II. Orientation and Approaches for Japanese Assistance

1. Basic Viewpoints, Assistance Priorities and Considerations for Assistance Implementation

1.1 An Overview of Mongolian Development Policy

In view of the current conditions and hurdles facing the Mongolian economy, it is believed that the new government administration will for the most part carry on with the transition-oriented development strategy introduced by its predecessor. That strategy will likely lay priority on the following policy objectives.

(1) Fiscal restructuring in line with the macroeconomic management framework formulated after discussions with the IMF and World Bank: with special emphasis on heightened revenues; the formulation of an investment program that stresses efficiency in tandem with economic and social priorities; and efforts to trim budget expenditures and otherwise improve their effectiveness.

(2) Rehabilitation of economic and social service infrastructure: with emphasis on economically and socially vital elements of the energy, transport and communications sectors.

(3) Steps to counter the spread of poverty, with the creation of a social safety net for the poor.

(4) Financial sector reforms and the restructuring of financial institutions; bank privatization will be one step in this process.

(5) Reform of state enterprises, with emphasis on the restructuring or privatization of ventures in the manufacturing and agricultural sectors.

(6) Transfer of public assets to private ownership, especially properties for commercial and residential use.

(7) Formulation of a master plan for development of the mining sector, coupled with heightened reliance on foreign investment as a vehicle for project financing. For the development and extraction stages, this will conceivably include joint-venture arrangements between Mongolian state enterprises and foreign companies.

1.2 Basic Japanese Viewpoints on Assistance to Mongolia

(1) Multilateral Forms of Development Assistance

Mongolia faces the difficult task of pursuing its transitional path to a market economy while concurrently preparing itself for the realities of a changing international economic environment. In striving to achieve these twin goals, however, it will conceivably need sources of multilateral assistance capable of supplanting that it once received from the Soviet Union and Eastern Europe. Eventual relief from its dependence on assistance outright should be one of Mongolia's long-term policy objectives. However, in view of its current economic circumstances, the country appears to have little choice but to maintain its reliance on sizable injections of aid for some time to come.

At the fifth Mongolian Assistance Group Meeting in Tokyo in February 1996, the World Bank and the Mongolian government presented requests for assistance averaging $200 million per annum over the five-year period from 1996 through 2000. That is a substantial sum, equivalent to about 25 percent of Mongolia's GNP in 1995. At present, Mongolia receives most of its assistance from the Mongolian Assistance Group, whose members include Japan, the U.S., Germany, and other leading industrial countries, as well as the IMF, World Bank, ADB, and various international organizations. Japan and the World Bank together chair the Meeting, and as such, they also account for a considerable share of the total assistance extended to Mongolia. The ADB has become the most comprehensive source of assistance to Mongolia, furnishing policy recommendations, technical cooperation, and financing for projects in practically every economic dimension. The IMF has provided policy-based assistance for economic stabilization and transition, in the form of the ESAF arrangement.

(2) Basic Japanese Viewpoints on Assistance

Self-sustained economic development must be one of the long-term objectives underpinning assistance for Mongolia. For the present, though, the chief priority of Japanese assistance should be on helping the country's economic transition. Given that Mongolia has been a socialist state from the 1920s until very recently, its transition will conceivably be a relatively drawn-out, arduous process. The transition will demand an array of actions, including efforts to readjust the legal system and build essential institutional and organizational structures and formulate appropriate policies. Most important, though, it will be vital to cultivate human resources capable of demonstrating leadership and managerial ability within these new frameworks. As Mongolia's top assistance donor, Japan should be

prepared to extend diversified yet comprehensive assistance packages. In effect, assistance priorities should be placed on supplying expertise for undertakings in institution-building and the formulation of development strategies and policies, together with assistance for programs designed to train personnel for effective service within the new system. As detailed below, assistance for each sector should share these general features.

(3) Assistance Priorities

In view of the conditions and hurdles now confronting Mongolia's economy, assistance will conceivably be shaped by the following priorities.

First, priority will be focused on major drives to rehabilitate economic and social infrastructure. Especially strong priority should be given to improving commercial and household supply networks for electricity and heating, and boosting national output of the primary fuel for these utility services: i.e., coal. Japan and other leading national or multilateral donors have already allocated a significant amount of assistance for making headway in this field. To date, though, most of that assistance has been focused in emergency repairs aimed at preventing additional deterioration in supply or production capacity. Boosting supply and output to higher levels will demand a much more intensive rehabilitation drive. One point to bear in mind, however, is that several of the country's leading power stations are already in an advanced stage of decay. What is more, in some respects, rehabilitation itself would not be easy because most of the equipment is of Russian origin. Another problem is that much of the coal now being mined in Mongolia is of comparatively poor quality; this factor is something that can be expected to block efficiency gains in the generation of electricity or steam. It thus seems imperative that plans for the rehabilitation of current facilities and the construction of new facilities outright be closely compared in terms of their economic viability.

High priority should also go to the rehabilitation of transport and communications infrastructure as well as networks for the transport of supplies essential to the recovery in economic activity. Foreign trade will become increasingly important to Mongolia. In view of that mounting need, infrastructure undertakings in these areas should concentrate on heightened trade and commerce with Russia, China, or with other countries by way of these two neighbors. Relative to its population, Mongolia is an exceptionally large country. Principally for that reason, its society has an especially pronounced need for domestic transport and communications services. Nonetheless, considering questions about their economic viability, new projects for the expansion of transport infrastructure should be given

careful consideration.

A second key priority will be in the area of medical and health care, education, and social welfare, including assistance aimed at creating effective social safety nets for the poor. Economic disorder and structural adjustments spurred by the transition process in Mongolia have made life much more difficult for citizens in the low-income brackets. Cutbacks in government expenditures for medical and health care and education have paralleled the deterioration in systems for the provision of those services. Though poverty was virtually unknown in Mongolia some years ago, now literally one in every four of its citizens has joined the ranks of the impoverished. To compound matters, macroeconomic indicators offer very little hope for a rapid turnaround followed by strong growth in the short term. This is the underlying basis for the view that Mongolia will need reinforced programs of social welfare together with new safety nets designed to offer better protection for the poor.

In preparing assistance for undertakings in this area, Japan should devote attention to the following three issues. Securing budgetary support for operational frameworks and projects will be needed more than anything else. In addition, the government itself will face the necessity of achieving rationalization and efficiency gains in its cost structures and service delivery systems if it is to provide effective medical and health care and education services within the new framework. Finally, effective systems and programs will be essential to the task of building safety nets for the country's poor. The framework for the Poverty Alleviation Program has already been set up under UNDP supervision. It would be worthwhile to explore the feasibility of Japanese participation in this program.

A third priority area for Japanese assistance will be in the mining sector and related industries. Copper and coal mining occupy key positions in the Mongolian economy. Recent years, moreover, have seen the gold industry emerge as a new mining sector capable of spurring fresh economic growth. In fact, judging from surveys of the country's remaining, extractable mineral reserves, mining has the potential to become one of the strongest growth sectors in the years ahead.

Realistically, though, in view of the technologies and capital Mongolia needs in order to develop its mining sector, not to mention such factors as its formidable natural climate, underdeveloped infrastructure, and the transport-related bottlenecks blocking access to export markets, injections of technical and financial assistance from foreign companies will be absolutely essential. In the preliminary stages, the role of official assistance in this particular

field will likely be focused in the formulation of policy-based development frameworks, development surveys and other forms of technical assistance and-in the development stages-financing for infrastructure projects.

Fourth, assistance for ventures in the livestock, crop farming, and manufacturing sectors will count as yet another key priority area. Within the new framework, efforts to cultivate these sectors will be largely up to the initiative of private companies, thus all but ruling out direct forms of assistance for enhancements in productive capacity. Another point to bear in mind is that each of these sectors is burdened by an array of serious problems.

For one, shortages of pasture land suggest Mongolia will not be able to continue expanding its livestock production indefinitely using conventional open-range grazing practices. The implication is that the traditional, nomadic forms of livestock production will eventually have to adopt more-productive, semi-nomadic grazing strategies. However, consensus is yet to be reached on ways to support and foster that transition from a policy standpoint. Furthermore, it remains to be examined whether Japan has the expertise or technologies that Mongolia requires.

Crop farming also faces a number of questions. For instance, given Mongolia's harsh climate, there are doubts about the economic viability of efforts to bring crop yields back up to their pre-1990 levels on the basis of heavily mechanized, large-scale farming practices; or, as to whether the new government will be able to maintain policies emphasizing food security through self-sufficiency in wheat production.

Mongolia's domestic market is small in terms of both its actual and potential scale. On top of that, the country is geographically isolated from the international market. Largely for these reasons, it will not be easy for the manufacturing sector to find or cultivate new industries where it could conceivably hold a comparative advantage.

Accordingly, for the present, Japanese assistance to the livestock, crop farming, and manufacturing sectors should be concentrated in intellectual support and technical assistance, such as studies and research, policy formulation, institution building, and the provision of expertise, and the dissemination of useful technologies and information. Specific undertakings worthy of consideration would include the creation of agricultural and livestock cooperatives, the establishment of organizations for the extension of veterinary services and rural credit, and, in the manufacturing sector, efforts to move forward on public enterprise

reforms, restructure financial systems and institutions, and promote improved skills in corporate accounting, finance, and management.

Finally, in Mongolia's case, Japan should explore the idea of providing direct assistance for productive activities that can be pursued as part of the Poverty Alleviation Program. In particular, it should consider providing technical and financial assistance for the construction of small-scale crop and livestock processing plants, storage facilities, and water-well drilling operations.

(4) Considerations and Challenges for the Implementation of Assistance

For many decades a socialist state, Mongolia is today an economy in transition. Largely for that reason, at the macroeconomic as well as microeconomic levels, it still lacks essential expertise in such areas as policy formulation and implementation, institution-building, and management. To be sure, the task of building a new economic structure has heightened the urgency of cultivating personnel with adequate expertise in these areas. In view of this reality, it seems advisable that in addition to providing forms of assistance expressly for human resources development, Japan also strives to incorporate institution-building and personnel-training aspects into its intellectual support, technical cooperation, and financial assistance for other areas. In particular, it will be vital to continue furnishing expertise, human resources and technical cooperation that bundle together programs capable of providing Mongolian management teams with the skills essential for preliminary undertakings in institutional and organizational restructuring, as well as the management affairs of actual project implementation.

Furthermore, the scope of such support should span beyond the expertise- or training-related needs of any given project, *per se*, and include assistance aimed at establishing or enhancing institutions for the provision of training programs on a continuing basis. In this vein, it would seem worthwhile to explore long-term forms of assistance of a training, technical, or financial nature for the establishment, expansion, and operation of an array of educational facilities for specialists: e.g., preparatory schools and colleges for future corporate accountants, managers in the tourism industry, tax accountants, and small business operators.

Another point to bear in mind is that the Mongolian economy is now heavily dependent on the international community for development assistance–a situation that seems unlikely to change any time soon. Through negotiations with the World Bank and IMF,

the Mongolian government has formulated a "policy framework paper" that provides guidelines for medium-term development policy as well as frameworks for the utilization of international assistance. The ADB has been supplying the country intellectual support and technical cooperation for the formulation of development strategies, policies, and master plans that cover practically every economic sector. The UNDP, moreover, has headed up work to put together the framework for the new Poverty Alleviation Program. The Mongolian Assistance Group (co-chaired by the World Bank and Japan), serves as a forum for the coordination of assistance.

Future Japanese assistance to Mongolia must fully reflect the effectiveness and outcomes of the related activities these institutions have pursued to date. Furthermore, not only should Japan strive to coordinate its own assistance efforts with these institutions, but for certain projects it should also be prepared to explore the feasibility of co-financing. None of this is to imply that Japanese assistance should conform unconditionally to the policies set by multilateral institutions. Japan, after all, has opportunities as well as access to forums for active policy coordination with such donors.

Finally, a third point for consideration is that in view of its current economic state, Mongolia needs heavy injections of financial assistance for projects in economic and social infrastructure, and expressly for projects in its productive economic sectors. All the same, it has to be kept in mind that the process of transition to a market economy has thrust the country's market structures and economic systems into an era of rapid change. Given such conditions, the task of planning for new investment projects will clearly demand that such factors as economic viability and financial soundness be measured in stringent terms. Needless to say, this approach will not in any way effectively rule out assistance for projects with a focus in social development. Nonetheless, that assistance, too, should be strictly weighed in terms of its expected social benefits and economic costs. From that perspective, careful consideration should be placed in planning financial assistance for new projects in economic or social infrastructure, especially those in the energy or transportation fields.

2. Assistance Priorities in Major Sectors

2.1 Intellectual Support For Economic Policy Formulation, Institution Building and Administrative and Fiscal Reform

Mongolia is currently enmeshed in a transition to a new economic system. This is a very difficult process in many respects for a country like Mongolia that had adopted a socialist system for many years and therefore has no experience managing a market economy. One difficulty is the country's lack of personnel with sufficient skills and experience to perform the enormous tasks of coming up with a vision and strategies for economic development in a completely new environment, setting up economic systems, including legal systems, and organizations, and formulating policy for economic development. This difficulty is not one that can easily be overcome by Mongolia alone, which has received much personnel assistance from the former Soviet Union in economic planning and management based on socialist practices.

If the main objective of Japanese assistance to Mongolia is for the time being to indirectly support Mongolia's smooth transition to a market economy, then Japan must think in terms of assistance aimed at resolving this shortage of capable personnel. Assistance for human resources development and wide-ranging technical cooperation are called for. But this alone is not enough. Human resources development takes time, and as long as there are strict limitations on the number of government personnel, it will be impossible to make up for the lack of necessary personnel for the transition that is currently needed with assistance for human resources development alone. Various preliminary studies, feasibility studies, and other types of technical cooperation are of course needed. However, in order to bring the results of these studies to fruition in the creation of institutions, organizations, and policies, it is absolutely essential to have organizations and people capable of effectively using technical cooperation.

In line with this understanding, Japan should make one of its priorities in its assistance to Mongolia what could be termed "intellectual support," a form of assistance that lies somewhere between assistance for human resources development and assistance for the design of new economic systems. What is especially needed is intellectual support for economic policy formulation, institution building and administrative and fiscal reform. This type of assistance goes beyond the mere sending of policy advisers to Mongolia. Specifically, it means dispatching groups of Japanese experts with expertise and experience in their respective fields and having them work together with the government of Mongolia. Following

are some of the fields where it is thought intellectual support by groups of experts would be valuable.

(1) Formulation of Economic and Social Development Plans

Especially important in this area is the formulation of development programs and major projects in infrastructure-related sectors, including the energy sector. The formulation of medium- and long-term public-sector investment plans that consider economic and social priorities and efficiency is also absolutely essential for the establishment of the foundations for the acceptance of international financial assistance.

(2) Administrative and Fiscal Reform and Fiscal Policy

The macroeconomic framework for the country's urgently needed fiscal rebuilding is laid down in the policy framework paper put together by the Mongolian government based on consultations with the IMF and the World Bank. For this policy to be implemented, however, the revenue base must be strengthened. Especially important in this context is, alongside the rationalization of and efficiency gains in fiscal expenditures, the enhancement of tax legislation and the construction of tax systems and organizations.

(3) Formulation of Industrial Policy in a Broad Context

The industries to be targeted are not limited to the mining and manufacturing sectors, but also include the agricultural and livestock farming sector, the financial sector, tourism, and other service industries. There is much work to be done in this regard which requires intellectual support from international groups of experts, including the conducting of preliminary studies necessary for the promotion of these sectors, examination of development strategies, enhancement of legal systems, and the building of institutions.

(4) Reforming State-Owned Enterprises

International intellectual support is especially needed in the restructuring of state-owned enterprises in the manufacturing, agricultural, and financial sectors, and in the formulation and implementation of privatization policies.

(5) Macroeconomic Policy

The IMF and World Bank have been providing intellectual support in the area of macroeconomic policy ever since Mongolia began its transition to a new economic system. They are expected to continue leading this effort, though Japan can also work together with them in specific fields based on discussions held at the Mongolia Assistance Group Meetings.

Moreover, judging from the present state of the Mongolian economy, institutional and organizational tasks, such as enhancing the organizations involved in accepting foreign assistance are essential to the implementation of macroeconomic policy.

2.2 Agriculture and Livestock

(1) Priorities for Long-term Assistance

1) Formulation of an Agricultural Development Plan

Japan's vigorous support is desirable in the formulation of a Comprehensive Agricultural Development Plan which is the basis for the nationwide expansion of JICA's "Integrated Agricultural and Rural Development in the Central Region Project". Agricultural development projects are closely linked to development projects in other sectors, particularly those which are providing infrastructure and improving distribution, and thus need to be formulated with full comprehension and coordination of these projects.

2) Studying the Transition from Nomadic to Semi-nomadic Livestock System

An experiment was attempted during the socialist era to move from nomadic herding to semi-settled livestock production, but failed. To secure stable food supplies, it is not possible to pursue pastoral practices which depend solely on nomadic movement. With the exception of dairying, which is already found in urban areas and the case of Inner Mongolia in China, the switch from traditional nomadic herding to semi-nomadic livestock production is a new experience for Mongolians. This kind of historical experiment requires long-term scientific research.

(2) Priorities for Mid-term Assistance

1) Support for Agricultural Cooperatives

Support for the formation of agricultural cooperatives in a format suitable for Mongolian conditions while waiting for the results from the "Study on the Strengthening of Agricultural Cooperatives in Mongolia ", which is currently being conducted by JICA.

2) Constructing Small-scale Processing Plants

Construction of new milk processing plants and repair of existing plants from the former *negdel*- and state farm-era to facilitate full commercialization of milk supplies which have not been put to efficient use. If cooperatives have already been established, there are also other ways to support them.

3) Constructing Storage Facilities

Minimization of losses due to frost damage in the winter by providing vegetable storage facilities. Such assistance will be beneficial despite the accompanying difficulties of power supply, etc.

4) Improving Livestock Production Technology

Provision of an environment which is conducive to the development and dissemination of intensive livestock production techniques appropriate for the prevailing conditions in Mongolia. Specifically, providing assistance for livestock production research facilities which bear the principal role in livestock technology development, with a view to improving their experimental and research functions.

(3) Priorities for Short-term Assistance

1) Increasing Production of Superior Seed Varieties

Increase production of high-quality, superior wheat and vegetable seeds in an effort to rebuild the crop sector, stabilize the seed supply system and save foreign currency by reducing seed imports. Specifically, assistance for seed nurseries.

2) Improving Veterinary Services

In order to prevent the spread of livestock diseases and to boost output of livestock products, veterinary professionals must be retrained, dilapidated diagnostic and therapeutic equipment replaced and experts dispatched to Mongolia.

3) Fodder Production

Guarantee growth in intensive livestock production by improving production in mixed feed through the construction of feed mixing plants. The highest priority will go to methods which involve expanding production lines in fodder plants which have been incorporated into existing flour mills.

4) Repairing Wells

Appropriate utilization of water resources by repairing damaged and abandoned mechanical wells while simultaneously preventing over-grazing.

2.3 Economic Infrastructure (Transport and Communications)

In listing the priority assistance areas and direction of development in the transport and communications sectors, we should first mention those points worthy of consideration in the development process.

First, administrative reinforcement is essential. In view of the large outlay of funds and extensive period required when expanding infrastructure, the Mongolian government must be able to plan and implement suitable projects. To this end, it must improve its development administration, including its absorptive capacity. Japan must also offer full and continuing support for the reinforcement of development and recipient administration functions while fully utilizing Japanese experts (already assigned in Mongolia) who are able to offer suitable suggestions for improving aid administration.

Second, development must take into consideration funding limitations and future planning. The reality is that the development funds available for Mongolia's use are not infinite and will continue to be extremely limited. It must also be noted that the extreme use of loans will become a burden on public finances and on the economy of Mongolia. Consequently, to continue developing an infrastructure set in place with the use of limited funding, it is imperative that suitable maintenance and repair activities be carried out on the existing facilities.

2.3.1 Transport

(1) Railways

In short- to mid-term development, it is expected that cooperation in "hard" aspects will be offered in the form of development studies and funding to encourage the maintenance and improvement of the country's transport capacity, and that cooperation in "soft" aspects will be in the form of training of personnel for railways and the dispatch of experts to raise management efficiency.

Assistance to date has focused on urgent projects, such as the replacement of dilapidated railway lines and the purchase of rolling stock with yen-loan and UNDP assistance, and the freight transfer facilities at Zamyn üüd on the Chinese - Mongolian border has already been completed through grant aid. In the next stage of assistance, existing rail facilities and lines must be replaced and improved. In the 450 km section in the mountainous region between Suhbaatar and Bayan, the girders, embankments and cutaways are

remarkably dilapidated; in rainy seasons in recent years, train services have been frequently halted by natural disaster. In addition, because numerous bends have been used to reduce gradients, wear on rails and wheels is severe and results in growing maintenance and operational costs. In view of this situation, development studies focused on improvement procedures and specific projects, as well as other forms of cooperation would be effective in maintaining and expanding transport capacity. Also, when formulating implementation plans in development studies, it is important that the scale of the project and the timing of its implementation be proposed with due consideration for the priority of the project and the scale of funding required.

Long-term development should incorporate expansion of the rail network including the construction of new lines. At this point, however, the Mongolian government has no long-term development plan. It is important that we seize every opportunity to understand Mongolia's long-term rail network expansion project and explore the necessity for assistance.

(2) Roads

Until now, urban transportation has been augmented by buses provided with grant aid to Ulaanbaatar. However, in order to stay abreast of the increase in traffic volume accompanying population growth as well as economic and social development in Ulaanbaatar, Mongolia must consider the technological cooperation, studies and financial assistance that would be required to substantially restore and improve existing roads.

In regard to paved roads between major cities, the Mongolian government has given priority to construction of the following projects, which are mainly concerned with repair and reconstruction of existing roads.

- The Darkhan-Erdenet sector (linking the two major cities).
- The Ulaanbaatar-Baganuur sector (linking the coal mining city to the capital).
- The Elsen tasarkhaj-Kharkhorin sector (part of the major trunk route connecting the western region).
- The Kharkhorin-Tsetserleg sector (part of the major trunk route connecting the western region).

In the long term, the Mongolian government regards road links to neighboring countries as essential for activating international commerce in this land-locked nation. Consequently, it is working on a paved road between Ulaanbaatar and Zamyn üüd and is planning links to Beijing and Tianjin in China in the future. It is also constructing a paved

road from Ulaanbaatar via Baruun-Urt to the Chinese border which will open up routes to Beijing and Tianjin, and hopes to gain access to Shenyang, Dalian, Changchun and Tumenjiang.

The government also hopes to provide paved roads between Ulaanbaatar, Bulgan, Mörön, Ulaangom and the Russian border as well as between Ulaanbaatar, Darkhan and the Russian border.

The construction and maintenance of roads between the major cities mentioned above and of roads connecting the adjoining countries, is important for supporting Mongolia's efforts to invigorate the domestic economy, encourage direct investment and increase the volume of trade. However, taking into consideration the funding restrictions mentioned earlier, it is essential that the Mongolian government verify the priority of each project prior to its implementation. In particular, the apportionment of roles for construction and maintenance of other modes, such as rail, must be clarified. For example, as a railroad already exists between Ulaanbaatar and Zamyn üüd, the allocation of roles must be examined when providing a fully paved road. Technical cooperation in the formulation of these projects will continue to be effective in the future.

(3) Aviation

With a view to improving and reinforcing its air transport capacity, the Mongolian government is setting its policy tasks to create a system which will meet international standards for receiving international air traffic and for controlling Mongolian sovereign air space, and to provide runways of an international standard together with the associated facilities. In order to realize these tasks, Japan must also consider an assistance scheme which would comprehensively link different forms of cooperation, such as the dispatch of required experts, their training, development studies and financial assistance.

Key regional cities should also be stimulated by providing funding for expanding their own airports. Although international routes pass over Mongolian territory, the nearest emergency landing airports in the region other than Ulaanbaatar are few: Beijing, Irkutsk and Seoul. Consequently, from an international aviation safety perspective, it is imperative that a study be carried out on cooperation for the establishment of a regional airport to supplement the facilities at Ulaanbaatar. Airport development projects for local cities, such as Kharkhorin and Daranzadogad will also be important for promoting tourism to the rest of the world.

2.3.2 Communications

(4) Telecommunications

1) Financial Cooperation

A fundamental plan to rebuild and expand the telecommunications network in Ulaanbaatar by the year 2010 has already been formulated with JICA's cooperation. Twenty-nine projects have been listed and systematic financial assistance should be implemented for those projects which are considered to be the most urgent. These should include the rebuilding and expansion of the highly profitable public telecommunications network in Ulaanbaatar, the placement of public telephones in *ger* districts, which may not be economically viable, and social infrastructure projects for public organizations (government bodies, educational institutions and medical centers).

Future issues relating to regional telecommunications networks will include the renewal of the dilapidated station-to-station microwave systems currently being used, the establishment of a transmission backup system by satellite and, in conjunction with this, the upgrading and expansion of metropolitan exchanges and cable networks in regional cities. The construction of small-scale terrestrial satellite relay stations will also have a major economic and social impact in remote areas. Financial assistance in projects like this which provide regional telecommunications networks should be investigated and studied.

2) Technical Cooperation

The training of personnel to modernize telecommunications facilities and management structures and to build a nationwide network, are urgent requirements. Until today, technical cooperation in human resources development has been in the form of JICA experts and Japan Overseas Cooperation Volunteers (JOCV), in the case of international telephone exchanges, satellite communications technology and line technology, and JOCV personnel in the case of electronic engineering, systems engineering, radio transmitters and broadcasting technology at the Mongolian Technical University. It is important that technical cooperation continue to expand so as to provide a steady stream of personnel for this field of remarkable technological innovation. JICA's project type technical cooperation should also be considered. Technical cooperation will also be required for the formulation of a nationwide telecommunications network installation project, frequency supervisory control, customer service in a market economy, organization management, finance and accounting.

(5) Postal Services

1) Technical Cooperation

To resolve the problems in the country's postal services, the first step will be to prepare long-term development master plan. To this end, a request should be made for experts with a wealth of background in this field and the training of Mongolian staff should be undertaken in Japan. This would also be an effective method of technical cooperation for savings and insurance in the postal system, services which the Mongolian government is considering offering through post offices.

2) Financial Assistance

Sixty buses provided via Japanese grant aid have been successfully used in the metropolitan transportation system in Ulaanbaatar. Similarly, grant aid in the form of vehicles for use in the depleted postal fleet should be considered as a short-term but only partially successful means of solving the vehicle shortage. For example, grant-in-aid in the form of second-hand postal vans and bicycles formerly used in colder climates such as Hokkaido would be an adequate short-term solution to the current problems.

2.4 Mining and Manufacturing

In this section we will examine Japan's assistance in the mining and manufacturing sector by type of assistance and field, giving consideration to the suitability of Japanese economic cooperation schemes, trends in assistance from international organizations and other donor countries, and limitations such as the linking of official development assistance to progress in privatization.

The mining sector, and mineral resources in particular, is the foremost productive sector in Mongolia and with its abundant potential will continue to be the driving force of the Mongolian economy in the future. This sector is expected to contribute greatly to foreign exchange earnings and to the financial realm. It is essential that this sector's export competitiveness be strengthened by incorporating greater added value into products and pursuing more efficient management through domestic private-sector participation and foreign investment. Joint ventures with foreign companies are being encouraged as a means of securing the funds necessary for introducing new production technology and developing new products. From the perspective of trade in natural resources, most notably the development of copper, gold, silver, and new mineral resources, assistance for managerial reforms in

related corporate entities has the significant effect of strengthening economic relationships between Japan and Mongolia.

In the manufacturing sector, policy reviews must be conducted in order to promote comprehensive economic development, including reviews of the issues of secondary material imports aimed at producing higher quality products and of the suitability of development strategies in the livestock and crop farming sectors–the sources of raw material supplies. Effective in this context is assistance for industrial promotion, including assistance to sustain and further develop cashmere production and assistance for the development of unexploited export potential, such as the development of new products that utilize the country's abundant livestock resources, and technology transfers that help improve product quality through the standardization of industrial products, enhancement of testing capabilities, and automation of production lines.

(1) Continuation of Resource Exploration and Project Feasibility Studies (Technical Cooperation)

In the medium- and long-term context, there are high expectations with regard to resource exploration projects aimed at studying the potential for development of uranium, phosphate rock, and rare mineral resources. Japan will continue to extend technical cooperation in this field and conduct broad-ranging feasibility studies, including those into the economical use of resources and the development of high value-added goods.

(2) Environmental Considerations in the Mining and Manufacturing Development Field (Technical Cooperation)

In the mining sector, many facilities fall far below international standards in terms of environmental considerations, including the treatment of wastewater from mines. Japan possesses much experience and technology in preventing pollution, including mine-related pollution, and a broad range of environmental cooperation assistance strategies, including the dispatch of experts, acceptance of trainees, and introduction of appropriate technology, are proving effective.

(3) Assistance for Modernization of Production Systems (Technical Cooperation)

Many enterprises have inherited aging facilities from the days of the old system and are hampered by inefficient production and low capacity utilization rates that do not match the scale of production. There is a pressing need to provide assistance for diagnosing the

health of small and medium-sized enterprises, including parameters such as corporate facilities, management, and financial management, and to create corporate credit and capital markets while also ensuring access to market information. In terms of specific assistance proposals, consideration is being given to sending experts in industrial promotion administration to the relevant government agencies and providing human resource and intellectual support to the major enterprises.

(4) Development of New Consumer Goods and Markets (Technical Cooperation and Small-scale Loan and Investment Development Assistance)

There is great potential for the development of new dairy products and bio-technology products, and consideration is being given to assessing the need for and implementing pilot projects that incorporate the refinement of technology and development of an industrial infrastructure through the utilization of JICA development cooperation schemes that support direct private investment. With respect to the development of new markets, the fields in which Mongolia can compete with industrialized nations is extremely limited, due to transportation problems and other factors, but there is potential in nearby markets where Mongolia can exploit its comparative advantage in terms of access to the Russian and Chinese market for the development of new consumption goods that draw on the country's livestock and agricultural resources. The introduction of appropriate technology through joint ventures with foreign companies is effective in this context, and human resource and intellectual cooperation aimed at industrial promotion is under consideration, including the establishment of tax, financial, and legal systems to encourage development incentives.

2.5 Energy

Nearly all medium- and long-term prescriptions for energy development, consisting of master plans and feasibility studies for energy development formulated by Japan and international organizations, were completed in 1995 and early 1996. The Project for Rehabilitation of the Ulaanbaatar Power Station No. 4, a grant aid project, was implemented from 1992 through 1994, and a loan assistance project to upgrade the aging boiler at this same power plant was scheduled to begin in 1996. In the coal sector, an IDA project was approved in May 1996, and cooperation via Japanese loan assistance for this project is being considered. This reflects the fact that assistance in the energy sector is moving from humanitarian aid to assistance for upgrading the economic infrastructure. It also indicates that technical cooperation and financial assistance are being focused on the successful

implementation of these development projects.

In the coal sector, for example, there is a need for cooperation in executive management education involving intensive dispatches of experts to and the acceptance of trainees from the fields of excavation technology, equipment maintenance, and mining management. There is also a need for financial assistance for the promotion of feasibility studies for new mines and for major projects. In the electric power sector, there must be a continuation of technical transfers, including the transfer of expertise in power plant facility diagnostics and power business management, and of financial assistance oriented towards extending equipment life and upgrading facilities. In addition, there are medium- and long-term needs for cooperation aimed at the development of new energy sources to handle growing demand. The petroleum sector, meanwhile is a low priority for direct Japanese assistance, because joint projects with American and Russian partners are being conducted in an effort to restore old oil fields and discover new ones, and measures aimed at partial privatization of the petroleum products market are being implemented one after another. The project being conducted by Japan's loan assistance to upgrade railroad transport capacity along the China-Mongolia border is expected to have a positive impact on the effort to diversify petroleum supply sources. The supply of power and heat to villages and regions with nomad populations continues to be linked to social issues such as poverty, and there are substantial needs for the identification of sound projects related to social development and for small-scale grant aid.

(1) Need for Upgrading Energy-related Economic Infrastructure and International Coordination (Loan Assistance)

There is a long list of needs for large-scale projects, including those aimed at extending the life of existing aging facilities, upgrading facilities through economic recovery, developing new power sources and new coal fields to accommodate growing demand, and making drastic reforms to heat supply systems. Considerable investments will have to be made in order to upgrade the industrial infrastructure over the medium and long terms. Efficient financial assistance through international coordination will be essential to meeting the growing demand for funds.

(2) Continuing to Upgrade Energy-related Social Infrastructure (Grant Aid)

The transition to a market economy, along with the country's vast area, is creating ever greater regional disparities in energy consumption. Assistance combining technical cooperation and grant aid must be provided for efficient energy development to promote the

supply of heat to municipalities and the electrification of villages, including, for nomadic peoples in particular, the use of decentralized energy sources such as photovoltaic systems, and the upgrading of the power transmission network.

(3) Assistance through Technical Cooperation

1) Cooperation to Enhance the Country's Absorptive Capacity and for the Formation of Major Projects

Rigorous assessments should be made about the efficient use of funds and the impact on economic development of the priority investments being undertaken in energy development. It is important in this context to provide human resources and intellectual support for technical cooperation (facility diagnostic and maintenance technology, business decision-making about closing and upgrading facilities, depreciation and other aspects of corporate accounting), which helps investments be absorbed in each sector. This requires the dispatch of experts to assist in the practical work of accepting assistance at government agencies involved in energy and economic development. There is also a pressing need to dispatch experts to enterprises that will be responsible for using assistance funds. Recruiting assistance personnel is expected to be no easy task, and an important issue in this regard will be international coordination among donors, including the division of roles and fields.

2) Ongoing Assistance for Resource Development Strategies

It is necessary to continue technical cooperation targeted at long-term issues, including the dispatch of experts to companies in order to make detailed assessments of needs for financial assistance, studies into the feasibility of small and medium-scale hydroelectric power projects, and the formulation of master plans aimed at diversifying the sources of supply for petroleum products.

2.6 Human Resources Development

Japan has actively extended assistance to Mongolia since 1990, most notably in the form of sponsorship of the Mongolia Assistance Group Meetings, as well as in the education and human resources development field. Assistance has been concentrated in the category of technical cooperation, including the invitation to Japan of eight Cabinet Ministers, the acceptance of a total of 330 trainees, the sending of experts to Mongolia, including legal experts for legislative planning, the dispatch of Japan Overseas Cooperation Volunteers (JOCV), the offering of economic policy recommendations with the Mongolian Policy Support

Group as a personnel bank, the dispatch of economic policy experts, and development studies.

Mongolia's education and human resources development policies continue to lack enough specificity to overcome the social contradictions of the period of transition to a market economy. In recent years, anywhere from 10,000 to 100,000 children a year have not been attending school. There are various reasons for this, two of the most important being an increased demand for child labor in rural areas and disappointment in education.

Nineteen ninety-six was Education Year. Although this slogan is a remnant of the previous government, the new administration also recognizes that the Mongol people are widely anticipating a restoration of their confidence in education. The new administration made election-time promises of free education, but they have not been able to secure the fiscal resources to carry through on this public promise. Insofar as the government is currently running a deficit in the first half of the year, securing new fiscal resources and implementing important policies will be difficult.

The demand for child labor in rural areas, particularly in livestock farming areas, is expected to continue mounting, and this calls for individual and scientific responses, such as peripatetic teaching and distance education. The extracurricular women's education project and the boarding school meal expense assistance project submitted at the Mongolia Assistance Group Meeting in February 1996 are likely to improve the outlook. Promoting a comprehensive education and human resources development program, while strengthening links with UNESCO, UNICEF, UNDP, and other international organizations, is likely to prove very effective assistance under present conditions.

Advice based on the theories and opinions of experts from various countries has been accepted by the Mongolian government with the more than adequate understanding of Mongolian policy makers. Also, explanations to the Mongolian people by the country's policy makers have achieved a certain measure of success. Moreover, with respect to citizens' actual utilization of market economy systems, in a certain sense the transition to a market economy seems to be proceeding favorably. However, social activities to cultivate a wide range of personnel, which draw together theory, policy makers, citizens, and actual society, are not being carried out in fields related to the transition to a market economy. Making this connection is of chief importance in terms of Mongolia's transition to a market economy and social reform. Accordingly, it is important for Japan to orient its assistance toward comprehensive educational and human resources development programs.

Specifically, this means constructing systems that encompass all fields and, based on this, government agencies having programs to cultivate their respective personnel. It also means creating systems for implementing mid- and long-term education and human resources development in a wide range of fields, including general education, higher education, vocational training, re-training of civil servants and teachers, and education of nomadic peoples. It is important to proceed with nation-building with the understanding of the entire citizenry toward these new educational and human resources development systems and with a perception of Mongolia's new twenty-first century image as a reality.

Working from these premises, the following are the fields in which it is thought there is a strong possibility for action within Japan's assistance framework.

(1) Intellectual support for rebuilding the education system (including the formulation and implementation of comprehensive human resource development programs and sector-based systematic training plans).

(2) Support for the creation of peripatetic teaching and distance education systems for the children of herding families.

(3) Support for the construction and operation of elementary and secondary school dormitories for the children of herding families.

(4) Support for the development of new teaching materials.

(5) Dispatch of teaching staff for higher education.

(6) Support for teacher retraining.

(7) Support for the establishment of adult-education programs designed to improve skills and expertise (including the fields of finance and accounting).

(8) Support for herdsman education (for innovations in livestock technology).

(9) Support for the training of managers, administrators and engineers (training programs of various kinds, including those in Japan).

2.7 Social Infrastructure-Health Care, Employment, Poverty Alleviation

The policy framework in the field of social infrastructure in Mongolia has been established with an emphasis placed on the interrelationships between health and medical care, employment problems, and poverty alleviation measures. However, the formulation of financing plans is currently very difficult. It is both realistic and effective for Japan to consider assistance based on this program framework.

(1) Health and Medical Care

1) Medical Care Delivery System and Administrative Functions

The establishment and administration of ambulance networks, mobile diagnosis and treatment vehicles, and communication systems-nationwide plans are being made in Mongolia for medical care delivery systems that will cover the smallest administrative units that are dispersed over a wide area, the *bag* and to connect them to *sum* and *aimag* medical centers. However, there are shortages in terms of the staff needed at the *bag*, *sum*, and *aimag* levels for medical care delivery, and shortfalls in technologies, medical instruments, and pharmaceuticals. There are also conspicuous shortages in the means of communication and transportation for connecting medical centers at these three levels. Russian jeeps are currently being used in some places as mobile diagnosis and treatment vehicles and mobile health screening vehicles that circulate over a broad area among *bag* health care centers and mother-child health care centers. However, none are equipped with any means of communication. Thus, it would be effective to consider assistance at each level for staff, technology, medical instruments, pharmaceuticals, means of communication, and means of transportation.

2) Health Insurance System

Plans are currently being formulated with assistance from the ADB with the objective of strengthening the health insurance system. Japan should consider providing technical assistance, including intellectual support, for the restructuring of the health insurance system in Mongolia.

3) Aging Medical Equipment and Shortages of Pharmaceuticals

There are many ways that Japan can provide assistance in this field, including the introduction, management, maintenance, and repair of medical equipment and facilities using new technology. National hospitals Number 1 through Number 3 in Ulaanbaatar have

suitable systems and are at appropriate levels for the acceptance of new technology, equipment, and facilities. Instruments are also in short supply at many *sum* hospitals, and therefore this area should be considered for assistance.

With respect to shortages in pharmaceutical supplies, it would be effective to separately consider priorities in pharmaceutical assistance (e.g., iodine drugs, cancer therapies, cardiovascular agents) for specific diseases.

4) Human Resources Development, Education, and Retraining

In the implementation of medical care delivery systems, the education and re-education of human resources is considered a priority in different jobs and at each of the regional levels. There are shortages of operating funds and money for salaries at the various educational organizations specializing in medical health care services. In addition, there are conspicuous shortages of equipment and instruments, which serve as basic educational tools. There is also not enough money to re-educate and train staff in different jobs at the *aimag* and *sum* levels.

There is a strong desire in Mongolia for the introduction of new technology through research exchanges, teacher exchanges, and student exchanges. In connection with the systems mentioned above, consideration should be given to stepping up teacher and staff exchanges, student study abroad, and internship systems through partnerships between the National Medical University of Mongolia and Mongolian medical organizations and their counterparts in Japan.

(2) Employment Problems

1) In the area of educating management specialists, the Institute of Administration and Management Development (IAMD) is an organization engaged in education and training aimed at boosting administrative capabilities. The Institute has local branches (in Darkhan, for example) and is systematically encouraging re-education and training. It is hoped that the level of the teachers engaged in specialized education and training can be raised (at the IAMD branch in Darkhan, for example). The curriculum is broad, ranging from management administration, accounting, computer use, and law to economics and foreign language education. Assistance in the form of teacher dispatches and assistance for advice on improving the curriculum is called for.

2) Consideration should be given to providing financial support to NGO activities. Over 20 Japan Overseas Cooperation Volunteers have been dispatched to Mongolia and are currently active there. In connection with the systems mentioned above, consideration needs to be given, in the case of NGOs also, to the dispatch of experts in fields in which skills are applied in management (e.g., farm management, agricultural product processing, small manufacturing industries, handicraft industries).

(3) Poverty Alleviation

1) Social Safety Net–The era when large amounts of emergency assistance were needed appears to be over, but emergency and disaster-prevention systems need to be examined. This could include financial assistance for emergency medical systems–especially ambulances, mobile medical treatment vehicles, and communication systems (mentioned earlier in the section on health and medical care)–and for special winter emergency assistance programs. Joint assistance with UNICEF would probably be effective. Separate consideration needs to be given to improving social policy and social security systems.

2) With regard to PAP implementation plans, job creation has been made the top priority for 1996 and small-scale public works projects and plans for helping small start-up enterprises at the *sum* and district (in cities) levels have been conceived and are now being implemented. *Sum*- and district-level small-scale public works projects aimed at poverty alleviation and social development have as their goal the upgrading of the social infrastructure. Projects of wide-ranging content have been planned that are tailored to the conditions of resources and residents in local communities. For example, in the area of water supply systems, there are projects that use river water, those that involve digging wells to use ground water, those that involve the installation of pumps and water pipes, and those that involve transporting water by hand (pushcarts, oxcarts, etc.). And the same is true for waste treatment. Regional-level public works projects are said to resemble their counterparts in Japanese villages in content, and these projects are planned with an emphasis on job creation within the local region and with consideration given to local resource use by *sum*- and district-level PAP committees.

Meanwhile, job creation PAPs are also being advanced by individuals and small groups. Widely varying projects in which priority is given to women, pensioners, and other socially disadvantaged persons are currently being planned and implemented, or prepared, including projects in vegetable cultivation (potatoes, cabbage, beans, berries, fruit, etc.), the raising of small livestock (pigs, chickens, etc.), handicraft industries (sewing, clothing and

accessories, furniture making, etc.) and food processing industries (pickles and other bottled vegetables, dairy products, meat processing, etc.). In addition to Mongolian government and domestic NGO funds, small-scale financing and small-scale assistance funds from international organizations, international private organizations, and domestic and international NGOs are being used and have helped produce a long list of accomplishments. Cooperation for the Poverty Alleviation Program and female empowerment projects are expected to be necessary and effective assistance. Japan should also consider assistance in these fields.

Appendices

Appendix 1. Statistical Data

Table 1-2 Mongolian Economic Indicators

(1) Population ( ) = Units	1990	1991	1992	1993	1994	1995	Year-on-Year Growth Rate 1991	1992	1993	1994	1995
Population (1,000 persons)	2149.3	2187.2	2215.0	2250.0	2280.0	2317.5	1.8	1.3	1.6	1.3	1.6
Urban population		1235.6	1251.3	1229.2	1222.2	1202.8		1.3	-1.8	-0.6	-1.6
Birth rate (per 1,000 persons)		32.9	29.1	21.5	23.4	23.7					
Death rate	8.5	8.8	8.4	7.9	7.3	7.3					
Population growth rate	26.8	24.1	20.7	13.6	16.1	16.4					
Real per capita GDP in 1993 prices	97074.3	86571.5	77365.9	73875.2	74580.0	78004.5	-10.8	-10.6	-4.5	1.0	4.6
Unemployment			54042.0	71912.0	74881.0	45107.0			33.1	4.1	-39.8
Labor force (1,000 persons)	946.7	1003.6	1059.9	1080.9	1089.3	1110.2	6.0	5.6	2.0	0.8	1.9
No. of employees	783.6	795.7	806.0	772.8	786.5	802.2	1.5	1.3	-4.1	1.8	2.0
Statistical unemployment rate		55.4	54.0	71.9	74.9	45.1					

(2) GDP, GNP ( ) = Units	1990	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
GDP in nominal terms (million Tg)	10465.0	18909.6	47298.0	166219.1	283263.0	391103.4	80.7	150.1	251.4	70.4	38.1
GNP in nominal terms	9295.3	17924.0	45699.0	154640.1	272233.1	375212.8	92.8	155.0	238.4	76.0	37.8
GDP in 1993 prices	208641.9	189349.2	171365.4	166219.1	170042.3	180775.4	-9.2	-9.5	-3.0	2.3	6.3
GNP in 1993 prices	186802.4	180919.3	166923.4	154640.1	159433.9	169797.1	-3.1	-7.7	-7.4	3.1	6.5
Real GDP index	100.0	90.8	82.1	79.7	81.5	86.6					
GDP deflator	5.0	10.0	27.6	100.0	166.6	216.3					
GDP deflator index	100.0	199.1	550.3	1993.7	3321.2	4313.3	99.1	176.4	262.3	66.6	29.9

(3) Industrial Structure ( ) = Units	1990	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Nominal GDP by Sector (%)	100.0	100.0	100.0	100.0	100.0	100.0	-9.2	-9.5	-3.0	2.3	6.3
Industry	35.6	30.2	32.0	30.9	30.5	28.8	-23.1	-4.1	-6.3	1.1	0.5
Agriculture	15.2	14.1	30.2	35.1	36.9	36.7	-16.1	94.4	12.6	7.7	5.7
Construction	5.0	4.0	1.9	1.6	2.1	2.2	-26.8	-56.6	-17.9	31.7	11.9
Transport	10.2	5.4	4.5	3.2	4.6	3.5	-52.1	-25.0	-29.6	43.6	-18.1
Communications	1.8	1.3	1.0	1.4	1.2	1.1	-32.6	-34.0	39.3	-10.4	-4.9
Trade and material technical provision	19.4	27.0	15.4	16.0	11.7	13.5	26.2	-48.3	0.3	-24.8	22.1
Services	11.5	17.1	12.9	9.5	10.5	11.8	34.6	-31.7	-28.4	13.0	19.5
Other	1.2	0.9	2.1	2.3	2.4	2.3	-35.0	115.5	4.5	8.9	1.7

(4) Employment Structure ( ) = Units	1990	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Total labor force (1,000 persons)	783.6	795.7	806.0	772.8	786.5	794.7	1.5	1.3	-4.1	1.8	1.0
Composition (%) Industry	16.8	16.6	16.6	16.1	12.8	13.6	0.5	1.3	-7.3	-18.7	7.1
Agriculture	33.0	34.5	36.5	39.1	42.8	44.6	6.2	7.0	2.7	11.4	5.3
Construction	8.4	6.2	5.1	4.3	3.5	3.7	-25.2	-16.2	-20.3	-17.3	8.1
Transport and communications	7.4	6.6	6.2	6.0	4.0	4.0	-9.5	-3.8	-8.4	-31.5	0.3
Trade and material technical provision	7.0	6.5	6.7	6.5	8.6	8.2	-4.9	3.7	-6.1	33.5	-3.9
Other	27.4	29.5	28.8	28.1	28.3	26.0	9.4	-1.1	-6.7	2.7	-7.4
Labor Productivity Index											
Average labor productivity = 100	100.0	100.0	100.0	100.0	100.0	100.0					
Industry	211.9	181.6	192.3	192.2	237.7	211.9					
Agriculture	46.1	40.7	82.8	89.7	86.3	82.4					
Construction	59.5	65.1	37.7	38.4	60.8	59.9					
Transport and communications	163.1	102.6	87.4	78.0	144.2	115.8					
Trade and material technical provision	279.1	414.6	231.2	244.3	137.0	165.3					
Other	46.5	60.8	52.0	42.0	45.7	54.4					

Real Labor Productivity Index: 1990=100	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995	1990-1995
Total labor productivity	89.4	79.9	80.8	81.2	85.4	-10.6	-10.7	1.2	0.5	5.2	-3.1
Industry	76.6	72.5	73.3	91.1	85.5	-23.4	-5.4	1.1	24.3	-6.2	-3.1
Agriculture	79.0	143.6	157.4	152.2	152.9	-21.0	81.7	9.6	-3.3	0.4	8.9
Construction	97.8	50.6	52.1	83.0	86.0	-2.2	-48.3	3.0	59.2	3.6	-3.0
Transport and communications	56.2	42.8	38.6	71.8	60.6	-43.8	-23.9	-9.7	86.0	-15.6	-9.5
Trade and material technical provision	132.8	66.2	70.7	39.9	50.6	32.8	-50.2	6.9	-43.6	26.9	-12.7
Other	116.9	89.4	73.0	79.8	100.1	16.9	-23.5	-18.3	9.3	25.4	0.0

Percentage Contribution to Labor Productivity (%)	1990	1991	1992	1993	1994	1995
Overall	116.7	113.6	-37.2	22.9	83.5	110.0
Industry	102.0	131.1	-16.2	1871.4	-1311.5	43.5
Agriculture	138.8	92.6	78.5	-47.9	7.9	59.3
Construction	6.1	71.4	-13.2	154.4	32.4	14.6
Transport and communications	80.6	85.7	51.6	215.2	102.1	42.7
Trade and material technical provision	118.9	107.6	1929.1	235.0	117.5	135.9
Other	66.2	95.5	72.0	78.1	145.5	-1.6

(4) Contribution to Growth by Sector	Overall	Industry	Agriculture	Construc-tion	Transport	Communi-cations	Trade and material technical provision	Services	Other
Contribution to 1995 growth rate	6.3	0.2	2.1	0.3	-0.8	-0.1	2.6	2.0	0.0
Percentage contribution to 1995 growth rate	100.0	2.4	33.4	4.0	-13.1	-0.9	41.0	32.5	0.7

(5) Structure of the Economy: Demand	1990	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Composition of GDP expenditure in nominal terms (%)	100.0	100.0	100.0	100.0	100.0	100.0	Real Growth Rate				
Consumption	92.0	90.9	76.1	87.6	88.7	89.0	-10.3	-24.2	11.7	3.6	6.7
Gross fixed capital formation	34.2	35.6	29.3	27.7	24.8	19.9	-5.5	-25.5	-8.3	-8.4	-14.7
Net exports	-21.0	-22.9	-4.2	-5.1	-5.6	6.9	-1.0	-83.4	17.8	12.3	-231.0
Statistical discrepancy	-5.2	-3.6	-1.2	-10.2	-7.9	-15.8	-37.2	-69.8	724.5	-20.8	112.6

(6) Government Revenue ( ) = Units	1991	1992	1993	1994	1995
Gross revenue plus grants (million Tg)	6497.2	11916.4	54843.3	86131.4	136274.4
Composition of government revenue in nominal prices (%)					
Gross revenue plus grants	100.0	100.0	100.0	100.0	100.0
Current revenue (tax plus non-tax revenue)	93.2	94.7	94.5	95.4	93.6
Tax revenue	79.2	85.9	90.8	78.5	80.2
Income and capital gains tax	39.8	45.9	51.9	37.2	36.7
Social security contributions	0.0	0.0	0.0	7.5	1.4
Personal income tax	0.0	0.0	0.0	0.0	0.0
Domestic goods and services tax	33.4	26.2	25.8	22.7	20.1
Customs duties	4.5	12.2	12.0	8.8	7.1
Other taxes	1.4	1.6	1.2	2.4	2.4
Non-tax revenue	14.0	8.9	3.7	16.9	13.4
Capital revenue	0.2	0.1	0.0	0.8	2.8
Grants	6.7	5.2	5.5	3.8	3.7

(7) Government Expenditure (A) ( ) = Units	1993	1994	1995
Total expenditure (million Tg)	61661.9	101326.1	147730.6
Current expenditure	41553.3	74676.2	105536.2
Expenditure on goods and services	28859.5	53675.1	75083.5
Wages and salaries	8612.7	16109.2	25542.5
Employer insurance contributions	874.2	2394.9	7161.1
Other	19372.6	35171.0	42379.9
Interest payments	2063.3	1705.3	1794.2
Subsidies	10630.5	19295.8	28658.5
Capital expenditure	8269.9	10550.6	22559.3
Foreign amortization	4134.6	5222.8	16836.0
Loans minus repayments	7404.1	10876.5	2799.1
Total expenditure (%)	100.0	100.0	100.0
Current expenditure	67.4	73.7	71.4
Expenditure on goods and services	46.8	53.0	50.8
Wages and salaries	14.0	15.9	17.3
Employer insurance contributions	1.4	2.4	4.8
Other	31.4	34.7	28.7
Interest payments	3.3	1.7	1.2
Subsidies	17.2	19.0	19.4
Capital expenditure	13.4	10.4	15.3
Foreign amortization	7.2	5.2	11.4
Loans minus repayments	12.0	10.7	1.9

Government Expenditure (B)	1991	1992	1993	1994	1995
Total expenditure	8929.3	12360.9	61661.9	101326.1	147730.6
Composition of government expenditure (%)	100.0	100.0	100.0	100.0	100.0
Public services	10.2	7.2	5.9	8.3	8.5
Defense	8.3	7.6	6.9	6.9	7.3
Public order and safety	2.8	6.9	3.5	4.2	4.3
Education	22.9	26.5	15.6	16.2	15.8
Health	12.4	15.7	10.3	11.5	12.0
Social security and welfare	11.8	12.8	9.3	13.3	14.8
Housing and community amenities	2.7	1.6	1.7	1.5	1.2
Recreation, culture, art and sports	4.4	5.7	3.8	3.8	3.1
Fuel and energy	4.7	1.1	5.4	7.4	7.2
Agriculture and forestry	3.2	5.2	2.5	2.2	1.9
Industry, construction and mining	6.1	3.1	1.8	9.7	0.0
Transport and communications	4.6	2.6	2.1	4.5	2.4
Other economic affairs and services	2.2	1.7	8.2	2.6	2.1
Other expenditure	3.7	2.4	23.2	8.0	19.4

(8) Government Finance	1991	1992	1993	1994	1995
Budget Balance A (Total revenue plus grants - total expenditure)	-2432.1	-414.5	-6818.6	-15194.7	-11456.2
Budget Balance B (Total revenue - total expenditure)	-2864.2	-1059.7	-9845.5	-18460.0	-16466.7
Deficit A/GDP ratio	-12.9	-0.9	-4.1	-5.4	-2.9
Deficit B/GDP ratio	-15.1	-2.2	-5.9	-6.5	-4.2
Expenditure/GDP ratio	47.2	26.1	37.1	35.8	37.8
Revenue/GDP ratio	34.4	25.2	33.0	30.4	34.8

(9) Local Government Finances ( ) = Units	1990	1991	1992	1993	1994	1995	Year-on-year growth rate 1991	1992	1993	1994	1995
Local government revenue in nominal terms	2823.5	2713.8	4859.1	12297.1	20647.8	30888.9	-3.9	79.1	153.1	67.9	49.6
Local government expenditure	1969.4	3870.9	6177.0	23233.4	33577.5	49081.8	96.6	59.6	276.1	44.5	46.2
Local government balance of revenue & expenditure	854.1	-1157.1	-1317.9	-10936.3	-12929.7	-18192.9					
Local government revenue/GDP ratio (%)	27.0	14.4	10.3	7.4	7.3	7.9					
Local government expenditure/GDP ratio (%)	18.8	20.5	13.1	14.0	11.9	12.5					
Subsidies to local government	819.4	1731.1	2175.6	11576.6	10844.2	16568.8	111.3	25.7	432.1	-6.3	52.8
Subsidies to local government/GDP ratio (%)	7.8	9.2	4.6	7.0	3.8	4.2					

(10) Money Supply							Year-on-year growth rate				
	1990	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Money in circulation	742.7	2003.0	2896.4	10786.1	21804.8	29755.7	169.7	44.6	272.4	102.2	36.5
Domestic deposits	8418.6	12854.2	19129.9	31603.7	52839.1	62722.3	52.7	48.8	65.2	67.2	18.7
Public deposits	726.3	1553.3	2985.7	7969.6	25287.3	36602.7	113.9	92.2	166.9	217.3	44.7
M1	4749.9	7313.7	7640.2	18548.0	32871.2	42636.5	54.0	4.5	142.8	77.2	29.7
M2	5633.1	9914.8	13052.3	42764.0	76777.0	102044.6	76.0	31.6	227.6	79.5	32.9
M2/GDP ratio (%)	53.8	52.4	27.6	25.7	27.1	26.1					

(11) Trade & Development Bank (TDB) Interest Rates	1992	1993	1994	1995	1996
TDB loan rate		12-60	10-180	10-180	60-96
TDB short-term deposit rate	4.0	24.0	48.0	48.0	26.8
TDB long-term deposit rate	6 -20	24-50	125.0	101.2	60.1-79.5

(12) Agricultural Indicators								Year-on-year growth rate			
( ) = Units	1990	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Gross agricultural output (nominal terms)	2858.4	4878.8	22395.9	91119.4	162637.5	230951.8	70.7	359.0	306.9	78.5	42.0
Livestock	2082.7	3904.8	18301.5	69859.5	139321.1	191434.6	87.5	368.7	281.7	99.4	37.4
Livestock/gross agricultural output ratio (%)	72.9	80.0	81.7	76.7	85.7	82.9					
Crop/gross agricultural output ratio (%)	27.1	20.0	18.3	23.3	14.3	17.1					
Gross agricultural output in 1993 prices	109275.7	101182.2	95165.6	91119.4	96295.7	102107.7	-7.4	-5.9	-4.3	5.7	6.0
Gross agricultural output index	100.0	92.6	87.1	83.4	88.1	93.4					
Wheat output (1,000t)	596.2	538.3	453.2	450.2	321.9	256.5	-9.7	-15.8	-0.7	-28.5	-20.3
Wheat-output index	100.0	90.3	76.0	75.5	54.0	43.0					
Livestock numbers index	100.0	98.7	99.4	97.4	103.7	110.5					
No. of livestock (1,000 head)	25856.9	25527.9	25693.9	25174.7	26808.1	28572.3	-1.3	0.7	-2.0	6.5	6.6
Composition (%) Camels	2.1	1.9	1.6	1.5	1.4	1.3	-11.4	-12.8	-11.4	-0.4	0.4
Horses	8.7	8.9	8.6	8.7	9.0	9.3	-0.1	-2.6	-0.4	10.0	9.9
Cattle	11.0	11.1	11.0	10.8	11.2	11.6	-0.9	-0.1	-3.1	10.1	10.4
Sheep	58.3	57.7	57.0	54.7	51.4	48.0	-2.4	-0.4	-6.0	0.1	-0.5
Goats	19.8	20.6	21.8	24.3	27.0	29.8	2.4	6.7	9.0	18.6	17.7

(13) Industrial Indicators ( ) = Units	1990	1991	1992	1993	1994	1995	Year-on-year growth rate 1991	1992	1993	1994	1995
Gross industrial output in nominal terms (milliom Tg)	8887.4	13730.9	33157.0	168835.1	231548.4	302274.4	-23.1	-4.1	-6.3	1.1	0.5
Composition of gross industrial output in nominal terms (%)	100.0	100.0	100.0	100.0	100.0	100.0					
Electricity and thermal energy	13.2	13.0	13.4	15.4	14.5	16.7	-24.3	-1.0	7.9	-5.0	15.9
Fuel	3.2	3.5	3.9	5.6	5.4	5.5	-15.2	8.5	33.0	-1.4	2.4
Machinery and metals	2.9	1.7	1.2	0.3	0.8	0.9	-55.2	-30.9	-79.8	225.8	2.4
Non-ferrous metals	9.9	10.8	17.8	46.6	37.6	38.3	-15.5	57.3	145.7	-18.5	2.4
Building materials	9.0	4.9	2.7	1.3	2.4	2.4	-58.7	-46.7	-55.4	87.7	2.4
Timber processing	5.0	4.1	3.2	1.2	1.4	1.4	-37.1	-24.3	-63.9	11.6	2.4
Textiles	10.8	9.8	10.8	5.4	7.0	8.8	-30.7	6.0	-52.8	29.8	26.8
Clothing	4.5	4.6	2.0	0.9	1.0	1.0	-22.1	-57.3	-60.8	16.2	2.4
Leather, fur and footwear	10.9	13.9	13.1	4.7	3.3	3.3	-1.6	-10.0	-66.6	-29.2	2.4
Printing	0.9	0.8	0.5	0.2	0.3	0.3	-30.2	-45.9	-56.6	29.8	2.4
Glass, tiles	0.3	0.3	0.2	0.0	0.0	0.0	-30.0	-28.8	-80.5	-27.3	2.4
Foodstuffs	24.1	27.3	24.4	13.7	13.0	14.3	-12.8	-14.3	-47.3	-4.2	10.2
Chemicals	3.7	2.0	2.3	3.9	4.0	4.1	-58.4	11.7	56.4	3.3	2.4
Other	1.6	3.4	4.4	0.7	9.3	3.0	63.5	24.0	-84.5	1182.5	-67.9

(14) Indicators for Selected Industrial Products ( ) = Units	1995	Index Year: 1990 = 100 1991	1992	1993	1994	1995	Year-on-year growth rate 1991	1992	1993	1994	1995
Electricity generation (million kWh)	2052.8	96.5	87.5	63.7	63.4	61.3	-3.5	-9.3	-27.2	-0.4	-3.3
Coal (1,000t)	4871.2	98.3	87.3	78.4	70.0	68.1	-1.7	-11.2	-10.2	-10.6	-2.8
Copper concentrate (1,000t)	346.4	72.7	84.8	94.4	97.0	97.8	-27.3	16.6	11.4	2.7	0.9
Molybdenum concentrate (t)	3906.0	88.4	83.2	103.8	104.5	92.8	-11.6	-5.9	24.8	0.7	-11.1
Cement (1,000t)	108.8	51.5	30.1	18.7	19.5	24.7	-48.5	-41.6	-37.9	4.3	26.8
Carpet (1,000sq.m)	595.7	71.0	52.6	50.7	34.6	30.2	-29.0	-25.9	-3.6	-31.9	-12.6
Knitted goods (1,000 pieces)	522.7	66.1	33.2	23.3	12.1	12.3	-33.9	-49.7	-29.8	-48.1	1.7
Felt (1,000m)	76.5	78.3	66.4	32.4	14.5	10.3	-21.7	-15.2	-51.2	-55.4	-29.0
Leather boots (1,000 pairs)	245.5	94.6	53.2	24.4	9.6	5.8	-5.4	-43.8	-54.1	-60.6	-39.6
Combed down (t)	420.8	79.4	40.6	50.6	96.7	175.3	-20.6	-48.8	24.5	91.0	81.3
Meat (1,000t)	11.3	85.8	43.4	29.9	19.6	19.6	-14.2	-49.4	-31.1	-34.7	0.0
Milk (million liters)	5.2	84.9	46.5	21.8	8.2	8.7	-15.1	-45.3	-53.1	-62.3	6.1

(15) Energy Balance (Electricity) ( ) = Units	1990	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Domestic power generation (million kWh)	3347.9	3229.6	2928.6	2131.7	2122.7	2052.8	-3.5	-9.3	-27.2	-0.4	-3.3
Imported power	228.0	84.0	102.0	197.0	215.0	380.0	-63.2	21.4	93.1	9.1	76.7
Total power distribution	3575.9	3313.6	3030.6	2328.7	2337.7	2432.8	-7.3	-8.5	-23.2	0.4	4.1
Consumption	2719.0	2400.0	2175.0	2006.0	1861.0	1557.0	-11.7	-9.4	-7.8	-7.2	-16.3
Industry	1803.0	1498.0	1413.0	1177.0	1189.0	1010.0	-16.9	-5.7	-16.7	1.0	-15.1
Transport & communications	175.0	110.0	101.0	88.0	59.0	49.0	-37.1	-8.2	-12.9	-33.0	-16.9
Agriculture	116.0	75.0	44.0	24.0	49.0	40.0	-35.3	-41.3	-45.5	104.2	-18.4
Communal housing	349.0	362.0	308.0	310.0	430.0	357.0	3.7	-14.9	0.6	38.7	-17.0
Transmission loss	323.0	340.0	285.0	291.0	472.0	380.0	5.3	-16.2	2.1	62.2	-19.5
Internal power station consumption	534.0	573.0	571.0	482.0	597.0	496.0	7.3	-0.3	-15.6	23.9	-16.9
Balance: Total distribution - consumption	856.9	913.6	855.6	322.7	476.7	875.8	6.6	-6.3	-62.3	47.7	83.7
Industrial consumption/Power consumption	66.3	62.4	65.0	58.7	63.9	64.9					
Loss/Power generation	9.0	10.3	9.4	12.5	20.2	15.6					

(16) Energy Balance (Coal) ( ) = Units	1990	1991	1992	1993	1994	1995	Year-on-year growth rate 1991	1992	1993	1994	1995
Domestic coal production (1,000t)	7157.0	7037.0	6247.3	5608.5	5012.4	4871.2	-1.7	-11.2	-10.2	-10.6	-2.8
Coal imports	73.0										
Inventories	183.0	274.0	198.0	138.0	91.0	82.0	49.7	-27.7	-30.3	-34.1	-9.9
Total coal production	7413.0	7311.0	6445.0	5755.0	5249.0	5208.0	-1.4	-11.8	-10.7	-8.8	-0.8
Consumption	6649.0	6992.0	6219.0	5664.0	5167.0	5103.0	5.2	-11.1	-8.9	-8.8	-1.2
Exports	490.0	121.0	88.0				-75.3	-27.3			
Inventories	274.0	198.0	138.0	91.0	82.0	105.0	-27.7	-30.3	-34.1	-9.9	28.0

(17) Transport Indicators ( ) = Units	1990	1991	1992	1993	1994	1995	Year-on-year growth rate 1991	1992	1993	1994	1995
(Freight Transport)											
Freight transport movements (million t-km)	6966.7	4379.2	3320.9	2805.2	2283.3	2436.9	-37.1	-24.2	-15.5	-18.6	6.7
Rail	5087.8	3012.6	2756.4	2531.0	2131.7	2279.5	-40.8	-8.5	-8.2	-15.8	6.9
Road	1870.9	1362.5	559.1	268.4	146.7	152.9	-27.2	-59.0	-52.0	-45.3	4.2
Air	8	4.1	5.4	5.8	4.9	4.5	-48.8	31.7	7.4	-15.5	-8.2
Freight transport volume (million t)	54	36.5	15.2	11.4	9.9	8.9	-32.4	-58.4	-25.0	-13.2	-10.1
Rail	14.5	10.3	8.5	7.9	7.1	7.3	-29.0	-17.5	-7.1	-10.1	2.8
Road	39.4	26.2	6.7	3.5	2.8	1.6	-33.5	-74.4	-47.8	-20.0	-42.9
Air	0	0	0	0	0.0	0.0					
Passenger transport movements (million passenger-km)	2056.1	1958.1	1956.5	1572.7	1676.8	1424.2	-4.8	-0.1	-19.6	6.6	-15.1
Rail	570.1	596.3	629.5	582.5	789.6	679.7	4.6	5.6	-7.5	35.6	-13.9
Road	914.6	913.4	963	700.6	567.7	424.3	-0.1	5.4	-27.2	-19.0	-25.3
Air	571.4	448.4	364	289.6	319.5	320.2	-21.5	-18.8	-20.4	10.3	0.2
Passenger transport volume (million passengers)	232.2	234.4	252.2	191.8	146.8	110.3	0.9	7.6	-23.9	-23.5	-24.9
Rail	2.6	2.5	2.6	2.3	2.9	2.9	-3.8	4.0	-11.5	26.1	0.0
Road	228.8	231.3	249.3	189.3	143.7	107.2	1.1	7.8	-24.1	-24.1	-25.4
Air	0.8	0.6	0.3	0.2	0.2	0.2	-25.0	-50.0	-33.3	0.0	0.0
Transport volume indices											
Freight transport movements (million t-km)	100.0	62.9	47.7	40.3	32.8	35.0					
Freight transport volume (million t)	100.0	67.6	28.1	21.1	18.3	16.5					
Passenger transport movements (million passenger-km)	100.0	95.2	95.2	76.5	81.6	69.3					
Passenger transport volume (million passengers)	100.0	100.9	108.6	82.6	63.2	47.5					
Rail freight volume (1,000t)	14517.1	10269.8	8518.3	7854.0	7068.4	7298.0	-29.3	-17.1	-7.8	-10.0	3.2
Domestic	8575.6	7118.2	5892.3	5614.0	5335.4	5439.1	-17.0	-17.2	-4.7	-5.0	1.9
Domestic ratio (%)	59.1	69.3	69.2	71.5	75.5	74.5					
International	5941.5	3151.6	2626.0	2240.0	1733.0	1858.9	-47.0	-16.7	-14.7	-22.6	7.3
of which, Transit freight	978.4	168.6	309.0	302.0	169.6	130.5	-82.8	83.3	-2.3	-43.8	-23.1
Transit/International ratio (%)	16.5	5.3	11.8	13.5	9.8	7.0					

(18) Value of Trade and Exchange Rate ( ) = Units	1990	1991	1992	1993	1994	1995	Year-on-year growth rate 1991	1992	1993	1994	1995
Total value of trade in nominal terms ($ million)	1584.7	708.9	806.7	761.6	625.9	900.3	-55.3	13.8	-5.6	-17.8	43.8
Exports	660.7	348.0	388.0	382.6	367.5	511.6	-47.3	11.5	-1.4	-3.9	39.2
Imports	924.0	360.9	418.7	379.0	258.4	388.7	-60.9	16.0	-9.5	-31.8	50.4
Balance of trade	-263.3	-12.9	-30.7	3.6	109.1	122.9	-95.1	138.0	-111.7	2930.6	12.6
Exports/GDP (%)	33.7	73.6	32.8	91.3	54.5	64.1					
Imports/GDP (%)	47.1	76.3	35.4	90.4	38.3	48.7					
Trade/GDP (%)	80.7	150.0	68.2	181.7	92.8	112.8					
End-of-year exchange rate	5.3	40.0	40.0	396.5	420.0	490.0					
GDP in nominal terms (million Tg)	10465.0	18909.6	47298.0	166219.1	283263.0	391103.4	80.7	150.1	251.4	70.4	38.1
GDP in nominal terms ($ million)	1963.4	472.7	1182.5	419.2	674.4	798.2	-75.9	150.1	-64.5	60.9	18.3
Per capita GDP ($)	913.5	216.1	533.8	186.3	295.8	344.4	-76.3	147.0	-65.1	58.8	16.4

(19) Share of Trade by Country	Total Value of Exports			Total Value of Imports			Exports + Imports		
	1990	1994	1995	1990	1994	1995	1990	1994	1995
Austria	0.0	0.0	0.0	0.0	4.4	3.6	0.0	1.8	1.6
USA	0.1	3.4	5.8	1.1	0.0	1.4	0.7	2.0	3.9
UK	0.5	1.4	3.8	0.3	0.5	0.7	0.3	1.0	2.4
Afghanistan	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Bulgaria	2.5	0.0	0.0	0.0	0.3	0.2	1.1	0.1	0.1
Belgium	0.0	0.6	0.4	1.8	0.1	0.1	1.1	0.4	0.3
CIS	78.3	28.2	13.1	77.4	57.6	52.0	77.8	40.4	29.9
Italy	0.8	2.4	2.2	0.4	0.1	0.9	0.6	1.4	1.6
Kazakhstan	0.0	14.2	15.2	0.0	0.0	0.2	0.0	8.3	8.7
Netherlands	0.2	0.8	0.9	0.0	0.0	0.2	0.1	0.5	0.6
Denmark	0.0	0.0	0.0	0.0	0.5	1.1	0.0	0.2	0.5
South Korea	0.0	5.2	5.0	0.1	5.8	5.2	0.1	5.4	5.1
Poland	1.7	0.0	0.0	1.4	0.4	0.3	1.5	0.2	0.1
Rumania	1.5	0.0	0.0	0.7	0.0	0.0	1.0	0.0	0.0
North Korea	1.2	0.1	0.0	0.6	0.0	0.1	0.8	0.0	0.0
Singapore	0.0	0.0	0.4	0.1	1.4	1.8	0.0	0.6	1.0
Hong Kong	0.0	0.7	0.6	0.3	4.1	1.5	0.2	2.1	1.0
Hungary	2.1	0.0	0.0	2.2	0.1	0.1	2.2	0.0	0.0
France	0.4	0.1	0.1	0.3	0.2	0.5	0.3	0.1	0.2
China	1.7	19.9	14.3	2.4	9.2	10.1	2.1	15.5	12.5
Germany	2.1	0.7	1.3	4.0	3.9	3.8	3.2	2.0	2.4
Czech Republic	4.5	0.1	0.1	3.7	1.3	2.1	4.0	0.6	1.0
Switzerland	0.2	6.1	13.2	0.6	1.4	0.2	0.4	4.1	7.6
Yugoslavia	0.4	0.0	0.0	0.9	0.0	0.0	0.7	0.0	0.0
Japan	1.2	12.2	18.7	1.1	6.5	11.4	1.1	9.9	15.6
Other	0.3	3.9	5.0	0.5	2.1	2.5	0.4	3.2	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(20) Traded Commodities		Index Year: 1990 = 100					Year-on-year growth rate				
Exports	1995	1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Copper concentrate (1,000t)	435.0	70.1	99.6	113.5	129.1	125.2	-29.9	42.0	14.0	13.7	-3.0
Molybdenum concentrate (t)	3438.2	79.4	74.6	72.9	145.6	86.2	-20.6	-6.1	-2.2	99.7	-40.8
Tin concentrate (1,000t)	114.6	79.4	93.8	79.3	90.5	117.9	-20.6	18.1	-15.5	14.1	30.2
Fluorspar (1,000t)	0.5	23.2	33.7	18.8	3.3	0.1	-76.8	45.6	-44.2	-82.5	-96.9
Copper scrap (t)		0.0	33.9	10.5	5.4	0.0	-100.0		-69.0	-48.6	-100.0
Coal (1,000t)	0.9	24.6	15.9	0.0	1.1	0.2	-75.4	-35.3	-100.0		-83.3
Cement (1,000t)	1.1	0.0	0.0	14.3	2.4	1.2	-100.0			-83.1	-52.2
Timber (1,000 cu.m)	1.8	0.0	0.0	60.3	181.4	9.0	-100.0			200.8	-95.0
Sawn wood (1,000 cu.m)	37.2	212.2	169.2	188.0	123.8	87.5	112.2	-20.3	11.1	-34.2	-29.3
Scoured wool (1,000t)	0.0	78.6	260.7	92.9	28.6	0.0	-21.4	231.8	-64.4	-69.2	-100.0
Two-toothed sheep and lamb's wool (1,000t)	0.0	0.0	0.0	0.0	0.0	0.0	-100.0				
Camel wool (1,000t)	0.9	5.3	89.5	163.2	136.8	47.4	-94.7	1600.0	82.4	-16.1	-65.4
Cashmere (1,000t)	0.6	150.0	425.0	350.0	150.0	150.0	50.0	183.3	-17.6	-57.1	0.0
Horse mane (1,000t)	0.4	0.0	80.0	40.0	0.0	80.0	-100.0		-50.0	-100.0	
Horse skin (1,000t)	62.0	74.4	12.8	145.9	43.2	58.9	-25.6	-82.8	1037.0	-70.4	36.6
Sheep skins (1,000 pieces)	1818.5	100.8	1256.5	3193.2	1974.9	1398.8	0.8	1146.9	154.1	-38.2	-29.2
Goat skins (1,000 pieces)	314.6	89.2	234.1	602.4	519.6	277.9	-10.8	162.4	157.3	-13.7	-46.5
Kid leather (1,000 pieces)	0.0	0.0	0.0	291.7	0.0	0.0	-100.0			-100.0	
Chevrette (1,000 pieces)	0.6	0.0	0.0	295.0	0.0	2.5	-100.0			-100.0	
Leather apparel (1,000 pieces)	0.9	147.9	147.4	99.4	20.6	1.0	47.9	-0.4	-32.5	-79.3	-95.0
Carpet (million sq.m.)	0.0	5.9	23.5	29.4	5.9	0.0	-94.1	300.0	25.0	-80.0	-100.0
Woollen fabrics (1,000m)	0.0									-100.0	
Woollen blankets (1,000 pieces)	20.6	13.7	11.3	2.1	2.3	6.1	-86.3	-17.5	-81.6	10.0	167.5
Cashmere products (1,000 pieces)	**	9.5	48.1	38.6	36.1		-90.5	408.4	-19.9	-6.5	
Camel woollen goods (1,000 pieces)	**	78.9	32.8	28.4	16.8		-21.1	-58.5	-13.2	-40.9	
Marmot skins (1,000 pieces)	35.0	111.0	57.3	124.1	35.2	47.9	11.0	-48.4	116.7	-71.6	36.2
Wheat (1,000t)	8.3	0.0	5.2	19.9	69.4	30.6	-100.0		285.7	248.1	-55.9
Vodka (1,000l)	3.6	0.0	3.2	16.4	12.2	1.9	-100.0		416.9	-25.2	-84.2
Meat (1,000t)	2.0	89.7	45.3	29.2	22.2	8.2	-10.3	-49.5	-35.5	-23.9	-63.0
Livestock (1,000t)	1.0	96.6	1.4	201.9	0.0	4.8	-3.4	-98.5	13900.0	-100.0	
Horses (1,000 head)	0.0	54.8	0.0	0.0	0.0	0.0	-45.2	-100.0			
Intestines (1,000 rolls)	1230.7	22.9	162.9	62.9	51.0	56.9	-77.1	611.0	-61.4	-19.0	11.5

Imports	1995	Index Year: 1990 = 100					Year-on-year growth rate				
		1991	1992	1993	1994	1995	1991	1992	1993	1994	1995
Cranes (number)	0.0	48.4	6.5	0.0	0.0	0.0	-51.6	-86.7	-100.0		
Excavators (number)	0.0	2.6	346.2	0.0	0.0	0.0	-97.4	13055.0	-100.0		
Tractors (number)	167.0	12.8	67.4	51.3	69.0	42.8	-87.2	426.0	-24.0	34.5	-37.9
Trucks (number)	209.0	7.0	46.7	42.9	27.7	22.5	-93.0	566.2	-8.1	-35.4	-18.7
Buses (number)	327.0	28.0	24.0	38.2	26.4	132.9	-72.0	-14.5	59.3	-30.9	403.1
Cars (number)	4285.0	15.0	232.0	473.0	1057.0	1428.3	-85.0	1446.7	103.9	123.5	35.1
Diesel oil (1,000t)	103.4	72.6	44.6	77.4	35.8	28.4	-27.4	-38.6	73.7	-53.8	-20.7
Gasoline (1,000t)	175.9	64.0	61.6	51.1	46.5	51.6	-36.0	-3.8	-16.9	-9.0	10.8
Fuel oil (1,000t)	33.0	114.4	72.7	89.3	74.9	52.1	14.4	-36.4	22.8	-16.1	-30.5
Lubricants (100t)	0.6	18.2	58.4	49.3	22.5	2.9	-81.8	221.1	-15.6	-54.4	-87.2
Phosphate fertilizers (1,000t)	0.0	1.1	0.0	0.0	0.0	0.0	-98.9	-100.0			
Nitrogenous fertilizers (1,000t)	8.7	1.5	7.0	26.1	2.0	43.7	-98.5	366.7	271.4	-92.3	2075.0
Cement (1,000t)	0.9	9.9	0.5	35.3	1.0	2.3	-90.1	-94.7	6700.0	-97.1	125.0
Window glass (1,000 sq.m)	67.6	0.5	191.1	9.2	9.1	14.2	-99.5	41372.7	-95.2	-0.5	55.0
Paper (1,000t)	2.2	75.3	8.2	3.5	14.1	25.9	-24.7	-89.1	-57.1	300.0	83.3
Cereals (1,000t)	0.0									-99.5	-100.0
Vegetable oil (1,000t)	1.5	52.4	38.1	47.6	33.3	71.4	-47.6	-27.3	25.0	-30.0	114.3
Sugar (1,000t)	12.1	92.2	50.7	59.9	32.3	34.9	-7.8	-45.0	18.2	-46.2	8.0
Rice (1,000t)	8.2	77.0	23.6	177.0	8.4	42.9	-23.0	-69.4	651.1	-95.3	412.5
Green tea (1,000t)	0.9	59.4	53.6	94.2	4.3	13.0	-40.6	-9.8	75.7	-95.4	200.0
Fruit (1,000t)	2.5	34.3	14.3	37.1	54.3	71.4	-65.7	-58.3	160.0	46.2	31.6
Cotton fabrics (million m)	5.2	11.9	21.7	37.7	9.3	9.1	-88.1	82.4	73.4	-75.3	
Woollen fabrics (million m)	0.2	22.2	100.0	33.3	0.0	22.2	-77.8	350.0	-66.7	-100.0	
Silk (million m)	31.0	18.4	13.2	26.3	0.0	815.8	-81.6	-28.6	100.0	-100.0	
Sewing machines (1,000 units)	2.9	28.6	38.6	110.0	30.0	41.4	-71.4	35.0	185.2	-72.7	38.1
Refrigerators (1,000 units)	2.2	670.0	4.8	140.0	160.0	220.0	570.0	-99.3	2816.7	14.3	37.5
Washing machines (1,000 units)	0.4	42.1	28.1	5.3	12.3	7.0	-57.9	-33.3	-81.3	133.3	-42.9
Television (1,000 units)	10.7	0.5	48.2	59.7	37.7	56.0	-99.5	9100.0	23.9	-36.8	48.6

Source:

State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Imports of cotton and woollen fabrics measured in million sq.m units from 1995.

Silk measured in 1,000 sq.m units from 1995.

(21) Balance of Payments (US$ million)	1991	1992	1993	1994	1995
Trade balance	-140.0	-62.6	-8.7	-3.5	-22.0
Exports, f.o.b.	346.5	355.8	365.8	367.0	451.0
Copper		160.1	155.1	188.7	247.7
Non-copper		195.7	210.7	178.3	203.3
Imports, c.i.f.	-486.5	-418.4	-374.5	-370.5	-473.0
Services balance	-5.8	-25.4	-31.1	-33.8	-38.9
Receipts	26.5	35.2	26.8	43.0	46.5
Payments	-32.3	-60.6	-57.9	-76.8	-85.4
Interest	-4.9	-14.6	-9.2	-14.3	-11.4
Other	-27.4	-46.0	-48.7	-62.5	-74.0
Private unrequited transfers	0.0	-2.7	-0.1	-3.0	-2.8
Current account deficit (excluding official transfers)	-145.8	-90.7	-39.9	-40.3	-63.7
Public unrequited transfers (net)	41.6	38.5	71.0	77.6	67.7
Official grants	41.6	38.7	66.7	69.5	52.8
Other official transfers (net)	0.0	-0.8	4.3	8.1	14.9
Capital account	106.9	30.7	-9.6	-36.2	5.8
Direct investment	0.0	2.0	7.7	7.0	10.0
Medium- and long-term loans (net)	130.3	86.3	32.5	7.9	33.7
Disbursements	139.3	112.1	54.0	60.3	83.0
Amortization	-9.0	-25.8	-21.5	-52.4	-49.3
Short-term loans	-23.4	-57.6	-49.8	-51.0	-37.9
Errors and omissions	-94.6	8.9	5.2	-10.6	0.0
Overall balance	-92.1	-12.6	26.7	-9.5	9.8

Figure 1-4-1 Trends in Assistance to Mongolia (Loans and Grants)

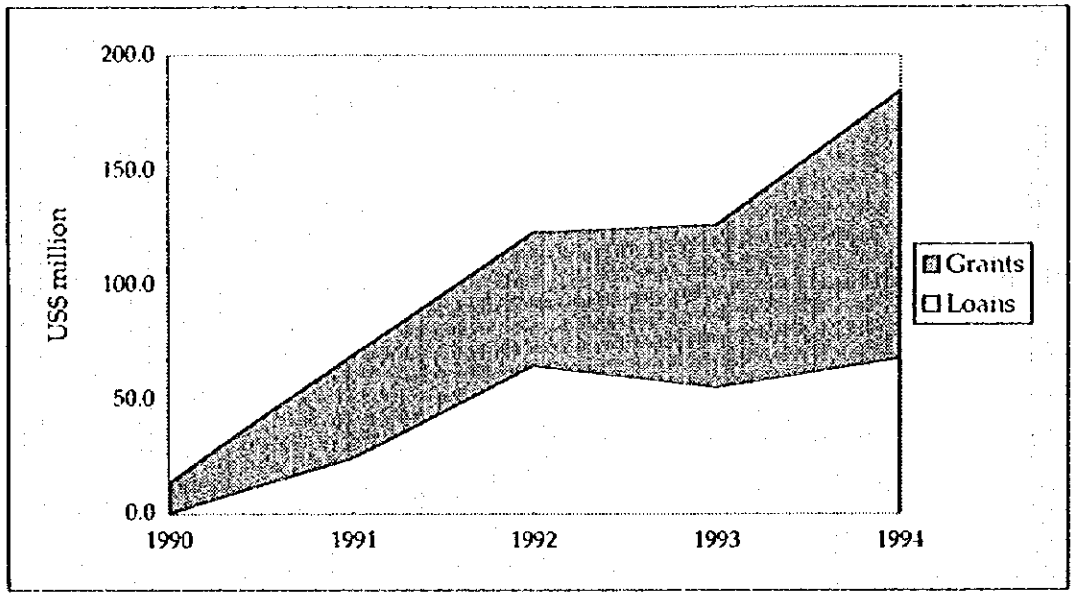
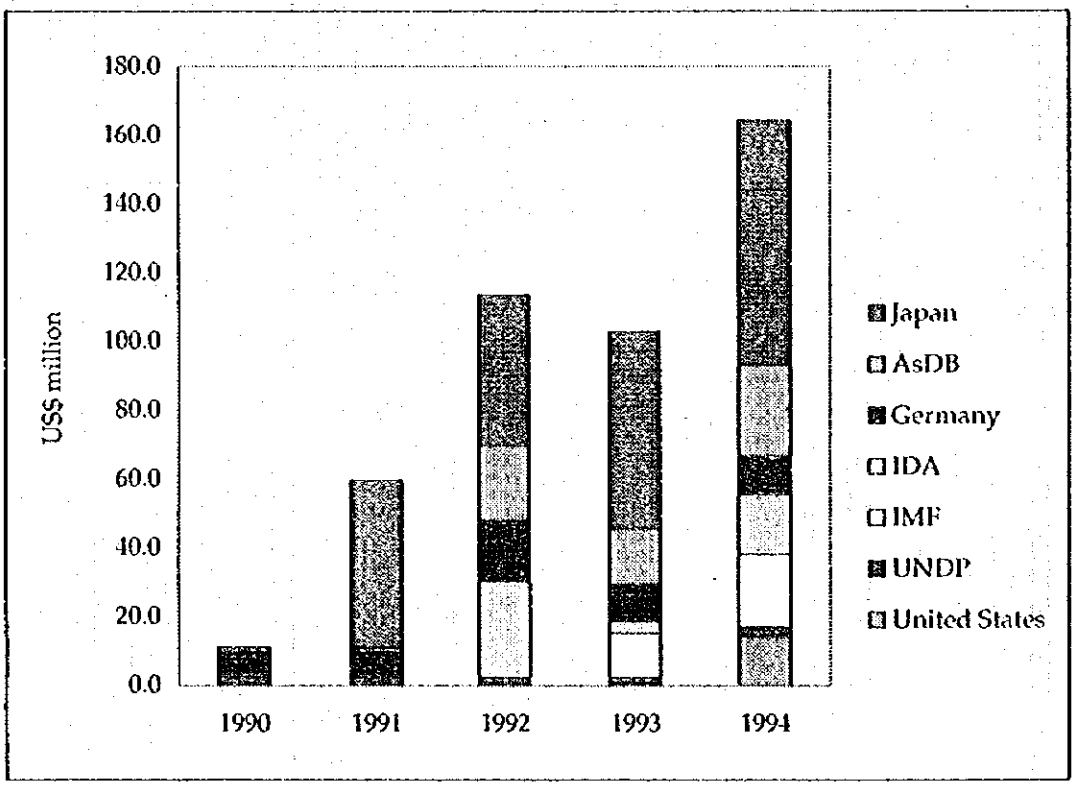


Figure 1-4-2 Assistance from Major Donors



Source: DAC (1996), DAC Report 1996.

Figure 1-4-3 Sector Ratio for Required Assistance (Project)

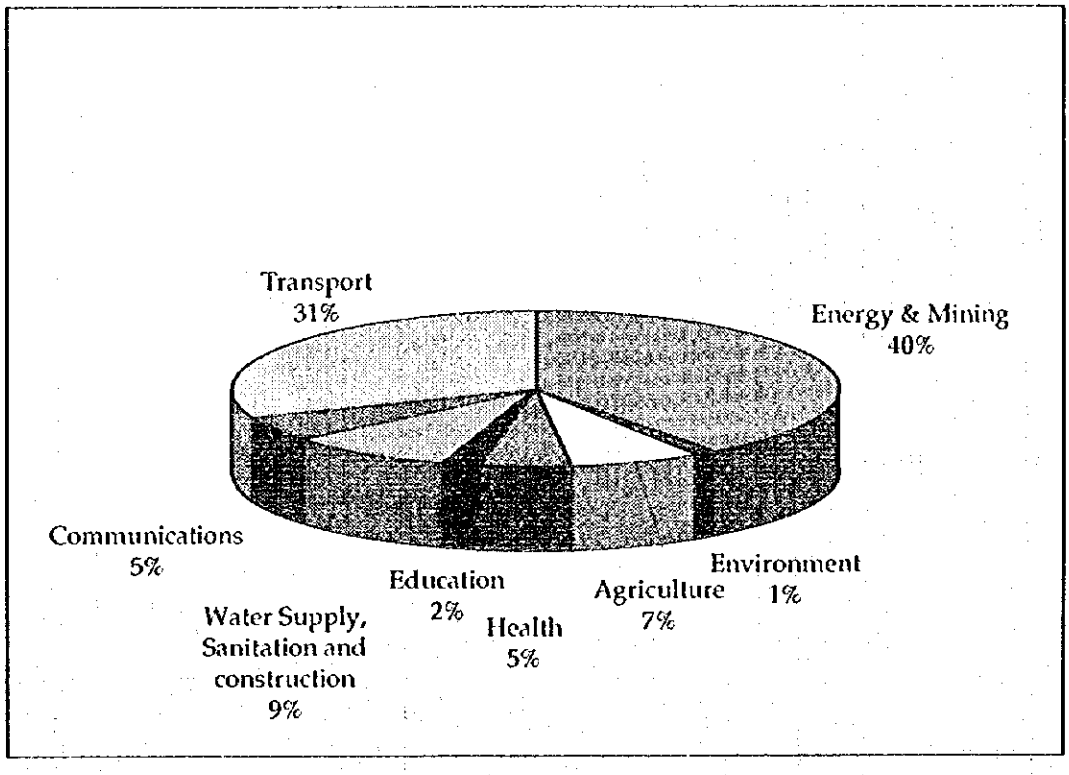


Figure 1-4-4 Sector Ratio for Required Assistance (Technical Cooperation)

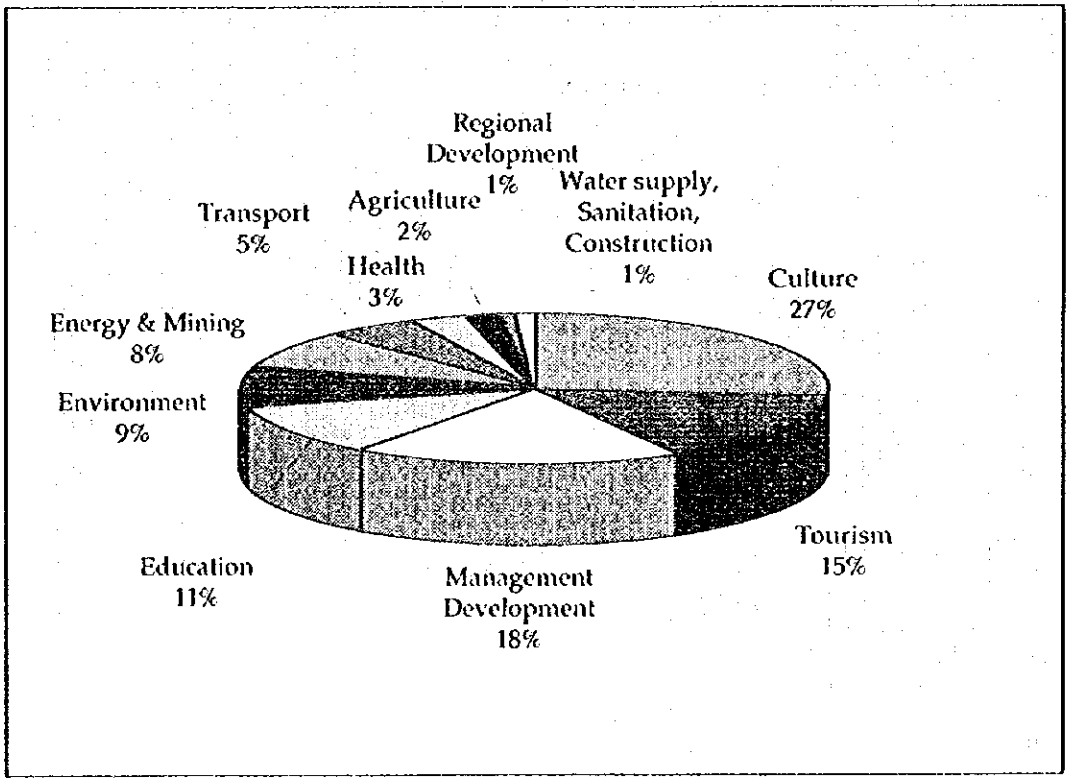


Table 1-4 Mongolia Assistance Group Meeting Participants

	Date	Participating Countries, Institutions
1st	September 1991	Mongolia, Japan, Australia, Denmark, France, Germany, Italy, South Korea, New Zealand, Singapore, Sweden, U.K., U.S., World Bank, ADB, IMF, UNDP, etc.
2nd	May 1992	Mongolia, Japan, Australia, Denmark, France, Germany, Italy, South Korea, New Zealand, Singapore, Sweden, U.K., U.S., World Bank, ADB, IMF, UNDP, etc.
3rd	September 1993	Mongolia, Japan, Australia, Belgium, Brunei, Canada, Denmark, Finland, France, Germany, Italy, South Korea, Netherlands, Russia, New Zealand, Singapore, Sweden, Switzerland, Thailand, Turkey, U.K., U.S., World Bank, ADB, IMF, OECD, UNDP, etc.
4th	November 1994	As per the 3rd Meeting participants, plus Indonesia, India, and Malaysia
5th	February 1996	As per the 4th Meeting participants, minus Indonesia and Brunei, but with the addition of Portugal, Hungary, UNESCO, and UNICEF.

Table 2-1-1 Trends in Production of Major Crops

(Units: 1,000t)

	1980	1989	1990	1991	1992	1993	1994	1995
Cereals	286.8	839.1	718.3	593.0	493.9	479.5	330.7	261.2
Wheat	299.8	686.9	596.2	538.3	453.2	450.2	321.9	256.5
Potatoes	39.3	155.5	131.1	97.5	78.5	60.1	54.0	51.1
Vegetables	26.0	59.5	41.7	23.3	16.4	22.7	22.8	27.1

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Table 2-1-2 Sown Areas of Major Crops

(Unit: 1,000ha)

	1988	1989	1990	1991	1992	1993	1994	1995
Cereals	641.6	673.4	654.1	615.3	592.6	546.4	449.1	356.5
Potatoes	13.2	12.6	12.2	10.1	8.7	8.9	7.8	6.2
Vegetables	4.1	4.2	3.6	2.8	2.2	3.1	2.7	3.2
Fodder crops	169.2	147.7	117.8	79.9	52.9	25.6	10.9	6.0

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Table 2-1-3 No. of Livestock by Size of Household

(Units: 1,000 households)

	1990	1991	1992	1993	1994	1995
10 or fewer	76.4	64.8	58.9	48.3	46.8	43.7
11–30	88.1	70.8	69.2	57.0	53.8	50.6
31–50	42.6	49.5	50.2	43.7	42.0	40.2
51–100	42.6	61.5	66.3	63.4	62.9	61.1
101–200	–	29.6	42.8	51.4	53.2	53.6
201–500	0.5	4.8	13.7	24.6	28.2	31.4
501–1,000			0.4	1.3	2.1	3.1
1,001–1,500			(7 households)	(47 households)	0.1	0.3
1,501–2,000						(17 households)
2,001 or more						(8 households)

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Table 2-1-4 Trends in Fodder Production

(Units: 1,000t)

Category		1980	1985	1989	1990	1991	1992	1993	1994	1995
Hay		1,125.4	1,280.5	1,166.4	866.4	885.5	668.8	698.4	672.2	743.9
of which,	State Emergency Fodder Fund	201.6	112.4	209.4	155.1	158.1	77.5	43.7	1.6	–
	Private sector	86.3	109.8	160.4	147.0	251.6	338.3	456.4	522.8	–
Used straw		80.1	187.9	99.0	58.3	54.6	31.9	26.5	59.2	33.3
Hand-made fodder		20.2	21.7	25.6	12.0	10.1	6.6	9.2	11.8	10.4
Mixed fodder		79.8	142.8	169.7	57.5	23.6	21.1	15.1	13.8	13.8
Inorganic fodder		39.8	76.9	49.2	42.4	15.4	12.9	16.8	18.9	26.3
Total fodder units		677.8	1,060.0	1,027.3	696.4	562.1	403.7	410.9	373.3	437.3

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Table 2-2-1 Transport Movements and Percentage Share by Mode of Transport

Units: Passenger movements (million passenger-km), freight movements (million t-km)

		1986	Composition (%)	1987	Composition (%)	1988	Composition (%)	1989	Composition (%)	1990	Composition (%)
Passenger transport		1,536.5	100%	1,692.8	100%	1,986.8	100%	2,102.9	100%	2,056.1	100%
	Road	747.1	49%	838.6	50%	923.4	46%	957.0	46%	914.6	44%
	Rail	467.1	30%	486.5	29%	531.0	27%	578.6	28%	570.1	28%
	Air	322.3	21%	367.7	22%	532.4	27%	567.3	27%	571.4	28%
Freight transport		8,390.9	100%	8,292.3	100%	8,418.8	100%	8,068.9	100%	6,971.6	100%
	Road	2,046.1	24%	2,099.1	25%	2,162.2	26%	2,097.9	26%	1,870.9	27%
	Rail	6,333.4	75%	6,179.9	75%	6,241.1	74%	5,956.1	74%	5,087.8	73%
	Air	7.1	0%	8.1	0%	10.6	0%	9.9	0%	8.0	0%
		1991	Composition (%)	1992	Composition (%)	1993	Composition (%)	1994	Composition (%)	1995	Composition (%)
Passenger transport		1,958.1	100%	1,956.5	100%	1,572.6	100%	1,676.8	100%	1,424.0	100%
	Road	913.4	47%	963.0	49%	700.5	45%	789.6	47%	680.0	48%
	Rail	596.3	30%	629.5	32%	582.5	37%	567.7	34%	424.0	30%
	Air	448.4	23%	364.0	19%	289.6	18%	319.5	19%	320.0	22%
Freight transport		4,380.9	100%	3,320.9	100%	2,805.2	100%	2,283.3	100%	2,436.0	100%
	Road	1,362.6	31%	559.1	17%	268.4	10%	146.7	6%	152.0	6%
	Rail	3,012.6	69%	2,756.4	83%	2,531.0	90%	2,131.7	93%	2,280.0	94%
	Air	4.1	0%	5.4	0%	5.8	0%	4.9	0%	5.0	0%

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Figure 2-2-1a Freight Transport by Mode of Transport (t/km)

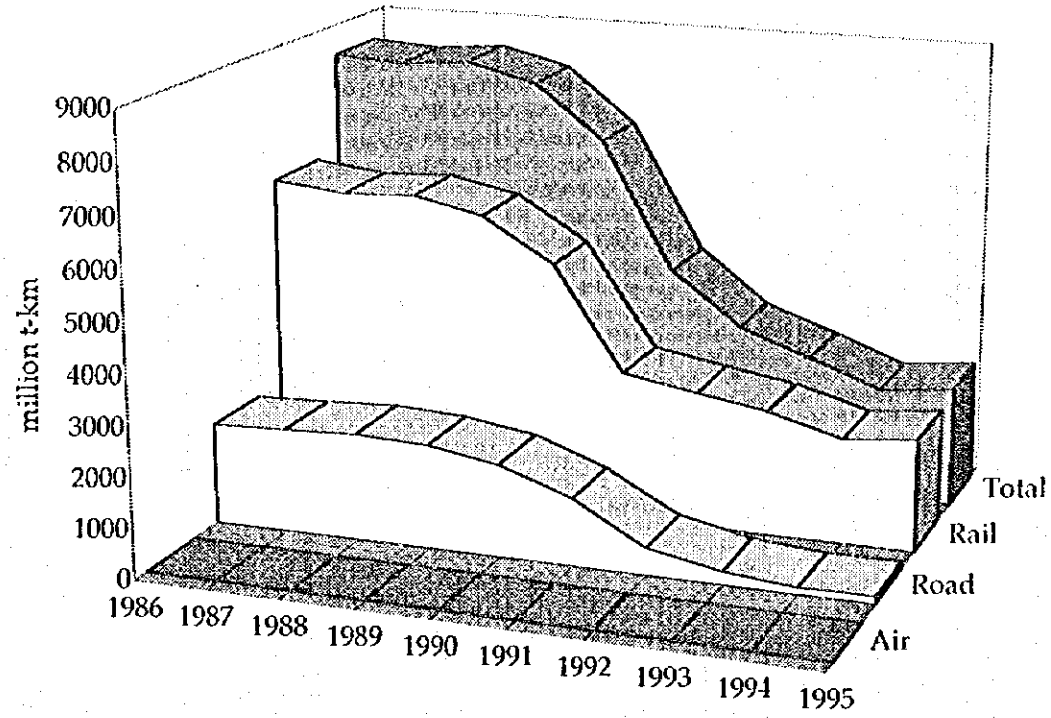


Figure 2-2-1b Passenger Transport by Mode of Transport (passenger/km)

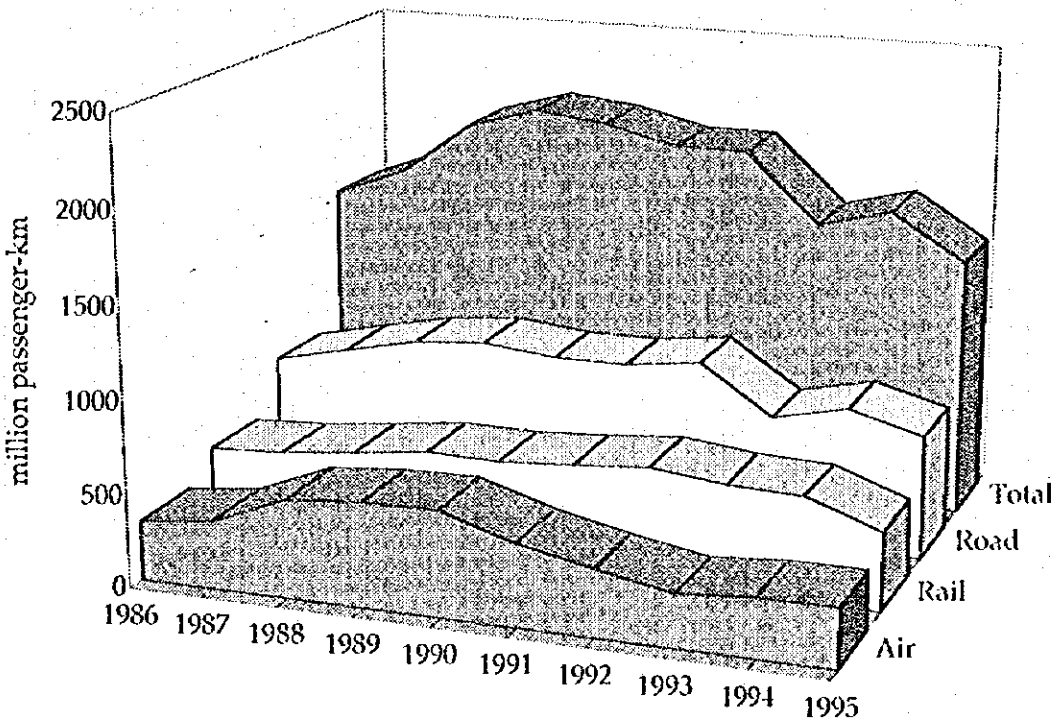


Table 2-2-2a No. of Telephones in Mongolia and Ulaanbaatar, and No. of Telephones/ 100 Persons

	1989	1990	1991	1992	1993	1994	1995
Mongolia Total	62,404	66,357	68,480	64,126	66,399	67,700	76,000
/100 persons	2.98	3.09	3.19	2.90	2.96	2.94	3.28
Ulaanbaatar City	29,404	31,890	31,968	30,860	37,349	37,861	44,082
/100 persons	5.24	5.55	5.55	5.24	5.23	5.21	7.12

Source: JICA (1996b), *The Study on Telecommunications Network in Ulaanbaatar, July 1996.*

Table 2-2-2b International and Domestic Mail Volumes

		1990	1991	1992	1993	1994
Letters	International	3,538,499	3,188,604	878,658	773,832	938,123
	Domestic	636,289	473,155	254,108	238,591	402,082
Percels	International	2,456	1,801	1,690	1,567	3,530
	Domestic	18,820	10,682	13,191	1,822	2,663
EMS International	International	0	0	23	37	38
	Domestic	0	0	78	66	2,712

Source: Ministry of Posts and Telecommunications (1995), *Report of an Investigation into the Mongolian Postal System, June 1995.*

Table 2-3 Value of Gross Industrial Output

(At 1993 prices: million Tg)

	1985	1990	1991	1992	1993	1994	1995
Gross industrial output	240191.4	285715.2	228309.0	194062.0	168835.1	175080.8	211322.6
Electricity and thermal energy	25828.9	32638.4	31875.1	29806.2	26050.1	26727.8	26300.2
Fuel	10953.2	12026.0	11809.7	10498.0	9425.2	8429.0	8193.0
Machinery and metals	1645.2	1630.8	1211.1	1385.7	440.9	2049.6	3134.6
Non-ferrous metals	67045.9	76352.6	59196.0	70542.5	78727.9	89986.1	117031.7
Building materials	4466.1	7124.6	4494.4	2923.6	2169.2	2251.6	2492.6
Timber processing	6663.3	6557.7	4584.3	2506.3	2082.9	1376.9	1648.1
Textiles	19680.8	21553.9	17517.1	13788.7	9183.2	5353.7	7800.4
Clothing	9344.4	9885.1	8520.7	3201.6	1443.7	1135.1	1601.4
Leather, fur and footwear	22975.6	32202.8	20660.6	12993.1	7860.5	5784.7	2799.8
Printing	556.9	637.4	627.7	375.6	354.1	332.6	406.5
Glass, tiles	214.1	244.8	195.1	155.4	78.6	69.6	66.4
Foodstuffs	62883.6	72400.8	52483.9	29024.5	23191.8	17091.5	23996.5
Chemicals	7795.2	11291.3	9743.9	7831.7	6587.2	5098.2	6729.7
Other	138.2	1169.0	5389.4	9029.1	1239.8	9394.4	9121.7

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Table 2–4–1 Demand and Supply for Coal (1985-1995)

(Units: 1,000t)

	Demand/Supply Sector	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Supply	Domestic production	6,523	7,065	7,765	8,606	8,045	7,157	7,037	6,247	5,617	5,138	5,126
	Imports	–	–	–	73	77	73	–	–	–	–	–
	Inventories	20	151	99	52	84	183	274	198	138	91	82
	Coal supply	6,543	7,216	7,864	8,731	8,206	7,413	7,311	6,445	5,755	5,249	5,208
Demand	Coal consumption	6,167	6,817	7,201	7,606	7,247	6,649	6,992	6,219	5,664	5,167	5,103
	Power stations (electricity and thermal supply)	3,679	3,904	4,243	4,542	4,311	4,324	4,497	4,438	4,031	3,771	3,781
	Industry, construction	1,232	911	1,329	1,137	1,066	995	1,099	877	711	592	560
	Transport & communications	–	–	–	436	111	114	56	66	134	27	25
	Agriculture	401	465	517	429	202	159	101	69	58	38	36
	Communal housing & residential	702	784	439	737	1,247	567	1,117	339	565	561	532
	Other	153	753	673	325	310	490	122	430	165	178	169
	Exports	225	300	611	1041	776	490	121	88	–	–	–
Inventories		151	99	52	84	183	274	198	138	91	82	105

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Table 2–4–2 Coal Production by Mine (1985-1995)

(Units: 1000 t)

Mine	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Baganuur	2,509	2,885	3,343	4,065	3,786	3,701	3,832	3,399	2,848	2,900	–
Sharyn gol	2,033	2,025	1,984	2,053	1,901	1,475	1,297	1,291	1,183	1,100	–
Shivee ovoo	–	–	–	–	–	–	–	145	603	(650)	–
Nalajkh	414	630	713	539	435	235	199	114	42	–	–
Other	1,498	1,525	1,726	2,054	2,123	1,782	1,794	1,371	974	n/a	
Domestic production	6,454	7,065	7,765	8,606	8,045	7,157	7,036	6,247	5,609	5,012	5,126

Source: JICA (1995), *Study on Comprehensive Coal Development and Utilization in Mongolia.*

Table 2–4–3 National Electricity Demand and Supply (1985-1995)

Units: (million kWh)

		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Supply	Domestic power generation	2,843	3,170	3,349	3,544	3,568	3,348	3,230	2,929	2,582	2,715	2,053
	Imported power	153	87	70	75	158	228	84	102	197	215	380
	Total power distribution	2,996	3,257	3,419	3,619	3,726	3,576	3,314	3,031	2,779	2,930	2,433
	Internal power station consumption	443	477	509	560	566	534	573	571	482	597	496
	Transmission loss	174	181	248	278	280	323	340	285	291	472	380
	Total power sold (= power consumption)	2,379	2,599	2,662	2,781	2,880	2,719	2,401	2,175	2,006	1,861	1,557
Demand	Industry & construction	1,633	1,799	1,837	1,871	1,911	1,803	1,498	1,413	1,177	1,189	1,010
	Transport & communications	145	161	178	182	185	175	110	101	88	59	49
	Agriculture	85	91	102	103	123	116	75	44	24	49	40
	Communal housing	327	343	351	358	370	349	362	308	310	430	357
	Other	189	205	194	267	291	276	355	309	407	134	101

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*

Table 2–4–4 Electric Power Generated by CES (1985–1995)

(Units: million kWh)

CES System	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Total CES power generation	2,480	2,830	2,991	3,169	3,090	2,966	2,728	2,612	2,481	2,523	–
Internal power station consumption	430	460	494	525	519	538	526	525	552	562	–
Net power generated by CES	2,050	2,370	2,497	2,644	2,571	2,428	2,202	2,087	1,929	1,961	–
Imports	153	87	70	75	158	228	84	102	197	215	380
Exports	53	38	32	58	77	76	33	68	53	60	–
CES power supply	2,150	2,419	2,535	2,661	2,652	2,580	2,253	2,121	2,073	2,116	–
Transmission loss	169	234	195	234	242	323	257	287	289	262	–
Power sales	1,981	2,185	2,340	2,427	2,410	2,257	1,996	1,834	1,784	(*)1,854	(*)1402
CES maximum power (MW)	–	–	–	–	–	–	524	491	468	485	–

Source: ADB (1996), *TA No.2095-MON Power System Master Plan.*
International Development Center of Japan (1993), *Basic Study for Formulating Economic Cooperation—Mongolia.*
ADB (1995), ADB Mission Estimates.

* Power sales data for 1994 and 1995 according to the ADB Mission Estimates (1995) are 1,669 and 1,402 respectively.

Figure 2-5 Mongolia's Educational System

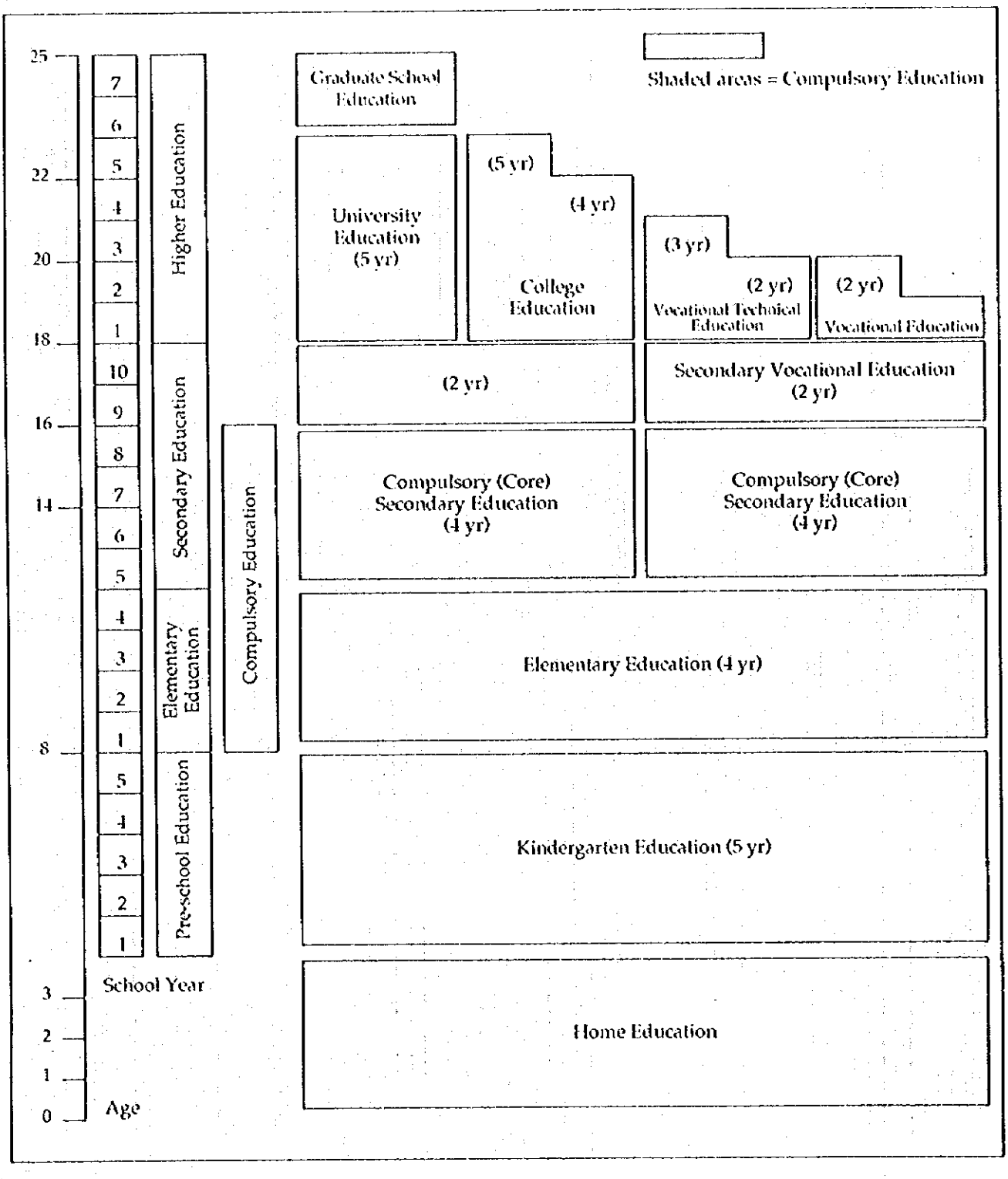


Table 2–5–1 Number of Schools

	1991	1992	1993	1994	1995
Total schools	782	845	762	736	757
General compulsory education schools	643	679	663	659	661
Vocational training schools	40	34	21	18	16
Universities	7	28	34	27	51 Includes technical schools
Private technical schools				31	

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995*.

Table 2–5–2 Number of Students

(Units: 1,000 persons)

	1991	1992	1993	1994	1995
General compulsory education schools	411.7	384.0	371.1	381.2	402.0
Vocational training schools	19.3	11.1	(n.a.)	2.7	(n.a.)
Higher technical schools	15.8	10.9	(n.a.)	5.6	(n.a.)
Universities	17.5	17.5	(n.a.)	26.3	42.0

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995*.

Table 2–5–3 Number of Teachers

(Units: 1,000 persons)

	1991	1992	1993	1994	1995
Total teachers	24.2	23.0	22.7	(n.a.)	31.0
Teachers in compulsory education	20.5	19.4	19.2	(n.a.)	(n.a.)
Teachers in technical schools	3.7	3.6	3.5	(n.a.)	(n.a.)

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995*.

Table 2-6-1 Health and Medical Care Indicators—Survey Regions and Nationwide

	Ulaanbaatar City	Darhan City	Zavhan aimag	National Average/Total*
Population (1,000 persons)	608.6	87.9	104.2	2,280.0 *
Annual per capita medical expenditure (Tg)	1,055.8	809.1	679.5	768.7
No. of physicians (per 10,000 population)	55.7	28.3	16.1	26.6
No. of hospital beds (per 1,000 population)	5.1	9.7	10.5	11.0
No. of home physician clinics	365.0	37.0	9.0	619.0 *
Morbidity rate (per 10,000 population)	10,472.7	7,488.6	4,666.9	7,509.4
Infant mortality rate (per 1,000 births)	51.2	53.5	63.8	59.8
Maternal mortality rate (per 10,000 births)	11.0	29.0	47.0	20.0

*Totals only; US$1 = 460 Tg

Source: Center for Health Statistics and Information, Ministry of Health (1993), *Health Statistics of Mongolia 1960-1992*.

State Statistical Office of Mongolia (1994), *Population of Mongolia*.

Table 2-6-2 Changes in Employment and Unemployment

	1987	1988	1989	1990	1991	1993	1994
Economically active population	619.8	645.1	663.2	697.1	721.2	844.7	861.4
No. of employees (a)	598.4	616.2	633.2	651.4	665.8	722.8	726.5
No. of unemployed (b)	21.4	28.9	30.0	45.7	55.4	71.9	74.9
Unemployment rate (%, c)	3.5	4.5	4.5	6.6	7.7	8.5	8.7

NB: No. of unemployed denotes registered individuals.
a: annual average; b: year-end figure; c = b/a expressed as percentage

Source: State Statistical Office of Mongolia (1995), *Mongolian Economy and Society in 1994*.

Table 2-6-3 Changes in Unemployment Statistics

(End of term)

Year	Month	Economically Active Population (1,000 persons)	No. of Unemployed (1,000 persons)	Unemployment Rate (%)
1989		879.4	10.3	1.2
1990		927.9	24.8	2.7
1991		976.4	55.4	5.7
1992	I		54.4	
	II		51.9	
	III		54.4	
	IV		54.0	
1993	I		55.6	
	II		60.0	
	III		62.1	
	IV		71.9	
1994	I		72.5	
	II		73.6	
	III		75.6	
	IV		74.9	
1995	I		62.2	
	II		46.2	
	III		47.3	
	IV		45.1	(5.2)
1996	1		46.2	
	2		46.4	
	3		47.5	
	4		48.4	
	5		49.1	(5.7)

Source: State Statistical Office of Mongolia (1996), *Mongolian Economy and Society in 1995.*
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Appendix 2. References

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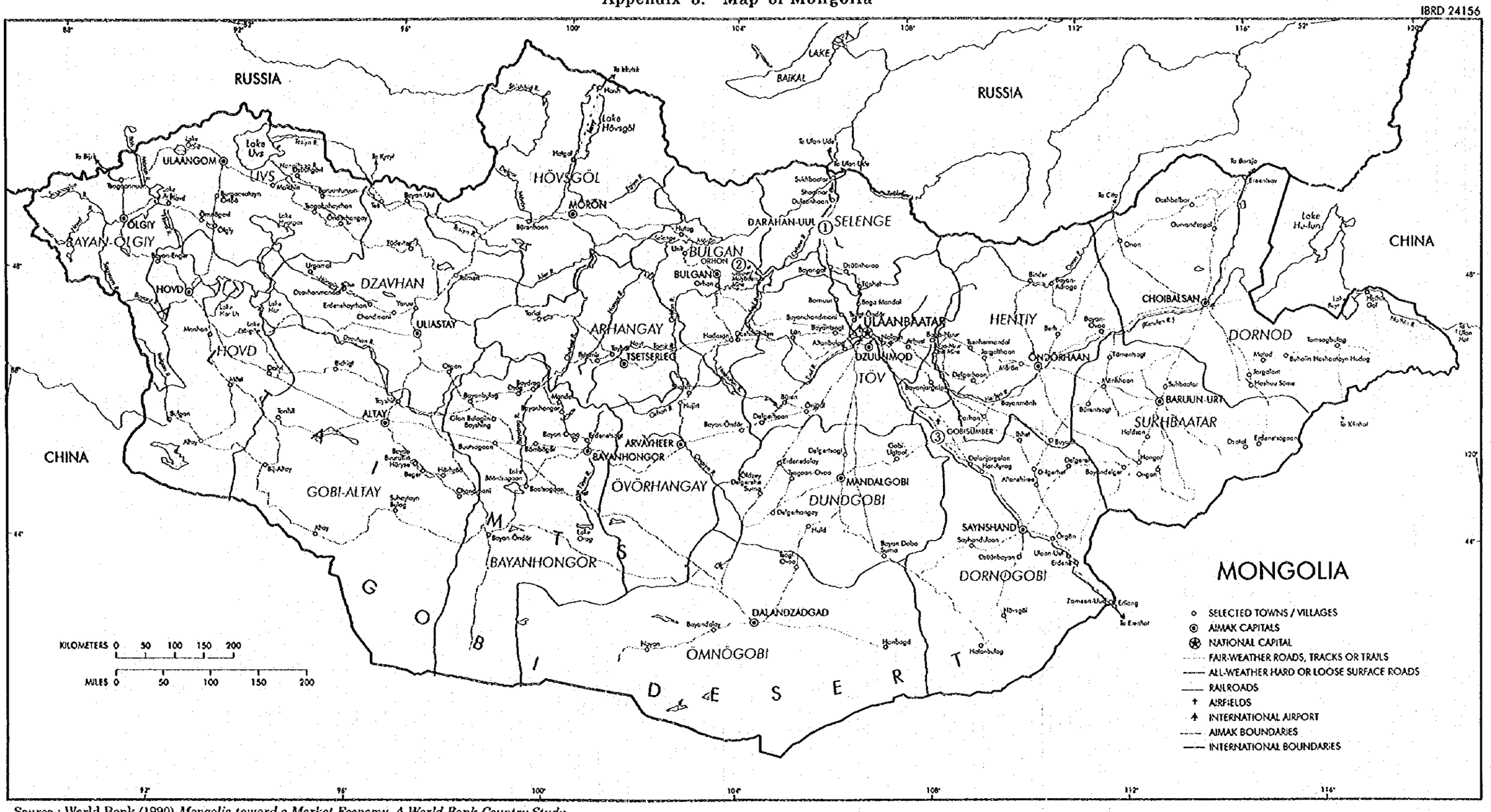
Appendix 3. Map of Mongolia



Source : World Bank (1990), *Mongolia toward a Market Economy, A World Bank Country Study.*

The State Great Khural adopted the resolution (No.32) to establish the following 3 new *aimags* in May 1994.

① DARHAN－UUL

② ORHON

③ GOBISÜMBER