while various administrative and technical support services are transferred to either local government or inspection/implementing agencies.

38. Transition to the market economy and subsequent reorganization of government structure, especially that of the Ministry in charge of the agriculture sector, affected heavily the system of agricultural support services. Simplified government structure and orientation to the market economy induced the principle of either privatization or cost recovery on the part of agricultural support services. The level and magnitude of service delivery declined substantively, the main reason of which being financial constraint.

Socio-economic Conditions

39. In order to clarify the present living condition of the farmers/herders, their needs and request for ACs, a questionnaire survey was conducted for 184 rural households. The results of the survey are summarized below:

- 1) "Khot ail", the mutual system for sharing labor force within several households is reviving due to shortage of labor. Around 56% of the households surveyed form Khot ail with an average size of 2.7 households.
 - 2) For herding livestock, a herder household moves over a distance of about 90 km 6.5 times a year on average, mainly by animal cart. Men undertake mainly the work of livestock herding. Women have a very heavy workload covering the majority of daily activities on housekeeping as well as farming. Especially, women's workload becomes seriously heavy in the peak period of shearing sheep, rearing young animals, milking, and grass feed preparation.
 - 3) After the collapse of Negdels, social services were drastically diminished, even those essential for herders' daily life.
 - 4) The livestock holding size averages 220 per household. Herders sold their products mainly to private traders, with 67% of households selling live animals and animal hair, 69% skin and hide, 47% dairy products through barter trade and receiving consumer goods. Usually, private traders have advantages in price negotiation, and herders always feel the prices are not fair.
 - 5) The average annual income per households is Tg.658,200. As the average expenditure is estimated at Tg. 592,500 per household, the balance shows positive with a small margin, but the living standards of herders remain low.
40. Perception and wishes of herders for ACs were identified as summarized below:
- 1) The reasons why member households participated in ACs are that the members expected ACs to provide social services as Negdels did and to provide a channel for marketing of their products and purchase of daily goods. About 40% of member households feel satisfied with ACs' activities. However, 25% of members feel not satisfied with the services delivered by cooperatives.
 - 2) The main reasons for not participating in ACs are lack of fund resource for them to establish an agricultural cooperative as well as knowledge and experience.

- 3) Only about 30% of herders have knowledge about the principles of AC. However, most herders feel the necessity of ACs capable of providing services related to the production and their daily life.
- 4) The priority areas of ACs for the herders are 1) reinforcement of consignment sales of products from the members and supply of consumer goods, 2) provision of banking and credit services; 3) promotion of processing livestock products as well as consumer goods; and 4) reinforcement of social insurance and social services.

(3) FORMULATION OF THE MASTER PLAN

Necessity of Strengthening Agricultural Cooperatives

41. Based on the assessment of the present socio-economic and production environments surrounding ACs, the necessity to strengthen agricultural cooperatives in Mongolia from the viewpoint of producers is summarized as follows:

- 1) ACs contribute to the increase of income and employment opportunities for farmers/herders who are the core of the rural society.
- 2) ACs play a complementary role in extending social welfare services.
- 3) ACs contribute to stable supply of agricultural inputs and daily necessities to farmers/herders.
- 4) ACs meet the needs of strengthening bargaining power of the producers through organized and expanded marketing activities
- 5) ACs respond to the needs for strengthening and expanding cooperative usage of production and processing facilities

In addition to the above, veterinary and animal breeding services traditionally managed by the state are now going to be privatized at Som level. In this regard, ACs are expected to play a significant role in executing these services.

42. The roles of ACs in crop and livestock production as well as in the distribution of herders' and farmers' products are summarized below:

- 1) The ACs in Mongolia are directly engaged in production by themselves, in addition to the various support services to their members. As the production branch is the most profitable sector in ACs at present, and a substantial portion of these profits is put into other activities, notably to social welfare, the contribution of ACs to rural community through these practices cannot be neglected. Therefore, the importance of production activities of ACs will remain unchanged and ACs will play an important role in the development of agriculture and livestock in the country.
- 2) In marketing, ACs are expected to play a significant role as the stable and reliable suppliers of food and materials to urban dwellers and industries. At the same time, efficient procurement of agricultural input and daily necessities of ACs and their members is the important function expected from ACs. Thus, the expected roles and function of cooperatives are diverse in nature.

Basic Development Concept

43. In November 1996, the National Assembly adopted the Platform of the Mongolian Government on major policy direction during its term of office. The Platform aims at restructuring the state administration and economic structure of the country in the first phase of 1996 to 1998, and creating an appropriate economic structure with self-sufficiency in basic food and energy, while expanding export in the second phase of 1998 to 2000. Further in the Platform, the cooperatives, as of their mission, are expected to play a vital role in poverty alleviation and creation of employment opportunities in rural areas.

44. A "Social Program on Cooperative Development" aimed at maximizing the benefit and contribution of cooperatives to poverty alleviation and creation of employment is being formulated by MAI. This draft program clearly identifies the necessity and importance of the government support, including the legal, technical and financial ones. Human resources development and information network are taken up as urgent issues to be tackled. Increased access to credit and insurance system is also identified as a priority area to be focused.

45. There are two problems of marketing in Mongolia, one being supply vulnerability of food items to urban areas, and the other being shortage of supply of daily commodities to rural area. To solve these problems the improvement of marketing system should be considered. As strategic projects, Urban Support Centers for stable supply to urban areas and Regional Marketing Centers for marketing daily commodities should be formed. ACs may take the responsibility of managing these centers, if possible, and take the opportunity

of making economic benefit as well as stabilizing the effect of supplying agricultural products to urban areas.

46. Based on the results of assessment of the present conditions, the necessity and government policy, and the development concept have been set as described below:

- 1) In the Master Plan of this Project, the main activities of ACs are proposed to be 1) agricultural and livestock production; 2) procurement of inputs and daily commodities; 3) marketing of primary and processed products; 4) processing of agricultural and livestock products; and 5) other services.
- 2) ACs should aim at creating a low cost, stable and efficient production system. Processing of agricultural and livestock products should be promoted in order to increase the value added of such products.
- 3) In the sales and purchasing business, the Associations at Aimag and national levels should also undertake activities of sales and purchase through a three-tier system. ACs should perform efficient cooperative sales and cooperative purchase in order to increase bargaining power. With regard to cooperative sales, ACs should extend market routes to the end-users of the produce as well as ensure reliable supply of inputs for the end-users.
- 4) In the rural communities, ACs are expected to play an important role to improve the living standards of their members and the people in each region, and thus to contribute to the development of their region.
- 5) In addition to economic activities, enhanced education and guidance are important aspects for expansion of membership and vitalization of ACs activities. It is particularly important to encourage active participation of the younger generation and women by responding to their real needs, and to be attractive to the rural communities.
- 6) Activities of ACs should be undertaken based on the principles of International Cooperative Alliance as much as possible. The principles are: 1) Freedom of membership; 2) Democratic management; 3) Restriction on dividend to share capital; 4) Distribution of profit based on the participation performance of the members to the AC's activities; 5) Education of the AC's management staff, members as well as the general public; and 6)

Cooperation and collaboration among cooperatives at local, national and international levels.

- 7) For institutional strengthening of ACs, it is targeted, in principle, that at least one AC should be set up in each Som in the country. The rate of participation of herders in ACs should be increased as much as possible and it is important for the members of ACs to aggressively participate in the business of the cooperatives.

Marketing System Improvement Plan

47. **Plan for Urban Support Centers:** There appears a rise in prices of commodities carried from rural areas to urban areas because transportation cost will rise due to increasing fuel cost and due recognition of depreciation cost of transport vehicles. What is more, deterioration and shortage of pasture resources surrounding urban areas occur as a result of the trekking system to transport animals from rural areas to Ulaanbaatar. In order to secure stable supply of food to Ulaanbaatar, support cities as distribution centers will become more important in the future. Possible cities are approximately 300 - 350 kilometers away from Ulaanbaatar. Urban Support Centers are planned to be constructed in Aimag centers such as Bulgan, Tsetserleg, Arbaikheer, Mandalgovi, and Undurkhaan. The size of each center is assumed to be about 10,000 m² necessary for storage space, business trading center area, and parking area.

48. **Plan for Regional Marketing Centers:** Among Aimag centers far from Ulaanbaatar, there appears some movement of local center cities which will develop as marketing cores in their regions. These cities have potentials to become centers for international trading with Russia and China as well as intermediary cities to Ulaanbaatar. Taking into account the situation, it is planned to construct Regional Marketing Centers as wholesale market places at Ulyastay, Hovd, Choibalsan, Govi-Altay, and Saynshand. These centers will be operated by wholesalers' unions funded by ACs and private firms.

49. **Plan for Reinforcement of Marketing Conditions:** For reinforcing marketing conditions, establishment of a commercial supporting fund and implementation of commercial loans and programs to foster commercial experts are recommended as urgent projects. Establishment of a system of registration of private traders and establishment of quality grading standards are recommended as long term projects.

Plan for Strengthening Business of Agricultural Cooperatives

50. Development of ACs is planned with an emphasis on improvement of the marketing system under the market economy. This plan contains the activities of sales, purchasing, production, processing, cooperative use of facilities, and services of education/publicity and others. Though the credit and insurance businesses are to be performed by ACs, early implementation of credit and insurance businesses seems rather difficult considering the present capability of the ACs in terms of finance, institution and manpower, and present financial and economic conditions.

51. Sales and Purchasing Business: The objective agricultural/livestock products for sales are mainly 5 major animals and wheat. The sales business aims to reduce marketing costs and obtain appropriate prices of products by deliberate shipping and sale to markets. For this purpose, 1) strengthening collection/distribution function, 2) development of new market routes of products, and 3) expansion of consignment sales of products are required.

Purchasing and steady supply of farm inputs and consumer commodities at low prices to the members of ACs should be performed by Associations both at Aimag and national levels.

52. Production Business: An attention is paid on increasing production of livestock and grass feed in winter season, wheat, and potatoes/vegetables. Livestock production will be increased by producing improved varieties of animals and distributing them to the members. Further, production increase of feed for livestock in winter season and its distribution are made through 1) establishment of a rental service center of agricultural machinery such as hay harvester, 2) establishment of a system of supply and distribution of livestock feed, and 3) establishment of farms to produce grass and fodder crops in the feed surplus area. Wheat production increase is realized through introduction of improved farming, replacement of agricultural machinery, and production/distribution of improved seeds. The improvement and/or replacement of the existing mills should be made to improve quality of wheat flour as well as milling rate. Production of potatoes and vegetables in the remote Aimag areas should be increased through introduction of irrigation farming.

53. Processing Business: It is required under the market economy that ACs should increase the value added of products to obtain profit effectively, reduce marketing costs and improve quality of products. For this purpose, it is required for ACs to perform primary processing work as follows: 1) cleansing and selection of raw materials such as wool and cashmere for improving quality and their compression for reducing volume transportation cost; 2) treatment of raw materials such as hide and skin with salt; 3) slaughtering animals in

the local areas and producing meat in the form of carcass; and 4) primary processing of felt and tanning of hide. Supply of equipment and facilities necessary for the above primary processing work is planned.

54. **Education and Publicity Services:** Though about 8 years already passed since the market economy started, some vestiges of the command economy still remain. For strengthening ACs it is prerequisite that the members of ACs should have the spirit of co-existence with each other, voluntarily participate in cooperative movement, and actively be involved in activities of the ACs. Education is one of the most important factors for activating ACs. It is planned that educational training be performed to improve ability of 1) members of the ACs, and 2) cadres and staff of the ACs. For this educational training, a Training and Information Center in Ulaanbaatar and a Training Center in each Aimag are planned to be established.

In order to make members of cooperatives, local people as well as urban consumers understand the activities of ACs, publicity is necessary. Such publicity activities will be performed by Associations of ACs at Aimag and national levels and provision of equipment necessary for activities is planned.

55. **Social Services:** Social services should be done to support and improve the herders' life in the rural areas. Those services included in this plan are, (i) Provision of service for ger moving; (ii) Provision of cultural facilities for local community; (iii) Sales and rental services of small scale power generators such as solar batteries and wind mills; (iv) Use of transportation in emergency case; and (v) Provision of veterinary services. Provision of facilities necessary for these services is planned.

56. **Development Projects:** Based on the basic plan mentioned above, 15 development projects are formulated to strengthen activities of ACs including administrative and legal actions. In addition to these projects, there are 3 projects for Marketing System Improvement Plan related to strengthening activities of ACs. Then, these 18 projects are the objective ones for strengthening activities of ACs. An outline of these projects is shown in Table 3.2.1.

- 1) Plan for Reinforcement of Branch Activities of ACs
- 2) Sales Information Network Plan
- 3) Seed and Agricultural Machinery Improvement Plan
- 4) Wheat Mill and Distribution System Improvement Plan
- 5) Vegetables and Potatoes Production Plan
- 6) Plan for Pasture/Fodder Crop Production and Its Distribution in Winter Season

- 7) Plan for Production of Improved Livestock Varieties
- 8) Improvement Plan for Collection/Distribution and Processing of Wool
- 9) Improvement Plan for Collection/Distribution and Processing of Cashmere
- 10) Improvement Plan for Collection/Distribution and Processing of Meat and Skin/Hide
- 11) Plan for Training and Information Center in Ulaanbaatar
- 12) Plan for Training Center in Aimag
- 13) Plan for Strengthening Information and Public Relation Activities
- 14) Social Services Improvement Plan
- 15) Administrative and Legal Actions
- 16) Plan for Urban Support Centers
- 17) Plan for Regional Marketing Centers and
- 18) Plan for Reinforcement of Marketing Conditions

As mentioned later, before implementation of the above development projects, the "Model Agricultural Cooperatives Plan" should be implemented through strengthening typical ACs that will be selected from the existing ACs as "Model Agricultural Cooperatives in the future development in the country". Based on the results and experiences obtained from the Model Agricultural Cooperatives Plan, the development projects will be undertaken. Along with the Model Agricultural Cooperatives Plan, the Plan for Training and Information Center in Ulaanbaatar will be executed to foster senior staff of ACs and to strengthen activities of ACs.

Approach to Setting Up New Agricultural Cooperatives

57. It is essential and crucial for the sound development of Mongolian ACs both to increase the participation rate of existing ACs and to establish new cooperatives in the Soms where no cooperatives exist. Under the circumstances mentioned above, approach for setting up new ACs is as follows:

58. The target is to set up at least one AC in each Som by the end of 2010. An AC should be established basically based on the general international concepts and principles of the AC and herders' voluntary will. The establishment of ACs in Mongolia will be promoted taking into consideration the historical experience in other countries and also the specific characteristics of Mongolian society.

Khot ails, the traditional groups formed by family relation and/or territorial relation, will be effectively organized as small societies among herders. This will form a type of pre-cooperative with two basic purposes: 1) to help facilitate economic and production activities for agricultural and livestock production; and 2) to serve as an educational base for

leadership and membership development of the AC. To encourage the formation of these pre-cooperatives, strong support from outside is indispensable. Without the full recognition of the needs and effectiveness of ACs by herders themselves, it seems quite difficult to achieve the target. Education and other incentives both in technical and financial aspects need to be provided to herders and Khot ails. The governments at central and local levels, together with the existing ACs and Associations should focus this issue so as to encourage the establishment of pre-cooperatives and their development to full-fledged ACs.

Administrative and Legal Actions

59. A number of administrative and legal problems faced now by ACs should be solved. In this regard, a certain modification of the Cooperative Law of Mongolia and the reinforcement of administrative support to ACs as described later in Section (5) Recommendations need to be considered.

(4) ACTION PLAN FOR STRENGTHENING AGRICULTURAL COOPERATIVES

Action Plan

60. The target year of this Master Plan is set at 2010 for the implementation of the projects. The Master Plan contains 18 projects for development of marketing system (3 plans) and strengthening of ACs (15 plans), targeting NAMAC, MAPH and ACs under them. These projects are co-related and should be executed efficiently through proper combination and following an appropriate schedule. The phasing and priorities of projects are defined in an action plan taking into consideration the degree of urgency of implementation, easiness of implementation and other aspects. The action plan for the projects proposed is shown in Figure 4.1.1. It is proposed in this plan that 2 projects, (i) Model Agricultural Cooperatives Plan and (ii) Plan for Training and Information Center in Ulaanbaatar, should be commenced early in the initial stage.

Model Agricultural Cooperatives Plan

61. It is considered necessary, as the first step, that a number ACs capable of improving the socio-economic status of farmers and herders and of providing services to the local people under the market economy, be selected and strengthened as "Pioneer Model Agricultural Cooperatives" prior to the overall development of ACs in the country. The Pioneer Model ACs will play a catalytic role to strengthen the unit cooperatives efficiently and smoothly within the limited fund and manpower resources.

62. Eight ACs are selected as Model ACs among those under NAMAC based on the study results of assessment of the existing ACs. Two ACs are selected among those under MAPH based on the field survey results. The selected ACs as Model ACs are shown below:

- 1) Bayan Berkh Model Agricultural Cooperative (under NAMAC)
- 2) Yalalt Model Agricultural Cooperative (under NAMAC)
- 3) Galuut Model Agricultural Cooperative (under NAMAC)
- 4) Buyant Orgil Model Agricultural Cooperative (under NAMAC)
- 5) Hujirt (currently Boyan Brun) Agricultural Cooperative (under NAMAC)
- 6) Tavan Erdene Agricultural Cooperative (under NAMAC)
- 7) Hujil Agricultural Cooperative (under NAMAC)
- 8) Shene Urnult Agricultural Cooperative (under NAMAC)
- 9) Altan Tevt Agricultural Cooperative (under MAPH)
- 10) Kharnurdin Agricultural Cooperative (under MAPH)

63. The project components under the Model Cooperatives Plan are planned taking into account the features of the projects proposed in the Master Plan, the natural and social conditions peculiar to each model cooperative, and the wishes expressed by the cadres and members. The project in each model cooperative aims to increase crop and livestock production; reduce marketing cost of inputs, products and daily necessities, increase value-added of products by introducing processing system, improve the quality of products, expand consignment sales in order to increase bargaining power, train and educate staff and members, and provide social services to the members. The project features and components for each Model Agricultural Cooperative are outlined in Table 4.2.2.

64. The total cost is estimated at US\$ 32.9 million for the implementation of 10 Model Agricultural Cooperatives. The expected huge effects and impacts of the implementation of the projects are as follows:

- 1) Effects to agricultural cooperative business: increase of participation rate of herders in the cooperative, improvement of production, quality and value added, attainment of stable supply of products and daily necessities, improvement of pasture utilization through rehabilitation and increase of wells, strengthening of bargaining power through increase of consignment sales, increase of hay and feed supply, improvement of efficiency in collection of products, supply of daily necessities and transmission of information through formation of Khot ails and herders' small groups.

- 2) Impacts to members, their households and local habitants: improvement of income and living condition of cooperative members, attainment of stable supply of daily commodities, reduction of heavy work load, transfer of traditional knowledge and maintenance of social morals to the next generation through the formation of Khot ails and herders' small groups.
- 3) Socio-economic impacts within the Som: revitalization of local economy by creation of employment opportunities in such area as processing, and improvement of food security in the Som.
- 4) Effects to other ACs in nearby Soms: demonstration effect on the performance of strengthening of model cooperatives, such as collection, processing and sales of products through model cooperatives, supply of daily necessities by model cooperatives, activation of the regional economy in Soms located nearby model cooperatives, propagation of marketing information to nearby Soms.

Plan for Training and Information Center in Ulaanbaatar

65. The Plan for Training and Information Center in Ulaanbaatar aims at sound development of ACs in Mongolia through implementation of educational training of senior staff of ACs. For this purpose, it is planned that a training and information center be established in Ulaanbaatar. Curriculum includes practical knowledge and information on cooperatives, farming/livestock production. Training courses consist of cooperative leaders course, newly recruited leaders course, study tour to successful cooperatives, agricultural fair and others. In addition to training work, collection, analysis and distribution of information on crop and livestock all over the country will be conducted by this center.

The management of the Training and Information Center shall be undertaken by the Associations at the national level with the support of associations at Aimag level and under the supervision of MAI. For proper management, a management council shall be established. The council membership shall be seven including the manager of the Center, representatives from the Associations at national level, and one representative each from the four Economic Development Regions. Lecturers shall be recruited within the country. However, experts from cooperative institutions in Asian countries and developed countries with successful experience of cooperative activities shall be invited as lecturers particularly for the initial year. The Training and Information Center will have a total floor space of about 3,800 m² with facilities, such as, training rooms, discussion rooms, dining rooms,

lodging rooms, demonstration rooms, etc. as well as equipment necessary for education and training. The cost necessary for this project is estimated at US\$ 8.5 million.

(5) RECOMMENDATIONS

66. In view of the important role of ACs in the socio-economic development of Mongolia, the Action Plan as stated above should be implemented as early as possible for the effective contribution to the sound development of the country as a whole. It is recommended that, as a first step, the "Plan for 10 Model ACs" be initiated following the time schedule described in the Plan. Detailed studies on the respective projects and programs should be made as required.

67. It is recommended that the "Plan for Training and Information Center in Ulaanbaatar" be implemented simultaneously with the Model Agricultural Cooperatives Plan in order to foster cadres of the model agricultural cooperatives as well as the other ACs for strengthening activities of ACs.

68. It is also recommended that the development projects proposed in the Master Plan be performed based on the results and experience obtained from implementation of the Model Agricultural Cooperatives Plan for the effective development and strengthening of ACs all over the country.

69. To visualize the development process of ACs as stated in this Project, it is strongly recommended that the following measures be taken to solve administrative and legal constraints for strengthening ACs.

- 1) The responsible department/division for effective guidance, supervision and support to ACs should be decided by the Ministry of Agriculture and Industry.
- 2) The Social Program on Development of Cooperatives now under preparation should be finalized as early as possible and be put into operation, clarifying the development policy on ACs.
- 3) Article 30 of the Cooperative Law of Mongolia should be modified, giving ACs at Aimag and National levels the opportunities of active involvement in economic activities of Associations.

- 4) The investment of ACs is limited within the amount of their own capital by Article 9-3 of the Cooperative Law of Mongolia. To expand the economic activities of ACs through mobilizing external fund resources, this Article should be modified.
- 5) Preferential measures on credit access and taxation to ACs should be considered.
- 6) Execution of certain part of the functions of local government, agricultural bank, agricultural insurance company by ACs under a contract basis should be considered.

**THE STUDY
ON
STRENGTHENING OF AGRICULTURAL COOPERATIVES
IN
MONGOLIA
FINAL REPORT**

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ABBREVIATIONS

Standard Unit:

m ³	Cubic meter	lit or l	Liter
m ³ /s	Cubic meter per second	l/s, lit/s	Liter per second
°C	Degrees Celsius	m	Meter
El.	Elevation above mean sea-level	mm	Millimeter
ha	Hectare	m ²	Square meter
kg	Kilogram	t	Ton
km	Kilogram		

Other Abbreviations:

AB	: Agricultural Bank
ADB	: Asian Development Bank
ADFA	: Aimag Department of Food and Agriculture
ADTA	: Advisory Technical Assistance
AIISC	: Agricultural Input Import Supply Corporation
BAFI	: (Aimag) Board of Agriculture and Food Industry
BOM	: Bank of Mongolia
CAS	: Council of Agricultural Science
CMEA	: Council for Mutual Economic Assistance
COMECON	: Alternative abbreviation for the CMEA group of countries
DANIDA	: Danish International Development Assistance
FAO	: Food and Agriculture Organization
FASC	: Food and Agriculture Scientific Council
GDP	: Gross Domestic Product
GOM	: Government of Mongolia
IBRD	: International Bank for Reconstruction and Development
ICA	: International Cooperative Alliance
IMF	: International Monetary Fund
JICA	: Japan International Cooperation Agency
LUI	: Land Use Institute
MACE	: Mongolian Agricultural Commodity Exchange
MAPH	: Mongolian Association of Private Herders
MOAI	: Ministry of Agriculture and Industry
MC	: Minister's Council
MCCU	: Mongolian Consumer's Cooperative Union
MPSU	: Mongolian Production and Service Cooperative Union
MMCU	: Mongolian Manufacturing Cooperative Union
MNAU	: Mongolian National Agricultural University
MNE	: Ministry of Nature and Environment
NAMAC	: National Association of Mongolian Agricultural Cooperators
AAAC	: Aimag Association of Agricultural Cooperatives
NDB	: National Development Board (now abolished)
RIAH	: Research Institute of Animal Husbandry
SCC	: Supreme Council of Cooperatives
SEFF	: State Emergency Fodder Fund
SSB	: State Statistical Board
USSR	: Union of Soviet Socialist Republics
VRI	: Veterinary Research Institute

MONGOLIAN TERMS

Aimag	: Province, largest local administrative unit
Bag	: Sub-district, lowest administrative division
Gher	: Traditional tent
Horshoo	: Private cooperative, with assets less than Tug 500,000
Ikh Khural	: Parliament
Kheseg	: Workers brigade for livestock production
Khot ail	: Traditional informal group of two to twelve herdsmen's families for mutual assistance and work sharing
Negdel	: Agricultural (grazing) cooperative
Salaa	: Crop production workers unit, sub-unit of a crop brigade
Som	: Local Government unit
Suur	: Livestock production unit, sub-unit of livestock production brigades
Tasag	: Workers brigade for crop production

CURRENCY EQUIVALENTS

US\$1 = Mongolian Tugrug 800 (Tg) = Japanese Yen 120 (¥)
as of Mid 1997

1. INTRODUCTION

1.1 Authority

This is the Final Report prepared by the JICA Study Team in accordance with the Scope of Work (S/W) for the Study on Strengthening of Agricultural Cooperatives (the Study) agreed upon between the Government of Mongolia (GOM), through the Economic and International Cooperation Department (EICD) of the Ministry of Food and Agriculture (MOFA), and the Japan International Cooperation Agency (JICA) on December 18, 1995.

The Study was conducted in two phases, Phase-I and Phase-II Studies. This report presents the results of the whole Study in two volumes as follows:

Volume-I	Main Report
Volume-II	Appendix 1 Natural Condition
	Appendix 2 Agricultural Condition
	Appendix 3 Marketing
	Appendix 4 Cooperatives
	Appendix 5 Socio-rural Condition
	Appendix 6 Formulation of the Master Plan

1.2 Objectives of the Study

The objectives of the Study are to prepare a Master Plan for development of agricultural cooperatives on a market economy basis, with emphasis on improvement of the marketing/purchasing systems for agricultural products and inputs, and to carry out technology transfer, which is required for preparing the Master Plan, to the Mongolian counterpart personnel through on-the-job training in the course of the Study.

1.3 Performance of the Study

In accordance with the S/W, the JICA Study Team submitted the "Inception Report" to MOFA on April 3, 1996. The Inception Report contains a plan of operation of the Study. An official meeting was held on April 9, 1996 and the contents of the Inception Report were discussed between the Mongolian and Japanese sides. Both sides agreed in principle with the contents of the Report and signed the Minutes of Meeting.

According to the plan of operation of the Study, the Phase-I Study was executed from April to the middle of December 1996. In the Phase-I Study, the JICA Team

conducted field surveys, clarified and assessed the present constraints and problems on agricultural production, marketing, socio-cultural condition, agricultural cooperatives, and agricultural support system. All the results of assessment were compiled in the Progress Report-1 and the Progress Report-2 in Mongolia during the Phase-1 period. Based on the assessment results, the JICA Team prepared the Interim Report which presented the framework of formulation of the Master Plan covering the necessity of strengthening agricultural cooperatives, basic development concept of agricultural cooperatives, position of agricultural cooperatives in the development policy, outline of functions of future agricultural cooperatives, and basic framework of the Master Plan for strengthening agricultural cooperatives.

The Phase-2 Study was conducted from June to September 1997. At the beginning of the Phase-2 Study, the Interim Report was submitted to MOFA. An official meeting was held on June 14, 1997 to discuss the contents of the Interim Report. The GOM accepted the contents of the Interim Report.

In the Phase-2 Study, a supplemental field survey for formulation of the Master Plan and detailed surveys for the selection of model agricultural cooperatives were carried out in Mongolia. For the selection of model agricultural cooperatives, an official meeting was held on July 1, 1997 and it was agreed between GOM and the JICA Study Team that 10 model agricultural cooperatives consisting of 8 cooperatives from the National Association of Agricultural Cooperatives (NAMAC) and 2 cooperatives from the Mongolian Association of Private Herders (MAPIH) were adopted in the Study. Based on all the results of surveys in the Phase-1 and Phase-2 Studies, formulation of Master Plan was studied and the results were compiled in this Final Report.

During the Study, the JICA Study Team conducted transfer of technology to the counter part personnel through on-the-job training. In addition, two counterpart members were trained in Japan. A list of counterpart personnel engaged in the Study is given in Table 1.3.1.

1.4 Acknowledgment

In the course of the Study, the Study Team received strong support and cooperation in various aspects from the departments and agencies concerned of GOM and NAMAC. The contribution to the Study by the officials who have provided information and data, participated in discussions, given valuable advice and provided other forms of assistance is gratefully acknowledged. The Study Team would like to extend its thankfulness in particular to the Ministry of Food and Agriculture.

2. PRESENT CONDITIONS

2.1 Economic Conditions and Development Policy

2.1.1 General Economic Condition

The growth of Mongolian economy was negative for the three years from 1991 to 1993 but it turned positive in 1994. In 1995, the real growth of Gross Domestic Product (GDP) reached to 6.3%, largely reflecting the rise of international prices of copper and cashmere.

Though gross industrial product in 1995 increased 20.7% compared to the previous year, the growth of such industries as electricity and energy declined to 1.6% and also coal industry to 2.8%. Leather processing industry's product fell to 50.6% against 1994, being equivalent to 8.7% of that in 1990. Food industry showed an increase of 40.4%. However, GDP in real term still remained at one third of that in 1990 (see Table 2.1.1).

The agricultural and livestock product recorded a real growth of 6.0%. The livestock sector increased 9.4%, reflecting a rapid increase of livestock after 1993. On the contrary, the agricultural crop sector showed a negative growth because of the decrease of planted areas and yield (see Table 2.1.2).

With respect to the economic growth in 1996, the growth of the industrial sector in the first quarter was 2.1% against 1995. While the civil engineering and metal sectors continued to grow, the skin/hide and food processing industries have been decreasing.

Per capita GDP in 1995 was Tg 170,000 (or about \$380 at the rate of US\$1 = Tg/448.7 in June 1995, according to information of the National Development Board. Income per household per month is Tg 460,000 in urban areas and Tg 330,000 in rural areas.

The consumer price index in December 1995 was 1.53 times that in December 1994 for all items and 1.56 times for food. Though a hyper-inflation of over 300% per year in 1992 was overcome, inflation still remains around 50%. Price hike in the rural areas is higher than that in the urban areas (see Table 2.1.3). Though the consumer price index in the fourth quarter in 1995 had a low growth rate, it increased and showed 9.9% in the first

quarter of 1996 which became the highest in the past 2 years. Food price like still indicated a high level of 12.9% though it was not so high as 23.9% in the second quarter of 1995. So tight money policy is expected. The interest rate of banks is still high. The lending rate of the Bank of Mongolia and the Agricultural Bank was 72%-150% and 60%-180% in April 1996, respectively.

During the transition from the centrally planned economy to a market economy, the privatization of state-owned enterprises started in 1991. The privatization by voucher continued until mid-1994 and 44% of state-owned assets were transferred to the private sector. Cash privatization of the remaining large public enterprises was commenced in early 1995. Privatized enterprises were worth Tg 19.6 billion in vouchers and Tg 10 billion in cash. The privatization also affected positively the development of small and medium sized enterprises, providing strong incentives for establishment of new business.

In the foreign trade in 1995, exports amounted to US\$ 451 million and imports to US\$ 473 million, resulting in a trade deficit of US\$22.2 million. 58.6% of exports consisted of mineral products such as copper concentrate, cashmere, animal skins, leather product and fur. Imports were mainly composed of machinery, equipment including electronic equipment and oil products.

The population in urban areas occupies 52% of the total population. The total population of the big cities of Ulaanbaatar, Erdenet, Darkhan and Choir accounted for 34% of the total population. The rate of herders population to the total population in Aimags exceeds 30% in the case of Arkhangay, Bayankhongor, Gobi-Altay, Dundgobi, Övörkhangay, Ömnögobi and Khövsgol.

Since the gross regional domestic product (GRDP) is not yet calculated, the gross domestic product, which is allocated to each Aimag according to the ratios of livestock and sales of industrial production, is shown in Table 2.1.4. The agricultural sector occupies over 70% of GRDP, indicating that agriculture and livestock are the key factors for rural development.

Though GDP of Mongolia has been recovering partly, unemployment conditions still remain severe. The inflation rate also still remains high. During the period from the end of 1995 to February 1996, the consumer prices, especially of cotton, domestic mail post service, Mongolian dress and socks for children, spiraled, which worsened economic

conditions in the rural areas.

Although the tax system is being reformed at present, tax collection is concentrated on enterprises. Especially, a commodity tax and/or a corporation tax are arbitrarily levied on the enterprises of which business results are good. Finance of the Government is dependent on foreign aid and is in chronic deficit. Since the budget allocated by the Government to the ministries is small and insufficient, the ministries have managed to raise funds by renting rooms of the Government buildings.

Investment in the agricultural and livestock sector is hindered because of the high interest loan rate and banks' reluctance to extend loans to this sector, which is one of the causes of the decrease of agricultural products. The Agricultural Bank's finance is so small that it could not provide loans in the field of policy credit. Many branches of the Bank carry a heavy load on its management.

The balance of trade in 1995 was improved owing to increasing international prices of copper and cashmere. It is, however, considered that the balance of trade would be worsened due to uncertainty of international prices of commodities and introduction of price liberalization as requested by the international financial institutions. Furthermore, the increase of import of foods would worsen the balance.

2.1.2 Macro-economic Constraints for Agricultural Cooperatives

The constraints for development of agricultural cooperatives are mainly shortage of operation fund, high transportation cost, and fluctuation of prices of products. For the operation fund, it is difficult to obtain loans and credits from the financial institutions since the high interest rate cannot be compensated by the present low productivity. Due to shortage of operation fund, the agricultural cooperatives are not able to expand their activities, and confront severe competition with the consumer cooperatives and private companies.

During the period of planned economy, government subsidies for transportation were given to the Negdels in order to make up for the disadvantage of long distance. However, the transportation cost became one of the major constraints in the remote areas after shifting to market economy. Furthermore, the Government is planning to introduce the road tax, and this will cause the price escalation of fuel for transportation.

The prices of products fluctuate due to unstable production affected by climatic and often natural conditions. Then, the fluctuation is accelerated by the limited capacity of storage facilities as well as the fluctuation of international market prices.

In addition to those issues, the agricultural cooperatives are affected by the excessive charge of the corporate tax and social insurance that are above the reasonable level. This excessive charge causes the deterioration of financial situation of cooperatives. In this regard, it is necessary to reduce the corporate tax and to revise the social insurance system to a level reasonable for performance.

The consumers' cooperatives have similar functions to the agricultural cooperatives, and their activities are competitive with the agricultural cooperatives in some locations. This situation would be maintained in order to provide herders with a fair opportunity to select agricultural or consumers' cooperatives.

2.1.3 Consumption Trend of Agriculture and Livestock Products

Though per capita consumption of meat, the main foodstuff in Mongolia, has been decreasing since 1991, it became 97 kg in 1995 recovering from 93 kg in 1993. The recovering tendency was also in processed meat products (126 kg) from 1993. Though wheat and bread fell to 74 kg in 1993, they have increased thereafter. Per capita consumption of potatoes was 11 kg and that of vegetables 8 kg in 1995, i.e. 2.6 times that in 1993. These facts suggest that the decline of per capita food consumption affected by food shortage in 1992 and 1993 has been improving in the country.

2.1.4 Infrastructure

Roads are classified into three categories: national roads (connecting Ulaanbaatar with two main cities of Darkhan and Erdenet, and Aimag centers), regional roads (connecting Aimag centers with Som centers), and rural roads within Soms. According to the Road Master Plan prepared by the Asian Development Bank, the total length of roads in each category is as follows:

(unit: km)				
Categories	Total	Paved	Graveled	Unpaved
National road	11,248	1,191	1,547	8,510
Regional road	38,042	112	1,529	36,401
Rural road	150,000	-	-	150,000

Source: Road Master Plan prepared by the Asian Development Bank.

The road system will be developed according to the Road Master Plan, and the road from Bichit to Russia via Arbaykheer will be improved and connected to the Asian Highway in the future.

A project to rehabilitate the railway is under way, and the improvement of the gauge change station has been completed at Zamiyn Üüld. Future investment for major extension of the railway network will be linked to mining and industrial developments since large investment and high economic viability are required for extension. The Buyant Ukha international airport at Ulaanbaatar is under renovation with financial assistance of the Asian Development Bank, and two other airports at Choibalsan and Khovd will be graded up to international airports in the future.

2.1.5 National Development Policy

(1) General

In November 1996, after the general election, the new Government ratified the Platform. The Platform consists of four sections: reorganizing state administration; restructuring economy; improving social welfare; and defense, national security and foreign policy. The basic strategy set up in the Platform is as follows:

- 1) to restructure the government administration;
- 2) to strengthen the rural administration;
- 3) to form a proper economic structure with relatively independent economy;
- 4) to achieve self-support of power, fuel, and staple food; and
- 5) to develop rural economy through establishing a zonal economic structure.

Now the ministries concerned are formulating action plans based on the contents of the above Platform and the plans are expected to be finalized in 1997.

(2) Agricultural Development Plan

The Ministry of Agriculture and Industry has not brought out its concrete agriculture development plan yet. However, the new Government has decided the following agricultural policy guideline in the Platform: The basic policy relating to the development of agriculture is improvement of living standards upgrading of socio-cultural conditions, increase of agricultural production, and stable economic development. The respective items of this policy are discussed below:

- 1) Increase in the number of livestock is the primary issue because productivity and quality of agricultural products are related to the quantity of livestock. So livestock should be increased by upgrading hygienic level and extension of veterinary services. The livestock composition should also be studied in order to apply the most appropriate reproduction plan.

Intensive farming should be another type of business to be encouraged. Production of wheat and other major vegetables should be increased to meet the domestic demand by the year 2000.
- 2) Herders and farmers should voluntarily cooperate with each other in matters relating to labor force and farm inputs to be used, and also in processing raw materials. A primary processing factory should be established in each Som.
- 3) Cooperative work between agricultural producers and processors should be encouraged so that producers may benefit from final sales based on the amount and quality.
- 4) Wholesale industry which deals with agricultural products and inputs will be supported by the Government. As a result, it is hoped that the share of private traders in the market channel will be reduced.
- 5) Livestock hygiene and veterinary services should be privatized and the Government will continue to supervise those activities.
- 6) State assets owned by agricultural farms will be privatized but their shares will be sold to a limited number of people or factories which utilize products

of these farms.

- 7) The Government will make special consideration on basic foodstuff to increase the domestic production to the level of self-sufficiency.
- 8) The Government will establish an investment fund to make production loan available, to develop farming technology and to introduce improved seeds.
- 9) Vertical integration, such as wheat farms and milling factories or vegetable farms and warehousing industries, will be encouraged in order to share profit out of final sales.

2.2 Natural Conditions

2.2.1 Land Resources

The Mongolian Academy of Sciences classified the soils in Mongolia into 17 types. The principal soil type is chestnut soil which covers some 40% of the territory of Mongolia. Chestnut soils, which are typically around 30 cm deep and have an organic matter content of 3% to 4% and a pH value of 6 to 7, are arable soils except for deficiencies of nitrogen and phosphorus content. Soil distribution by type is shown below:

(Unit: %)

Type of soils	Total area of the country	Mountains	Foothills ouvalabald mountain territory	Lowlands and inter-mountain depressions
1. Mountain tundra soils	1.6	1.6	-	-
2. Mountain meadow soils	3.0	3.0	-	-
3. Mountain meadow steppe soils	0.9	0.9	-	-
4. Alpine steppe soils	2.0	2.0	-	-
5. Mountain frozen taiga soils	2.1	2.1	-	-
6. Mountain sod taiga soils	5.0	5.0	-	-
7. Dark colored mountain forest soils	1.8	1.6	0.1	0.1
8. Chernozem	5.9	4.4	0.9	0.6
9. Chestnut soils	39.9	11.2	11.4	17.3
Dark chestnut	17.1	6.8	4.9	5.4
Chestnut	11.9	2.7	3.6	5.6
Light chestnut	10.9	1.7	2.9	6.3
10. Meadow chestnut soils	0.5	-	-	0.5
11. Brown desert steppe soils	17.1	1.4	2.8	12.9
12. Gray brown desert soils	9.3	0.4	2.0	6.9
13. Extra arid desert soils	2.1	-	-	2.1
14. Saline soils	1.7	-	-	1.7
15. Meadow and meadow swamp soils	2.3	-	-	2.3
16. Alluvial soils	2.0	-	-	2.0
17. Sand soils	1.8	-	-	1.8

data source: Mongolia, the comprehensive reference source of MPR (Academy of Sciences)

The distribution of arable soils by Aimag is shown in the following table. More than 40% of arable soils are distributed in the central region including Aimags of Töv, Selenge and Khentiy, and 31% extend in the eastern region including Aimags of Dornod and Sükhbaatar. These five Aimags account for 73% of the total arable soils.

(Unit: %)

Aimag	Distribution	Aimags	Distribution	Aimag	Distribution
Dornod	22.0	Bulgan	4.3	Gobi Altay	1.0
Töv	19.0	Zavkhan	3.4	Khovd	0.7
Selenge	16.2	Övörkhangaй	3.3	Dundgobi	0.6
Sükhbaatar	9.5	Hövsgul	2.9	Ömnögobi	0.4
Khentiy	6.5	Arhangay	2.3	Bayan Ögiy	0.2
Uvs	6.5	Bayankhongor	1.1	Dornogobi	0.1

Data source: Agricultural Sector Background Paper, UNDP

2.2.2 Climate

The Mongolian climate by region is shown in Fig. 2.2.1. It is classified into desert climate, steppe climate and subarctic climate, from south to north. Due to the extreme continental climate, the range of temperature is wide and average temperature differs by region. Average annual temperature is around 4 °C in Gobi, 0°C in the central region, below 0°C in the northern and northwestern regions.

The growing period of crops is from May to September in the central region which is the main crop production area. Average temperature is between 8.5°C and 14.3°C and the total heat units above 0°C rarely exceed 2,000. Sunshine is enough for growing, the number of days of effective sunshine being 260 and the average of sunshine hours being 1,339 hours for 5 months from May to September.

Annual mean precipitation is 218.5 mm and rainfall is concentrated in summer. Annual mean precipitation is between 200 mm to 280 mm in the northern, central and eastern regions and below 100 mm in the Altay region and southern Gobi region as shown in Fig. 2.2.3. Relative mean humidity is 50% and generally the weather is dry all the year. Annual mean evapotranspiration of crops is estimated at about 600 mm which exceeds precipitation.

Wind velocity varies from region to region. In the mountainous northern parts of the country, the wind velocity is 2 to 3 m/s. It is slower in other parts but in Gobi it is 3 to 4 m/s or even more. The most windy season is April and May which coincides with the cultivating season and this strong wind often causes significant soil erosion. According to the Ministry of Nature and Environment, 50% of the cultivated area suffers from erosion due to strong wind and local heavy rainfall.

2.2.3 Water Resources

There are many rivers in Mongolia with a total length of about 70,000 km. The largest river is the Selenge with a river basin covering 25% of the total territory and absorbing 50% of the total runoff of Mongolia. In addition, there are major rivers such as the Herlen, the Onon, the Khovd and the Zavkhan. According to the report on the Irrigation Rehabilitation Project prepared by FAO, the total surface water resources of Mongolia are estimated at 32,730 million m³/year as shown in Table 2.2.1. All the rivers freeze up, most of them for 140 to 180 days. The rivers become unfrozen in April in the plains and from mid-May in the mountain area. Snow melting generally starts in the second half of April and continues till mid-May. Generally river discharges from July to September are about 50% to 70% of the total annual discharge. The discharges of main rivers are shown below:

(unit: million m³)

River (station)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Tuul (Ulaanbaatar)	0.26	0.09	0.86	4.29	76.3	97.8	267	182	153	60.9	14.6	1.37
Orkhon (Suhbaatar)	24.1	24.1	32.2	346	1,166	772	1,850	973	973	1,448	362	72.4
Herlen (Ondorkhan)	1.28	1.28	15.4	126	195	213	372	629	585	339	87.3	2.57
Herlen (Choibalsan)	1.61	0.64	19.6	196	264	290	611	881	431	415	103	3.86

Basin area of the station: Ulaanbaatar (6,300 km²), Sukhbaatar(132,000 km²), Ondorkhan (39,4000 km²) and Choibalsan (71,5000 km²).

According to the Irrigation Rehabilitation Project Report, the total groundwater resources are estimated to be 6,070 million m³/year (total recharge is 12,050 million m³/year, discharge to rivers is 5,980 million m³/year). Details are shown in Table 2.2.1.

2.2.4 Land Use

The current conditions of land use are shown below. Natural grassland occupies 78% of the total national land area.

Conditions of Land Use (1992)

	Area (1,000ha)	Ratio (%)
Total land area	156,650	100.0
Agricultural land	123,600	78.9
Arable land	1,363	0.9
Natural Pasture	122,227	78.0
Forest	14,400	9.2
Others	18,650	11.9

source: Institute of land policy

The area of agricultural land, including both natural grassland and cultivated land, in the past 35 years from 1961 to 1995 is shown in the table below. As can be seen, 98% of the total agricultural land area consists of natural grassland and the area of cultivated land is only 1%. However, the area of natural grassland has been decreasing annually, while the rise in cultivated land area has been prominent in recent years. The figure for 1995 was approximately five times that of 1960.

Transition of Agricultural land area

		(unit: 1,000 ha)					
		1960	1970	1980	1985	1990	1995
1. Arable land	sown area	265	455	704	790	788	373
	fallow and abandoned land	267	289	478	564	583	949
	subtotal	532	744	1,182	1,354	1,371	1,322
2. Natural pasture		140,151	139,939	123,405	123,233	124,285	117,147
3. Total		140,683	140,683	124,587	124,587	125,656	118,469

Source: National Economy of the MPR for 70 years.

2.3 Agricultural and Livestock Production

2.3.1 Livestock Production

(1) General

The five major types of livestock in Mongolia are camel, horse, cattle, sheep and goat. Their composition, distribution and density vary depending on the agro-ecological characteristics of the five regions, namely (i) alpine tundra, (ii) forest steppe and mountain tanager, (iii) steppe, (iv) desert steppe, and (v) desert. Generally, livestock is distributed mainly in the central, northern, and western regions and it is fewer in number in the southern dry belt and the eastern regions. In addition, intensive farming of pigs, poultry, and dairy cows is carried out in the surrounding urban or town areas.

(2) Management Patterns and Number of Livestock

The livestock industry is roughly divided into two sectors, namely, extensive production and intensive production. Extensive livestock production, which is the traditional form of livestock production, is effectively adopted in the natural grasslands which are not suitable for crop production and covers much of the nation's land area. This form of livestock production is at the mercy of natural conditions. Intensive production is concentrated in urban areas. Large-scale state dairy, hog, and poultry farms were established by the Government with the cooperation of the former Soviet Union and the East European block in the 1960s. With the advent of the market-oriented economy, however, most of these farms were privatized or dismantled and their livestock was distributed to herders. The privatized farms which no longer have access to government subsidies, are faced with a serious shortage of working capital and have been forced to curtail their scope of operations. Meanwhile, the demand for milk, chicken, pork, and eggs has increased in urban areas, in conjunction with the rise in tourism and changes in food consumption habits among the urban population.

The number of livestock has continued to increase from 24,675 million in 1989 and reached the highest figure of 28,579 million in 1995 as shown in Table 2.3.1. The main causes of such increases are considered as follows:

- 1) Following the distribution of livestock by dissolution of state farms and Negdels in 1991, the restriction on the number of privately owned animals was abolished. As a result, animals have been grown as private assets and the tendency to increase own herds among herders has risen.
- 2) Inflation, unemployment, and other general economic factors have discouraged herders to dispose of their livestock.
- 3) Controls and regulations on the number of livestock to be slaughtered under the planned economy were abolished. The number of animals slaughtered is decided by the individual herder. As a result, the number of slaughtered animals has declined to a very low level.
- 4) The meat market has shrunk because of a decline in demand due to the reduction of the large Russian population living in Mongolia and a drop in export to Russia.
- 5) After the reduction of livestock caused by heavy snowfall in 1993, the mortality rate of livestock has dropped, due to stable weather condition and limited epidemics.

The number of sheep recorded the peak in 1990, and thereafter decreased to 13,700 million in 1995, i.e. about 10% of its peak number. The number of goats has increased sharply in recent years due to the rise in the price of cashmere, and in 1995 became twice that of the 1985 figure. The number of cattle and horses has gradually increased since 1985 and has broken past records of both species. The number of camels has greatly decreased after privatization in 1991 and stayed at 360,000 in 1994.

(3) Changes in Livestock Ownership

Until 1995, 93% of the total number of livestock has been privatized. In conjunction with this, the number of livestock possessed by non-herder households and

businesses enterprises increased. During the period of 1991 to 1994, non-herder households or businesses enterprises that possessed more than 200 heads of livestock rose from 1.7% to 12% as shown in Table 2.3.2.

In addition, the number of herder households also greatly increased. In 1995, 170,000 households or 2.5 times that of the 1989 figure were recorded. The number of herders (16 years or older) also rose to 390,000, approximately triple that of the 1989 figure. The underlying cause of this increase is the number of new herders, i.e. unemployed engineers, accountants, and other professionals of former Negdels and state farms who acquired livestock through privatization of livestock. Many of these new herders have no experience or skills of livestock farming. The poor propagation rate of livestock due to their lack of skills has become a growing issue.

(4) Livestock Products

The number of slaughtered livestock has decreased since 1993 and averaged 6.5 million heads in recent years. This is one million heads less than the average in 1986 to 1990 despite the increased number of livestock owned by herders since 1993 (refer to Tables 2.3.3 and 2.3.4). Meat exported to Russia has sharply decreased and this has coincided with the low level of slaughtered livestock. The number of slaughtered livestock has dropped for all the five major livestock species.

(5) Grass Resources and Feed Supply Conditions

Fodder for livestock can be largely categorized as natural pasture grass and fodder produced from forage crops. The former comprises 99% of total feed consumed domestically, while the latter comprises about 1%. According to a survey on grazing capacity by the Institute of Agricultural Economics and the Research & Teaching Institute of Animal Husbandry, the livestock density in the urban areas of Ulaanbaatar, Darkhan, Erdenet and Arkhangay, Övörkhangay, and Bulgan far exceed the grazing capacity. In contrast, there is a surplus in the grazing capacity in Dornod, Khentiy, and Sükhbaatar (refer to Table 2.3.5). Proliferation of weeds and soil erosion in the country have been reported; and it has been confirmed that grasslands continue to deteriorate in the urban areas. Under the planned economy, nearly two million hectares of grassland were used for harvesting 1,200,000 tons of hay. However, after privatization, the production of hay declined as its production was left to the discretion of the individual herder. In 1996 the production of hay leveled off to 620,000 tons.

The types of animal fodder produced are green fodder, straw, silage, formula feed, etc. which are only 1% of the total amount of livestock feed used in Mongolia. The production in 1995 was 13,800 tons or an 8% decrease from the 1989 figure.

A State Emergency Fodder Fund (SEFF) was set up during the era of the planned economy and about 200,000 tons of animal feed were reserved annually to supply free livestock fodder in times of emergency due to snow damage. SEFF was abolished in 1996 and its function was shifted to the State Reserve Agency under the Ministry of Agriculture and Industry. As of October 1996, the volume of reserved feed was approximately only 10,000 tons of hay and 4,600 tons of wheat bran due to budget constraints.

(6) Problems and Constraints in Pasture Utilization and Animal Fodder

The following issues are observed in pasture utilization and animal feed exist.

- 1) Increase in cultivated land, land devastation due to soil erosion, mining development and growing automobile traffic reduced grassland areas.
- 2) Diminished use of potential grassland areas due to shortage of such water supply facilities as wells, water supply tanks.
- 3) Devastation of grassland surrounding water supply facilities, due to heavy concentration of livestock herds at water supply facilities.
- 4) Deterioration of grassland surrounding urban areas: Herders and their livestock tend to concentrate in Som and Aimag centers and along main roads since they have become responsible for selling and purchasing their own livestock and daily commodities under the market economy. This has destroyed grasslands surrounding urban areas.
- 5) Accurate figures on grazing capacity are not known since detailed studies on grassland use and the production potential of pasture grass have not been carried out in order to revise the old data.
- 6) Decrease in animal feed reserve: Production of hay and reserve supplies have become the responsibility of the individual herder after privatization was implemented. As a result, the production of hay has become insufficient and

the volume of reserve feed available under the government operated SEFF has been reduced. At present, many animals are being left defenseless in the event of an emergency such as heavy snowfall.

- 7) Reduced production of formula feed, in conjunction with diminished production of grains such as wheat, etc.

(7) Conditions of Animal Health

Problems and constraints in animal health are summarized below:

- 1) Reduction of function of animals diagnosis in rural areas (Som level).
- 2) Shortage of veterinary medical supplies (drugs for treatment) due to budget deficit of local governments.
- 3) An increased burden on the existing veterinarians due to a shortage of staff in the animal health sector.
- 4) Equipment and related facilities for animal health such as testing rooms, medicated dipping baths, etc. have depreciated.
- 5) Absence of unified hygiene tests of meat and livestock products due to diversified distribution routes for livestock commodities.

(8) Varieties and Improvement

Problems and constraints for livestock improvement are summarized below:

- 1) Issues Pertaining to the Dispersion of Improved Livestock
 - (i) Inadequate management of improved livestock: Improved livestock generally needs to be kept in barns and fed fodder during the winter season unlike traditional livestock species. But improved livestock is not appropriately managed due to the lack of knowledge and experience on the part of the herders, or herders are often unaware that their livestock is improved breeds.

- (ii) Crossbreeding between existing and improved livestock, stemming from dispersion of improved livestock
- 2) Issues on Administrative Services Regarding Improved Livestock Species and Breeding
- (i) The technician in charge of livestock breeding activities in the Som has not been able to carry out activities such as confirming the location of livestock, carrying out performance tests, supervising herders, etc. due to the lack of transportation and equipment.
 - (ii) Due to the inability to carry out performance tests on livestock, scientific evaluations of livestock products can not be made. As a result, information on quality control measures for livestock and livestock products has not been disseminated among the herders.
 - (iii) Herders, who have newly become herders after privatization, obtain little knowledge on livestock and livestock products.
- (9) Water Supply Points

Water supply facilities in the grasslands are extremely important in a country where natural grasslands are used as pastures. During the planned economy, the number of water supply facilities (wells and water tanks) in the grasslands increased steadily and the ratio of grassland area used for pasturage rose to 70%. However, the number of water supply facilities has decreased steadily since 1990 and the area of grassland used for pasturage has also declined.

Approximately 1,740 wells were destroyed, damaged, or suffered a loss in water volume from 1992 to 1995, and are no longer in use. In addition, 6,200 wells are in a state of disrepair (refer to Table 2.3.6). Except for motorized wells, all other types of wells such as animal powered wells and simple mine wells were distributed to private organizations. Motorized wells will be distributed to private organizations after a study has been carried out on their current estimated value, use, etc.

The declining number of functioning wells has become a serious issue for the inhabitants in terms of livelihood and the use of grasslands as pastures.

2.3.2 Crop Production

As explained in section 2.2.2 "Climate", the short growing period of crops accrued from the severe low temperature, low precipitation, occurrence of unseasonable frost, strong wind, etc., is a major crucial constraint for agricultural production. Wider selection of crops and crop production are limited in Mongolia.

The total cultivated area of crops is equivalent to a mere 1% of the total area of Mongolia. The main crops are (i) wheat, followed by (ii) other cereals such as oat and barley, (iii) fodder crops, (iv) potatoes, and (v) vegetables such as tomatoes, onions, cabbage, and carrots. Most of the crops are cultivated under rainfed condition with the exception of vegetables.

State farms played an important role in crop production in the planned economy period and were privatized since 1990. However, these farms were not managed properly because of the following reasons: In former days the Government provided farm inputs such as fertilizer, agro-chemical, agricultural machinery, etc. at low prices to the state farms with assistance of the Soviet Union. After 1990, farm inputs were not imported because of the rise of prices of these farm inputs in the international market and lack of foreign currency of the Government.

Accordingly, most of the state farms have limited access to these farm inputs. Moreover, farm operation for land preparation, weeding and harvesting face difficulties owing to shortage of agricultural machinery and fuel for farm operation. Seeds were not renewed and improved due to lack of fund. Lack of farm inputs resulted in a sharp decrease in crop production in recent years.

The planted area, production and yield of crops in recent years are shown in Table 2.3.7. The production of crops in recent years became less than 30% in that in the planned economy period. The main causes are the reduction of planted area and the decrease of yields. The planted area in 1995 decreased to 40% to 60% of that in 1989, the last year of the command economy period. Also, the yields of crops in 1995 became about 50% to 80% of that in 1989. Wheat production in 1996 became 21,3000 tons or about 31% of that in 1989.

2.4 Marketing

2.4.1 Traditional Marketing System

Under the severe climate and land-locked condition, self-supporting life-style has been the only possible way to survive in Mongolia. The people produce food for themselves and other daily utilities such as woolen felt, and skin for their clothes.

During the years of the planned economy, collection and distribution of commodities to and from herders and urban people are controlled and supported by the State Procurement Agency. All assets including land, livestock, manufacturing facilities are state owned. The former Soviet Union in cooperation with CMEA countries made investment to facilitate the production of agricultural products and daily commodities. As a result, agricultural products such as meat, hair and skins are marketed to those countries.

During the planned economy, the marketing system is structured in relation with the administrative network. Each Som has a supply and collection center and each Aimag has a regional wholesale organization. These organizations are controlled by the national wholesale organization in Ulaanbaatar.

The Government started a shift from the command economy to a free market economy in 1991. The major change was to privatize state-run enterprises by allocating assets and introducing a competitive management environment. The marketing system of agricultural products and agro-processing enterprises have gone through a significant shift from a centralized system with integrated state enterprises to a market oriented system with independent companies.

2.4.2 Marketing of Agricultural and Livestock Products

Before the reform, Negdel dealt with the distribution of all the products from countryside, but after the reform Agricultural Cooperatives took over only limited shares of products. Cooperatives are rather active in collecting cashmere and wool with shares of 13% and 10% respectively, and 8% of wheat distribution. But for collection of meat and skin, the cooperatives shares' are only 1.5%, and for potato and vegetables the shares are only 1.7% and 0.5%. Commodities traded in Mongolia have peculiar characteristics including seasonality and quality. It is necessary to make itemized analyses of agricultural

and livestock products.

(1) Meat

Meat is the major food item for people in Mongolia, and the production of meat depends on slaughtering of livestock. Generally 25% of livestock is slaughtered every year. Total weight just before slaughtering is estimated at 450,000 tons, and the carcass meat produced, which is without head and intestine, is 200,000 tons (see Fig. 2.4.1).

Meat production is seasonal because livestock herders follow the pattern of nomadic life which is subject to natural climate. Most slaughtering is done in fall when animals are fattest after a summer nutrition intake.

After the transition from command to market economy herders were interested in increasing their assets in the form of animal number. Herders, therefore, preferred keeping animals alive, and this was the cause of food shortage in 1992.

Marketing of meat is carried out in the form of carcass meat which includes bone. Meat production per capita has been rapidly decreasing since 1991. The amount of production in 1995 was only 70% of that in 1991. Of the total number of slaughtered animals, only 7% are processed at urban large slaughtering houses, and the rest 93% are slaughtered and processed at Som centers or at herders' places. Meat produced in rural areas is preserved in natural frozen temperature and transported to major cities for direct sales at food markets.

Livestock for meat processing at large slaughter houses is transported by trekking, called "tovar". This system incorporates nomadic herd-style and technique to overcome physical disadvantage of long distance transportation. Most animals start in spring or early summer, and fatten as they trek, and they reach the designated factories in autumn or early winter.

Large slaughter houses such as Makh Impeks supply only 30% of the total consumption in Ulaanbaatar. Supply of meat is mainly dependent on private traders. This trend does not seem to change for the time being. Herders, within a distance of 300 km, try to bring live animals to Ulaanbaatar by themselves rather than selling to traders.

In order to make meat more profitable, it might be necessary to make some renovations of both facilities and quality control system. Even though Makh Impeks in Ulaanbaatar, for example, is exporting block meat to the Middle East, and Kishig Company in Darkhan exports to Russia, the facilities do not meet the requirement of hygienic criteria in developed countries. The height of hanging rail should be higher so that the carcass meat does not touch the ground. The drainage system also should be renewed in most factories. As for quality control system, veterinarian inspectors should station and check the health condition of animals and every single lymph's glands after slaughtering.

Lack of finance is another item which prohibits them from collecting animals as they used to do in the 1980s. But the real problem lies in the quality of products, because low quality results in lack of competitiveness in the international market, and in turn brings about high interest rate and shortage of money. Meat used to be an important export item in the past.

(2) Cashmere

Cashmere from Mongolian goats is considered to be amongst the best in the world. Currently 8.5 million goats produce 1,800 tons of cashmere at a per-head yield of 270 grams, and 80% of goats produce raw cashmere (see Figure 2.4.2). Greasy cashmere in the countryside is brought to Ulaanbaatar by mainly four routes, 1) Agricultural cooperatives belonging to NAMAC, 2) Private Traders (called "naimaachin"), 3) Agents of Gobi company, and 4) Herders themselves.

Agricultural cooperatives play an important role in the collection of cashmere. They used to be the single collecting operators during the planned economy period, and their role seems to remain important. But now only 13% of cashmere is collected by the agricultural cooperatives. Private traders deal with 50%, and herders themselves bring 30% of total greasy cashmere to city markets and factories. Factories collect only less than 10% of total cashmere, but they are making effort to strengthen their collecting capacity.

Quality is the most important aspect of marketing in the future. There should be a grading system that specifies the relation between quality and price so that the supplier of raw materials should recognize the merit of high quality. In order to create this supply condition, education will be the key factor instead of administrative order. Factories and traders are especially responsible for the quality upgrading because they may pay more

money for better quality.

(3) Wool

Unlike cashmere, the quality of wool in Mongolia is rather low because it is coarse and dark colored. Former state owned wool processing factories are separately privatized and collection of wool is mostly dependent on private traders. Because of the low quality, textile industry is not fully developed. Some keep relations with other factories, but the finished goods producing companies, such as Nefmel and Ulaanbaatar Carpet, are prepared to make upstream process within their own factory. Companies which started as wool processing factories such as Eermel and Noos-Impeks, now try to make profit from cashmere processing.

For the distribution of wool and wool products (see Fig. 2.4.3), private traders occupy approximately 70% of the marketing share to the rural area. They come directly to factories and purchase what they need for trading in rural areas. People in Ulaanbaatar including shop-owners and city people also visit factories and buy woolen products according to their needs. Agricultural cooperatives visit felt factory to sell raw wool and purchase finished goods, but the amount is only 900 tons out of 4,000 tons that all factories collect.

(4) Skin and Hide

Quality of Mongolian animal skin is characterized as deep hair roots, thick and hard, and thick fat. Because of these characteristics, skin processing in Mongolia requires high technology and extra care when the products try to penetrate international market.

Skin factories are all privatized from former state-owned vertically integrated companies. Although they are seeking ways to procure their materials by themselves and expand their product line, they are operating at low capacity in recent years. What is more, skin tanning technology is not good enough to attract international buyers.

Products are thick, heavy, smelly, and not durable. Therefore products are mainly sold in domestic market as shown in Fig. 2.4.4. Companies have some shops under their own operation. They set out sales when winter season approaches. It is the best season that skin coats and fur coats sell most.

(5) Milk

More than 90% of milk is consumed in rural production site in the form of self-consumption (see Fig. 2.4.5). Less than 1% is delivered to an urban processing factory, called Suu company. Before 1990 with the national procurement system, this company used to have a capacity to produce 200,000 liters a day. But now even in a summer day the product amount is 20,000 liters, and it drops to 1,200 liters in autumn. The major reason for this decrease are poor management and lack of money.

After farmers experienced no pay by the milk company, dairy farmers decided to market their milk to consumers directly at marketplace in Ulaanbaatar. Although the size of dairy farms reduced, they are maintaining sustainable level of production every year.

Facilities in the milk company are not properly maintained according to the standard of developed countries, and the quality of the products is also poorly managed. The marketed milk should be given much more care to keep its quality, and the city government should be given the authority to control and quarantine the marketed products.

(6) Wheat and Flour

A wheat flow chart is shown in Fig. 2.4.6. In 1995, domestic production of flour is assumed to be two thirds of the total domestic demand. Production of wheat is 250,000 tons, from which 93,000 tons of flour are milled. One third of total supply is dependent on import although the official data indicate supply from domestic flour-mill satisfies the demand.

Consumption of flour per capita per year is presumed to be 100 kg in Ulaanbaatar, but in rural areas the rate of consumption is approximately a half of that level. Bakeries consume one third of flour and the number of bakeries increases by more than 100 every year.

Problems encountered in the supply of flour come from the poor yield of wheat and deterioration of seeds. In 1996 lack of rainfall in summer caused low crop yield of only 770 kg per hectare.

Renewal of factories is another concern, but the system operates as an integrated

whole. It is not effective to exchange some parts nor is it realistic to reduce the size of operation.

(7) Potato and Vegetables

The present flow chart of potatoes and vegetables is shown in Fig. 2.4.7. Just like the case of wheat, potato and vegetables have similar problems of decrease in production. It becomes difficult to see the expansion of cultivation under the present agricultural system without utilizing fertilizer and proper bed making during the winter time. People cultivate potato and vegetables for self-consumption and not for sale. But there is a growing demand in Ulaanbaatar, and the production of potato and vegetables should be encouraged. Agricultural cooperatives are in the important position to take leadership for the increase of production, and the government intention to support those efforts is eagerly expected.

(8) Inter-regional Distribution

In recent years, the ratio of population living in Som center, Aimag center and Ulaanbaatar amounts to half of the total population. In order to supply for these people, production in the countryside should be twice their own consumption. Meat as a basic foodstuff is self-sufficient in local areas and cities such as Ulaanbaatar and Darhan are very much dependent on the supply from countryside.

2.4.3 Marketing of Farm Inputs

(1) Agricultural Inputs

After the transition to free economy, farmers cannot afford to purchase any fertilizer or pesticide. As a result, there is no item to market except some machine parts for the existing cultivation machines. Seeds are imported from Russia in only very small amount and marketed among farmers in Selenge and Tov Aimags. New machines are supplied only under the government aid program from foreign countries.

(2) Fodder for Livestock

As for livestock input, fodder supply is an important aspect in livestock management. Managing livestock safely through the long winter is a primary concern of all

herders. In the past, the risks winter posed were dealt with by the state with the State Emergency Fodder Fund. But now the responsibility of fodder supply has been transferred, along with the livestock, to each private individual herder. But obviously, harsh free market economy does not allow most herders to pay for preparation and collection of fodder.

2.4.4 Marketing of Consumer Goods

After the transition to free market economy, imported goods are getting popular and the domestically manufactured goods lost their share. Take soap for example, the slaughter house used to provide animal oil as raw material of soap. But as the operation of slaughter houses decreases, oil supply decreases accordingly. The product amount now is only 10% of that in the 1980s. Soap is marketed by the channel of Buni Hodalmaa as it was before, but naturally the share of Buni Hodalmaa decreases.

Private traders become popular and they respond to the herders need quickly so as to make better profit. They make a small team with trustworthy people, often brothers and relatives, and drive their own trucks or rent trucks to carry goods between cities. They have a strong network of information on commodities so that the market prices can be immediately transmitted to the local town. They often commute between several towns, but many of them have access to Ulaanbaatar market where they can make most of their profit.

Big difference from planned economy appears in the remote areas of western Aimags. After the rationing system ceased to operate, the prices of commodities especially petroleum became very expensive unlike those in the central region. High cost of petroleum is reflected in the high cost of transportation, and thereby prices of all commodities in the remote area are 10% to 20% higher, and the rate of price increase is much more than the rate of increase in petroleum. Private traders may have been profiteering the tendency of price hike.

2.4.5 Trade Condition

Liberalization policy gave trade various forms such as trade by cash, by barter and by contract. Promissory notes or checks are not popular because the financial institutions are not developed. Trade by cash is the basic trade condition and common in retail shops in cities. Trade by barter is common in the countryside where private traders deal with

herders, because private traders carry flour, rice and salt to sell in exchange for animals from herders. This trade condition is convenient for herders because they do not have cash, and they tend not to keep cash because of inflation. Barter trade is based on the conversion rates agreed by both parties.

Trade by contract is often the case between large factories such as meat processing factories and herders, when factories purchase live animals with trekking arrangements. Contracts are made in early spring and payments are half made in spring, and the rest will be paid when animals arrive at factories.

2.4.6 Market Information System

The importance of market information to herders is widely understood among the officials. Market information and other information relating to agriculture are collected by Aimag centers and Aimag governors, and are supposed to be forwarded to the Ministry of Agriculture and Industry and the National Statistical Board. Information has been published in newspapers and broadcasted by radio and TV. In the radio program, FAO supports broadcasting of weekly market information, and MAPH sponsors a program of daily market information.

In order to develop the market information system, reports should be based on product grade, or animal grade. There are people who take newspapers more seriously because they carry information of conditions and qualities in relation to price ranges.

2.4.7 Regulations Related to Marketing

There are regulations to set market activities in order, and officials in city councils for example make regular visit to marketplaces in Ulaanbaatar in order to examine the market operation. Although there are laws to regulate unfair trading, it is necessary to enact and enforce authoritative power to make traders abide by the law. There is also a necessity that new laws should be prepared and enacted for better control of qualities of commodities and trade. Prospective laws should cover regulations such as those on examination of the quality of meat and meat products, milk and dairy products, and eggs.

2.4.8 Marketplace Conditions

There are 11 food markets in Ulaanbaatar which operate as both retail and wholesale markets. Among them 4 markets are in open air, and prices are generally cheaper than in roofed markets but the hygienical quality is sacrificed. Roofed markets on the other hand, are considered to carry better items because tenants are staying long time on a monthly-contract. Shop owners in the roofed markets often purchase items at open-air markets and sell them by fairly established prices, which means there is no room for negotiation.

Most markets were established within the recent 5 years and they are under constant renovation and renewal of tenants. The managing company is keeping fair trade by checking scales and quality of commodities. Ulaanbaatar city council conducts regular checking of all market places.

2.4.9 Prices of Agricultural Products

Prices of agricultural products fluctuate by season according to the supply as a result of free market policy. For example in winter, the supply of meat is abundant and price is low. But in spring and summer the supply decreases as animals lose weight. So the price becomes high and fluctuates. This is a typical pattern that repeats every year. Milk has a low price season from June to October and prices in other 7 months are high and stable.

As for other agricultural products such as skin and hide, seasonal fluctuation of prices is observed, and the prices are lowest in spring. These price fluctuations are quickly reflected by the purchase prices of private traders. Grains on the other hand keep their prices fairly constant throughout the year although the harvest season is limited. Imported goods show fairly constant pattern which follows inflation. This constant price can be recognized as a reflection of free international trade.

Former state-owned factories such as Makh-Impeks (meat) and Suu (milk) company are putting downward pressures on the procurement prices so as to keep their products in a low price range in order to control the inflation.

2.5 Agricultural Cooperatives

2.5.1 Historical Background of Agricultural Cooperatives

(1) Formation of Negdel

After the people's revolution in 1921, the Government introduced a new compulsory collectivize policy to collectivize labor force and livestock, and to organize agricultural cooperatives named "Negdel". In 1942, the Government laid down a model Standard Rule on People's Production Negdel, and provided Negdels some preferential measures in terms of taxation and procurement for facilitating the collectivization of nomadic and semi-nomadic livestock. Under such circumstances, the number of Negdels increased from one in 1935 to 183 in 1954.

The Mongolian People's Revolutionary Party decided to introduce a full-scale collectivization policy of livestock at its 13th Session held in 1958. As a result, the collectivization policy was fulfilled in 1959, and the number of Negdels amounted to 389, consolidating 99.3% of Mongolian herdsmen and 73.7% of livestock.

The establishment of Negdels in the livestock sector contributed to increasing the livestock production and to solving social demands of herdsmen. The nomadic management style also changed because Negdels constructed fixed large cattle sheds and wells, provided mowing machinery, and secured fodder in nomads' winter camps for protecting and feeding livestock during harsh winter to spring season. These enabled herdsmen to carry out their systematic nomadism within a rather small sphere and to reside semi permanently at their winter camps.

Since the 1960s, Negdels enjoyed various governmental support, and changed their character as a bureaucratic livestock production agency under the direct control of the Government.

(2) Re-organization of Negdels based on the Cooperatives Law

Since 1986, the Government took steps to reduce the role of central planning in resources allocation. The centerpiece of the Government's economic reform program was privatization of state-owned assets. The privatization program was initiated in 1991 with the

promulgation of the law on privatization of state ownership and a number of related laws for providing an enabling legislative framework.

Mongolia's privatization was implemented through free distribution of vouchers. Agricultural assets of Negdel were distributed to farmers, and most of the country's livestock was offered for sale to herdsmen. Each farmer received a plot of land from his Negdel, and herdsmen received a share of the livestock held by their Negdels in exchange for surrendering all of their pink and blue vouchers to local privatization committees.

In parallel with the fulfillment of privatization policy mentioned above, the Law of Economic Entities was enacted in May 1991. Under the Economic Entities Law, by the end of 1991 all enterprises (including state enterprises and Negdels) were converted to one of three modes of ownership: (i) sole individual proprietorship; (ii) horshoo (cooperatives); or (iii) companies. As of July 1, 1994, the total number of economic entities in Mongolia was 22,626, of which the number of cooperatives was 2,538 (11.3%).

In the middle of 1995, the Cooperative Law of Mongolia and Law of Partnership and Company have been promulgated with the abolition of the Law of Economic Entities in May 1995. Both laws stipulated that the existing cooperatives and companies established under the Economic Entities Law had to be re-registered by May 1, 1996 under either the cooperative law or the company law. All existing agricultural economic entities being eligible for cooperative will be re-registered as agricultural cooperatives.

2.5.2 National Association of Mongolian Agricultural Cooperators (NAMAC), Aimag Association of Agricultural Cooperatives (AAAC) and Unit Agricultural Cooperatives (AC)

(1) General

NAMAC was established in 1994 as the successor to the National Union of Agricultural Cooperatives (NUAC) with 17 Aimag Unions of Agricultural Cooperatives (AUAC) and 4 agricultural enterprises. The present organization under NAMAC consists of a three-tier system: (1) unit ACs in Som, (2) AAAC in Aimag, and (3) NAMAC as shown in the following table.

Level	No.	Name of Organization	No.
National	1	National Association of Mongolian Agricultural Cooperators (NAMAC)	1
Aimag	21	Aimag Association of Agricultural Cooperatives (AAAC)	17
Som	358	Agricultural Cooperatives (AC)	252

Note: The figures are the number of organizations at each level in 1995.

The number of ACs belonging to NAMAC was 315 in total in 1993 and it was reduced to 301 at the end of 1994, then decreased to 252 at the end of 1995 as shown in Table 2.5.1. Among 18 Aimags excluding the 4 administrative districts of Darkhan, Ulaanbaatar, Erdenet and Gobisunvel, AAACs have not yet been established in Selenge. The number of AAAC is 17 in the whole countries. Activities of AAAC in Bayanolgii Aimag are halted. About 28% or 96 Soms have no ACs belonging to NAMAC at present.

The management system of ACs consists of the companies with a limited liability (60%), companies with shareholders (17%), and cooperatives (10%) as of 1995, as shown in Table 2.5.2. Although the management style registered is different, however, actual organization management and activities are mostly similar and they are regarded as having the same character as agricultural cooperatives. NAMAC also accepted with no differences. The share of cooperatives are increasing afterward.

The number of member households averages 238 per AC, ranging from 155 at the minimum to 306 at the maximum as shown in Table 2.5.3. The total number of member households is estimated at about 51,100 or 33% of the total number of herder households in the country. The household size averages 3.6, almost the same as the average number of working members per household.

As mentioned previously, a lot of ACs were dissolved during one year from the end of 1994 to the end of 1995. The results of the survey indicate that the main causes of their dissolution are (i) distrust of cadres and their management of ACs (27%), (ii) decline of business of cooperatives (22%), (iii) increasing number of members resigning from ACs (22%), (iv) shortage of operation fund (18%), and (v) increasing debt (11%). However, previous members of about two thirds of the dissolved ACs have intention or wish to establish new ACs again.

(2) Organization and Management of NAMAC and AAAC

NAMAC is a voluntary non-government organization. The National Conference, which holds once every four years, is the supreme body of NAMAC. The representatives to the National Conference are selected from all AAACs, and the total number of representatives is determined by a Board of Management selected by the National Conference. The Board consists of 17 chairmen of AAACs and 8 academics or experts. The members of the Executive Committee are elected by vote in the Board of Management. The current Executive Committee of NAMAC consists of 7 members. The Board of Management and Executive Committee meet at least once a year and once a month, respectively. Five auditing members are also elected at the National Conference and form the Auditing Council. The day to day operations of NAMAC are implemented by the Chairman, the Executive Secretary, and 5 full-time staff with workers including 2 drivers, 3 guards, and 3 cleaners.

The activities of NAMAC are summarized as follows:

- 1) To develop agricultural cooperatives based on the principles of the international cooperative movement;
- 2) To perform and spread common policy of agricultural cooperatives;
- 3) To protect the interest and rights of members of the association; and
- 4) To provide every possible support to improve the outcome of services and/or production made by the members.

The finance of NAMAC is basically covered by its subscription (membership fees). The membership fee is Tg 300,000/year per member. The total revenue of NAMAC was Tg 14.5 million and the total expenditure was Tg 16.2 million in 1995. The expenses for direct activities are only 40% - 11% of the total expenditure.

AAAC is also a non-government organization. The supreme body of each AAAC is a Conference of Delegates representing member ACs. The Conference is held at least once in two years. Each Executive Body of AAAC consists of 5 to 7 members selected at the Conference among delegates, and holds a meeting every month. While the detailed organizational structure of AAACs is determined by their respective standard rules, a little difference can be seen in the number of members on the Executive Body, the number of staff, etc.

The activities of AAAC are only stipulated as "To examine and coordinate AAAC's activities with local governments concerned, and to fulfill their legal duties and to obtain national consent for their activities". Every AAAC has set up its concrete activities in its standard rules.

The finance of AAAC is basically covered by its subscription (membership fees). The total revenue of all AAACs was Tg 30,892 million and the total expenditure was Tg 31,966 million in 1995.

(3) Organization and Management of ACs

The supreme body of AC is the General Meeting and the Board of Management. The Chairman of AC shall hold the power of management of AC. The Chairman shall manage the Board of Management. The Audit Council shall control and examine all matters relating to auditing of AC.

Every member of AC, even in the form of a company, has one vote in the General Meeting of members irrespective of the share of capital contributed. The members can receive dividend based on their participation in the activities of the AC by contributing their share to the work being served by the AC, and their contribution to the AC.

The Board of Management is composed of 5 board members. The Auditing Council shall consist of a professional accountant and outsider inspectors. More than 80% of ACs appoint 3 auditors each.

Only 22.5% of all ACs have Vice Chairman appointed by Chairmen. Most of ACs have staff for general affairs and an accountant, but only 13% to 14% of the ACs have agricultural specialists and engineers. More than 80% of the ACs hire less than 8 office staff each.

The shade of the previous Negdels still remains in the present ACs if taking into account the background of their establishment. It is estimated that about 30% of Chairmen are more than 50 years old and 75% had been cadres of Negdels.

(4) Business of AC

The average share capital per AC was Tg 9.8 million. The main businesses of ACs are production, sales, purchase, processing and others. The main commodities dealt with by ACs are wheat, meat, intestines, skin and hide, cashmere and wool from 5 major livestock animals. 70% of the ACs are engaged in production of livestock and 36% in crop production. 99% of ACs deal with sales business, 78% purchasing business, 15% processing of livestock, 10% processing of crops, and 52% other business.

Processing and other business are performed on a small scale and include (i) livestock product processing such as butter, cheese, ham and koumiss (fermented mare milk), (ii) agricultural product processing such as wheat flour, bakery, confectionery, and soft drink, (iii) processing of leather, (iv) sewing, (v) boots making, (vi) felt production, (vii) timbering, (viii) manufacturing business such as soap, candle making, and (ix) management of medical center, buffet, and inn. But the main source of income is from both sales and purchase business, being more than 80% of the total income.

The sales business of AC consists mainly of sales of agricultural and livestock produce by AC itself and consignment sales of AC members. The total amount of livestock owned by ACs is estimated to be 375,000 heads or only 1.3% of the national livestock population of 28,570,000 heads in 1995. The consignment sales are also small. The sales of the AC's own production exceeds the consignment sales except cashmere and wool as shown in Table 2.5.4.

The average sales income per AC is estimated to be Tg 22.5 million, consisting of Tg 15.5 million from livestock, Tg 3.9 million from crops and Tg 3.1 million from processing and others. The average total expenditure per AC is estimated to be Tg 20.2 million corresponding to 90% of sales income. The estimated average profit per AC is Tg 2.3 million or 10% of sales income. About a half of ACs have profit of less than Tg 2 million, 28.6% between Tg 2 million and Tg 10 million, 4.9% between Tg 10 million and Tg 30 million. However, about 15% of ACs are in deficit financial status although their average profit shows a surplus.

As for cash sources, 86% of ACs use their own self-fund. There are no debts from banks. Most ACs seem to have no fixed term deposits and do not use loan from banks.

(5) Welfare and Education

The net profit after deducting income tax is allocated to future investment, welfare and social services, deposit for calamities, and dividend to the members. It is estimated that the allocation rate is 31.6% for investment, 29.8% for welfare and social services, 1.9% for deposit for calamities, and 36.7% for dividend on an average.

In the welfare and social services, many activities such as subsidy to the poor, providing delivery room for pregnant women and management of hospital, sanitarium and public baths, etc. have been inherited from previous Negdels.

Educational services are conducted by ACs. ACs pay accommodation and fee for members and/or children of members to attend general and/or special training courses held by the central institutions or universities. The results of interview survey on 142 ACs showed that 46 people attended such courses in 1995 in the country.

The social and living services conducted by ACs are so wide, consisting of transportation of ger in move and in emergency cases, services to pregnant women, water supply, electric supply, etc. In addition, ACs provide kiosks at Bag located far away from Som center in order to provide daily necessities. It is estimated that 5% of ACs have no kiosk, 68% one or two kiosks, and 27% more than three kiosks. Supply of daily necessities to members of ACs depends on the produce made by the factories owned by ACs as well as such commodities as wheat, sugar and tea, etc. through purchase business of ACs.

(6) Opinion and Wishes for Future Development

The results of the interview survey showed that 58% of ACs intended to enroll new members. On the other hand, 86.6% of ACs replied they wanted to enlarge the scale of ACs. As for the possibility of establishing a new AC in the same Som, 70% of ACs were negative. About 50% of ACs considered that there is possibility of increasing share capital for enlargement of the scale of AC. About 40% of ACs had intention to provide veterinary services and 60% of ACs had not. 74% of ACs considered that the improvement of facilities such as wells and livestock houses for the member herders is not necessary.

Wishes to reinforce the processing facilities were manifold. 20% of ACs wanted to reinforce flour mills, followed by bread factories, slaughter house, store house, fodder crop mixture, milk and its processing, and others. Others included timber factory, felt factory, hide and skins factory, etc.,. With respect to facilities, ACs wanted to install service facilities for members such as public bath, sanitarium and hospital with high priority. About 30% of ACs expected to receive assistance for operation fund, agricultural credit, and tax reduction.

(7) Summary

In the process of transition from the centrally planned economy, to the market economy the Negdels were dissolved. During this process, a drastic change of economic and political system was made. Various changes and difficulties occurred in the supply of inputs, marketing, agricultural support services and agricultural credit, coupled with higher inflation and price hike of commodities. Such situation puzzled smooth operation of NAMAC, AAAC, and ACs. However, NAMAC, AAAC, and ACs in each area have continued their activities and kept their organizations under such circumstances. It is forecasted, however, that these difficulties around ACs would remain for a certain period.

In the case of the livestock sales business, there is some competition among ACs, the large-scale meat companies together with private traders. To succeed in competition, it would be necessary for ACs to accumulate various experiences.

It is essential that ACs should organize herders by providing useful service to them and create a strong organization. At present, about 70% of herders are not yet instituted in ACs. Then, a key point is to integrate these herders into ACs.

Needless to say, the following should be prerequisite for strengthening activities of ACs: (i) setting up AAAC in Selenge Aimag; (ii) activating AAAC Bayanölgüy Aimag; (iii) establishing new ACs in the Soms where ACs have not been established; and (iv) enrolling all herders in Soms as members of ACs.

Aiming at this target, as a first step, about 15% of ACs having negative profit should have positive profit through financial management and expanding consignment sales of their members.

In the second step, ACs should provide social and living services to the members of ACs as communal cooperative bodies in wider areas. These services will promote the feeling of co-existence and partnership among the members and ACs. This will encourage all the members to participate actively in ACs activities, including the sale of their products through ACs. This will surely make one step forward to healthy economic organization.

The most important point to be addressed for the promotion of the above activities is to secure adequate leaders of ACs. A key to the success is how to keep capable leaders, especially young ones, who know the principles of cooperatives, are well acquainted with accountant and marketing, and have a sense of businessmanship with strong faith to serve the people.

2.5.3 Mongolian Association of Private Herders (MAPH) and Unit Agricultural Cooperatives (ACs)

(1) Organization and Management

MAPH located in Ulaanbaatar is a non-governmental organization with the following purposes:

- 1) providing information and advice to members;
- 2) conducting training activities;
- 3) assisting in the establishment of new cooperatives and supporting their activities;
- and
- 4) carrying out market research and marketing activities.

From the time of its initial establishment as Mongolian Association of Private Herders in 1991 with 64 members, MAPH has now become the association of 57 herders' cooperatives in 7 Aimags in 1997 with a total membership of about 1,500 households as shown in Table 2.5.5.

In the same manner as NAMAC, it is contemplated that the organizational structure of MAPH will consist of three levels: unit herders' cooperatives in Soms; associations of herders' cooperative in Aimags; and a National Association of Herders' Cooperatives. However, the establishment of associations of herders' cooperatives in Aimags is in the preparatory stage only in Ovorkhangai, Khovsgo, and Zavkhan Aimags.

Though unit herders' cooperatives are registered under the Law of Cooperative, MAPH was registered under the Law of Non-Government Organization.

The Cooperative Representative Conference (CRC), which consists of 119 delegates and meets once a year, is the supreme body of MAPH. The delegates to attend CRC are elected by a Governing Board of each Aimag herders' cooperative association. In order to supervise day-to-day activities, an Executive Committee is organized with a total of 9 members, including the Chairman of the Association. The members of the Executive Committee including the Chairman are directly elected by the Representative Conference. The Committee meeting is held at least once every two months. MAPH also has an Auditing Council consisting of not less than 3 members. The day-by-day operation of MAPH is implemented by the Chairman and 17 staff.

The number of member households of a herders cooperative under MAPH averages 26, ranging from the minimum of 9 in the Artsmandal cooperative in Övörkhangaï Aimag to the maximum of 60 in the Tsog javkhlant cooperative in Khövsgol Aimag. Comparing to the average of 239 member households per cooperative under NAMAC, the average number of households of a cooperative under MAPH is very small because the herders' cooperative is usually organized within a Bag level which is the smallest administrative unit.

MAPH prepared a model charter of the herders' cooperative. On the basis of the model charter, the management body of the cooperative is a General Meeting of members. The meeting is held once a year, and the following issues are discussed in the meeting:

- 1) to elect the Chairman and members of the Governing Board and the Audit Council of the cooperative;
- 2) to discuss and evaluate the report on activities submitted by the Governing Board; and
- 3) to discuss and approve procedure and regulations of the cooperative.

The Governing Board consists of 5 members and represents the cooperative. The executive authority of the cooperative is both the Governing Board and the Chairman of the cooperative. The Board meeting will be held at least once every quarter. Day-to-day activities of the cooperative are executed under the supervision of the Chairman.

The Audit Council also consists of 5 members, and holds a meeting by the initiative

of any 1 member. The Council has the right to inform the Governing Board of infringements revealed, and request the Board to take necessary measures on eliminating them.

(2) Business and Activities

In the model charter of herders' cooperative prepared by MAPH, cooperative activities are stipulated as "carrying out activities on processing and selling of animal raw materials, and supplying commodities for consumption". While all the herders' cooperatives are engaging in the selling of animal raw materials, some unit herders' cooperatives are engaging in specific projects in small scale with financial assistance of MAPH. At present there are about 15 projects with a total amount of nearly US\$ one million with assistance from Conrad Adenauer Fund (Germany), Germany's Technique Cooperation Society "Mesereor", and "Danida" (Danish). These projects are designed to improve the socio-economic conditions of herders.

The major projects are as follows:

Under the project "Simple Cart", the carts made at the metallic factory in Ulaanbaatar city were lent to herders in Övörkhangai, Zavkhan, Khövsgol and other Aimags.

Under the project "Butter Cream", the small factories of the Taast, Kharnuden-Tsogjävkhlan, and Bayab-Uul herders' cooperatives (Övörkhangai Aimag), Mandakh herders' cooperative (Khövsgol Aimag), and Turagtkhaan cooperative (Khenty Aimag) are producing butter cream using yak and cow milk.

Under the project "Marmot's oil", the herders' cooperative "Zulail" in Otgon Som (Zavkhan Aimag) successfully packs marmot's oil for the German medicine factory.

Under the project "Salt Production", the herders' cooperatives of Erkhel in Alag-Eldene Som (Khövsgol Aimag), Bayab-Uul, and Margaz in Santmargaz Som (Zavkhan Aimag) are engaging in salt production.

MAPH is also helping the herders' cooperatives of Artsmandal and Altantevsh (Övörkhangai Aimag) in implementing a vegetable production project, the herders'