

Chapter 2. The Society and Its Environment



A balladeer playing a two-stringed morin huur

IN 1986 MONGOLIA CELEBRATED the sixty-fifth anniversary of the revolution that had begun the transformation of a traditional feudal society of pastoral nomads into a modern society of motorcycle-mounted shepherds and urban factory workers. The reshaping of Mongolian society reflected both strong guidance and a high level of economic assistance from the Soviet Union. The relations between Mongolia and the Soviet Union have been extremely close. The ruling Mongolian People's Revolutionary Party has so faithfully echoed the line of the Communist Party of the Soviet Union that some Western observers have doubted the reality of Mongolia's independence.

From Ulaanbaatar, however, issues of autonomy and the path of social development are seen differently. Of all the peoples of Inner Asia—Uighurs (see Glossary), Uzbeks (see Glossary), Kirghiz, Tibetans, Tajiks, and others—only those in Mongolia retain any degree of independence. As a small nation of barely 2 million people, caught between two giant and sometimes antagonistic neighbors, China and the Soviet Union, Mongolia has had to accommodate itself to one or the other of those neighbors. Twice as many Mongols live outside the boundaries of Mongolia (3.4 million in China and .5 million in the Soviet Union), as live within it, and the fate of the larger Mongol population of China, who have become a 20 percent minority in the Nei Monggol Autonomous Region—once part of their own country—demonstrates that alternatives to the pro-Soviet alignment might well be less attractive. In the opinion of most Western observers, most Mongolians traditionally have tended to view the Soviet Union as a model of modern society, and the Russian language has been the vehicle for the introduction of science and modern technology and for contacts with the larger communist world.

Mongolia in 1921 was an exceptionally economically undeveloped society in which nomadic herders, illiterate and marginally involved in a market economy, constituted most of the population. They supported some petty nobles and a large number of Buddhist monks. The society's dominant institution was the Buddhist monastic system, which enrolled much of the adult male population as monks. Such limited commerce as existed was controlled by Chinese merchants, to whom the native nobility was heavily in debt. The only avenue of mobility and escape from broad and ill-defined obligations to hereditary overlords was provided by

entrance to the Buddhist clergy, whose monks devoted themselves primarily to otherworldly and economically unproductive pursuits. The population appears to have been declining, because of high death rates from disease and poor nutrition, the large proportion of celibate monks, and high levels of infertility caused by venereal disease.

Against such a historical foundation, claims that contemporary Mongolia represents a completely new society are quite plausible. In many ways, the society has been transformed, and in the 1980s rapid social change continued. The ruling party saw the nation as having leaped directly from feudalism to socialism, bypassing the capitalist stage of development. Many of the forms of socialist organization, particularly in the rapidly growing urban and industrial sectors, appeared to be direct copies of Soviet models, with some modification to fit the Mongolian context. The population has nearly tripled since 1920, as the government pursued a pro-natal policy rare among developing nations. Mongolia's herds of livestock, which outnumbered the human population by at least ten-to-one, had been collectivized, and herders in the 1980s worked as members of pastoral collectives that drew up monthly and annual plans for milk and wool production.

By 1985 a slim majority of Mongolia's population was urban, working in factories and mines, and increasingly housed in Soviet-model, prefabricated highrises. Public health and education had been the objects of intense development, which by the 1980s had produced vital rates approaching those of developed nations and nearly universal literacy among the younger generation. Much of Mongolia's industrial development and urban growth has taken place since the mid-1970s and has been so recent that the country was only beginning to recognize the problems attending rapid industrialization, urbanization, and occupational differentiation.

The drive for modernization along Soviet lines has been accompanied by an equally strong, but much less explicitly articulated, determination to maintain a distinctive Mongolian culture and to keep control of Mongolia's development in Mongolian hands. Although the topic was politically sensitive, Mongolia's leaders were nationalists as well as communists, and they aspired to much more independence than was permitted to the "national minorities" of the Soviet Union and China with whom the Mongolians otherwise had so much in common.

Geography

Landforms

The terrain is one of mountains and rolling plateaus, with a high degree of relief (see fig. 4). Overall, the land slopes from the high

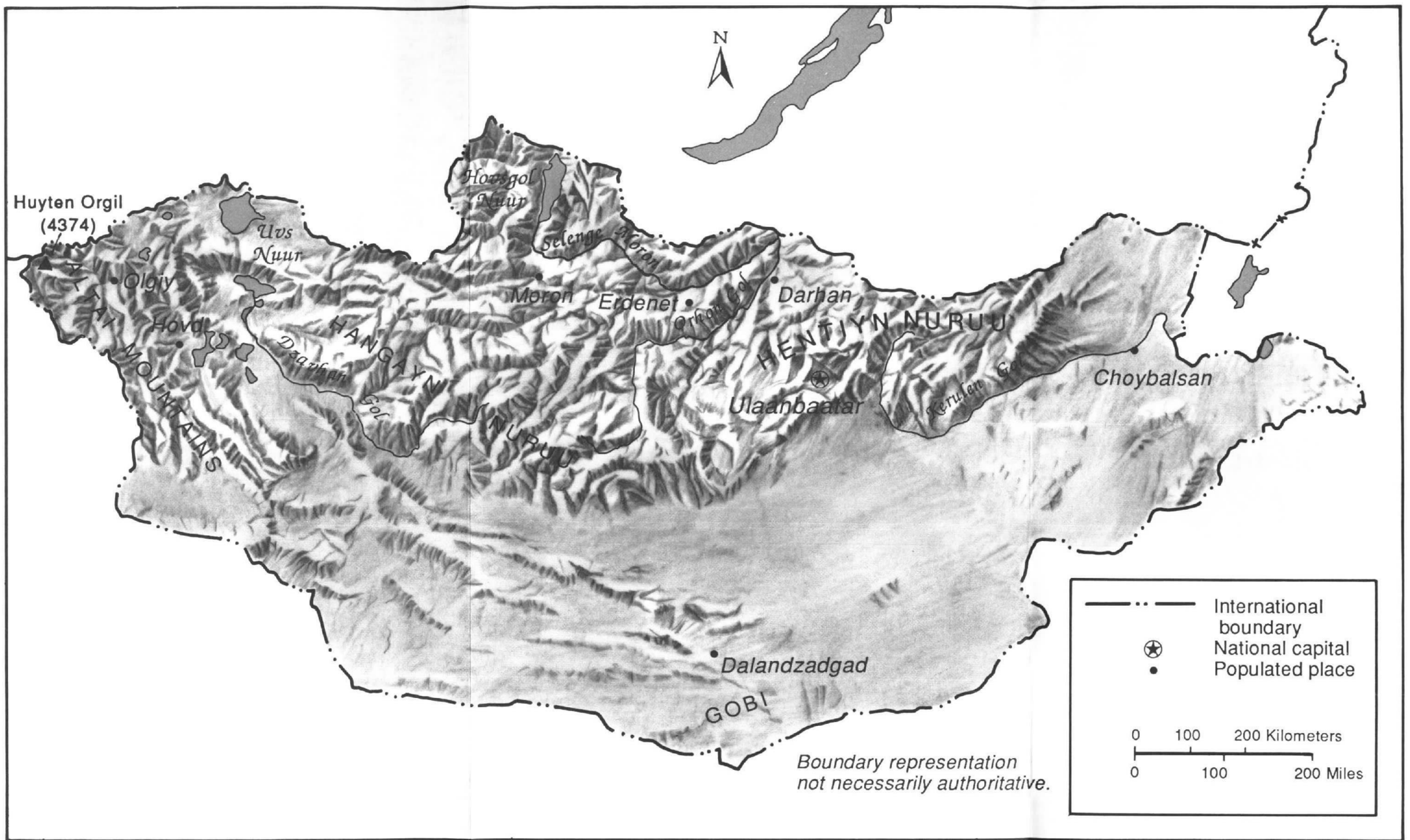


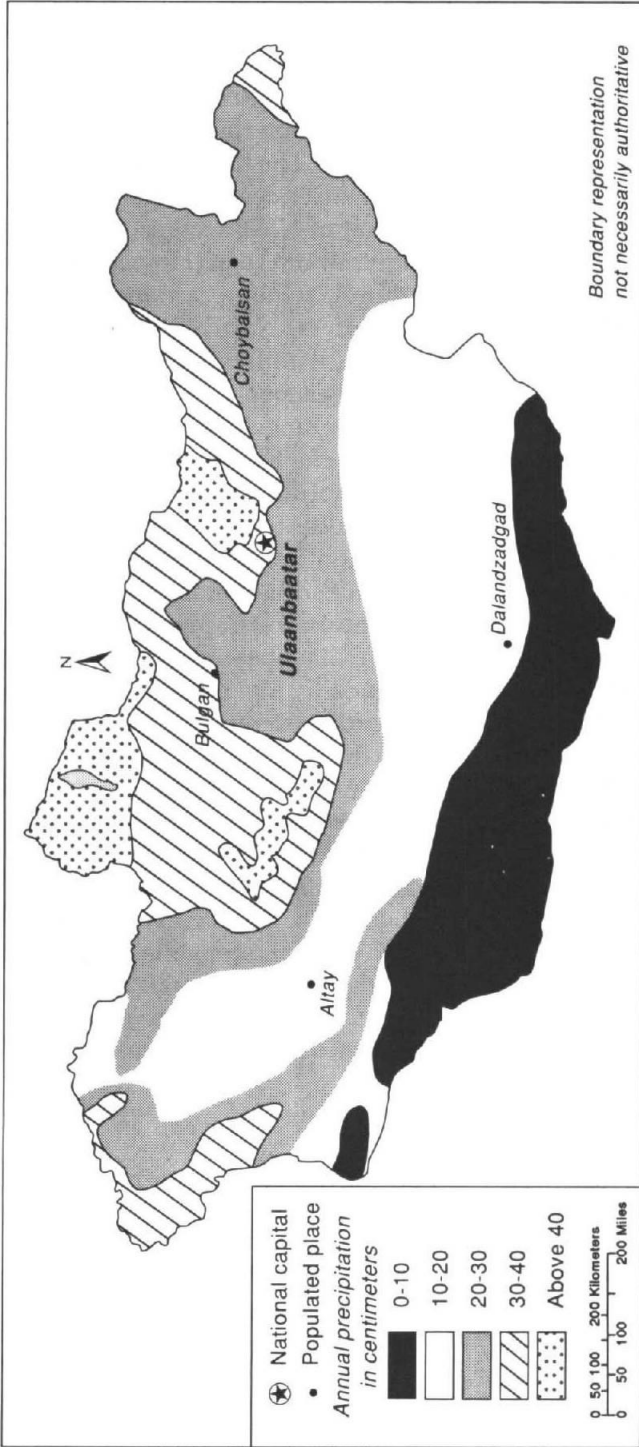
Figure 4. Topography and Drainage

Altai Mountains of the west and the north to plains and depressions in the east and the south. Hutyen Orgil (sometimes called Nayramadlin Orgil—Mount Friendship) in extreme western Mongolia, where the Mongolian, the Soviet, and the Chinese borders meet, is the highest point (4,374 meters). The lowest is 560 meters, an otherwise undistinguished spot in the eastern Mongolian plain. The country has an average elevation of 1,580 meters. The landscape includes one of Asia's largest freshwater lakes (Hovsgol Nuur), many salt lakes, marshes, sand dunes, rolling grasslands, alpine forests, and permanent montane glaciers. Northern and western Mongolia are seismically active zones, with frequent earthquakes and many hot springs and extinct volcanoes.

Mongolia has three major mountain ranges. The highest is the Altai Mountains, which stretch across the western and the south-western regions of the country on a northwest-to-southeast axis. The Hangayn Nuruu, mountains also trending northwest to southeast, occupy much of central and north-central Mongolia. These are older, lower, and more eroded mountains, with many forests and alpine pastures. The Hentiyn Nuruu, mountains near the Soviet border to the northeast of Ulaanbaatar, are lower still. Much of eastern Mongolia is occupied by a plain, and the lowest area is a southwest-to-northeast trending depression that reaches from the Gobi region in the south to the eastern frontier. The rivers drain in three directions: north to the Arctic Ocean, east to the Pacific, or south to the deserts and the depressions of Inner Asia. Rivers are most extensively developed in the north, and the country's major river system is that of the Selenge Moron, which drains into Lake Baykal. Some minor tributaries of Siberia's Yenisey River also rise in the mountains of northwestern Mongolia. Rivers in northeastern Mongolia drain into the Pacific through the Argun and Amur (Heilongjiang) rivers, while the few streams of southern and southwestern Mongolia do not reach the sea but run into salt lakes or deserts.

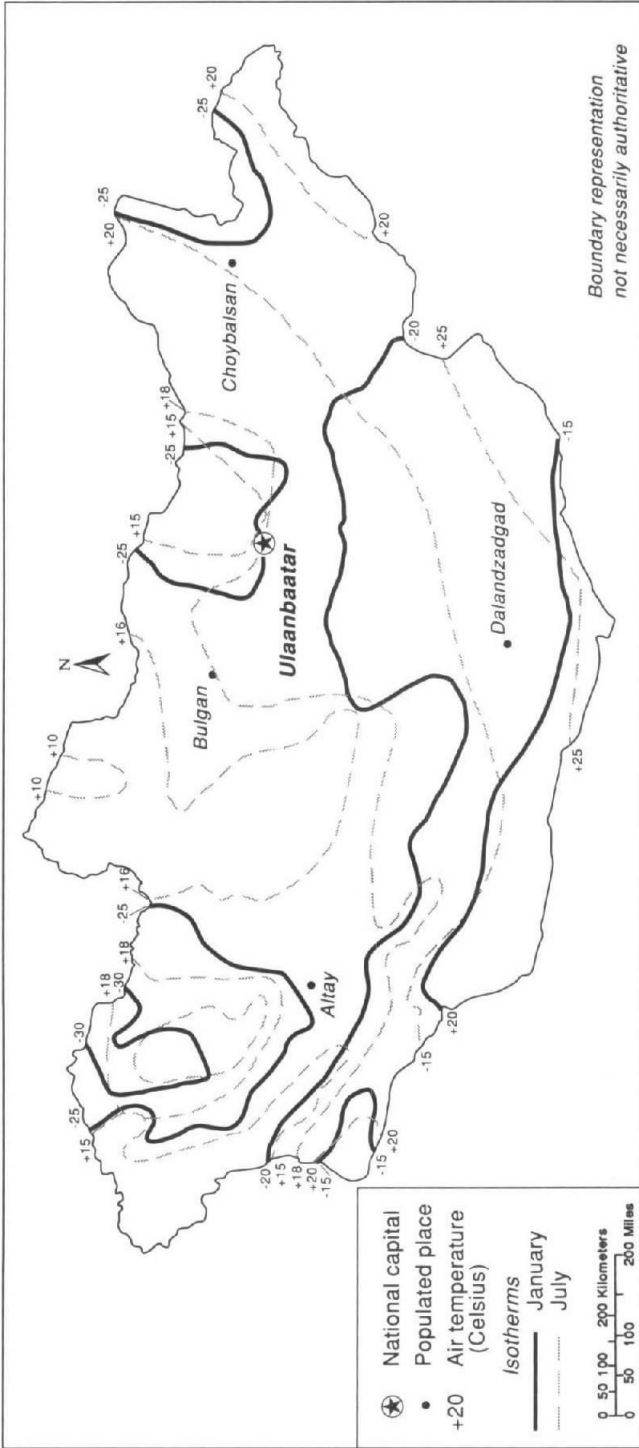
Climate

Mongolia is high, cold, and dry. It has an extreme continental climate with long, cold winters and short summers, during which most precipitation falls. The country averages 257 cloudless days a year, and it is usually at the center of a region of high atmospheric pressure. Precipitation is highest in the north, which averages 20 to 35 centimeters per year, and lowest in the south, which receives 10 to 20 centimeters (see fig. 5). The extreme south is the Gobi, some regions of which receive no precipitation at all in most years. The name Gobi is derived from the Mongol word *govi*, meaning



Source: Based on information from USSR, Council of Ministers, Main Administration of Geodesy and Cartography, *Mongol'skaia Narodnaia Respublika, spravocnaia karta* (Mongolian People's Republic, Reference Map), Moscow, 1975.

Figure 5. Precipitation



Source: Based on information from Mongolia, State Construction and Architecture Commission, Geodesy and Cartographic Office, *Bugd Nairamдах Mongol Ард Улс* (Mongolian People's Republic), Ulaanbaatar, 1984.

Figure 6. Temperature

desert, depression, salt marsh, or steppe, but which usually refers to a category of arid rangeland with insufficient vegetation to support marmots but with enough to support camels. Mongols distinguish *govi* from desert proper, although the distinction is not always apparent to outsiders unfamiliar with the Mongolian landscape. *Govi* rangelands are fragile and are easily destroyed by overgrazing, which results in expansion of the true desert, a stony waste where not even Bactrian camels can survive.

Average temperatures over most of the country are below freezing from November through March and are about freezing in April and October. January and February averages of -20°C are common, with winter nights of -40°C occurring most years. Summer extremes reach as high as 38°C in the southern Gobi region and 33°C in Ulaanbaatar. More than half the country is covered by permafrost, which makes construction, road building, and mining difficult. All rivers and freshwater lakes freeze over in the winter, and smaller streams commonly freeze to the bottom. Ulaanbaatar lies at 1,351 meters above sea level in the valley of the Tuul Gol, a river. Located in the relatively well-watered north, it receives an annual average of 31 centimeters of precipitation, almost all of which falls in July and in August. Ulaanbaatar has an average annual temperature of -2.9°C and a frost-free period extending on the average from mid-June to late August (see fig. 6).

Mongolia's weather is characterized by extreme variability and short-term unpredictability in the summer, and the multiyear averages conceal wide variations in precipitation, dates of frosts, and occurrences of blizzards and spring dust storms. Such weather poses severe challenges to human and livestock survival. Official statistics list less than 1 percent of the country as arable, 8 to 10 percent as forest, and the rest as pasture or desert. Grain, mostly wheat, is grown in the valleys of the Selenge river system in the north, but yields fluctuate widely and unpredictably as a result of the amount and the timing of rain and the dates of killing frosts. Although winters are generally cold and clear, there are occasional blizzards that do not deposit much snow but cover the grasses with enough snow and ice to make grazing impossible, killing off tens of thousands of sheep or cattle. Such losses of livestock, which are an inevitable and, in a sense, normal consequence of the climate, have made it difficult for planned increases in livestock numbers to be achieved (see Agriculture, ch. 3).

Environmental Concerns

After many years of uncritical fostering of industrial and urban growth, Mongolia's authorities became aware in the late 1980s of

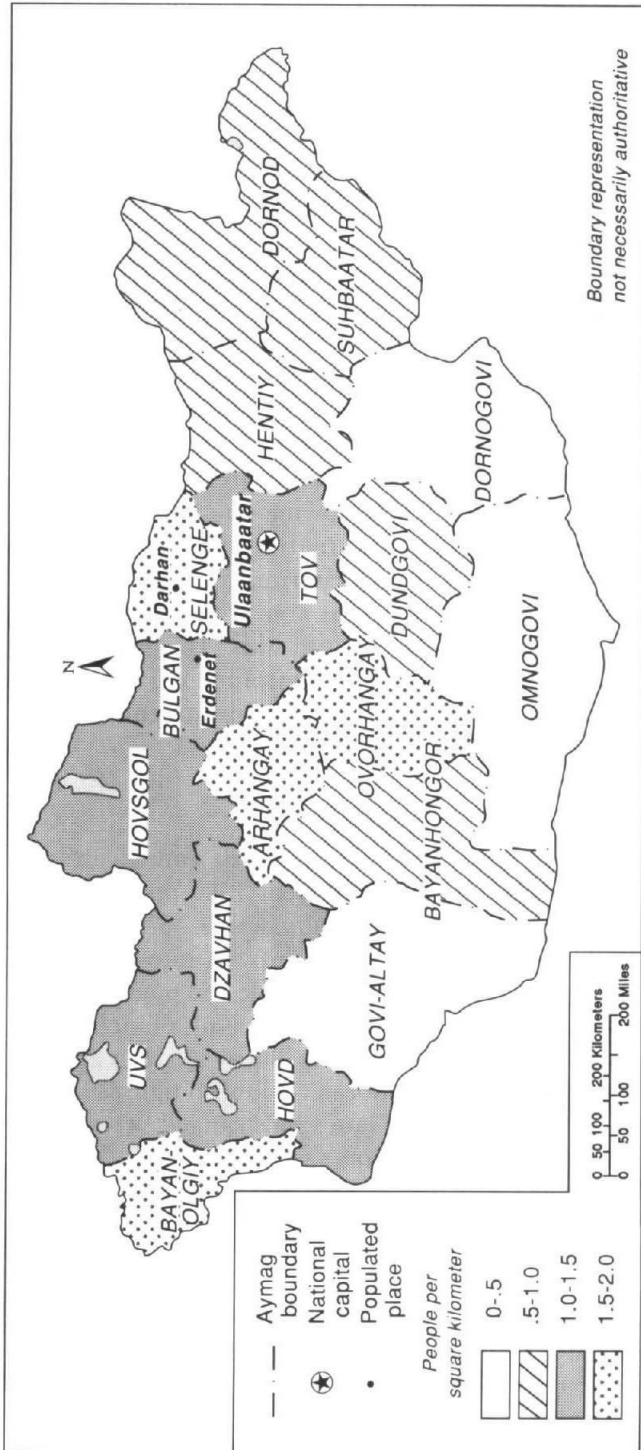
the environmental costs of such policies. Belated Soviet concern over the pollution of Lake Baykal encouraged Mongolian actions to preserve their counterpart Hovsgol Nuur, which is linked to Lake Baykal through the Selenge Moron. A wool-scouring plant that had been discharging wastes into Hovsgol Nuur was closed; truck traffic on the winter ice was banned; and the shipping of oil in barges on the lake was stopped. Deforestation in the Hangayn Nuruu, had reduced the flow of northern Mongolia's rivers, which were polluted by runoff from the fertilized and pesticide-treated grain fields along their banks, by industrial wastes, and by untreated sewage from growing settlements. Ulaanbaatar—located in a valley—with factories and 500,000 inhabitants who depend on soft coal, had severe air pollution, especially when the air was still and cold in winter. Deforestation, overgrazing of pastures, and efforts to increase grain and hay production by plowing up more virgin land had resulted in increased soil erosion, both from wind and from heavy downpours of the severe thunderstorms that bring much of Mongolia's rain. In the south, the desert area of the Gobi was expanding, threatening the fragile *govi* pasturelands. The government responded by founding the Ministry of Environmental Protection in 1987 and by giving increased publicity to environmental issues.

Population

Vital Rates

Mongolia's population is sparsely distributed, young, and increasing rapidly. With an estimated midyear 1989 population of 2,125,463, the average population density was 1.36 people per square kilometer (see fig. 7). The annual growth rate was about 2.7 percent, which, if sustained, would double the population in 27 years. The rate of natural increase was the result of high birth-rates and of death rates that were relatively low by world standards (see table 2, Appendix). Mongolia does not publish figures for infant mortality, but estimates in the late 1980s ranged between 49 and 53 per 1,000 births. The population's sex ratio was nearly even, with official 1986 figures showing 50.1 percent of the total population as male and 49.9 percent as female.

Such high population growth was one of the most striking examples of the profound transformation of traditional Mongolian society. The high growth rate dated only to the late 1950s, when the effects of improved public health and medical services were reflected in sharply reduced death rates. Despite a growth rate of under 3 percent, government statistics claimed that the population doubled between 1963 and 1988. The rate of population increase



Source: Based on information from Mongolia, Central Statistical Board, *National Economy of the Mongolian People's Republic for 65 Years, 1921-1986*, Ulaanbaatar, 1986, 83-84.

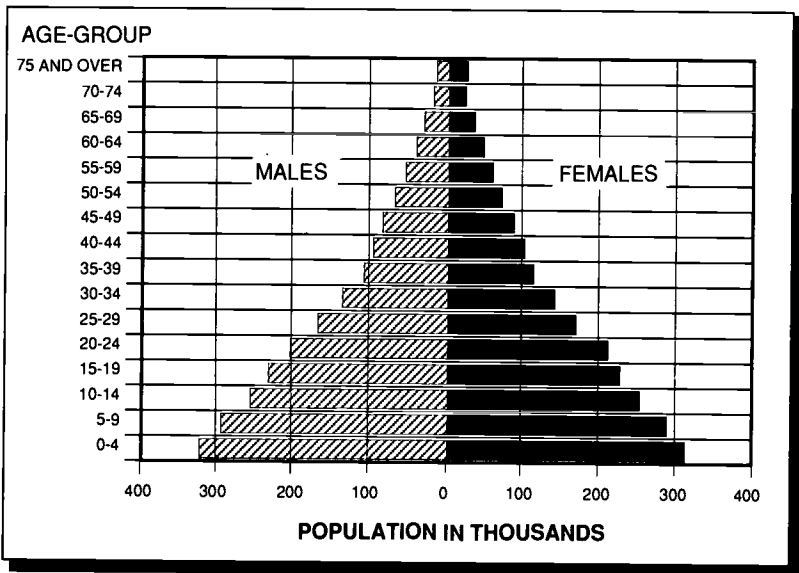
Figure 7. Population Density, 1986

had peaked in 1960 at 3.27 percent, but it had declined to about 2.7 percent by 1989. Such a quickly growing population was necessarily a young population. In 1988 population experts in a World Bank publication projected that by 1990 72 percent of Mongolia's population would be fourteen years old and younger (see fig. 8).

Pro-natal Policies

A larger population has been a long-standing goal of the government, which provided a series of incentives to encourage large families. A labor shortage has provided the primary overt justification for the policy, and economic aid from the Soviet Union has enabled Mongolia to meet the costs of supporting a large and economically unproductive cohort of children. Because the economy of Mongolia was to a large extent integrated with that of eastern Siberia, where the Soviet Union has suffered endemic labor shortages, encouraging the growth of the Mongolian population and labor force was in the interest of the Soviet Union (see *Socialist Framework of the Economy*, ch. 3). Reinforcing the policy may be a desire to ensure the survival of Mongols as an ethnic group and to boost the initially somewhat questionable legitimacy and sovereignty of the Mongolian People's Republic by occupying the land and by ensuring that key institutions and enterprises are staffed by Mongolians rather than by management imported at the behest of the Soviet Union.

The government and the ruling party put no obstacles in the way of early marriages, and engagements and marriages among university students were common. In 1985 there were 6.3 marriages and 0.3 divorces per 1,000 people. A March 1989 Mongolian newspaper reported that every twentieth marriage broke up, that more than 15,000 mothers were receiving alimony from former husbands, and that 45,000 of the 870,000 children aged fifteen and younger were illegitimate. When resident Chinese laborers were expelled from Mongolia in the late 1960s as a result of the Sino-Soviet conflict, their alleged offenses included the possession and the distribution of contraceptives (see *Socialist Construction Under Tsendenbal, 1952-84*, ch. 1). Childbearing was promoted as every woman's patriotic obligation, and exhortations to fecundity were backed up by a range of material incentives (see *The Position of Women*, this ch.). Working women were granted a maternity leave of 101 days, and the Labor Law prohibited dismissal of pregnant women and of those with children younger than one year. Parents received family allowances in cash; subsidies, paid to families with more than four children younger than sixteen, could amount to as much as an average industrial wage. Women with five or more



Source: Based on information from K.C. Zachariah and My T. Vu, *World Population Projections, 1987-88 Edition*, Baltimore, 1988, 282.

Figure 8. Age-Sex Ratio, 1990 Projection

living children received the Order of Maternal Glory, Second Class, medal and an annual subsidy of 400 tugriks (for value of the tugrik—see Glossary) per child; those with more than eight children received the Order of Maternal Glory, First Class, and 600 tugriks per child. The medals entitled the mothers to all-expenses paid annual vacations of two weeks at the hot springs spa of their choice, steep discounts in fees for child care, and other benefits. Marriage and childbearing also were promoted by a special tax (of an unspecified amount) levied on unmarried and childless citizens between the ages of twenty and fifty. Full-time students in secondary schools and colleges were exempted from this tax, as were military conscripts.

The birth needed to bring the current Mongolian population to 2 million was the occasion for national celebration in 1987. The government's Central Statistical Board determined that one of the 260 babies born July 11 (Mongolia's National Day) was the 2 millionth citizen. Twenty-five of the babies were selected as "Two Million Babies." The state awarded each of their families two new residences (probably apartments), the Children's Foundation awarded each a 5,000-tugrik subsidy (industrial wages range from an average of 550 tugriks to a high of 900 tugriks per month), and local governments and the parents' workplaces also gave gifts.

Population Distribution

The 1979 census showed that 51 percent of the population was urban, and this percentage remained unchanged through 1986. Rural population density in the mid-1980s was highest in the well-watered regions of the north and the west and lowest in the arid and desert areas of the south and the east. The country as a whole averaged 1.36 people per square kilometer, with rural densities in 1986 ranging from 1.9 people per square kilometer in Bayan-Olgii and Selenge *aymags* (see Glossary) to 0.22 people per square kilometer in Omnogovi Aymag (see fig. 1). The three largest cities—Ulaanbaatar, Darhan, and Erdenet—are in north-central Mongolia, on or near the main railroad line and the Selenge Moron or its major tributaries. Half the country's population lived in this core area, with its river valleys, productive upland pastures, coal and copper mines, and relatively well-developed transportation system. The remaining, much larger area—occupied by widely dispersed herders and by isolated administrative centers—was the economic and social periphery.

The Urban Population

The city system is dominated by Ulaanbaatar—a classic primate city far larger than the second-ranking or third-ranking cities—in which all important political, economic, and cultural functions are centralized. In 1986 Ulaanbaatar had 500,200 people, or nearly 25 percent of the nation's population. Its dominant position was demonstrated by the transportation system, which radiated out from Ulaanbaatar (see Transportation, ch. 3). The industrial center of Darhan, on the main railroad line north of Ulaanbaatar, had 74,000 people in 1986; Erdenet, founded in 1976 and built around a major copper and molybdenum mining complex, had 45,400. Fourth place went to Choybalsan, the industrial metropolis of eastern Mongolia in Dornod Aymag, which had 28,600 people in 1979. Fifth through tenth places were occupied by a set of *aymag* seats with populations in the 16,000-to-18,000 range in 1979. The lowest rung of the urban hierarchy was occupied by the headquarters of state farms or herding cooperatives, which usually featured administrative offices, primary schools with boarding facilities, clinics, assembly halls, fodder storage facilities, and the cooperative's motor pool and truck maintenance centers.

During the 1980s, the pace of urban residential construction was rapid, and an increasing proportion of the urban populace was housed in Soviet-designed, prefabricated four-story or high-rise apartment complexes. Such housing complexes—equipped with

heat from central plants and served by planned complexes of shops, schools, and playgrounds as well as by bus routes—represented the zenith of modernism and progress. Many people in cities continued to live in the traditional Mongolian round felt tents called *ger* (see Glossary). Mongolians do not regard *ger* as backward or shameful, even in Ulaanbaatar, but urban planners considered that the much higher population densities afforded by high-rise housing would permit optimum use of often-scarce flat ground and would afford the most efficient utilization of public transportation and public utilities such as water and sewer lines.

Ethnic and Linguistic Groups

Mongols and Kazakhs

Mongolia's population is ethnically quite homogenous; about 90 percent of the populace speaks one of several dialects of the Mongol language. Mongol is an Altaic language, related to the Turkic languages, such as Uzbek, Turkish, and Kazakh (see Glossary), and more distantly to Korean and perhaps, in the opinion of some linguists, to Japanese. Except for the dialect of the Buryat Mongols, who predominantly inhabit the area around Lake Baykal in Siberia, and the dialects of scattered isoglosses in Mongolia, all dialects of Mongol spoken in Mongolia are readily understood by native speakers of the language. The Khalkha (see Glossary) Mongols are the largest element of the population. According to the 1979 census, they made up 77.5 percent of the population (see table 3, Appendix). The term *khalkha*, which means "shield," has been used at least since the mid-sixteenth century to refer to the nomads of the traditional Mongol heartland of high steppes and mountains. They have been the most thoroughly pastoral of all the Mongol tribes or subethnic groups, the nomads' nomads, and the least affected by foreign influences. In the twentieth century, they occupied most of the central and the eastern areas of the country. Khalkha Mongol is the standard language; it is taught in the schools and is used for all official business. The written language is based on the Khalkha of the Ulaanbaatar region, and when Mongol script was replaced by a Cyrillic alphabet between 1941 and 1946, the Russian Cyrillic was modified to suit the phonetic structure of Khalkha.

Another 12 percent of the population in 1979 spoke a variety of western or northern Mongol dialects, such as Dorbet, Dzakchin, Buryat, or the southeastern Dariganga. Speakers of these dialects were concentrated in their ancestral territories in far western or northwestern Mongolia in Hovd, Uvs, and Hovsgol *aymags*, or along

the Chinese frontier in the southeast. Ethnic distinctions among the various Mongol subgroups have been relatively minor; they have been expressed in oral traditions of historical conflicts among the groups, in such ethnic markers as women's headdresses or the shapes of boots, and in such minor variations in pastoral technique as placement of camels' nose pegs (see *Mongolia in Transition, 1368-1911*, ch. 1). Apart from immediate adaptation to different environments, Mongol culture has been relatively uniform over large areas, and dialect or tribal differences have not become significant political or social issues.

Mongolia's largest minority, accounting for 5.3 percent of the population in 1979, is the Kazakh people of the Altai. The Kazakhs, who also live in the Soviet Union's Kazakh Soviet Socialist Republic and in China's Xinjiang-Uygur Autonomous Region, are a pastoral, Turkic-speaking, and traditionally Muslim people who live in Bayan-Olgii Aymag in extreme western Mongolia. Bayan-Olgii is a largely Kazakh administrative unit, where the Kazakh language is used in the primary schools and in local administrative offices. There is a fairly high level of contact with the Soviet Union's Kazakh Republic, which provides textbooks for the schools. Kazakhs of the Altai traditionally have hunted from horseback with trained golden eagles on their wrists and greyhounds slung across the saddle—both to be launched at game—and pictures of eagle-bearing Kazakhs are common in Mongolian tourist literature. Mongol is taught as the second language and Russian as the third in Kazakh schools, and bilingual Kazakhs appear to participate in the Mongolian professional and bureaucratic elite on an equal footing with Mongols. Kazakhs also make up a disproportionate number of the relatively highly paid workers in the coal mines of north-central Mongolia; this situation may indicate either limited opportunities in the narrow valleys of Bayan-Olgii Aymag or government efforts to favor a potentially restive minority, or both.

Chinese, Russians, and Others

The 1979 census identified the "nationality" of 5.5 percent of the population simply as "other," an undefined category that presumably included small numbers of Tungusic-speaking hunters and reindeer herders in the northeast, some Turkic-speaking Tuvins (see Glossary) in Uvs and Dzavhan *aymags*, and, in the Altai region, isolated clusters of Uzbeks and Uighurs (the latter of whom—whose ancestors migrated north from Xinjiang in north-western China—grow irrigated rice in the relatively sheltered Hovd Basin). The category also included Russian and Chinese residents, whose national and legal status is, perhaps intentionally, obscure.

Mongolia's 1956 census counted Chinese as 1.9 percent and Russians as 1.6 percent of the population, but as of 1989 no totals for those groups had been published since. The United States Government in 1987 estimated 2 percent of the population as Russian and 2 percent as Chinese.

Historically, the Gobi served as a barrier to large-scale Chinese settlement in what was, before 1921, called Outer Mongolia (see Glossary); the unsuitability of most of the territory for agriculture made southern settlement less attractive. The small Chinese population in the early 1920s consisted of merchants or peddlers, artisans working for Buddhist monasteries or Mongol aristocrats, and a few market gardeners near Ulaanbaatar (then called Niyslel—capital—Huree, or Urga—see Glossary) and the smaller population centers of the Selenge region (see Religion, this ch.). Many of the Chinese married or formed liaisons with Mongol women. Their children, who spoke Mongol as first language, were regarded as Chinese by the rules of patrilineal descent common to both Chinese and Mongols. In the early 1980s, Ulaanbaatar was reported to have a small Chinese community, which published a Chinese-language newspaper and which looked to the Chinese embassy for moral support. In 1983 the Mongolian government expelled about 1,700 Chinese residents, who were accused of “preferring an idle, parasitic way of life” to honest labor on the state farms to which they had been assigned. At the same time, ethnic Chinese who had become naturalized citizens were reported to be unaffected. Because the presence and the status of Chinese residents in Mongolia were politically sensitive subjects, Mongolian sources usually avoided mentioning the Chinese at all.

The same sources frequently referred to the Soviet residents of Mongolia, but they always described them as helpful foreigners who would return to their proper homes when their terms of service were over. Most presumably were not included in the Mongolian census figures. There were small numbers of descendants of Russian settlers along the border, and the “national” status of Buryat Mongols, Tuvins, or Kazakhs who at some point had crossed the border from their home territories in the Soviet Union was not clear. Thousands of Soviet nationals were working in Mongolia as technical experts, advisers, and skilled workers; they were a noticeable presence in Mongolian cities in the late 1980s. Erdenet, which was built around a joint Mongolian-Soviet copper-molybdenum mining and processing complex in the late 1970s, had a 1987 population of 40,000 Mongols and 10,000 Soviet workers on three-year contracts. In the 1980s, an estimated 55,000 Soviet troops were based in Mongolia, and some of them worked on

construction projects in cities (see *Threat Perception*, ch. 5). Although since 1920 many Russians have settled in the Tannu Tuva and Buryat Mongol regions of Siberia across the border from northern Mongolia, there has been no Russian migration to, and settlement in, Mongolia.

Society

Pastoral Nomadism

Almost every aspect of Mongolian society has been shaped by pastoral nomadism, an ecological adaptation that makes it possible to support more people in the Mongolian environment than would be true under any other mode of subsistence. Pastoralism is a complex and sophisticated adaptation to environments marked by extreme variability in temperature and precipitation, on time scales ranging from days to decades. Mongolia's precipitation is not only low on the average; it varies widely and unpredictably from year to year and from place to place. The dates of first and last frosts, and hence the length of the growing season, also vary widely. Such general conditions favor grasses rather than trees, and they produce prairies rather than forests. Grain can be grown under such conditions, but not every year. Any population attempting to support itself by cereal agriculture could expect to lose its entire crop once every ten years, or every seven years, or every other year, depending on the localities they were farming. Because ecological systems adapt to extreme limiting conditions rather than to the mean of variation, agriculture is not adaptive to Mongolian circumstances.

Pastoralism, however, permits societies to exploit the variable and patchy resources of the steppe. The key to pastoralism is mobility, which permits temporary exploitation of resources that are not sufficient to sustain a human and herbivore population for an entire year. Pastoralism may be combined with agriculture if a stable resource base, such as an oasis, permits, or agriculture may serve, as in central Mongolia, only to supplement herding and may be practiced only to the extent that labor is available.

A host of features of nomadic life reflect the demands and costs of mobility and of dependence on herds of animals to convert the energy stored in grasses to the milk and meat that feed the human population. Such societies commonly develop a conscious and explicit nomadic ethos, which values mobility and the ability to cope with problems by moving away from threats or toward resources and which disparages permanent settlement, cultivation of the earth, and accumulation of objects.

Societies based on pastoral nomadism do not exist in isolation, and nomads commonly live in symbiotic relationships with settled agriculturalists, exchanging animal products for grain, textiles, and manufactured goods. Both the nomads and the agriculturalists can, if necessary, survive without the goods provided by the other, but under most circumstances both benefit from exchange. Mongols typically dressed in sheepskin tunics covered with Chinese silk; drank tea from China; consumed a certain amount of millet, barley, and wheat flour; and used cooking pots and steel tools produced by non-nomadic smiths, some of whom were Mongols and some Turkic speakers or Chinese. However, the scattered nature of the population and the necessity of moving trade goods long distances by camel caravan limited the quantity of bulky goods available to nomads.

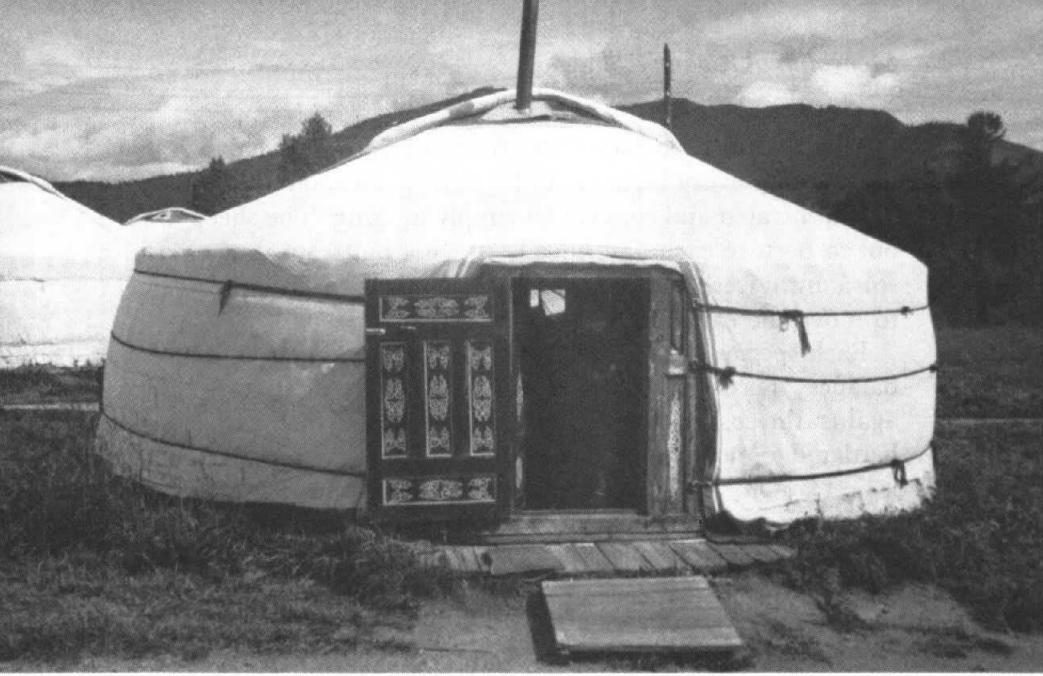
Pastoralism as a Cultural System

Mongolian society and culture developed in interaction with, and in conscious opposition to, that of settled agriculturalists, most of them Chinese. Along the ill-defined Inner Asian frontier between the lands with sufficient rainfall and warm weather to support agriculture and the grasslands most effectively exploited by pastoralists, people and cultural elements for centuries have moved in both directions, with some agriculturalists abandoning their marginal farms and becoming herders, and with some herders settling down either as dominant overlords or as laborers. Superimposed on the gradation and shading that are characteristic of frontier cultural and biological systems is a cultural system of ethnic groups that exaggerates distinctions and denies commonalities.

Much of Mongolian traditional culture thus goes beyond the objective, technical demands of pastoral life to a conscious glorification of the values of nomadism and a disparagement of practices associated with settlement in general and with Chinese culture in particular. Traditionally, Mongols not only preferred a diet of meat and milk, but they despised, and refused to eat, vegetables, justifying this with a proverb, "Meat for men, leaves for animals." Although Mongolian lakes and rivers are full of fish, traditionally Mongols did not eat fish. Mongols disdained the sort of regular, patient toil practiced by Chinese farmers or traders, and scorned any work that could not be performed from horseback. Such values and attitudes have presented severe obstacles to efforts to modernize Mongolian society.

Pastoralism in Practice

Mongols herd sheep, horses, cattle, goats, camels, and yaks. Although horses are the most valued animal, Mongols actually



A yurt or ger
Courtesy Regina Genton

depend on sheep for their basic livelihood. Horses are the focus of an elaborate cultural complex, in which the care of horses is a male prerogative, whereas tending and milking sheep is a female task. In Mongolian epics, the second lead is always the horse, which gives sound advice to the hero. In Mongolian chess, the most powerful piece is called the horse, rather than the queen. The national musical instrument is a bowed string instrument with a carved horse's head, called a *morin huur*, which, according to legend, was invented by a rider who used the rib bones and the mane of his favorite horse to make an instrument to express his sorrow at its death. Fermented mare's milk, *ayrag*, is the national drink; it is considered to have special nutritional and tonic qualities. State-owned mines and factories maintain special herds of horses to provide their workers with the *ayrag* they are thought to require to maintain their health.

Sheep provide milk, which is processed into butter, cheeses, and other dairy products; mutton, wool, and hide for clothes and tents; and dung for cooking and heating. Sheep can be herded on foot, with one person and a few dogs responsible for a flock. Mongolian dogs, which are famous for their ferocity and hostility to strangers, do not help herd sheep as Western sheepdogs do, but they protect

the flocks from wolves or other predators. Sheep are driven back to the camp every night, both for their protection and to provide a concentrated and convenient supply of dung. The sheep are led out to pasture each day, ideally moving out from the camp in a spiral until fresh pasture is so far away that it is more convenient to move the camp.

Each species of animal is herded separately, and herders must balance, therefore, the expected benefit from each type of animal against the cost of providing human labor to watch each separate herd and to move to the precise environment to which each animal is best suited. Sheep are basic, horses something of a luxury item, and other species are added to the camp inventory as labor power and environmental considerations dictate. The demands on human labor mean that a single household is not the optimal unit for herding. The basic unit in Mongol pastoralism is a herding camp, composed of two to six households, that manages its flocks as a single integrated economic unit. In the past, the members of a herding camp were usually, though not necessarily, patrilineal kinsmen. Membership of the herding camp was reconstituted on a year-to-year basis, with some households remaining in the same camp, others leaving to join different camps, and some camps dividing if their human and animal populations grew too large for effective operation. Under collectivization, herding camps remained the basic unit of pastoral production.

Constraints on Herding

The harsh winter provides the greatest challenge to pastoralists. The herds traditionally have spent the winter eating dried grasses on the range, with at most a stone corral for shelter from the worst winter blizzards. Since the 1950s, Mongolian authorities have worked to provide shelters and fodder for the herds. Catastrophic storms, coming in midwinter or at the spring lambing season, can wipe out entire herds or severely reduce their numbers. Herders move to special winter campsites, and they reduce the size of the herd to be carried on the winter pasture by slaughtering any animals thought unlikely to survive the winter. Late fall is the only time Mongols routinely slaughter animals; the meat, preserved by drying and freezing, sustains the people during the season when neither sheep nor horses are producing milk. (Mongols do not eat horse-flesh; Kazakhs do.) Mongols traditionally have consumed more milk products than meat; animals are slaughtered in seasons other than fall only for ceremonial occasions or for obligatory hospitality to guests.



*High-rise apartment building, Ulaanbaatar
Courtesy Steve Mann*

Winter conditions, which severely test the Mongols' ability to sustain their herds and hence themselves, throw the society's property system and the larger political structure into relief. The key element in bringing a herd through the winter is a suitable winter campsite, which must have a source of water near terrain sheltered from the worst storms but open enough for the wind to blow snow off the grasses. The number of winter campsites is limited, and their ownership always has been well-defined. In the past, they were owned privately by families under the residual ownership of the lowest-level local administrative unit known by a number of names, banners (see Glossary) being common. Now they are owned by the herding cooperative or state farm, which allocates them to herding camps.

Outsiders, who tended to observe Mongolian herders only in the summer, mistakenly assumed that they wandered randomly across an undifferentiated sea of grass. From a Mongolian perspective, however, the landscape was far from undifferentiated, and each move of a camp reflected a careful decision that matched the needs of the herd with an estimate of the condition of the grasses and the water supply at several known sites within a large, but bounded, territory. Traditionally, Mongols thought of ownership

and territory not, as an agriculturalist would, in terms of square kilometers or hectares of ground with a sharp line around them, but as rights to use certain strategic areas in the landscape, such as springs, streambanks adjacent to good pasture, or named and permanent winter campsites. Such areas were the objects of conflict between and among groups of herders; the larger political structure, both past and present, regulated access to these key resources and adjudicated claims to them.

Traditional Patterns

Mongolia's modern rulers, using common Marxist categories, describe society before 1921 as "feudal." The term, although not totally accurate, better fits traditional Mongolian society than it does many other societies that have undergone communist-directed revolutions. In traditional Mongolian society, almost all statuses were hereditary. Most exchanges were embedded in long-term, multifaceted social relations rather than transacted in an impersonal market through money; the political system was based on a hierarchy of all-embracing service owed to hereditary overlords; and such limited formal education and social mobility as existed took place within the monasteries of Tibetan Buddhism, or Lamaism (see Glossary). The society was dominated by hereditary nobles, who claimed descent from Chinggis Khan and governed the commoners. The nobles were vassals of the Manchu emperors of China's Qing Dynasty (1644–1911), and the hierarchy continued down to the level of the common herders (see *Caught Between the Russians and the Manchus*, ch. 1). In this system, people owed broad and ill-defined service, including military duty, the temporary provision of horses to those traveling on official business, and the supply of sheep and livestock on both fixed and special occasions to their overlords. Mongol social life was marked by an elaborate etiquette that expressed degrees of hierarchy and deference through words and gestures.

Above the level of the herding camp, Mongols were enrolled in larger groups that had exclusive rights to use of territory and were, in their formal structure, hereditary military units. Such groups, the names of which varied from place to place and from time to time (banner, *aymag*, and so forth), were established by political rulers, and people originally were allocated to them regardless of kinship or preexisting social bonds. Membership in such groups was thus fundamentally a political status. Although Mongols recognized exogamous lineages based on patrilineal descent, lineages were not political or property-holding groups, and their membership commonly was spread over several territorial groups.

Commerce was in the hands of foreign merchants, most of them Chinese. Traditional Mongols exhibited a cavalier disdain for money and practiced careful pecuniary calculation. Mongol aristocrats ran up huge debts to Chinese and Russian merchants, and when pressed by creditors, tried to exact more livestock or services from their dependent commoners. The merchants controlled the interface between the internal Mongol economy—which operated largely with the social mechanisms of reciprocity and redistribution—and the larger market economy, and they profited in the conversion from one economic sphere of exchange to the other. During the 1920s, foreign merchants were expelled from Mongolia, and the debts owed to them were repudiated.

The only alternative to the all-embracing feudal system of subordination was provided by the Tibetan Buddhist church, which recruited both young boys and men as monks, or lamas, and offered careers to those with talent. Although rational and bureaucratic in its organization and accounting, the Buddhist church was distinctly otherworldly, not interested in progress, and, with some justification, was considered the major obstacle to the modernization of Mongolian life. Between 1925 and 1939, it was destroyed as a significant political and social force (see *Modern Mongolia, 1911–84*, ch. 1; *Religion*, this ch.).

The structure of traditional Mongolian society consisted of a large number of equivalent units: herding camps; basic-level territorial units; and Buddhist monasteries, integrated only through their common subordination to political superiors and the shared values of Tibetan Buddhism and Mongol ethnicity. Most of the population occupied only a few occupational roles; herders and ordinary monks accounted for more than 90 percent of the population. Hereditary aristocrats—8 percent of the population—occupied a larger range of occupational roles and offices as political leaders and administrators; so did the higher monks, with their more differentiated internal organization. The society was traditional in its preference for status relations over contractual ones, for ascribed statuses over achieved ones, for functionally diffuse over functionally specific organization, and in its very low levels of division of labor.

Planned Modernization

Modernization in Mongolia has meant establishing new, special-purpose organizations, expanding the scope and responsibilities of the government, generating new occupational roles and hence increasing the division of labor, as well as formulating new mechanisms to integrate and to coordinate a society that is much more differentiated than its predecessor. Mongolia's modernization has,

furthermore, taken place at the direction of a political party and a foreign patron the ideology of which emphasizes rational planning and disparages the use of market mechanisms to integrate the society. In the 1980s, Mongolia's leaders and mass media continued to stress the necessity of planning, of meeting goals and targets, and of carrying on large-scale projects.

The former value of accommodation to, and harmony with, the natural world has been replaced by a fervent assertion of the dominion of man over nature and a major effort to control and to conquer the natural environment. Science in the form of veterinary medicine, artificial insemination, and selective breeding has been applied to the herds in the effort to reach the increases in sheep, yaks, horses, and goats that were set in the five-year plans (see Socialist Framework of the Economy, ch. 3). Mongolia's press has publicized the number of hectares of steppe planted with wheat and has praised the labor heroes who level mountains of copper ore or control huge excavators at open-pit coal mines. The application of the most up-to-date science and technology has been expected to result in "the comprehensive development of the productive forces of socialist society," which in turn would produce rapid economic growth and increases in people's prosperity. The value of control, over both the natural environment and the human population, was associated closely with the ideology of planning, and carrying out the dictates of the plan has been made a primary political virtue for Mongolian citizens.

Social change in modern Mongolia has consisted of the enrollment of previously self-sufficient herders into bureaucratically structured and economically specialized productive units, such as herding collectives or state factories and mines. Most Mongolians have become wage-earners, subject to labor discipline and to the supervision of a new class of managers and administrators, most of whom belong to the ruling Mongolian People's Revolutionary Party. In return for submission to labor discipline and surveillance, workers have received greater security and a range of welfare benefits from their enterprise or herding collectives. Benefits include free medical care and education, child allowances, sick leave and annual holidays, and old-age pensions. The government has made considerable efforts to reduce the gap between the benefits and the opportunities available to industrial workers and urban administrators and those provided to the pastoralists.

A modernized state farm and its machine operators were described in a Mongolian magazine in the 1980s. The drivers of tractors and combines were graduates of a three-year vocational secondary school, and each had a daily quota of plowing or

harvesting. Those who fulfilled their day's quota received a free lunch, "prepared by professional cooks," and overfulfillment of the daily quota brought additional remuneration. Like most Mongolian workers, they engaged in "socialist emulation" contests, a Soviet practice under which teams of workers competed to do a task quickly or to surpass a quota. Each worker was rated as a first-class machine operator or a second-class machine operator, and the skill rating, in combination with an increment for length of service, determined the wage level. The state farm's chief agronomist, a graduate of an agricultural college, toured the area on his motorcycle to check the quality of each day's plowing. The state farm's administrative center was described as an urban-style community with two-story buildings and such amenities as a secondary school, medical facilities staffed with physicians, day-care centers for children of working parents, shops, and a "palace of culture."

Modernization has meant the creation of a substantial body of planners, supervisors, accountants, and clerks. The state has clearly attempted to control and to monitor the performance of all workers, including herders, who had quotas for weekly and monthly production of milk, butter, cheese, and wool.

Unifying Structures

As the economy has developed, the population has increased, the society has grown more differentiated, the people have come to have less in common, and the need to coordinate and to integrate their activities has become more pressing. The society formerly was held together and was coordinated by a set of unifying structures, of which the most significant were the ruling party, the educational system, and a set of party-directed organizations intended to enroll nearly every Mongolian in their activities.

The Mongolian People's Revolutionary Party, like other ruling communist parties, directed the activities of all enterprises and large-scale organizations, from herding collectives to the national government (see Mongolian People's Revolutionary Party, ch. 4). Collective farms and factories usually were run by the first secretary of the local party branch, and the party made an effort to recruit outstanding workers and people with leadership and managerial potential. Party members belonged to two organizations, their work unit and the party, and were the intermediaries who linked enterprises and local communities with the national political system. Party members constituted most of the extensive ranks of administrators who ran the country on a day-to-day basis. They were political generalists, generic managers; those at the higher levels

usually had been trained in special party schools in the Soviet Union or in Ulaanbaatar.

In marked contrast with the past, almost all young Mongolians were enrolled in schools in the 1980s (see Education, this ch.). Eight years of schooling was claimed to be universal, and most cities and centers of collectives offered ten-year schools, usually with boarding facilities for the children of herders. Literacy among young people was reportedly nearly universal, and the schools provided explicit training in nationalism and party ideology. Like schools in most countries, Mongolian schools also provided the training in punctuality, respect for abstract rules and standards, and participation in collective tasks needed to prepare young people for employment in formal, bureaucratic organizations, including the military services (see Organization since 1968, ch. 5).

A set of organizations—trade unions, children's Young Pioneers, the Mongolian Revolutionary Youth League (modeled on the Soviet Komsomol, for people between the ages of fifteen and twenty-eight), the Mongolian Women's Committee, and various sports and hobby groups—was intended to enroll every member of the population and to ensure that citizens who were not members of the elite party nonetheless were exposed to its ideology, example, and leadership. Mass organizations were controlled by the party (see Mass Organizations, ch. 4). Although the extent to which mass organization actively enrolled and mobilized the citizenry was unclear, they claimed huge memberships—94.7 percent of all laborers and office and professional workers in state-owned enterprises belonged to trade unions in 1984; they were obviously intended to unify the populace and to promote identification with national goals (see Trade Unions, ch. 3). The responsibilities of the Mongolian Women's Committee included "the enlistment of women in the conscious performance of their civic and labor duty," which was accomplished through such means as annual rallies for female stockbreeders. By cutting across local and regional boundaries, the mass organizations promoted identification with the nation rather than the locality and with vocational or avocational rather than regional or ethnic interests.

Increasing Social Differentiation

Mongolia's economic development in the 1970s and the 1980s produced a population increasingly divided along occupational, educational, and regional lines. There were growing distinctions between workers and white-collar administrators; between urban and rural residents; between factory workers and pastoralists; between professionals, such as teachers and engineers, and the

*Traditional fur-lined coat and cap
Courtesy Prints and Photographs
Division, Library of Congress*



*Woman in sheepskin-lined coat
Courtesy Prints and Photographs
Division, Library of Congress*



politically elite generalist managers; between those with only a primary school education and the graduates of post-secondary institutions in Mongolia or the Soviet Union; and, perhaps, between residents of the economic core in north-central Mongolia and those of the larger, but more sparsely populated, peripheral regions. All these distinctions entailed differences in income, life chances, prestige, and power, and they indicated potential strains in the social and political system. The strains took the form both of increased competition for the more desirable occupations and of concern within the government and the party over the way policies and practices favored some segments of the population over others, such as industrial workers at the expense of pastoralists, or urban universities at the expense of rural primary schools.

The 51 percent urban population reported in the 1979 census reflected rapid migration to the cities in the 1970s. The influx of rural people created housing problems, among them long waits for assignment to an apartment, expansion of *ger* districts on the edges of built-up areas, and pressure to invest in more housing, roads, and other urban infrastructure. The 1979 census showed Mongolia's class structure to consist approximately 40 percent of workers, 39 percent of herders in cooperatives, and 21 percent of intelligentsia. The last term was not defined but presumably referred to those with at least secondary schooling and non-manual occupations.

Mongolia has suffered from a continual shortage of skilled labor and has had to rely on foreign workers. They come from the Soviet Union and the member countries of the Council for Mutual Economic Assistance (Comecon—see Glossary) on short-term contracts. At the same time, the ranks of Mongolian clerks, accountants, and low-level managers grew many fold, and Mongolian leaders occasionally alluded to problems in persuading young people to aim for careers as skilled workers or engineers rather than as office workers. The result of the government's great efforts to expand education has been a society very conscious of educational credentials; in some instances, the diploma is more significant than any substantive knowledge or skill it might represent.

The elite consisted of bureaucrats and ranking members of the Mongolian People's Revolutionary Party. Such people were usually male graduates of universities or military academies; they possessed a good command of Russian, had experience studying or working in the Soviet Union, and tended to live in Ulaanbaatar. They held positions in the *nomenklatura* (see Glossary), the Russian term denoting, narrowly, the elite administrative positions the ruling party filled by appointment and, more broadly, the elite "New Class" that dominated Soviet society. They had urban apartments, scarce

consumer goods, opportunities for foreign travel, the use of official vehicles, and access to first-rate medical care; they probably sent their children to universities and into professional occupations.

Under the managerial elite were technical specialists, such as engineers, doctors, professors, and financial and planning experts, who also were university-trained, fluent in Russian, and predominately urban. Below them were the comparatively large categories of industrial workers, employees of state farms, and administrative and clerical personnel. Such people had an occupational title or certification, and they received a regular wage from the state payroll.

At the bottom, or the edges, of the system were the nomadic herders, the *arads* (see Glossary). They had no vocational certification or formal job titles, and their incomes and livelihood still depended to a large extent on the vagaries of the weather. Although they were honored publicly as the prototypical Mongolian working class and the repository of traditional values, they were a shrinking segment of the population and one that few urbanites aspired to join. In spite of government efforts to raise their living standards, their dispersed and nomadic mode of livelihood limited access to such public services as health care and education. Their children could rise through the school system to the professional or administrative elite, but at the cost of long separation from their families in boarding schools. Unlike those of workers in the state sector of the economy, herders' incomes depended on the performance of the cooperatives, and that in turn rested on the weather and the health of the herds.

Collectivized Farming and Herding

Mongolian agriculturalists, most of whom were actually herders of animals, worked either for state-owned farms or for herding cooperatives. State farm workers were on the state payroll, just as were those who worked in state factories or for the national railroad. Influenced by the Soviet Union, state-owned farms represented a more creative adaptation of Soviet models to the Mongolian environment than did factories or government offices. In practice, membership was compulsory, and the collectives owned the means of production in the form of both the livestock herds and the rights to use pastures and winter campsites. Member families carried on a modified form of traditional herding by dispersed small herding camps of several households. Households were permitted to own a limited number of private livestock—analogueous to the private plot allocated to collective farmers—about 20 percent of the total herd. Households received much of their income in kind, and they earned

a share of the collective's profit from the sale of animals and animal products to state purchasing agencies. Their total income, in kind and in cash, varied, from year to year and from collective to collective, along with the condition of the herds and the weather.

The average herding cooperative had about 300 households. The cooperative employed some people as administrators, truck drivers, and the like, but most work consisted of the traditional tasks of herding and milking animals, and of producing butter, cheese, and wool products. As in the past, herding was done by herding camps of two to six households. The herding cooperatives in most cases had the same boundaries as the *somon* (see Glossary), the third-level administrative units into which Mongolia's eighteen *aymags* were divided, and the administration of the *somon* and the herding cooperative appeared to be in the same hands.

Modernized Nomads

In contrast to the period before the collectivization of herding, which was carried out in the late 1950s, the work of individual herders in the late 1980s was more closely supervised by administrative authorities. Herders were responsible for a herd of collective animals that usually included some of their privately held stock as well, thus providing an incentive for careful management. Herders with a record of losing too many animals or failing to meet monthly or annual quotas were deprived of custody of the collective animals and were reassigned to other tasks. The moves of the herds and the herding camps were plotted on a map in the cooperative's headquarters, and officials of the cooperative—riding on motorcycles or jeeps, and on a more limited basis, airplanes—scouted for good pasture and then told the herding camps where to move next. Moves from one campsite to the next usually were made, using the cooperative's jeeps or trucks, and sometimes crossing the roadless steppes at night with uncanny accuracy. The cooperatives attempted, with mixed success, to grow hay and other fodder, which was stored at the winter campsites, some of which had barns and sheds to shelter animals. Herding camps were assigned to winter campsites, which often were provided with stocks of coal and sometimes with portable electric generators to provide power for lights and even television sets. Herders on the range used transistor radios to listen to weather reports and storm warnings.

The *somon* center became a miniature urban outpost, providing a meeting hall for regular assemblies of the cooperative, political rallies, plays, concerts, and films; for the administrative offices of the *somon* and the cooperative; for a clinic, or small hospital, and a veterinary clinic; for the motor pool and vehicle repair station;



*A motorcycle-owning nomad with traditional hand-tooled saddle
Courtesy Steve Mann*

for shops, run by the state trading organization; for storage and processing facilities for food and wool; for a sports ground, and for a school with boarding facilities. The center kept in touch with the herding camps through radio telephones and motorcycle couriers, who, bearing messages, mail, and newspapers, usually visited the camps every three to five days. Like urban residents or state-sector employees, herders from cooperatives were eligible for annual vacations, often spent at the holiday camps or spas operated by *aymag* governments. The government and the party took care to recognize the value of the herders' work and devoted resources to improving their lives without demanding that they settle down in permanent dwellings. In this regard, Mongolian pastoralists were more fortunate than their counterparts in many countries in Asia and Africa. There, urban-based governments attempted to force nomads to settle down and to abandon their migrations for what was thought of as a more modern and civilized way of life, but that usually proved detrimental to the livelihood of the nomads and to the national economy. The pastoral background of Mongolia's leaders and their understanding of the realities of the nomadic way of life produced policies designed to modernize, but not to destroy, an ancient and productive ecological system.

Work Collectives

For modern Mongolians, the primary social units were based on occupation rather than locality. Employers, such as state-owned factories or government departments, commonly provided housing, meals in unit cafeterias, day-care facilities for workers' children, and sports and recreational activities. Trade unions in enterprises offered group holidays or week-long stays at special resorts or spas. Much emphasis was placed on the mutual ties and family-like relations among members of the collective. In cities fellow workers were guests and providers of gifts at weddings, and older members of work collectives often were described as taking a paternal or maternal interest in the performance of newly hired young workers. The process by which workers secured, or were assigned to, jobs was not clearly spelled out in Mongolian sources, but it evidently combined administrative direction with some degree of personal choice. The general shortage of labor meant that individuals had no problems finding jobs. However, the jobs they obtained may not have been those they most wanted. Although it was possible to change jobs or to be reassigned by the government, such changes were not common, and individuals usually expected to spend many years, if not their entire working lives, in one enterprise and one housing collective.

The organization of work units reflected Soviet models, and if there was a distinctively Mongolian character to such units, it was not captured in official accounts. As in the Soviet Union, there was a strong emphasis on the solidarity of the collective and its priority in the lives of the workers, as well as on the use of such managerial techniques as the designation of heroes of labor, the use of socialist emulation and socialist competition to spur production, and the promotion of “shock battalions” and “shock days” to meet or surpass quotas. These techniques were attempts to motivate a work force through the use of non-material incentives and through manipulation of group pressures. Students of Soviet and Chinese industrial relations refer to a distinctive pattern of “clientalist bureaucracy” and “neo-traditionalist” forms of patronage and dependency in the factories of those countries. Both the force of the Soviet example and inherited traditional Mongolian attitudes, toward hierarchy and broadly defined relations of subordination and dependence, made such patterns likely in Mongolia.

Kinship, Family, and Marriage

Kinship

Traditional Mongols traced descent patrilineally, from fathers to sons, and recognized progressively larger and more inclusive sets of patrilineal lineages and clans, thought of as all the male descendants of a common grandfather, great-grandfather, and so on. By the nineteenth century, such descent groups had no political role, were not coresident, held no common estate, and hence were of little significance in the lives of ordinary Mongolians. The hereditary aristocrats based their status on membership in aristocratic lineages (which claimed descent from Chinggis Khan), but political office was more important for elite status than lineage membership alone. Lineages and clans have not played a major role in modern Mongolian society, and it is doubtful that many contemporary people even know their lineage affiliation. Contemporary Mongols use a single given name with a patronymic, so names provide few clues to common descent or kinship. There is no information on the extent to which Mongolians observe traditional exogamic restrictions on marriage with various categories of patrilineal and matrilineal kin.

Family Structure

Mongolians, unlike the settled agriculturalists to the south, have never valued complex extended families, and in the 1980s most lived in nuclear families composed of a married couple, their

children, and perhaps a widowed parent. The high birthrate, however, meant that large families were common; the 1979 census showed 16 percent of families with 7 to 8 members and 11.8 percent with 9 or more (see table 4, Appendix). Urban families were larger than rural families, perhaps because rural people tended to marry and to set up new households at younger ages. The average size of rural families also may have reflected the high rates of migration to the cities.

Among traditional herders, each married couple occupied its own tent, and sons usually received their share of the family herd at the time of their marriage. The usual pattern was for one son, often, but not necessarily, the youngest, to inherit the headship of the parental herd and tent, while other sons formed new families with equivalent shares of the family herd; daughters married out to other families. Adult sons and brothers often continued their close association as members of the same herding camp, but they could leave to join other herding camps whenever they wished. In the 1980s, herders were likely to continue to work closely with patrilineal kin, and many of the basic level *suuri*, a subdivision of the *negdel* (see Glossary) herding camps, consisted of fathers and sons or groups of adult brothers and their families. Herders no longer inherited livestock from parents, but they did inherit membership in the herding cooperative. If cooperative officials granted custody of collectively owned animals and permission to hold privately owned stock on a family basis, which was how private plots were allotted in Soviet collective farms in the 1980s, then it would be to the advantage of newly married sons to declare themselves new families.

Family background continued to be an important component of social status in Mongolia, and social stratification had a certain implicit hereditary element. The shortage of skilled labor and the great expansion of white-collar occupations in the 1970s and the 1980s meant that families belonging to the administrative and professional elite were able to pass their status on to their many children, who acquired educational qualifications and professional jobs. At the other end of the social scale, no one but the children of herders became herders. Some herders' children, perhaps as many as half, moved into skilled trades or administrative positions, while the rest remained with the flocks.

Modern family life differed from that before the 1950s because the children of most herders were away from their families for most of year. Between the ages of seven and fifteen, they stayed in boarding schools at the *somon* center. Most Mongolian women were in the paid work force, and many (in 1989 there were no complete



*Kazakh hunters
Courtesy Steve Mann*

figures) infants and young children were looked after on a daily or weekly basis in day-care centers or in all-day or boarding kindergartens. The efforts to bring women into the formal work force and to educate the dispersed herders resulted in separation of parents and children on a large scale. There was some historical precedent for this in the practice of sending young boys to monasteries as apprentice lamas, which had previously been the only way to obtain a formal education for them.

Marriage

In the twentieth century, most marriages have been initiated by the couple themselves rather than by parental arrangement. The image of courtship presented in contemporary Mongolian stories and pictures is of a young couple riding across the grassland on their horses while singing in harmony. In form the traditional Mongolian wedding was an agreement between two families, with elaborate transfers of bridewealth in livestock from the groom's family and a dowry of jewelry, clothing, and domestic furnishings from the bride's. The wedding, which was a contractual agreement between families rather than a religious ceremony, was marked by celebratory feasting that brought together as many of the relatives

of the bride and the groom as the families could afford to feed. Some version of this custom survived in the countryside in the 1980s, as did the practice of the bride's moving to reside in the camp of her husband's family, which traditionally provided a new *ger* for the bridal couple. Brides usually had their own household and family rather than joining the household of their husband's parents as subordinate daughters-in-law, and they made fairly frequent return visits to their natal families. Among herders, a traditional place to seek a spouse was from the adjacent herding camp that exchanged daytime custody of lambs (to prevent the ewes from nursing the lambs in the pasture). In-laws frequently cooperated in herding or joined the same herding camp.

In cities, the wait to be assigned an apartment did not seem to delay marriages, perhaps because the couple had the option of moving to a *ger* on the edge of the city until an apartment became available. Urban weddings sometimes were celebrated in special wedding palaces. That of Ulaanbaatar, an imposing white structure vaguely resembling a traditional Mongolian hat in shape, was one of the capital's architectural highlights. For a modest fee, the couple received their choice of traditional or modern wedding costumes, the services of a photographer, the use of a reception hall, a civil ceremony and wedding certificate, and a limousine to carry them to their new home. Fellow workers and colleagues played a relatively large role in urban weddings, as guests and donors of gifts to set up the new household.

Most marriages were between schoolmates or coworkers. Such a mechanism of mate selection reinforced the tendency, common in many countries, for people to marry within their own social stratum. Herders tended to marry herders, and young professionals married young professionals. Divorce was possible, but rare; there were 5.6 marriages and 0.3 divorces per 1,000 inhabitants in 1980 and 6.3 marriages and 0.3 divorces per 1,000 inhabitants in 1985. Mongolian fiction described disparities between the educational level of spouses or the unwillingness of husbands to accept the demands of their wives' jobs as sources of marital strain.

Position of Women

Traditional Subordination

Leading Western scholars agree that Mongolian women traditionally have had relatively higher social positions and greater autonomy than women in the Islamic societies of Inner Asia or in China and Korea. Women herded and milked sheep, and they routinely managed the household if widowed or if their husbands were absent

to perform military service, corvée labor, or caravan work. Mongols valued fertility over virginity and did not share the obsessive concern with female purity found in much of Southwest, South, and East Asia. Women, however, although not shy, remained subordinate to men and were restricted to the domestic sphere. It is characteristic of Mongolian attitudes toward male and female contributions that the care of sheep—which provided Mongolians with their basic, daily sustenance—was the responsibility of women, while the care of horses—which contributed much less to subsistence but more to prestige, war, and sport—was the prerogative of men. Traditional Mongols combined firm notions of female subordination with a flexible attitude toward female participation in male-associated tasks, and women ordinarily filled in for men when no males were available for such activities as milking horses or even riding them in races. Archery contests, one of the “three manly sports” (the others are racing and wrestling), always included a female round.

The 1921 revolution began efforts to bring women into public life and into the extra-domestic labor force (see *Revolutionary Transformation, 1921–24*, ch. 1). The state’s constant efforts to promote population growth also have led to a strong emphasis on women’s reproductive capacities; bearing large numbers of children has been considered a civic duty. Possible contradictions between women’s productive role in the economy and their reproductive role in the population have been glossed over in public rhetoric. The tension had existed, however, and frequent child-bearing, state-mandated maternity leaves, as well as caring for young children probably have affected the sorts of jobs women hold and their commitment to their occupational roles (see table 5, Appendix).

Education and Employment

The major change in the position of Mongolian women is their nearly universal participation in all levels of the educational system and in the paid work force. In 1985 women made up 63 percent of the students in higher educational establishments and 58 percent of the students in specialized secondary schools. In the same year, they constituted 51 percent of all workers, up from nearly 46 percent in the 1979 census. By 1979 medicine and teaching were predominately female fields; women were 65 percent of all doctors and 63 percent of those working in education, art, and culture. Women made up 67 percent of the teachers in general schools and 33 percent of the teachers in higher educational establishments. They constituted nearly 47 percent of agricultural workers and 46

percent of those in industry. Women's high level of enrollment in higher education reflected the female predominance in medicine, nursing, teaching, and professional child care. This echoed the pattern in the Soviet Union, where most physicians were women and where the social and the economic status of physicians was lower than it was in the United States or Western Europe.

The most highly skilled Mongolian scientists, engineers, military officers, and administrators had been trained in the Soviet Union. In 1989 no figures were available on the percentage of women among these elite professionals. Mongolian accounts of working women indicated that some women worked in such jobs as airline pilot, judge, and sculptor, and that women predominated in the less highly paid food processing, textile, and catering trades.

Mongolian women had legal equality, but once in the labor force they suffered the familiar double burden of housework and child care on top of a day's work for wages. This problem was recognized, and a series of studies begun by the Mongolian Academy of Sciences in 1978 found that the greatest source of strain on urban women was excessive hours spent in transit to and from work and shopping. There were too few buses or routes; retail and service outlets were not only scarce, but they were located too far from many residential areas and kept inconvenient hours. The proposed solutions, all indirect, included state provision of more buses; the opening of more service outlets, including food shops, restaurants, and carryouts; public laundries and dressmakers; and the expansion of nurseries, kindergartens, and extended-day elementary schools. The issues of female overrepresentation in the lower paying occupations and of the representation of women in the higher professional and administrative ranks in more than token numbers were not addressed (see Party Congress, ch. 4).

Social Mobility

High Rates of Mobility

The expansion of the economy and the rapid growth of the urban, industrial, and service sectors made high rates of social mobility possible in the 1970s and the 1980s. Population growth, which accelerated in the late 1950s and peaked around 1970, was barely able to keep up with the expansion of positions in new factories, schools, and local government bodies. In the 1980s, most Mongolians worked in occupations different from those of their parents, who were almost universally herders. These conditions, however, were not expected to continue. Most of the cohort, born in the late 1950s and the 1960s, who secured skilled industrial,

professional, and administrative jobs in the 1980s, will not retire until the 2020s. The even more numerous cohort born in the 1970s and the 1980s will find many desirable positions already filled by those ten to fifteen years older. If the rapid expansion of the economy, which has been fueled by extensive Soviet aid and investment, falters in the 1990s, then the generation born in the 1970s and the 1980s will not be able to match the mobility rates of their elders.

Channels of Social Mobility

There was a single, well-defined track for social mobility, which led through the school system and the youth organizations of the Mongolian People's Revolutionary Party. The keys to upward mobility were good academic performance, including command of Russian, and political reliability, as evidenced either by membership in the Mongolian Revolutionary Youth League or by recommendations of administrators and party members. The party controlled job assignments and promotions at all but the most basic levels, and its favor was necessary for significant upward mobility. Advanced study in the Soviet Union or Eastern Europe was both a reward for good performance and a qualification for further career advancement. Military service, which until 1988 was three years for almost all young men, did not in itself confer any particular advantage on veterans, although it was possible for soldiers with secondary educations who had performed exceptionally well to be commissioned as officers (see Organization since 1968, ch. 5). It was possible for children of herders in the most remote regions to progress, through examinations and recommendations, to the Mongolian State University and on to further training in the Soviet Union or the German Democratic Republic (East Germany). A 1981 account of an eight-year school in a herding cooperative revealed that half of the sixteen-year-olds completing the course left school to become herders, while the other half went on to two more years of secondary school in the *aymag* seat, from which they could go to white-collar jobs or to further vocational or general education.

In the late 1980s, the government was discussing a range of economic reforms, including increased use of the contract system as well as relaxed controls on privately owned livestock, on the development of cooperatives, and on individual labor. To the extent that such reforms were implemented, they would open an additional channel for social mobility for those who had not been favored by the monolithic system that had controlled occupational movement and advancement.

Cultural Unity and Mongol Identity

Implicit Nationalism

The result of Mongolia's economic development and urbanization was a population that was, on the one hand, increasingly and unprecedentedly divided by occupation, education, residence, and membership in well-defined and fairly rigid status groups, but that was, on the other hand, less clearly distinguished from that of other economically developed and urbanized countries. If being Mongolian meant living in a *ger* in the midst of a sheep herd and being good at riding horses, then the Mongolian identity of those who lived in high-rise apartments, rode buses, and worked at desks or in factories where knowledge of the Russian language was required was problematic. Mongolian nationalism, clearly a politically sensitive topic, continued to be a strong although implicit force in Mongolia. The Mongol language, the cultural trait most obviously shared by all Mongolians, continued to be fostered. Much effort was devoted to translating foreign literature and textbooks into Mongol, and teams of Mongolian scholars carefully replaced Russian loan words with new terms developed from ancient Mongol roots. The goal appeared to be to ensure that Mongol did not become a dialect restricted to shepherds or preschool children and that the educated elite did not speak mostly Russian or Russian-influenced Mongol.

Apart from the significant omission of Buddhism and the Buddhist church, much of traditional Mongol culture was studied, preserved, and transmitted to the younger generation as a source of national pride. In early 1989, party general secretary Jambyn Batmonh told a Soviet interviewer that the harmful errors of the 1930s included destruction of the monasteries and with them the priceless cultural heritage of the Mongolian people. In 1989 the party called for overcoming indifference to the national cultural heritage, and efforts were under way to change the negative evaluation of Chinggis, who had been condemned as a bloodthirsty and aggressive conqueror of, among other places, Russia. Higher secondary schools began teaching the traditional Mongol script, replaced by Cyrillic in February 1946. In early 1989, the trade union newspaper *Hodolmor* (Labor) called for mass production of the traditional Mongol gown, the *deel*, and suggested that all Mongolian diplomats wear it.

Promotion of Traditional Festivals

Although the Buddhist church was suppressed in the 1930s, much traditional custom and celebration survived in the 1980s, with either the encouragement or the acquiescence of the government and the

*Traditional dance is
still an important part of
Mongolian culture.
Courtesy The Asia Society*



party. The Mongolian new year festival—Tsagaan Sar (the White Month)—is celebrated at the same time as the Chinese lunar new year, although contemporary Mongolians deny any Chinese origin or influence. In the 1960s, the government designated it as Cattle Breeders' Day and stopped celebrating it as an official holiday. In 1989, as part of the party's efforts to reaffirm traditional culture, Tsagaan Sar again became a public holiday. The festival retained its prerevolutionary character as an occasion when relatives come together to reaffirm their ties, and juniors honor their elders. The Mongolian government sponsored the summer celebrations of Naadam, the traditional Mongol sports of horse racing, wrestling, and archery. Naadam celebrations were held in every *somon*, in every *aymag* seat, and in the great stadium in Ulaanbaatar on National Day, July 11. The celebrations attracted large audiences and were one of the few occasions for the normally dispersed pastoralists to gather in large crowds, renew old acquaintances, and make new friends. Wrestlers, archers, and riders dressed in traditional costumes, and a large bowl of *ayrag*, fermented mare's milk, was poured over the head of the winning horse in a form of libation practiced on the steppes for more than 1,000 years. Each wrestler was accompanied by a herald or bard, who chanted verses extolling his hero in a centuries-old format. There was a hierarchy of contests, with the winners at one level going on to the next, so that the national Naadam in Ulaanbaatar brought the champions from all over

the country. The winning wrestler was a national hero, and, while the contests had no obvious political content, they provided an opportunity for the political elite and the ordinary people, the herders and the urbanites, to reaffirm their common Mongolian identity and culture.

Religion

Buddhism

Traditional Mongols worshipped heaven (the “clear blue sky”) and their ancestors, and they followed ancient northern Asian practices of shamanism, in which human intermediaries went into trance and spoke to and for some of the numberless infinities of spirits responsible for human luck or misfortune. In 1578 Altan Khan, a Mongol military leader with ambitions to unite the Mongols and to emulate the career of Chinggis, invited the head of the rising Yellow Sect of Tibetan Buddhism to a summit. They formed an alliance that gave Altan legitimacy and religious sanction for his imperial pretensions and that provided the Buddhist sect with protection and patronage. Altan gave the Tibetan leader the title of Dalai Lama (Ocean Lama), which his successors still hold. Altan died soon after, but in the next century the Yellow Sect spread throughout Mongolia, aided in part by the efforts of contending Mongol aristocrats to win religious sanction and mass support for their ultimately unsuccessful efforts to unite all Mongols in a single state. Monasteries were built across Mongolia, often sited at the juncture of trade and migration routes or at summer pastures, where large numbers of herders would congregate for shamanistic rituals and sacrifices. Buddhist monks carried out a protracted struggle with the indigenous shamans and succeeded, to some extent, in taking over their functions and fees as healers and diviners, and in pushing the shamans to the religious and cultural fringes of Mongolian culture.

Tibetan Buddhism, which combines elements of the Mahayana and the Tantric schools of Buddhism with traditional Tibetan rituals of curing and exorcism, shares the common Buddhist goal of individual release from suffering and the cycles of rebirth. The religion holds that salvation, in the sense of release from the cycle of rebirth, can be achieved through the intercession of compassionate buddhas (enlightened ones) who have delayed their own entry to the state of selfless bliss (nirvana) to save others. Such buddhas, who are many, are in practice treated more as deities than as enlightened humans and occupy the center of a richly polytheistic universe of subordinate deities, opposing demons, converted and

reformed demons, wandering ghosts, and saintly humans that reflects the folk religions of the regions into which Buddhism expanded. Tantrism contributed esoteric techniques of meditation and a repertoire of sacred icons, phrases, and gestures that easily lent themselves to pragmatic (rather than transcendental) and magical interpretation. The religion posits progressive stages of enlightenment and comprehension of the reality underlying the illusions that hamper the understanding and perceptions of those not trained in meditation or Buddhist doctrine, with sacred symbols interpreted in increasingly abstract terms. Thus, a ritual that appears to a common yak herder as a straightforward exorcism of disease demons will be interpreted by a senior monk as a representation of conflicting tendencies in the mind of a meditating ascetic.

In Tibet Buddhism thus became an amalgam, combining colorful popular ceremonies and curing rituals for the masses with the study of esoteric doctrine for the monastic elite. The Yellow Sect, in contrast to competing sects, stressed monastic discipline and the use of logic and formal debates as aids to enlightenment. The basic Buddhist tenet of reincarnation was combined with the Tantric idea that buddhahood could be achieved within a person's lifetime to produce a category of leaders who were considered to have achieved buddhahood and to be the reincarnations of previous leaders. These leaders, referred to as living or incarnate buddhas (see Glossary), held secular power and supervised a body of ordinary monks, or lamas (from a Tibetan title *bla-ma*, meaning "the revered one"). The monks were supported by the laity, who thereby gained merit and who received from the monks instructions in the rudiments of the faith and monastic services in healing, divination, and funerals.

Buddhism and the Buddhist monkhood always have played significant political roles in Central and Southeast Asia, and the Buddhist church in Mongolia was no exception. Church and state supported each other, and the doctrine of reincarnation made it possible for the reincarnations of living buddhas to be discovered conveniently in the families of powerful Mongol nobles.

Tibetan Buddhism is monastic. By the beginning of the twentieth century, Outer Mongolia had 583 monasteries and temple complexes, which controlled an estimated 20 percent of the country's wealth. Almost all Mongolian cities have grown up on the sites of monasteries. Yihe Huree (see Glossary), as Ulaanbaatar was then known, was the seat of the preeminent living buddha of Mongolia (the Jebtsundamba Khutuktu, also known as the Bogdo Gegen and later as Bogdo Khan), who ranked third in the ecclesiastical hierarchy, after the Dalai Lama and the Panchen Lama.

Two monasteries there contained approximately 13,000 and 7,000 monks, and the prerevolutionary Mongol name of the settlement known to outsiders as Urga, Yihe Huree, means big monastery.

Over the centuries, the monasteries acquired riches and secular dependents; they gradually increased their wealth and power as those of the Mongol nobility declined. Some nobles donated a portion of their dependent families—people, rather than land, were the foundation of wealth and power in old Mongolia—to the monasteries; some herders dedicated themselves and their families to serve the monasteries either from piety or from the desire to escape the arbitrary exactions of the nobility. In some areas, the monasteries and their living buddhas (of whom there were a total of 140 in 1924) also were the secular authorities. In the 1920s, there were about 110,000 monks, including children, who made up about one-third of the male population, although many of these lived outside the monasteries and did not observe their vows. About 250,000 people, more than a third of the total population, either lived in territories administered by monasteries and living buddhas or were hereditary dependents of the monasteries. With the end of Chinese rule in 1911, the Buddhist church and its clergy provided the only political structure available, and the autonomous state thus took the form of a weakly centralized theocracy, headed by the Jebtsundamba Khutuktu in Yihe Huree.

By the twentieth century, Buddhism had penetrated deeply into Mongolian culture, and the populace willingly supported the lamas and the monasteries. Foreign observers had a uniformly negative opinion of Mongolian monks, condemning them as lazy, ignorant, corrupt, and debauched, but the Mongolian people did not concur. Ordinary Mongolians apparently combined a cynical and realistic anticlericalism, sensitive to the faults and the human fallibility of individual monks or groups of monks, with a deep and unwavering concern for the transcendent values of the church.

The Suppression of Buddhism

When the revolutionaries—determined to modernize their country and to reform its society—took power, they confronted a massive ecclesiastical structure that enrolled a larger part of the population, monopolized education and medical services, administered justice in a large part of the country, and controlled a great deal of the national wealth. The Buddhist church, moreover, had no interest in reforming itself or in modernizing the country. The result was a protracted political struggle that absorbed the energies and attention of the party and its Soviet advisers for nearly twenty years. As late as 1934, the party counted 843 major Buddhist centers,

about 3,000 temples of various sizes, and nearly 6,000 associated buildings, which usually were the only fixed structures in a world of felt tents. The annual income of the church was 31 million tugriks, while that of the state was 37.5 million tugriks. A party source claimed that, in 1935, monks constituted 48 percent of the adult male population. In a campaign marked by shifts of tactics, alternating between conciliation and persecution, and armed uprisings led by monks and abbots, the Buddhist church was removed progressively from public administration, was subjected to confiscatory taxes, was forbidden to teach children, and was prohibited from recruiting new monks or replacing living buddhas. The campaign's timing matched the phases of Josef Stalin's persecution of the Russian Orthodox Church. In 1938—amid official fears that the church and monasteries were likely to cooperate with the Japanese, who were promoting a pan-Mongol puppet state—the remaining monasteries were dissolved, their property was seized, and their monks were secularized. The monastic buildings were taken over to serve as local government offices or schools. Only then was the ruling party, which since 1921 gradually had built a cadre of politically reliable and secularly educated administrators, able to destroy the church and to mobilize the country's wealth and population for its program of modernization and social change.

Uses of Buddhism

Since at least the early 1970s, one monastery, the Gandan Monastery, with a community of 100 monks, was open in Ulaanbaatar. It was the country's sole functioning monastery. A few of the old monasteries survived as museums, and the Gandan Monastery served as a living museum and a tourist attraction. Its monks included a few young men who had undergone a five-year training period, but whose motives and mode of selection were unknown to Western observers. The party apparently thought that Buddhism no longer posed a challenge to its dominance and that—because Buddhism had played so large a part in the country's history, traditional arts, and culture, total extirpation of knowledge about the religion and its practices would cut modern Mongols off from much of their past, to the detriment of their national identity. A few aged former monks were employed to translate Tibetan-language handbooks on herbs and traditional medicine. Government spokesmen described the monks of the Gandan Monastery as doing useful work.

Buddhism, furthermore played a role in Mongolia's foreign policy by linking Mongolia with the communist and the non-communist states of East and Southeast Asia. Ulaanbaatar was the headquarters

of the Asian Buddhist Conference for Peace, which has held conferences for Buddhists from such countries as Japan, Vietnam, Cambodia, Sri Lanka, and Bhutan; published a journal for international circulation; and maintained contacts with such groups as the Christian Peace Conference, the Afro-Asian People's Solidarity Organization, and the Russian Orthodox Church. It sponsored the visits of the Dalai Lama to Mongolia in 1979 and 1982. The organization, headed by the abbot of the Gandan Monastery, advances the foreign policy goals of the Mongolian government, which are in accord with those of the Soviet Union.

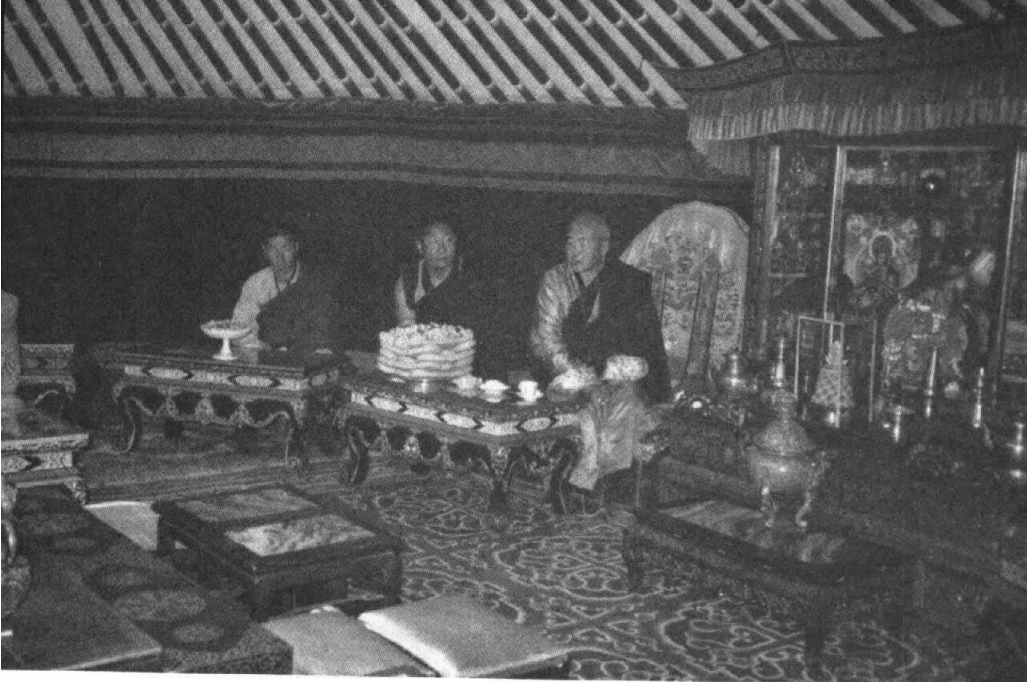
Religious Survivals

Buddhism survives among the elderly, who pray and attend services at the Gandan Monastery; in the speech of the people, which is rich in Buddhist expressions and proverbs; and in the common practice of including statues or images of the Buddha on families' special shelves with photographs of relatives and other domestic memorabilia. Mongolian Buddhism, which restricted full participation in the ritual to monks and kept Tibetan as the language of ritual and sacred texts, was more vulnerable to persecution than a religion more widely dispersed among the populace would have been. Studies done among the Buryat Mongols of Siberia by Soviet ethnographers in the 1960s and the 1970s found that elimination of the complex and conceptually sophisticated culture of Tibetan Buddhism had led to a growth of the decentralized and flexible folk practice of shamanism. Similar survival or adaptation of folk religion in Mongolia would be possible, although Mongolians have published no comparable studies of religion at the local level. Approximately 4 percent of Mongolians, primarily those living in the southwest, are Muslims, as are many of their kin across the border in China. Freedom of religion is guaranteed by the 1960 Constitution.

Health and Welfare

Health-Care Systems

Mongolia's government has made great efforts to provide modern medical care to the inhabitants. In the 1980s, medical care was free and was provided through a hierarchy of clinics and hospitals. In rural areas, the lowest level of the system was a medical station, staffed by a physician's assistant, serving people within a thirty- to forty-kilometer radius. Above this was a *somon* medical station, staffed by a physician, serving a forty- to sixty-kilometer radius; an inter-*somon* hospital, serving a seventy- to eighty-kilometer radius;



*Buddhist monks at Gandan Monastery
Courtesy Regina Genton*

and an *aymag* general hospital covering a 150- to 200-kilometer radius. The higher the level in the system, the more numerous the medical specialties and the more sophisticated the diagnostic equipment available. The lowest levels concentrated on acute care, public-health work, and screening and referring cases up the hierarchy.

As of 1985, Mongolia had approximately 4,600 physicians, 24.8 per 10,000 people. There were also about 8,500 nurses and 3,800 physician's assistants; many of the nurses and the physician's assistants specialized as midwives, although some medical personnel were trained in midwifery only. Medical care was provided by almost 1,200 clinics staffed by physician's assistants, 290 clinics staffed by physicians, and by 1986, 112 hospitals. The structure of medical specialties reflected both the needs of the young and rapidly growing population and the concentration of scarce resources on public health, control of epidemic diseases, and the health of the working population. The most common medical specialty was pediatrics, which accounted for 21 percent of all physicians in 1985. The next most common were general practitioners, 15 percent; obstetricians, 6 percent; public health specialists, 6 percent; and physicians specializing in the prevention and treatment of epidemic diseases, 6 percent. Government statistics listed

only twenty-seven (0.5 percent) oncologists and no cardiologists; however, the existence of a large cancer research facility and the practice of bypass surgery techniques suggest a greater interest in these areas than the statistics indicate.

In spite of efforts to distribute medical facilities and specialists evenly, there was a marked concentration of physicians and hospitals in Ulaanbaatar and other major cities. In 1981 Ulaanbaatar had 49 percent of Mongolia's physicians and an average of 42.9 physicians per 10,000 people. The cities of Darhan and Erdenet had 21.7 and 18.8 physicians, respectively, per 10,000 people; low ratios of 9.5 physicians per 10,000 in Uvs Aymag and 10.2 per 10,000 in Hovsgol Aymag were also reported.

Mongolia cooperated closely with the Soviet Union in medical research and training. Soviet specialists held seminars in Mongolia and helped to build and to operate such special facilities as an oncology center and a 600-bed isolation hospital for infectious diseases in Ulaanbaatar. Mongolia was an active member of Comecon's Commission on Cooperation in Public Health, and it participated in World Health Organization (WHO) projects on maternity and child health, environmental protection, and training of medical technicians and mid-level health-care personnel.

By 1981 Mongolia claimed to have eliminated smallpox, typhus, plague, poliomyelitis, and diphtheria, and to have reduced sharply the incidence of other infectious diseases. In the past, disease was spread through the use of contaminated drinking water and from such sources as lice, which were common among the herders, who seldom bathed or washed their clothing. Clean drinking water for the herders, who often shared water sources with their animals, continued to be a problem, but much effort was put into health education. The Mongolian Red Cross, an organization that cooperated with the Mongolian Revolutionary Youth League, focused on preventive medicine and health education. It sent mobile teams to factories and herding collectives to teach hygiene and sanitation and to hold special workshops on infant care and the health needs of the elderly. Although traditional Mongols were averse to bathing, their modern descendants patronized a network of spas. Following the Soviet and East European pattern, Mongolia established sanitoriums where workers and such deserving individuals as holders of the Order of Maternal Glory went to rest, to take the waters, and to follow a medically prescribed regimen of swimming, sunbathing, and moderate exercise. The Council of Mongolian Trade Unions operated a network of sanitoriums that used the country's many hot springs and mountain lakes. The network annually could accommodate 20 percent of the country's factory

and office workers during the brief summer season. So popular were the spas that *aymag* authorities established their own sanitoriums to provide therapeutic holidays for collective herders.

Precautions Against AIDS

At the end of 1988, Mongolia had reported no cases of acquired immune deficiency syndrome (AIDS). In 1987 an AIDS research center was opened at the Institute of Hygiene and Virology, and its specialists were trained in laboratory analysis by WHO experts. About 16,000 people had been checked for the disease by December 1988, but no carriers had been found. All Mongolians who had been abroad for more than three months were required to be tested. This was considered necessary because Mongolia sends thousands of young people to study in other countries. Analysis of donor blood and blood products had begun by mid-1988, and special laboratories were being established in large hospitals. Foreign students coming to Mongolia were required to be tested for AIDS, either in Mongolia or abroad, and Mongolia accepted the results of tests performed in the United States.

Education

The School System

Education in Mongolia traditionally was controlled by the Buddhist monasteries and was limited to monks. Tibetan was the language of instruction, the canonical and liturgical language, and it was used at the lower levels of education. Higher-level education was available in the major monasteries, and often many years were required to complete formal degrees, which included training in logic and debate. With the exception of medicine, which involved an extensive pharmacopoeia and training in herbal medicines, higher education was esoteric and unworldly. Major monasteries supported four colleges: philosophy, doctrine, and protocol; medicine; mathematics, astrology, and divination; and demonology and demon suppression. In the early twentieth century, officials and wealthy families hired tutors for their children, and government offices operated informal apprenticeships that taught the intricacies of written records, standard forms, and accounting. Official Mongolian sources, which tended to depict the prerevolutionary period as one of total backwardness, probably underestimated the level of literacy, but it was undoubtedly low.

Secular education began soon after the collapse of Chinese authority in 1911. A Mongol-language school under Russian auspices opened in Yihe Huree in 1912; much of the teaching of

the forty-seven pupils was done by Buryat Mongols from Siberia. In the same year, a military school with Russian instructors opened. By 1914 a school teaching Russian to Mongolian children was operating in the capital. Its graduates, in a pattern that was to become common, went to cities in Russia for further education. Perhaps in response to the challenge of the few secular schools, monasteries in the 1920s were running schools for boys who did not have to take monastic vows. Such schools used the Mongol language and the curriculums had a heavily religious content.

Education expanded slowly throughout the 1920s. As late as 1934, when 55 percent of all party members were illiterate, secular state schools enrolled only 2.7 percent of all children between the ages of eight and seventeen, while 13 percent of that age group were in monastic schools. Suppression of the monasteries in 1938 and 1939 closed the monastic schools, and the state schools expanded steadily throughout the 1940s and the 1950s. In 1941 the traditional Mongol script, based on the Uighur script, was replaced by Cyrillic. It took from 1941 to 1946—sources differ on the date—to implement the change completely. Mongolian authorities announced that universal adult literacy had been achieved by 1968. A Russian-owned printing shop, opened in Yihe Huree in the early twentieth century, turned out Mongolian translations of Russian novels and political tracts; in 1915 it printed Mongolia's first newspaper, *Niysleliyn Hureeniy Sonon Bichig* (News of the Capital Huree).

In 1981 education consumed 20 percent of the state budget, and by 1985 27 percent (511,200) of the country's population was enrolled in educational institutions from primary through university levels. The education system, based on the Soviet model, had eight years of compulsory education and a ten-year school system, enrolling students between the ages of seven and seventeen. The first four years were primary education; the second four, were secondary. Some students left school after the eighth year, while the others went on to either two more years of general secondary education or to specialized vocational schools. Some remote settlements offered only four-year primary schools, after which students transferred to a central eight-year school. Many schools in rural areas were eight-year schools, called incomplete secondary schools. Full ten-year schools, complete secondary schools, were common in cities, and they represented the goal that all regions hoped to achieve. In 1988 about 40 percent of the graduates of general schools went on to vocational schools; 20 percent, to higher education; and the remainder joined the work force. Most rural schools had boarding facilities to serve the children of dispersed and nomadic herders;

77 percent of rural pupils in 1984 were boarders. From the lowest grades, efforts were made to link schooling with the world of work, and students routinely put in a few hours a week on useful work outside the school. Military training, including weapons instruction and outdoor exercises, began in the schools.

For students who had completed eight years of schooling, there were two types of career-oriented schools: vocational schools (sometimes called vocational/technical schools in Mongolian publications) and specialized secondary schools. The distinction between the two was not clear. Vocational schools appeared to train more highly skilled workers, such as machinists, heavy-equipment operators, and construction workers, providing a terminal education to students who did not excel in the classroom. The specialized secondary schools, which corresponded to the Soviet *technicum* provided two-year or three-year courses at the junior college level. They trained paraprofessionals and technicians, such as primary school teachers, medical technicians, or bookkeepers. Students with diplomas from specialized secondary schools could apply for admission to higher education. As more funds and more technically trained teachers became available, the number of vocational schools increased. In 1988 there were 43 vocational schools, which enrolled 30,000 students in 110 fields. Specialized secondary schools offered two-year or three-year courses, and students received room and board and a monthly stipend. During their stints of practical work in factories or other enterprises, they received the normal salary for their work. The reform of secondary education under way in the 1988–89 school year called for three-year vocational courses for students with eight years of general education. Students who graduated from complete ten-year courses could spend one year in vocational schools. The ninth-year and tenth-year classes in general education schools prepared students for college admission or for generalized white-collar work.

In 1985 Mongolia had more than 900 general education schools, 40 vocational schools, 28 specialized secondary schools, 1 university, and 7 institutes. The general schools enrolled 435,900 students; vocational schools, 27,700; specialized secondary schools, 23,000; and higher education, 24,600 (see table 6, Appendix). Women made up 63 percent of all students in higher education, and girls constituted 58 percent of students in specialized secondary schools. Women were 67 percent of all teachers in general schools, 50 percent of teachers in specialized secondary schools, and 33 percent of higher education faculty. In 1985 kindergartens, serving families in which both parents worked full time, enrolled 20 percent of the children who were three to seven years old.

Higher Education

Mongolian State University in Ulaanbaatar was founded in 1942 (as Choybalsan University) with three departments: education, medicine, and veterinary medicine. The faculty was Russian, as was the language of instruction. In 1983 the university's engineering institute and Russian-language teacher training institute became separate establishments, called the Polytechnic Institute and the Institute of Russian Language, respectively. The Polytechnic Institute, with 5,000 students, concentrated on engineering and mining. Mongolian State University, with about 4,000 students, taught pure sciences and mathematics, social science, economics, and philology. More than 90 percent of the faculty were Mongolian; teachers also came from the Soviet Union, Eastern Europe, France, and Britain. Much instruction was in Russian, reflecting the lack of Mongol-language texts in advanced and specialized fields.

Besides Mongolian State University there were seven other institutions of higher learning: the Institute of Medicine, the Institute of Agriculture, the Institute of Economics, the State Pedological Institute, the Polytechnic Institute, the Institute of Russian Language, and the Institute of Physical Culture. In the summer, all students had a work semester, in which they helped with the harvest, formed "shock work" teams for construction projects, or went to work in the Soviet Union or another Comecon country. In early 1989, the educational authorities announced that third-year and fourth-year engineering students would be told which enterprise they would be assigned to after graduation, so that their training could be focused with practical ends in mind.

Study in the Soviet Union

Mongolia's educational system is supplemented by and crowned by study in the Soviet Union or Eastern Europe. In 1983 more than 10,000 Mongolians were studying in the Soviet Union as post-graduates at 10 academies, 191 institutions of higher learning, 101 specialized secondary schools, and 28 vocational schools. Each year 1,500 Mongolians were sent to Soviet vocational schools. Specialists of all sorts, from civil aviation pilots to urban planners to physicians, were trained in the Soviet Union. Party members at the mid-level and higher attended higher party schools in the Soviet Union. As it had since the early twentieth century, Russian served as the language of modernity and enlightenment, Mongolia's window on the wider world. So important was command of Russian that, in 1982, the People's Great Hural called for the study of Russian to begin in kindergarten.



*Young Pioneer entertainers, Olgii Middle School, Bayan-Olgii Aymag
Courtesy Steve Mann*

Mongolian Science

Following the organizational pattern of Soviet science, Mongolia separated research, which was pursued in specialized research institutes, from the teaching of science in universities. The Mongolian Academy of Sciences, founded in 1961, had fourteen research institutes in 1982. Scientific work in Mongolia reflected the country's particular geological and climatic conditions, and it involved a good deal of surveying, mapping, and cataloging of minerals, soils, plants, and local microclimates. Projects with clear economic applications were favored. The Institute of Geography and Permafrost compiled maps of permafrost, which covers more than half the country, and devised methods of construction and mining in permafrost areas. Geological mapping and prospecting for useful minerals had a high priority. The country's climate and location make it a good place for astronomical observatories and for studies of seismicity and tectonic processes. Mongolian physicists were concentrating on the development of solar energy and photovoltaic generation of electricity to serve the dispersed and mobile herders and to help stem the flow of the population to the cities. The expansion of scientific education and of the number of scientists

contributed to concern over the environmental consequences of the single-minded focus on short-term economic growth that had characterized the period from the 1960s through the late 1980s.

Science, Progress, and Tradition

By the end of the twentieth century, Mongolia's achievements in economic development and popular education will have produced deep, and probably irreversible, changes in the structure of society. After several decades of devotion to increasing the indices of economic growth and brooking no disagreement with its policies or methods, the ruling Mongolian People's Revolutionary Party, responding in part to trends toward political reform in the Soviet Union, was encouraging greater public discussion and criticism of past practices. Mongolian leaders seemed ready to step back and to consider the price of progress and to discuss the future course of the country's development. As indicated by the 1989 moves to reevaluate the prerevolutionary past and its heroes, the reconciliation of progress with tradition and national identity is likely to be a major theme of discussion in the 1990s.

* * *

Mongolia's contemporary society, unlike its history, has not attracted much scholarly attention in the West. The best sources available to the English-speaking reader are *Mongolia, The People's Republic of Mongolia*, and articles in the *Far Eastern Economic Review*, all by Alan J. Sanders; Robert Rupen's *Mongols of the Twentieth Century* and *How Mongolia Is Really Ruled*; George G.S. Murphy's *Soviet Mongolia*; and Urgunge Onon's *Mongolian Heroes of the Twentieth Century. History of the Mongolian People's Republic*, translated by William A. Brown and Urgunge Onon, has useful sections on society and the environment. Articles by Daniel Rosenberg in *Mongolian Studies* provide relevant material on modern Mongolian society. Owen Lattimore's *Nomads and Commissars* is somewhat out of date, but very readable and useful. A helpful, and more recent, source is Thomas D. Allen's article in *National Geographic*. The traditional culture is set out in Sechin Jagchid and Paul Hyer's *Mongolia's Culture and Society*, Lattimore's *Mongol Journeys*, and Herbert H. Vreeland's *Mongol Community and Kinship Structure*. The U.S. Joint Publications Research Service publishes occasional translations of Mongolian and Russian statistical summaries and yearbooks on Mongolia. Mongolian broadcasts and newspapers are translated and appear in the U.S. Foreign Broadcast Information Service *Daily Report: East Asia*. Readers also are directed to the *American Bibliography of*

Slavic and East European Studies, the *Bibliography of Asian Studies*, and *Citation Index* for new publications on Mongolian society. (For further information and complete citations, see Bibliography.)

Chapter 3. The Economy



Camels—one of Mongolia's major livestock types

ON THE EVE OF the 1921 revolution, Mongolia had an underdeveloped, stagnant economy based on nomadic animal husbandry. Farming and industry were almost nonexistent; transportation and communications were primitive; banking, services, and trade were almost exclusively in the hands of foreigners. Most of the people were either illiterate nomadic herders or monks. Property in the form of livestock was owned primarily by aristocrats and monasteries; ownership of the remaining sectors of the economy was dominated by foreigners. Mongolia's new rulers thus were faced with a daunting task in building a modern, socialist economy.

Mongolia's economic development under communist control can be divided into three periods: 1921-39; 1940-60; and 1961 to the present. During the first period, which the Mongolian government called the stage of "general democratic transformation," the economy remained primarily agrarian and underdeveloped. After an abortive attempt to collectivize herders, or *arads* (see Glossary), livestock raising remained in private hands. The state began to develop industry based on processing of animal husbandry products and crop raising on state farms. Transportation, communications, domestic and foreign trade, and banking and finance were nationalized with Soviet assistance; they were placed under the control of Mongolian state and cooperative organizations or Mongolian-Soviet joint-stock companies. Ulaanbaatar became the nation's industrial center.

During the second period, called the "construction of the foundations of socialism," agriculture was collectivized, and industry was diversified into mining, timber processing, and consumer goods production. Central planning of the economy began in 1931 with an abortive five-year plan and with annual plans in 1941; five-year plans began anew with the First Five-Year Plan (1948-52). Soviet aid increased, financing the construction of the trans-Mongolia railroad—the Ulaanbaatar Railroad—and various industrial projects. China also provided assistance, primarily in the form of labor for infrastructure projects. Although industrial development still was concentrated in Ulaanbaatar, economic decentralization began with the completion of the Ulaanbaatar Railroad and the establishment of food processing plants in *aymag* (see Glossary) centers.

The third stage, which the government called the "completion of the construction of the material and technical basis of socialism,"

saw further industrialization and agricultural growth, aided largely by Mongolia's joining the Council for Mutual Economic Assistance (Comecon—see Glossary) in 1962. Soviet and East European financial and technical assistance in the forms of credits, advisers, and joint ventures enabled Mongolia to modernize and to diversify industry, particularly in mining. New industrial centers were built in Baga Nuur, Choybalsan, Darhan, and Erdenet, and industrial output rose significantly. Although animal husbandry was stagnant, crop production increased dramatically with the development of virgin lands by state farms. Foreign trade with Comecon nations grew substantially. Transportation and communications systems were improved, linking population and industrial centers and extending to more remote rural areas. In the late 1980s, Mongolia had developed into an agricultural-industrial economy, but the inefficiencies of a centrally planned and managed economy and the example of *perestroika* (see Glossary) in the Soviet Union led Mongolian leaders to undertake a reform program to develop the economy further.

Socialist Framework of the Economy

Role of the Government

In the late 1980s, Mongolia had a planned economy based on socialist ownership of the means of production. According to the Mongolian Constitution, socialist ownership has two forms: state ownership (of land and natural resources, economic facilities and infrastructure; and the property of all state organizations, enterprises, and institutions) and cooperative ownership (property of agricultural associations and other types of cooperatives). Private ownership was negligible in all sectors of the economy, except animal husbandry, but economic reforms adopted since 1986 gave greater leeway for individual and cooperative enterprises (see Economic Reforms; Animal Husbandry, this ch.). The economy was directed by a single state national economic plan, which, when confirmed by the legislature, the People's Great Hural, had the force of law. In accordance with the plan, the state annually drew up a state budget, which was confirmed and published in the form of a law (see Budget, this ch.). The Council of Ministers constitutionally was charged with planning the national economy; implementing the national economic plan and the state and local budgets; directing financial and credit policy; exercising a foreign trade monopoly; establishing and directing the activities of ministries and other state institutions concerned with economic construction; defending socialist production; and strengthening socialist ownership.



*“Program for the Year 2000” — May Day parade, 1988, Ulaanbaatar
Courtesy Steve Mann*

In December 1987 and January 1988, the top-level state economic organizations under the Council of Ministers were reorganized. The State Planning and Economic Committee was formed out of the former State Planning Commission, the State Labor and Social Welfare Committee, the State Prices and Standards Committee, and the Central Statistical Board. New economic entities were the Ministry of Agriculture and Food Industry; the Ministry of Environmental Protection; the Ministry of Foreign Economic Relations and Supply; the Ministry of Light Industry; and the Ministry of Power, Mining Industry, and Geology. Unaffected by the reorganization were the Ministry of Social Economy and Services, the Ministry of Communications, the Ministry of Finance, the Ministry of Transport, the State Construction Committee, and the State Bank of the Mongolian People’s Republic. Local government organizations—the executive committees of *hurals* (see Glossary)—implemented economic plans and budgets, directed economic construction, and supervised the work of economic and cooperative organizations at their level.

Planning

Planning in communist-run Mongolia had an inauspicious start with the Five-Year Plan for 1931–35, which set unrealistically high

targets for production and called for the collectivization of agricultural production. This plan was abandoned in 1932 in the face of widespread resistance to collectivization and the failure to meet production goals. Annual planning was introduced in 1941 in an effort to deal with wartime shortages. Five-year plans were reintroduced in 1948 with the First Plan. The Second Five-Year Plan (1953-57) was followed by the Three-Year Plan (1958-60). Regular five-year plans were resumed with the Third Five-Year Plan (1961-65), and they have continued to be used since then.

In the late 1980s, economic planning in Mongolia included long-term, five-year, and annual plans that operated on multiple levels. Planning originated with the Mongolian People's Revolutionary Party, which produced the guidelines for economic and social development for the five-year period corresponding to the party's congress. Based on these guidelines, the Standing Commission on Economic-Budget Affairs of the People's Great Hural drafted the five-year national and annual economic plans, which were approved by the People's Great Hural and became law. The Council of Ministers directed and implemented national planning through the State Planning and Economic Committee and through the Ministry of Finance. Planning for different sectors of the economy was conducted by relevant ministries and state committees; local plans were drawn up by local governmental organizations.

Mongolia's five-year plans have been coordinated with those of the Soviet Union since 1961 and with Comecon multilateral five-year plans since 1976. Annual plan coordination with the Soviet Union, which is made official in signed protocols, began in 1971. Mongolian planners were trained by Soviet planners and cooperated with them in drafting long-term plans, such as the General Scheme for the Development and Location of the Mongolian People's Republic Productive Forces up to 1990, produced in the late 1970s; and the Longterm Program for the Development of Economic, Scientific, and Technical Cooperation Between the Mongolian People's Republic and the USSR for the Period up to 2000, signed in 1985.

National economic plans included general development goals as well as specific targets and quotas for agriculture, capital construction and investment, domestic and foreign trade, industry, labor resources and wages, retail sales and services, telecommunications, and transportation. The plans also focused on such social development goals and targets as improved living standards, population increase, cultural development, and scientific and technical development.

Budget

The Ministry of Finance prepared annual national budgets and provided guidance to the formulation of local budgets. The national budget included the budget of the central government, the budgets of *aymag* and city governments, and the budget of the national social insurance fund. The national budget grew with the expansion of the economy: In 1940 revenues were 123.9 million tugriks (for value of the tugrik—see Glossary) and expenditures, 122.1 million tugriks; in 1985 revenues were 5,743 million tugriks and expenditures, 5,692.5 million tugriks. The structure of the national budget changed between 1940 and 1985. In 1940 some 34.6 percent of revenues came from the turnover tax (a value added tax on each transaction), 7.8 percent from deductions from profits, 16.7 percent from taxes on the population, and 40.9 percent from other kinds of income. In 1985 nearly 63 percent of revenues came from the turnover tax, 29.9 percent from deductions from profits, 3.5 percent from deductions from the social insurance fund, 0.7 percent from taxes on the population, and 3.2 percent from other types of income. In 1940 some 21.9 percent of expenditures went to develop the national economy; 19.7 percent to social and cultural programs; and 58.4 percent to defense, state administration, reserves, and other expenses. In 1985 about 42.6 percent of expenditures went to developing the national economy; 38.7 percent to social and cultural programs; and 18.7 percent to defense, state administration, reserves, and other expenses.

The proposed 1989 budget had revenues and expenditures of 6.97 billion tugriks. Proposed expenditures for 1989 included 1.8 billion tugriks for developing agriculture, 2.1 billion for industry, and 1.6 billion for capital investment. Of the 2.76 billion tugriks proposed for social and cultural development, 1.16 billion was to go for education; 597.5 million for health, physical culture, and sports; 259.7 million for science, culture, and art; and 747.4 million for the social insurance fund. Subsidies to maintain stable retail prices totaled 213 million tugriks. Local budgets, through which 70 percent of social and cultural expenditures were funneled, totaled 3.46 billion tugriks.

Structure of the Economy

Socialist development transformed Mongolia from a predominantly agrarian, nomadic economy in 1921 into a developing, agricultural-industrial economy in the late 1980s. In 1985 a reported 18.3 percent of produced national income was derived from agriculture, 32.4 percent from industry, 4.9 percent from construction,

11.2 percent from transportation and communications, 31.6 percent from domestic trade and services, and 1.6 percent from other sectors. Sixty percent of disposable national income went to consumption, and 40 percent went to accumulation. Fixed assets totaled about 38.9 billion tugriks, of which 66.5 percent were productive fixed assets, including livestock, and 33.5 percent were nonproductive. Industry and construction accounted for 38.1 percent of the productive fixed assets; agriculture, 16 percent; transportation and communications, 9 percent; and domestic trade and services, 3.4 percent. Investment totaled 4.624 billion tugriks, 97.9 percent of which went to the state sector, and 2.1 percent, to the cooperative sector. During the Seventh Five-Year Plan (1981-85), 68.9 percent of investments went into the productive sectors of the economy, and 31.1 percent, into nonproductive sectors. Industry and construction received 44.7 percent of investment during this period; agriculture, 13.9 percent; transportation and communications, 9.0 percent; and domestic trade and services, 1.3 percent. The Eighth Five-Year Plan (1986-90) called for increasing produced national income by 26 to 29 percent and for raising investment by 24 to 26 percent, of which 70 percent was to go to developing material production.

In the late 1980s, Mongolia was divided into three economic regions. The western region (Bayan-Olgii, Hovd, Uvs, Dzavhan, and Govi-Altay *aymags*), with 21 percent of the nation's population, was predominantly agricultural (see fig. 1). The western region had 32 percent of Mongolia's livestock and produced about 30 percent of its wool and meat. Local industry was engaged in processing of animal husbandry products, timber, minerals, and building materials. Transportation was predominantly by motor vehicles.

The central economic region (Arhangay, Bayanhongor, Bulgan, Darhan, Dornogovi, Dundgovi, Hovsgol, Omnogovi, Overhangay, Selenge, Tov, and Ulaanbaatar *aymags*) was the dominant producer. The region had 70 percent of Mongolia's population (including the cities of Baga Nuur, Darhan, Erdenet, and Ulaanbaatar); 55 percent of its territory; 75 percent of its arable land; 90 percent of surveyed coal deposits; and 100 percent of copper, molybdenum, iron ore, and phosphate deposits. This region accounted for 80 percent of gross industrial production, 90 percent of light industrial production, and 80 percent of food industry production, 75 percent of coal production, and 100 percent of copper-molybdenum, iron ore, and phosphate mining. It also accounted for 60 percent of gross agricultural production, 60 percent of milk production, 50 percent of meat production, and 80 percent of grain, potato, and vegetable production.

The eastern economic region (Dornod, Hentiy, and Suhbaatar *aymags*) had 9 percent of Mongolia's population, 20 percent of the arable land, and 15 percent of the livestock. The region contributed 15 percent of gross meat production and 13 percent of wool production. Grain production on large state farms hewed out of virgin lands contributed 90 percent of the region's agricultural output. The major industrial center was Choybalsan, which produced 50 percent of regional gross industrial output.

Economic Reforms

In the late 1980s, dissatisfaction with the economic stagnation of the last years of the former regime of Yumjaagiyn Tsendenbal and the influence of the Soviet *perestroika* led Mongolia to launch its own program of economic reforms. This program had five goals: acceleration of development; application of science and technology to production; reform of management and planning; greater independence of enterprises; and a balance of individual, collective, and societal interests. Acceleration of development in general was to result from the attainment of the other four goals. Scientific research was being redirected to better serve economic development, with electronics, automation, biotechnology, and the creation of materials becoming the priority areas of research and cooperation with Comecon countries.

Reform of management and planning began in 1986 with the first of several rounds of reorganization of governmental bodies dealing with the economy. These changes rationalized and streamlined state economic organizations; reduced the number of administrative positions by 3,000; and saved 20 million tugriks between 1986 and 1988. The role of the central planning bodies was to be reduced by limiting the duties of the State Planning and Economic Committee to overseeing general capital-investment policy. The indicators specified in the five-year and the annual national economic plans also were to be decreased. State committees and ministries, rather than the State Planning and Economic Committee, were to decide upon machinery and equipment purchases. Decentralization of economic management also was to extend to *aymag* and city administrations and enterprises. These bodies were given greater autonomy in construction and production, and they also were held financially responsible for profits and losses.

Efforts to devolve economic decision making to the enterprise level began in 1986, when more than 100 enterprises began experimenting with financial autonomy (before then, enterprises operating with a deficit had been subsidized by the state). Enterprises were accountable for their own losses, and they were responsible

for fulfilling sales contracts and export orders. The draft law on state enterprises, presented to the People's Great Hural in December 1988, was to extend greater independence in economic matters to all state enterprises and to lead to an economy that combined planning and market mechanisms.

Under provisions of the draft law, state enterprises were to be authorized to make their own annual and five-year plans and to negotiate with state and local authorities to pay taxes based on long-term quotas. State enterprises also were to sell output exceeding state orders and unused assets; to establish their own, or to cooperate with existing, scientific organizations to solve scientific and technical problems; to be financially responsible for losses, and to pay back bank loans; to set prices independently; to establish wage rates based on enterprise profitability; to purchase materials and goods from individuals, collectives, state distribution organizations, and wholesale trade enterprises; to establish direct ties with foreign economic organizations; to manage their own foreign currency; and to conduct foreign trade.

The draft law stipulated that enterprises were to be divided into two categories. National enterprises were to be the responsibility of ministries, state committees, and departments; local enterprises were to be supervised by executive committees of *aymag* and city administrations or members of local *hurals*. State and local bodies were not to interfere in the day-to-day decision making of enterprises, but they were responsible for ensuring that enterprises obeyed the law and that they did not suppress the interests of society. Enterprises were allowed to form three kinds of associations: production associations, scientific production associations, and enterprise associations to coordinate economic affairs. Finally, the draft law said that the state was the owner of state enterprises and that the labor collective was the lawful manager of a state enterprise. The labor collective was to elect a labor collective council, which was to ensure that the enterprise director (who acted on behalf of the collective and the state) met the interests of the collective in managing the enterprise. It was unclear how the relationship between the enterprise director and the labor collective would work out in practice.

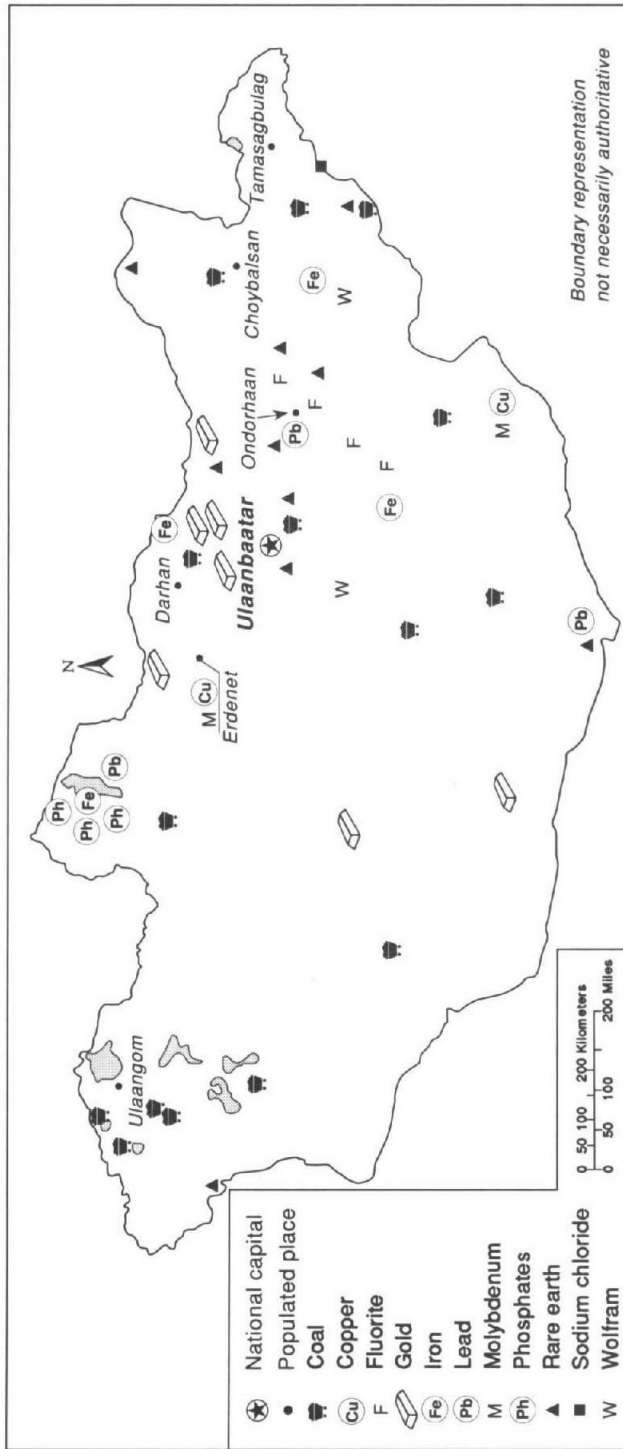
Balancing the interests of society, the collective, and the individual entailed providing scope for individual and collective initiative to increase production and efficiency. Enlarging the scope for individual initiative had three aspects: linking wages to enterprise profitability, permitting output exceeding state plans to be sold for profit, and providing employment opportunities outside the state and the cooperative sectors. In 1988 wage scales dependent on enterprise

revenues were introduced to the light and food industries and to the domestic trade sector, resulting in a reduction in materials utilized by those sectors. Beginning in late 1986, state farms and *negdels* (agricultural stations—see Glossary) were eligible for state payments for output exceeding the annual average growth rate for the previous five-year plan. Individual agricultural cooperative members and workers were allowed increasing numbers of privately held livestock. The draft law also stipulated that enterprises could sell production exceeding plan targets for their own profit. In 1987 the government began encouraging the formation of voluntary labor associations, auxiliary farms, and sideline production attached to enterprises, schools, and so forth to increase production of foodstuffs and consumer goods, to engage in primary processing of agricultural goods, and to provide services. The authorities permitted the formation of individual and family-based cooperatives; by 1988 there were 480 such cooperatives. Contracting among state farms and both agricultural cooperatives and families was permitted and was increasing in the late 1980s (see Agriculture and Industry, this ch.).

Natural Resources

Mongolia's natural resources include forests, fish, and a variety of minerals. In the late 1980s, Mongolia had 15 million hectares of forests covering 9.6 percent of the nation. Major forested areas were approximately 73 percent Siberian larch, 11 percent cedar, and 6.5 percent pine. Timber stocks were estimated to be 1.3 billion cubic meters. Mongolia's northern rivers and lakes contained more than 50 native species of fish; however, this resource barely was exploited because fish is not popular among Mongolians.

The country's richest resources are minerals—coal, copper, fluorite, gold, iron ore, lead, molybdenum, oil, phosphates, tin, uranium, and wolfram (see fig. 9). Coal deposits in the mid-1980s were located at Aduun Chuluu (reserves of 37 million tons), Baga Nuur (reserves of 1 billion tons), Nalayh (reserves of 73 million tons), Sharin Gol (reserves of 69 billion tons), and Tavan Tolgoy (reserves of 9.5 billion tons). Copper and molybdenum were found at Erdenetiyn-ovoo and at Tsagaan Subarga in Dornogovi Aymag. Fluorite deposits were located at Burentsoyt in Suhbaatar Aymag, at Berh and Bor Ondor in Hentiy Aymag, and at Har-Ayrag in Dornogovi Aymag. Northern Mongolia, particularly Tov and Selenge *aymags*, had widespread gold deposits. These sites included Tavan Tolgoy, Erhet, and Bugant; the Yoroo Gol and the Bayan Gol; and Narantolgoy. Other gold deposits were found at Noyon Uul in Hentiy Aymag and at Altan Uul in Omnogovi Aymag. Iron



Source: Based on information from USSR, Council of Ministers, Main Administration of Geodesy and Cartography, *Mongolskaia Narodnaia Respublika, ekonomicheskaia karta dlia srednei shkoly* (Mongolian People's Republic Economic Map for the Middle School), Moscow, 1985; and USSR, Council of Ministers, Main Administration of Geodesy and Cartography, *Mongolskaia Narodnaia Respublika, fizicheskaiia karta dlia srednei shkoly* (Mongolian People's Republic Physical Map for the Middle School), Moscow, 1985.

Figure 9. Minerals and Mining, 1989

ore occurred at Bayan Gol, at Bayan Uul in Hovsgol Aymag, at Bayasgalant in Dundgovi Aymag, and at Yoroo in Selenge Aymag. Lead deposits were found at Jargalthaan in Hentiy Aymag and at Bordzongiyn Govi in Omnogovi Aymag. A major limestone deposit was discovered at Hotol in Bulgan Aymag. Mongolia exploited oil deposits at Dzuunbayan and Tsagaan Els in Dornogovi Aymag, and at Tamsagbulag in Dornod Aymag in the 1950s and the 1960s. Reports on the exploitation of oil deposits ceased after 1968. Phosphates were found at Urandosh in Hovsgol Aymag. Prospecting teams have discovered extensive veins of potash mica running through 350 kilometers of the Altai Mountains. Tin was located at Nomgon in Omnogovi Aymag and at Yeguudzer in Suhbaatar Aymag. Wolfram deposits were exploited at Burentsogt, Chonogol, Ihhayrhan, Salaa, and Hanhohiy in Tov and Suhbaatar *aymags*. Uranium has been discovered in Mongolia, but there were no reports of deposits that were being tapped in the 1980s.

Mongolia has cooperated extensively with Comecon countries in surveying the country's natural resources. Joint geological prospecting teams have located more than 500 mineral deposits in Mongolia. The Erdenetiyn-ovoo copper-molybdenum deposit, for example, was discovered with Soviet and Czechoslovak assistance. The Soviet Union has been the most active of the Comecon nations in joint exploration of Mongolia's mineral resources. The Joint Mongolian-Soviet Geological Expedition has discovered previously unknown minerals, has published monographs and metallogenic maps; and has focused its surveying efforts on searching for nonferrous, rare, and precious metals, fluorite, phosphates, building materials, and coal. Geological prospecting is thus conducted to assist Mongolian economic development by extending mining industries and by exploiting new mineral deposits.

Agriculture

In the late 1980s, agriculture was a small but critical sector of the Mongolian economy. In 1985 agriculture accounted for only 18.3 percent of national income and 33.8 percent of the labor force (see table 7, Appendix). Nevertheless, agriculture remained economically important because much of Mongolia's industry processed agricultural products—foodstuffs, timber, and animal products, such as skins and hides—for domestic consumption and for export. In 1986 agriculture supplied nearly 60 percent of Mongolia's exports (see Industry; Foreign Economic Relations and Comecon, this ch.).

Mongolian agriculture developed slowly. An abortive attempt to collectivize all *arads* occurred in the early 1930s; efforts to

encourage voluntary cooperatives and *arad* producers' associations followed. In the 1930s, the government also began developing state farms, and by 1940 there were ten state farms and ninety-one agricultural cooperatives. In 1937 the Soviet Union provided ten hay-making machine stations to prepare fodder for livestock. In 1940 agriculture represented 61 percent of national income, and it employed approximately 90 percent of the labor force.

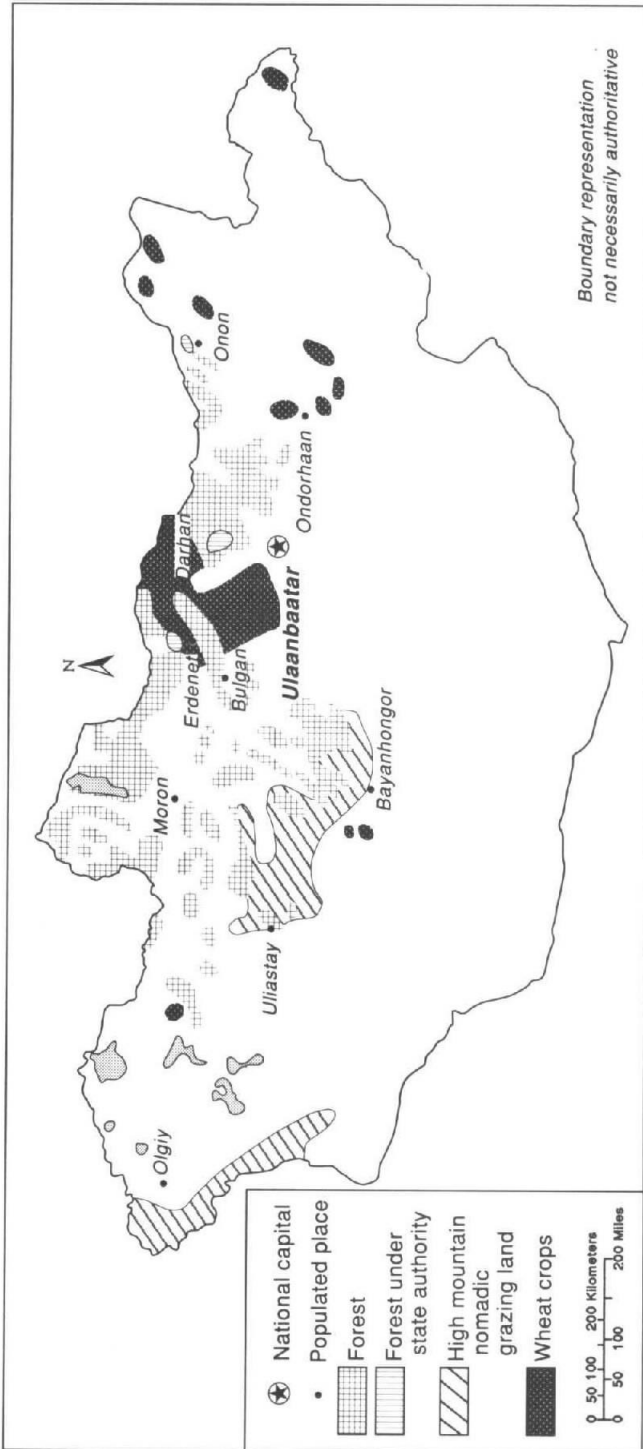
In the 1950s, agriculture began to adopt its present structure and modern techniques, based in part on material and technical assistance from the Soviet Union and East European countries. In the 1950s, the hay-making machine stations were reorganized as livestock machine stations. In 1955 *negdels* replaced the *arad* producers' associations. By 1959 the state had accomplished the collectivization of agriculture. In ten years, agricultural cooperatives had more than doubled, from 139 in 1950 to 354 by 1960. Ownership of livestock and sown areas changed dramatically as a result of collectivization. In 1950, according to Mongolian government statistics, state farms and other state organizations owned approximately 0.9 percent of livestock and 37.8 percent of sown areas; *negdels* had about 0.5 percent of livestock and no sown lands; and private owners some held 98.3 percent of livestock and 62.2 percent of sown areas. In 1960 state farms and other state organizations owned 2.7 percent of livestock; *negdels*, 73.8 percent; and individual *negdel* members, 23.5 percent. The state sector owned 77.5 percent of sown lands, and the cooperative sector the remainder.

By 1960 agriculture's share of national income had fallen to 22.9 percent, but agriculture still employed 60.8 percent of the work force. After 1960 the number of state farms increased, state fodder supply farms were established, the number of *negdels* decreased through consolidation, and interagricultural cooperative associations were organized to facilitate *negdel* specialization and cooperation. Mongolia also began receiving large-scale agricultural assistance from the Soviet Union and other East European countries after Mongolia's 1962 entry into Comecon. The Soviet Union, for example, assisted in establishing and equipping several new state farms, and Hungary helped with irrigation. In 1967 the Third Congress of Agricultural Association Members founded the Union of Agricultural Associations to supervise *negdels* and to represent their interests to the government and to other cooperative and social organizations. The union elected a central council, the chairman of which was, ex officio, the minister of agriculture; it also adopted a Model Charter to govern members' rights and obligations. In 1969 the state handed over the livestock machine stations to the *negdels*.

Negdels, which concentrated on livestock production, were organized into *brigad* (brigades) and then into *suuri* (bases), composed of several households. Each *suuri* had its own equipment and production tasks. *Negdels* adopted the Soviet system of herding, in which *arad* households lived in permanent settlements rather than traveling with their herds, as in the pastoral tradition (see Pastoral Nomadism, ch. 2). In 1985 the average *negdel* had 61,500 head of livestock, 438,500 hectares of land—of which 1,200 hectares was plowable land, 43 tractors, 2 grain harvesters, and 18 motor vehicles; it harvested 500 tons of grain. Individual *negdel* members were permitted to own livestock. In mountain steppe pasture areas, ten head of livestock per person, up to fifty head per household, were allowed. In desert regions, fifteen head per person, up to seventy-five head per household, were permitted. Private plots also were allowed for *negdel* farmers.

State farms, compared with *negdels*, had more capital invested, were more highly mechanized, and generally were located in the most productive regions, or close to major mining and industrial complexes. State farms engaged primarily in crop production. In 1985 there were 52 state farms, 17 fodder supply farms, and 255 *negdels*. In 1985 the average state farm employed 500 workers; owned 26,200 head of livestock, 178,600 hectares of land—of which 15,400 hectares was plowable land, 265 tractors, 36 grain harvesters, and 40 motor vehicles; it harvested 12,100 tons of grain.

In the late 1980s, several changes in governmental organization occurred to facilitate agricultural development. In October 1986, the Ministry of Agriculture absorbed the Ministry of Water Economy, which had controlled irrigation. In December 1987, the Ministry of Agriculture, the Ministry of Forestry and Woodworking, and the Ministry of Food and Light Industries were abolished and two new ministries—the Ministry of Agriculture and Food Industry, and the Ministry of Environmental Protection—were established. Among the functions of the Ministry of Agriculture and Food Industry were the further coordination of agriculture and of industrial food processing to boost the food supply, and the development on state farms of agro-industrial complexes, which had processing plants for foodstuffs. The Sharin Gol state farm, for example, grew fruits and vegetables, which then were processed in the state farm's factories to produce dried fruit, fruit juices, fruit and vegetable preserves, and pickled vegetables. The Ministry of Environmental Protection incorporated the Forestry and Hunting Economy Section of the former Ministry of Forestry and Woodworking and the State Land and Water Utilization and Protection Service of the former Ministry of Agriculture (see fig. 10; Forestry, this ch.).



Source: Based on information from USSR, Council of Ministers, Main Administration of Geodesy and Cartography, *Mongolskaia Narodnaia Respublika, ekonomicheskaia karta dlia srednet shkoly* (Mongolian People's Republic Economic Map for the Middle School), Moscow, 1985.

Figure 10. Agriculture and Forestry, 1985

Crop Production

Since its inception, the Mongolian People's Republic has devoted considerable resources to developing crop production in what was a predominantly nomadic, pastoral economy. Mongols traditionally disdained the raising of crops, which was conducted for the most part by Chinese farmers. Early efforts to force *arads* to become farmers failed, and the government turned to the creation of state farms to promote crop production. By 1941 when the state had established ten state farms, Mongolia had 26,600 hectares of sown land. State farms, however, accounted for only 29.6 percent of the planted areas.

After World War II, Mongolia intensified efforts to expand crop production by establishing more state farms, by reclaiming virgin lands for crop raising, by mechanizing farm operations, and by developing irrigation systems for farmlands. When Mongolia began to report statistics on arable land in 1960, there were 532,000 hectares of arable land, and sown crops covered 265,000 hectares of the 477,000 hectares of plow land. Mongolia's 25 state farms accounted for 77.5 percent of sown areas, and cooperatives, for 22.5 percent. In 1985 when 52 state farms and 17 fodder supply farms existed, there were about 1.2 million hectares of arable land, and sown crops covered 789,600 hectares of the approximately 1 million hectares of plow land. The state sector accounted for 80.6 percent of sown areas, and cooperatives, for 19.4 percent. Development of virgin lands by state farms was responsible for most of the expansion of arable land and sown areas. Land reclamation started in the late 1950s and the early 1960s, when 530,000 hectares were developed, and it continued throughout each five-year plan. During the Seventh Plan, 250,000 hectares were assimilated, and the Eighth Plan called for an additional 120,000 to 130,000 hectares to be reclaimed.

Mechanization of farm operations commenced on a large scale in the 1950s with Soviet assistance. The Soviet Union provided most agricultural machines, as well as advice and expertise in mechanization. State farms were more highly mechanized than cooperatives. For example, in 1985, 100 percent of potato planting and 84 percent of potato harvesting were mechanized on state farms, compared with 85 percent and 35 percent, respectively, in *negdels*. Beginning in the 1960s, state farms also pioneered the development of irrigation systems for crops. By 1985 Mongolia had 85,200 hectares of available irrigated land, of which 81,600 hectares actually were irrigated.

Crop production initially concentrated on raising cereals; in 1941 cereals covered 95.1 percent of sown areas, while 3.4 percent was

devoted to potatoes and 1.5 percent to vegetables. Cultivation of fodder crops began in the 1950s. In 1985 cereals covered 80.6 percent of sown areas, fodder crops 17.7 percent, potatoes 1.3 percent, and vegetables 0.4 percent. Mongolia's staple crops were wheat, barley, oats, potatoes, vegetables, hay, and silage crops. Since 1960 agricultural performance—as measured by gross output, per capita output, and crop yields—was uneven. Although sown acreage expanded dramatically between 1960 and 1980, output and crop yields remained stagnant and, in some cases, fell because of natural disasters and poor management. In addition to the staple crops mentioned, Mongolia also produced small quantities of oil-yielding crops, such as sunflower and rape, and fruits and vegetables, such as sea buckthorn, apples, European black currants, watermelons, muskmelons, onions, and garlic. Small amounts of alfalfa, soybean, millet, and peas also were grown to provide protein fodder.

The Eighth Plan called for increasing the average annual gross harvest of cereals to between 780,000 and 800,000 tons; potatoes to between 150,000 and 160,000 tons; vegetables to between 50,000 and 80,000 tons; silage crops to between 280,000 and 300,000 tons; and annual and perennial fodder crops to between 330,000 and 360,000 tons. Emphasis was placed on raising crop production and quality by increasing mechanization; improving and expanding acreage; raising crop yields; expanding irrigation; selecting cereal varieties better adapted to natural climatic conditions and better locations for cereal cultivation; applying greater volumes of organic and mineral fertilizers; building more storage facilities; reducing losses because of pests, weeds, and plant diseases; and preventing soil erosion. Emphasis also was put on improving management of crop production on state farms and *negdels* as well as of procurement, transport, processing, and storage of agricultural products.

Animal Husbandry

From prerevolutionary times until well into the 1970s, animal husbandry was the mainstay of the Mongolian economy. In the traditional economy, livestock provided foodstuffs and clothing; after the 1921 revolution, livestock supplied foodstuffs and raw materials for industries and for export. Mongolia had 9.6 million head of livestock in 1918 and 13.8 million head in 1924; *arad* ownership was estimated to be 50 to 80 percent of all livestock, and monastic and aristocratic ownership to be 50 to 20 percent. Policies designed to force collectivization in the early 1930s met with *arad* resistance, including the slaughter of their own animals. Reversal of these policies led to a growth in livestock numbers, which peaked

in 1941 at 27.5 million head. World War II brought new commitments to provide food and raw materials for the Soviet war effort (see *Economic Gradualism and National Defense, 1932-45*, ch. 1). With the levy of taxes in kind, livestock numbers fell to about 20 million in 1945, and they have hovered between 20 million and 24 million head since then. Collectivization and advances in veterinary science have failed to boost livestock production significantly since the late 1940s. In 1940 animal husbandry produced 99.6 percent of gross agricultural output. The share of animal husbandry in gross agricultural output declined after World War II, to 71.8 percent in 1960, 81.6 percent in 1970, 79.5 percent in 1980, and 70 percent in 1985. The rise in crop production since 1940 has accounted for animal husbandry's decline in gross agricultural output.

Nevertheless, in the late 1980s, animal husbandry continued to be an important component of the national economy, supplying foodstuffs and raw materials for domestic consumption, for processing by industry, and for export. In 1985 there were 22,485,500 head of livestock, of which 58.9 percent were sheep; 19.1 percent, goats; 10.7 percent, cattle; 8.8 percent, horses; and 2.5 percent, camels. In addition, pigs, poultry, and bees were raised. In 1985 there were 56,100 pigs and 271,300 head of poultry; no figures were available on apiculture. Livestock products included meat and fat from camels, cattle, chickens, horses, goats, pigs, and sheep; eggs; honey; milk; wool from camels, cattle, goats, and sheep; and hides and skins from camels, cattle, goats, horses, and sheep. In 1986 exports of livestock products included 15,500 tons of wool, 121,000 large hides, 1,256,000 small hides, and 44,100 tons of meat and meat products.

In the late 1980s, differences existed in ownership and productivity of livestock among state farms, agricultural cooperatives, and individual cooperative members. For example, in 1985 agricultural cooperatives owned 70.1 percent of the "five animals"—camels, cattle, goats, horses, and sheep; state farms, 6 percent, other state organizations, 1.7 percent; and individual cooperative members, 22.2 percent. State farms raised 81.4 percent of all poultry; other state organizations, 3.3 percent; cooperatives, 12.9 percent; and individual cooperative members, 2.4 percent. State farms accounted for 19.1 percent of pig raising; other state organizations, for 34.2 percent; agricultural cooperatives, for 12.5 percent; and individual cooperative members, for 34.2 percent. Survival rates of young livestock were higher in the cooperatives than on state farms; however, state farms produced higher yields of milk and wool. Fodder for livestock in the agricultural cooperatives was supplemented

by production on state fodder supply farms and on state farms, which had higher output and yields.

Despite its economic importance, in the late 1980s animal husbandry faced many problems: labor shortages, stagnant production and yields, inclement weather, poor management, diseases, and the necessity to use breeding stock to meet high export quotas. The Eighth Plan attempted to address some of these problems. To alleviate labor shortages, the plan called for higher income, increased mechanization, and improved working and cultural conditions in rural areas to retain animal husbandry workers, particularly those with technical training. Measures to raise productivity included increased mechanization; improved breeding techniques to boost meat, milk, and wool yields and to cut losses from barrenness and miscarriages; and strengthened veterinary services to reduce illness. Additional livestock facilities were to be built to provide shelter from harsh winter weather and to fatten livestock. More efficient use of fodder was sought through expanding production; improving varieties; and decreasing losses in procurement, shipping, processing, and storage. Pastureland was to be improved by expanding irrigation and by combating pests.

Overcoming poor management was more difficult. Local party, state, and cooperative organizations were admonished to manage animal husbandry more efficiently, and cooperative members were requested to care for collectively owned livestock as if it were their own. In addition, more concrete measures to improve the management and the productivity of animal husbandry were adopted in the late 1980s. The individual livestock holdings of workers, employees, and citizens were increased to eight head per household in major towns, sixteen head in smaller towns, and twenty-five head in rural areas; households were allowed to dispose of surplus produce through the cooperative trade network and through the state procurement system. Auxiliary farms run by factories, offices, and schools were established to raise additional pigs, poultry, and rabbits, as well as to grow some vegetables. Family contracts concluded on a voluntary basis with cooperatives or with state farms were reported by the government to increase high-quality output, to lower production expenses, and to enhance production efficiency.

Forestry

Mongolia's vast forests (15 million hectares) are exploited for timber, hunting, and fur-bearing animals. In 1984 a Mongolian source stated that the forestry sector accounted for about one-sixth of gross national product (GNP—see Glossary). Until December 1987, exploitation of these resources was supervised by the Forestry



*Cattle on way to pasture
Courtesy Regina Genton
Shearing sheep, Hovd Aymag
Courtesy Steve Mann*

and Hunting Economy Section of the Ministry of Forestry and Woodworking. In that month this section was integrated into the new Ministry of Environmental Protection (see State Organizations, ch. 4). The woodworking component of the former ministry presumably became part of the new Ministry of Light Industry. The Ministry of Environmental Protection's assumption of control of forest resources reflected the government's concern over environmental degradation resulting from indiscriminate deforestation. Forestry enterprises reafforested only 5,000 hectares of the 20,000 hectares felled annually. In addition, fires engulfed 1 million hectares of forest between 1980 and 1986. Mongolia's shrinking forests lowered water levels in many tributaries of the Selenge and Orhon rivers, hurting soil conservation and creating water shortages in Ulaanbaatar.

Timber enterprises and their downstream industries made a sizable contribution to the Mongolian economy, accounting for 10 percent of gross industrial output in 1985. Approximately 2.5 million cubic meters of timber were cut annually. Fuel wood accounted for about 55 percent of the timber cut, and the remainder was processed by the woodworking industry. In 1986 Mongolia produced 627,000 cubic meters of sawn timber, of which 121,000 cubic meters was exported. Lumber also was exported; lumber exports declined dramatically from 104,000 cubic meters in 1984 to 85,700 cubic meters in 1985 and to 39,000 cubic meters in 1986.

Mongolia's forests and steppes abounded with animals that were hunted for their fur, meat, and other products in the late 1980s. Fur-bearing animals included marmots, muskrats, squirrels, foxes, *korsak* (steppe foxes), and wolves, which were hunted, and such animals as deer, sable, and ermine, which were raised on state animal farms. Animal pelts were exported in large numbers. In 1985 Mongolia exported more than 1 million small hides, which included some of the 763,400 marmot pelts, 23,800 squirrel skins, 3,700 wolf skins, and other furs. Marmot also was hunted for its fat, which was processed industrially. Mongolian gazelles were hunted for their meat, and red deer, for their antler velvet. Organized hunting of wild sheep was a foreign tourist attraction.

Fishing

Mongolia's lakes and rivers teem with freshwater fish. Mongolia has developed a small-scale fishing industry, to export canned fish. Little information was available on the types and the quantities of fish processed for export, but in 1986, the total fish catch was 400 metric tons in live weight.

Industry

In 1924 Mongolian industry was limited to the Nalayh coal mine, an electric power plant in Ulaanbaatar, and various handicrafts. Gross industrial output (measured in constant 1967 prices), was 300,000 tugriks. Industry developed very slowly in the first two decades of the Mongolian People's Republic, primarily because Mongolia's benefactor, the Soviet Union, provided few resources to invest in industrialization. With Soviet advice, however, Mongolia adopted an industrial strategy that was based on the exploitation of natural resources and agriculture and it has followed this strategy since. The first steps to develop industry began in the 1930s. In 1933 the Union of Artisans was organized. In 1934 the Choybalsan industrial combine, the flagship of Mongolian industry, began operating in Ulaanbaatar. The combine, a joint Mongolian-Soviet company transferred to Mongolian control in 1935, had its own power plant, cloth factories, tanneries, and wool-scouring mill that produced blankets, felt, footwear, leather coats, and soap. Coal production at Nalayh rose in the 1930s, and in 1938 the narrow-gauge railroad connecting the mine with the capital's power-generating station was completed. In 1940 industry accounted for 8.5 percent, and construction for 0.8 percent, of national income. Gross industrial output rose to 124.7 million tugriks.

Industry began to develop substantially after World War II, when Soviet aid increased and Soviet-style central planning was introduced, and, in the 1950s, when Chinese assistance started. Most industrialization occurred in Ulaanbaatar; smaller food combines and livestock-product processing plants were scattered throughout the country. In the 1950s, major projects completed with Soviet assistance included the modernization of the Choybalsan industrial combine; the expansion of production at the Nalayh coal mine; the opening of oil wells in Buyant-Uhaa (Sayn Shand); and the construction of four felt-rolling mills, a water supply plant, and leather-processing factories. Chinese aid was given primarily in the form of construction projects; Chinese laborers built roads, bridges, housing, and a hydroelectric power plant. By 1960 industry and construction accounted for 14.6 percent and 6.7 percent, respectively, of national income. Gross industrial output (in constant 1967 prices) was 676.8 million tugriks.

Industrialization took a big step forward after 1960. Large-scale investment by the Soviet Union and other East European countries took place with Mongolia's entry into Comecon in 1962. This assistance enabled Mongolia to diversify industry geographically and sectorally. Major industrial centers were built at Darhan and

Choybalsan in the 1960s and at Erdenet and Baga Nuur in the 1970s and the 1980s. After 1970 the scope of industry expanded beyond processing of agricultural products; exploitation of minerals developed on a large scale, and the energy and the construction industries, which supported such development, also grew. In 1970 industry and construction accounted for 22.6 percent and 5.8 percent of national income, respectively; in 1985 they accounted for 32.4 and 4.9 percent of national income, respectively. Gross industrial output (in constant 1967 prices) was 1,733.2 million tugriks in 1970 and 6,244.4 million tugriks in 1985.

In the late 1980s, industry was concentrated in several urban centers. Baga Nuur was a coal-mining and energy production center. Bor Ondor produced fluorite. Choybalsan had a coal mine, a meat-packing plant, a foodstuffs combine, and a wool-scouring mill. Darhan was close to the Sharin Gol coal mine and produced construction materials, foodstuffs, and light industrial products. Erdenet, home of the copper and molybdenum processing combine, also manufactured carpets and processed timber. Hotol was the location of major limestone deposits and a cement production center. Ulaanbaatar, the oldest industrial center, specialized in coal and energy production, food processing, livestock-product processing, and textiles (see fig. 11).

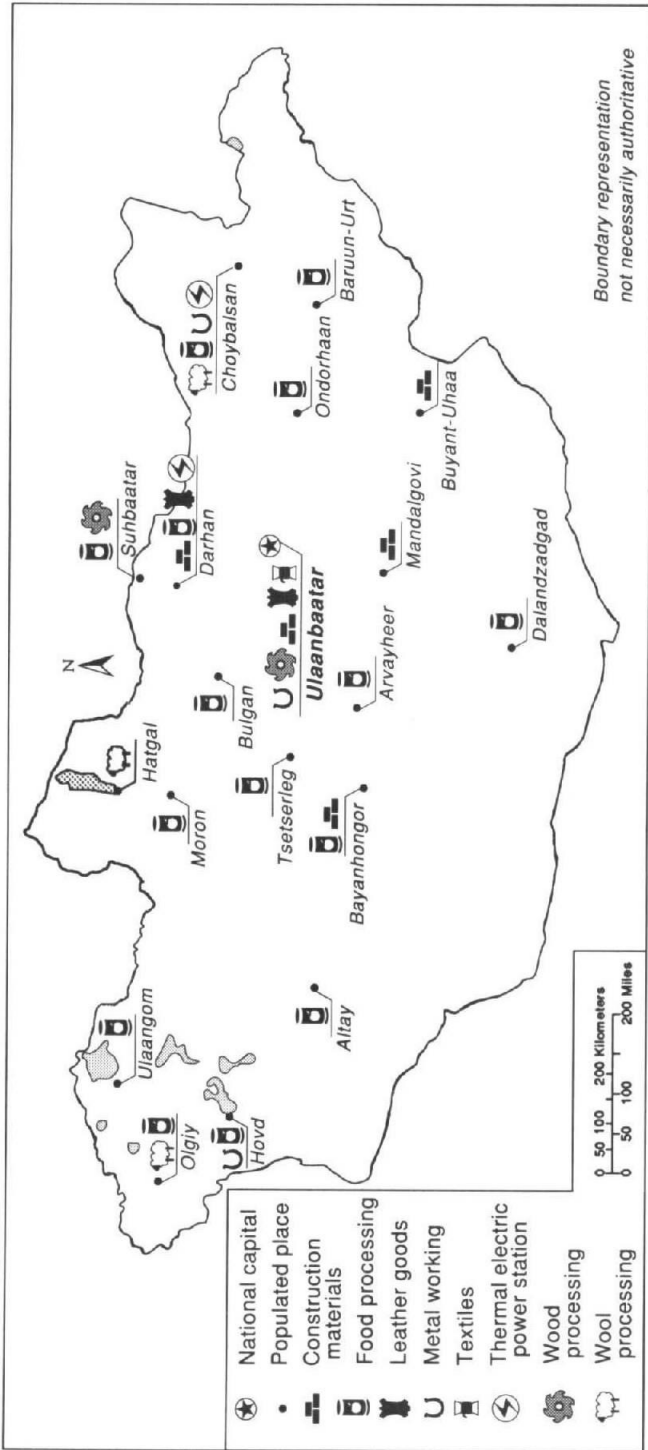
Changes in government organizations responsible for industry reflected the regime's efforts to spur industrial development. In 1968 the Ministry of Industry, originally established in 1938, was abolished; the Ministry of Food Industry was transformed into the Ministry of Food and Light Industries. That same year, the Ministry of Geology became the Ministry of Fuel, Power, and Geology. In 1972 the Ministry of Food and Light Industries established industrial producers' associations modeled on Soviet producers' associations. The industrial producers' associations grouped ministry enterprises according to their specialization in clothing, flour and fodder, footwear, hides and skins, and wool. In 1976 the Ministry of Fuel, Power, and Geology was divided into the Ministry of Fuel and Power Industry and the Ministry of Geology and Mining. In 1986 the Ministry of Construction and Construction Materials Industry and the State Committee for Construction, Architecture, and Technical Control were dissolved, and the State Construction Committee was established. In December 1987, the Ministry of Forestry and Woodworking, the Ministry of Geology and Mining, the Ministry of Fuel and Power Industry, and the Ministry of Food and Light Industries were replaced by the Ministry of Agriculture and Food Industry, the Ministry of Light Industry, and the Ministry of Power, Mining Industry, and Geology.

Government organizations also concerned with industry in the late 1980s were the State Construction Committee and the Ministry of Social Economy and Services, formed in 1972 to supervise handicraft production and the *artels*, or handicraft producers' associations.

The Ministry of Environmental Protection also was formed in 1987 out of the Forestry and Hunting Economy Section of the Ministry of Forestry and Woodworking, the State Land and Water Utilization and Protection Service of the Ministry of Agriculture, and the Main Hydrometeorological Administration of the Council of Ministers; it dealt with industrial pollution. Environmental degradation of the Hovsgol Nuur-Selenge Moron-Lake Baykal ecosystem was a concern of both Mongolian and Soviet authorities. To limit ecological damage, the Ministry of Environmental Protection took steps to close the Hatgal wool-scouring mill on Hovsgol Nuur, to end shipping of gas and oil in the summer, and to cease carbon-monoxide-producing motor transportation across the ice during the winter. Plans to open the Urandosh strip mine on the banks of Hovsgol Nuur also were postponed. Other measures to alleviate environmental pollution included closing thermal power stations in Ulaanbaatar and moving industrial facilities outside the city in order to reduce air pollution. Strip mining in Mongolia—particularly at the Baga Nuur, Erdenet, and Sharin Gol mines—had created large slag heaps of concern to environmentalists. Other sources of ecological degradation were the dumping of industrial, agricultural, and household waste into small rivers and lakes.

Light Industry

In the late 1980s, Mongolian light industry included woodworking, textiles, clothing, leather and footwear, printing, and food industries, which, primarily, processed agricultural products, and handicrafts. In 1985 light industry accounted for 74.2 percent of gross industrial output. Woodworking enterprises included woodworking plants and combines, paper plants, prefabricated housing factories, match factories, furniture factories, and handicraft enterprises engaged in the production of *ger* (see Glossary) frames, carts, and barrels. The food industry's meat-packing plants, dairies, distilleries, and flour mills produced canned meat, sausages, lard, soap, milk, butter, beverages, and confectionery products. The textile and clothing industries processed wool and produced woollen cloth, blankets, carpets, knitwear, cashmere sweaters, and school uniforms. The leather and the footwear industries processed hides and skins from sheep, goats, cattle, horses, and camels and produced various leather products, including shoes and coats. The Eighth



Source: Based on information from USSR, Council of Ministers, Main Administration of Geodesy and Cartography, *Mongol'skaia Narodnaia Respublika, ekonomicheskaiia karta dlia srednei shkoly* (Mongolian People's Republic Economic Map for the Middle School), Moscow, 1985.

Figure 11. Industry, 1985

Plan called for increasing production of various light industries by 17 to 46 percent and for improving labor productivity in these industries by 15 to 33 percent.

Mining

Until the late 1960s, mining in Mongolia consisted primarily of coal extraction. In the 1970s, however, joint exploitation of mineral resources by the Soviet Union and other Comecon nations commenced on a large scale. Comecon and joint Mongolian-Soviet geological teams surveyed the country's natural resources and discovered valuable mineral deposits, such as copper, molybdenum, wolfram, fluorite, gold, and tin. Several joint stock companies, such as Mongolsovtsvetmet, Mongolchekhoslovakmetall, and Mongolbolgarmetall, were formed to develop and to exploit these deposits. By the late 1980s, mining was an important sector of the economy, and accounted for 42.6 percent of exports in 1985. Little information was available on mining output, however.

In 1985 Mongolia mined 6.5 million tons of relatively low-grade varieties of coal, of which only 225,200 tons, or 3 percent, was exported. Exploited lignite deposits were located at Aduun Chuluu, near Choybalsan; Baga Nuur; Nalayh, near Ulaanbaatar; and Sharin Gol, near Darhan. The Aduun Chuluu coal mine's annual output was 300,000 tons. The Baga Nuur strip mine, developed in the 1980s, produced 2 million tons annually by 1985. The Nalayh coal mine, the country's oldest, produced 800,000 tons annually in the 1980s. The Sharin Gol strip mine, developed in the 1960s, had an annual output of 1.1 million tons in the 1980s. The large Tavan Tolgoi deposit of coking coal remained unexploited because of its remoteness from transportation and industrial centers. The Eighth Plan called for raising coal production to 9 million tons, labor productivity 22 to 24 percent, and the capacity of the Baga Nuur mine.

The copper and molybdenum deposit at Erdenetiyn-ovoo was discovered by Mongolian and Czechoslovak geologists in the mid-1960s and was developed with massive Soviet assistance in the 1970s. Erdenet's development required the construction of a branch railroad line from Salhit, near Darhan to Erdenet; a highway from Darhan to Erdenet; a water pipeline from the Selenge Moron; an electric line from the Soviet Union; and factories, housing, and other facilities. A Mongolian-Soviet construction force numbering 14,000 built the Joint Mongolian-Soviet Erdenet Mining and Concentrating Combine, which included a mine, a concentrating plant, a material and technical supply base, a mechanical repair plant, and a high-capacity thermal and electric power plant. The

first stage of the Erdenet combine went into operation in 1978, with a planned output of 50,000 tons for 1979. With the completion of the fourth stage in 1981, planned annual production capacity was 16 million tons of concentrate. From 1979 to 1982, Erdenet's output of concentrates amounted to 250,000 tons of copper and 3,400 tons of molybdenum, with concentrates containing 33 percent copper and 50 percent molybdenum. In 1983 the Erdenet combine was completed. During the Eighth Plan, annual capacity was to reach 20 million tons. No information was available on actual output or exports.

Other nonferrous metals exploited by Mongolsovtsvetmet and other joint ventures were fluorite, wolfram, tin, and gold. The Berh, Bor Ondor, Burentsogt, and Har-Ayrags fluorite deposits had an annual output of 786,700 tons; fluorite was exported to the Soviet Union, but no figures were available. The Eighth Plan called for expanding fluorite production capacity by an unspecified amount. No figures were available on output or on exports of wolfram, tin, and gold. In the late 1980s, plans to open the Urandosh phosphate strip mine near Hatgal were delayed by concerns for environmental pollution in Hovsgol Nuur. Exploitation of the Burenhaan phosphate deposit still was planned. Further development of Mongolia's other mineral resources was also planned, and the Eighth Plan called for continued cooperation with Comecon countries in geological prospecting and mining.

Energy

In the late 1980s, energy in Mongolia was provided primarily by coal-burning thermal and electric power stations. Other energy sources were hydroelectric power, wood, and imported gas and diesel fuel. Mongolia produced its own oil in the 1950s and the 1960s, but reports on oil exploitation ended in 1968. Increased electric power generation, made possible by the expansion of coal mining since the 1960s, powered the rapid development of industry after Mongolia's entry into Comecon. In 1960 when coal production was 618,800 tons, 106.4 million kilowatt-hours of electricity were generated. In 1985 coal production increased to 6.5 million tons, and electricity generation rose to 2.8 billion kilowatt-hours. Per capita electricity generation increased from 111.7 kilowatt-hours in 1960 to 1,487.3 kilowatt-hours in 1985. In 1985 electric power and thermal energy generation and the fuel industry accounted for 11.3 percent and 4.3 percent, respectively, of gross industrial output.

In the late 1980s, despite the growth in power generation, Mongolia suffered from energy shortages. Electricity shortfalls interrupted

the power supply for industries and households in urban areas, and many rural areas lacked electricity. The Eighth Plan called for increasing energy generation, extending rural electrification, and improving the efficiency of the energy industry by economizing on unit fuel consumption and by raising labor productivity. Specifically, the plan called for raising the generation of electric power to between 3.2 billion and 3.4 billion kilowatt-hours and thermal energy to 7.4 million to 7.6 million giga-calories by 1990. Capital investment in the energy industry was to amount to 2.7 billion to 2.9 billion tugriks. Extension of the centralized power supply and rural electrification were to occur by expanding facilities in Ulaanbaatar, by constructing power plants in Baga Nuur and Erdenet, and by building power lines to connect the cities of Arvayheer, Buyant-Uhaa, and Tsetserleg, and more than thirty *somons* (see Glossary). More remote areas were to install diesel-powered and coal-powered energy generating installations to meet their requirements.

Construction

In 1985 the construction sector generated 4.9 percent of national income, and the construction materials industry produced 6.7 percent of gross industrial output. Mongolian statistics indicated that approximately 28,200 workers were involved in construction projects and that 8,500 workers were employed in the manufacture of construction materials in 1985. Mongolian statistics, however, were misleading because they did not include the role of military and foreign labor in the construction sector. The Soviet Union and, to a lesser extent, East European countries and China, played a key role in constructing Mongolia's infrastructure. The Erdenet combine, for example, was built by a 14,000-strong joint Mongolian-Soviet work force that included military construction troops and workers of the Soviet construction company, Medmolibdenstroy. Other Soviet construction companies working in Mongolia included the joint-stock company, Sovmongolpromstroy, which built industrial facilities, and Mongolenergostroy, which constructed electric lines and power stations. In the mid-1980s, Mongolian construction teams undertook 40 percent of construction work; Soviet and other Comecon countries undertook the rest. China provided laborers to help build up Mongolia's transportation and industrial infrastructure in the 1950s, but such aid ceased with the Sino-Soviet rift in the 1960s (see Socialist Construction Under Tsedenbal, 1952-84, ch. 1). In addition, in the 1980s Mongolian military construction troops were involved in building many industrial, agricultural, and other facilities (see Economic Role, ch. 5).

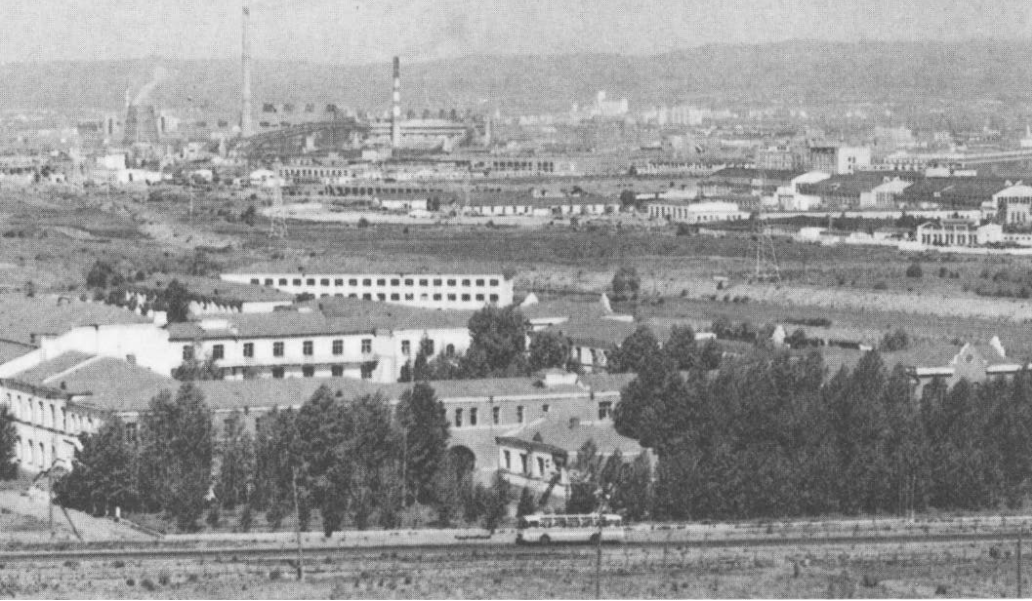
In the late 1980s, the construction sector was plagued by substandard work, delays in completing projects and in installing equipment, and shortages of labor and building materials. To alleviate these problems, the Eighth Plan called for increasing total construction and installation work by 26 to 29 percent, for raising the work performed by Mongolian construction teams by 42 to 44 percent, and for increasing labor productivity by 20 to 22 percent. Manufacture of construction materials was to increase by 160 to 170 percent, and labor productivity in the construction materials industry, by 36 to 38 percent. Measures to increase construction efficiency were recommended, including channeling capital investments into priority projects; reducing construction times and the amount of incomplete construction; improving coordination among planning, construction, and supply organizations and their clients; creating specialized enterprises for rural construction work; and improving working and social conditions for construction workers in order to reduce labor shortages.

Services

Banking and Insurance

Before 1924 Mongolia lacked its own banks and currency. Mongolians bartered, using such commodities as livestock, tea, and salt for exchange, or such foreign currencies as the United States dollar, the Russian ruble, the British pound, and the Chinese Mexican dollar (or, Yanchan, then a standard currency in coastal China) in commerce. Chinese and Russian banks offered credit, as did monasteries and private moneylenders. The government began to transform this chaotic monetary situation with a series of reforms, starting with the establishment of Mongolbank, or the Mongolian Trade-Industrial Bank, in June 1924. Mongolbank was founded as a Mongolian-Soviet joint-stock company. In February 1925, the tugrik was made the official national currency, and it was slowly introduced into circulation over the next three years. In April 1928, all other currencies were withdrawn from circulation. In 1929 the government drove private moneylenders out of business by establishing a monopoly on foreign trade and then outlawing private lending.

The establishment of a stable financial and monetary system, with a centralized bank controlling the national currency flow, permitted the government to introduce a First Plan in 1931. In 1933 additional banking reforms strengthened the position of Mongolbank in the economy. All state and cooperative enterprises were required to keep their accounts with the bank, and cash transactions



*The Sukhe Bator thermal electric power station, Ulaanbaatar
Courtesy Institute of Party History, Ulaanbaatar*

were limited effectively to the household sector of the economy. Thus Mongolbank, which was firmly under government control, was able to monitor and to supervise the business transactions of all enterprises. In April 1954, the Soviet Union handed over its shares in Mongolbank, which was renamed the State Bank of the Mongolian People's Republic. In 1960 the bank's lending activities were restricted to state, cooperative, and private enterprises for which investment funds were approved by the national budget.

In the late 1980s, the State Bank granted short-term credits to cooperatives and state enterprises and long-term credits to the economy's industrial sector. Government borrowing from the bank was limited, although the limits were not always followed. The State Bank worked closely with the Ministry of Finance, and it was governed by a central board. In 1984 the State Bank had more than 400 offices and branches throughout the country. The State Bank, as the central bank, conducted currency transactions with foreign countries and had agent relations with about seventy foreign banks. Insurance was offered by the State Directorate for Insurance, or Mongoldaatgal, which was under the control of the Ministry of Finance.