

SECTION B: BASELINE ASSESSMENT

CHAPTER B8: POPULATION AND DEMOGRAPHICS

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8. POPULATION AND DEMOGRAPHICS

8.1 INTRODUCTION

This Chapter of the ESIA provides population and demographic data for Mongolia, Omnogovi *aimag* and Khanbogd *soum* in which the Oyu Tolgoi Project is located. The Chapter provides key population measures including total population and population growth rates, population structure (age composition and gender balance), ethnicity and language, levels of literacy, education and migration trends.

8.2 METHODOLOGY

Primary Data Collection

Oyu Tolgoi has undertaken an extensive data gathering exercise in order to characterise baseline conditions in the Project Area of Influence. The primary data sources used are set out below:

- Information on migration and migration trends has been obtained from the *Oyu Tolgoi Influx Risk Assessment (2007)*; supplementary data on the projected population of the Project Area of Influence has been taken from the *Southeast Gobi Urban and Border Town Development Project; PPTA Project Report; Supplementary Appendix A; ADB (2009)*;
- The *Oyu Tolgoi Project Social, Economic and Environmental Subset* was undertaken by the Centre for Policy Research, Ulaanbaatar and the Population Training and Research Centre, Ulaanbaatar. This report was based on a subset of the data from the full Omnogovi *aimag* Social, Economic and Environmental Baseline Survey, also published in 2008. This was a household questionnaire survey covering some 1,323 households, representing approximately 10% of the households within the *aimag*. The report contains an analysis of survey results for Khanbogd, Bayan-Ovoo, Manlai and Tsogttsetsii as well as Dalanzadgad *soums*, with comparative figures for the whole *aimag*;
- Oyu Tolgoi have also conducted a series of more detailed surveys on the herder population within Khanbogd *soum* and, in particular, on those herders who could be affected by the Oyu Tolgoi Project; recent surveys comprise the following:
 - in 2007, 280 herder households in Khanbogd *soum* were interviewed for the *Water Perception Survey*; this study identified water users, water quality issues and was used to develop an approach for participatory water management going forwards;
 - the *Relocated Herders Assessment* was undertaken in 2010 by the Community Relations and Sustainable Development (CRSD) Team. This report assesses how the relocation/compensation programme is helping herders, and covers all 16 affected families. The results are included in the Resettlement Action Plan (RAP) (*Chapter D15 of the ESIA*). Data were collected through a structured questionnaire completed at household visits; and
 - the *Impacted Herders Survey* was undertaken in February 2011 by CRSD providing detailed data on household composition and income for those herders who could be affected by the Oyu Tolgoi Project. Households were visited at home and assessed for demographic and income data, assets, livestock numbers, household size, and income; this survey has recently been updated to include all impacted herders (CRSD, May 2011) following clearer definition of who may be affected by the Project.
- The report *Sustainable Pasture Management Project in Khanbogd Soum* was issued in December 2010 by the Mongolian Society for Range Management (MSRM). This report contains a study of pasture conditions within the *soum*, a summary of progress in relation to establishment of the Pasture Users Association, and an outline of assistance to Pasture User Groups in two selected *baghs*; MSRM publish a quarterly update to this report, the latest of which covers Q1 2011;
- Specific *soum*-level data have also been collected by Oyu Tolgoi and are recorded in the *Khanbogd Soum Social Mapping Database (2011)*. The mapping database is a compilation of data available at the *soum* level presented as a series of thematic spreadsheets; as appropriate, official data sources are quoted. These data have been used to update and verify the demographic data presented in the original DEIAs and the baseline surveys for the Oyu Tolgoi Project; and

- Preliminary 2010 census data is now available for Mongolia and has been referenced in this Chapter as it becomes available; full census data became available in July 2011 through the Mongolian National Statistics Office.

Secondary Data Sources

Data have also been collected from published secondary sources including the Mongolian Ministry of Health (MOH) and the Mongolian National Statistics Office (NSO). World Health Organisation (WHO), World Bank, and UN agency sources have been used to provide supplementary national data.

8.3 NATIONAL SETTING

8.3.1 Population and Population Growth

Mongolia is the fifth largest country in Asia, covering a total area of 1.6 million km². To date, the country has conducted 10 population censuses: in 1918, 1935, 1944, 1956, 1963, 1969, 1979, 1989, 2000, and in 2010. The most recent census was carried out in November 2010 and the preliminary data on the *aimag* population were made available in July 2011.

In 2010, the population of Mongolia was estimated to be 2.9 million people¹ giving an overall population density of 1.7 persons per km² (making it the least densely populated country in the world). The population growth rate is 1.5%², and the population is set to grow to just under 3 million by 2015.²

Life expectancy at birth has increased (from 62.8 in 1992 to 67.2 in 2008), but with a gender gap; in 2008, for example, life expectancy at birth was 71.0 for women and 63.7 for men. The 2009 data showed an adult (average for both genders) life expectancy at the level of 67.9 years.

At the end of the 1980s the total fertility rate² (TFR) was approximately 4.5 children per woman, and by 1993 it had dropped down to 2.5 children per woman, with a further decrease during the period from 2000-2003 to a level of around 2. From 2003-2009, the total fertility rate remained largely stable at around 2.2. In spite of the general decline in fertility rates observed since the 1990s, population growth has still been substantial. When a country has a large and young population base (as is the case in Mongolia), it takes a generation or more for declining growth rates to offset the numerical effect of high growth rates in the past.³ *Table 8.1* summarises key features of Mongolia's population in 2000 and 2009. The table confirms the increasing urbanisation of the population and illustrates trends in crude birth rate, mortality rates for mothers, infants and children less than 5 years.

Table 8.1: Selected Population Indicators for Mongolia

Demographic Indicators	2000	2009
Total population	2,407,500	2,735,500
Urban %	57.2	62.6
Population growth %	1.5	1.9
Crude birth rate /1000 population	21.5	25.3
Life expectancy at birth	66.0	67.9
Infant mortality rate /1000 live births	31.2	20.2
Under 5 years mortality rate/1000 live births	42.4	23.6
Maternal mortality ratio/100,000 live births	158.5	81.4

Sources: *Census 2000 and 2009. Health Indicators, 2009 (MOH 2010).*

¹ United Nations Population Division: Mongolia Demographic Profile

² Average number of children that would be born per woman if all women lived to the end of their childbearing years,

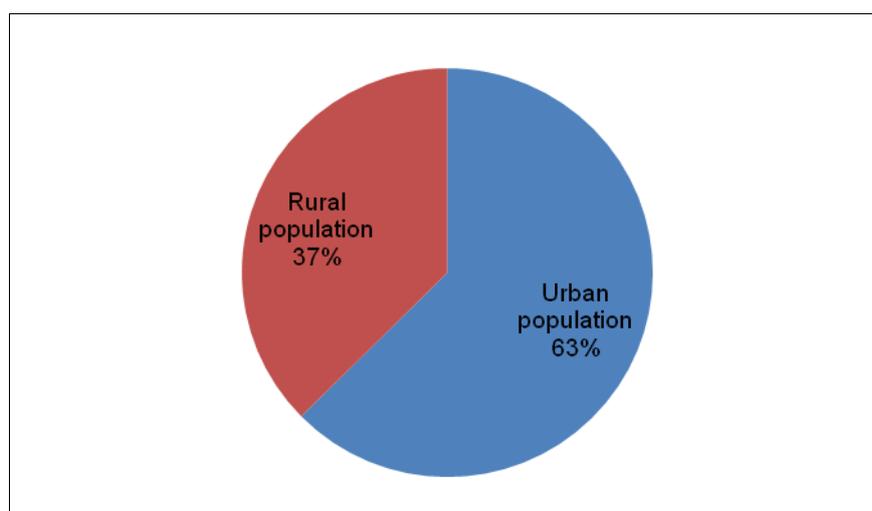
³ Ricardo F. Neupert [1996]. Population and the Pastoral Economy in Mongolia. *Asia-Pacific Population Journal, Vol. 11, No. 4 (1996), pp. 27-46.*

In 1995, the Mongolian government promulgated a *Population Policy* which addressed the need for sustained population growth to support country development needs. The goal of the Policy for the period of 2010-2015 is to create conditions for maintaining the average annual population growth rate at no less than 1.8%, reducing infant and under five mortality rates by one third, reducing the maternal mortality rate by 50% (from the 1990 level), and increasing life expectancy at birth.⁴

8.3.2 Population Distribution

In 2009, 62.6% of Mongolia's total population was urban (*Figure 8.1*) with more than half of the urban population residing in Ulaanbaatar (*Table 8.2*). The rural population density is 0.65 habitants per km², which is extremely low and reflects a widely-dispersed population.

Figure 8.1: Distribution of Mongolian Population, 2009



Source: *Health Indicators, 2009 (MOH 2010)*.

Table 8.2: Population Distribution in Mongolia, 2003-2006

Population	2003	2004	2005	2006
Total ('000)	2,504.0	2,533.1	2,562.4	2,594.8
Urban	1,464.2	1,498.2	1,543.3	1,579.5
Of which:				
Ulaanbaatar	893.4	928.5	965.3	994.3
Rural	1,039.8	1,034.9	1,019.1	1,015.3

Source: *National Statistical Office of Mongolia*.

8.3.3 Age Structure

Around 27.6% of Mongolians are under the age of 15 years, 68.4% between 15-64 years and only 4.0% are aged 65 years and above. The most populated age group is between 15 and 29 years old (30.6%), while the population of over 70 years old is only 2.02% of the total.⁵

A young age profile caused by high fertility in the past has resulted in high rates of population growth in Mongolia. However, fertility levels have now fallen to low levels, and this, combined with improved life expectancy, has resulted in the UN forecasting growth rates to decrease in the future (this projection may

⁴ www.hsph.harvard.edu/population/policies/mongolia.pop.doc

⁵ Nao Nukiwa *et al.* The trend of transitional age structure underestimates influenza excess mortality in Mongolia. XI International Symposium on Respiratory Viral Infections (2009). Poster abstracts. <http://www.themacraegroup.com/>.

not take into account immigration to Mongolia).⁶ The age structure of the population is slowly changing and there will gradually be larger numbers of older people. This has already been seen in Mongolia with an increase in the median age from 19.3 in 1990 to 25.4 in 2010 (age 25 being a general benchmark for an aging population).⁷

8.3.4 Gender Composition

At the national level, males comprise 48.9% and females 51.1% of the total population giving a relatively even gender balance. Female-headed households represent about 11% of households nationally.

8.3.5 Ethnic Composition

Mongolia is a relatively homogeneous country with the vast majority of people belonging to the Khalkh Mongol ethnic group and speaking the Khalkh Mongol language.⁸ There are also clusters of Russian and Chinese residents, mainly in the cities, but most of the Russians appear to have migrated/repatriated after the collapse of the Soviet Union.⁹

8.3.6 Indigenous Groups

Numbering only 200 individuals, the indigenous Tuviniian-speaking Tsaatan (also known as Dukha) reindeer herders survive in the Sayan Mountains around Lake Hovsgol in northern Mongolia. Another indigenous group are the Evenk, who are also known as *Khamnigan* in Mongolia and speak the Tungusic language. The estimated number of Evenk households is about 300. There are no indigenous groups within the South Gobi. It is worth noting, however, that there has been some debate about the classification of nomadic herders as 'indigenous'; some of the key findings of this debate are summarised below.

The *State of the World's Minorities and Indigenous Peoples - Mongolia (Minority Rights Group International - 2010)* does not include nomads or herders in Mongolia as a minority nor as indigenous peoples.¹⁰ In addition to the lack of external recognition of a standalone identity, nomadic herders in Mongolia do not self-identify as members of a distinct indigenous cultural group, nor do they use an indigenous language. Herder communities do not have separate institutional frameworks different from those formally established in Mongolian society. The attachment to ancestral lands and related land-based practices and livelihoods reflect the overall nomadic tradition and are typical for the majority of the Mongolian people.

8.3.7 Language

The Mongolian language belongs to the Ural – Altaic language family. More than 10 million people speak Mongolian (much more than Mongolia's population of 2.8 million). They live mainly in Mongolia, the Buriat republic of the Russian Federation, Inner Mongolia in China, the Xinjiang and Gansu regions of China, and Tibet. In the western part of the country, a significant proportion of the population speaks a dialect of Turkic Mongolian. Oirat groups speak a different variation of Mongolian.

⁶ United Nations Population Division. Mongolia Demographic Profile.

⁷ The Government of Mongolia and UNICEF Country Programme of Cooperation 2007-2011. Midterm review report.

⁸ Extract from the 2007 "World Directory of Minorities and Indigenous peoples - Mongolia: Overview": *While some 85% of the population is of Mongol background, mainly Khalka (90%), Durbet, and other Mongols (Source: National Statistical Office of Mongolia Census 2000), there is a fairly substantial (about 4%) Kazakh-speaking Muslim minority concentrated mainly in the northwest corner of the country in the western province of Bayan-Olgii. There are a number of other Mongol groups with distinct dialects and cultures such as the Durbet, Bayad, Buryat and Dariganga Mongols. There are, in addition to Kazakhs, some other small groups of Turkic-speaking minorities in the western and northern parts of Mongolia (Uyghurs, Uzbeks, Tuviniians, Urianhais and Hotons).*

⁹ Minority Rights Group International, *World Directory of Minorities and Indigenous Peoples - Mongolia: Overview*, 2007, available at: <http://www.unhcr.org/refworld/docid/4954ce4bc.html> [accessed 12 November 2010].

¹⁰ Minority Rights Group International, *State of the World's Minorities and Indigenous Peoples 2010 - Mongolia*, 1 July 2010, available at: <http://www.unhcr.org/refworld/docid/4c33310e3c.html> [accessed 12 November 2010]

After the revolution of 1921, the original Mongol script – *bichig*¹¹ – had been used in the Mongolian People's Republic until 1941, when it was officially abandoned in favour of a slightly modified Cyrillic alphabet (after unsuccessful attempts to introduce the Roman alphabet in the 1930s and in 1940). The transfer to Cyrillic was completed in the 1950s and subsequently helped reduce illiteracy by the end of the 1950s. From the 1990s, a renaissance of Mongolian script began by teaching it at all secondary schools and, as a result, nearly half of all Mongols now write and read in traditional script. Although the Cyrillic alphabet is still the official and the most widely-used form of writing in Mongolia, the old Mongolian script is regarded as the historic alphabet that characterizes Mongolian tradition.

8.3.8 Religion

In modern Mongolia, the predominant religion is the Yellow Sect of Tibetan Buddhism. Shamanist practices are also prevalent among the western Buriads, Dairs, Old Barga, Darkhad, and the Khori Buriads. 5% of the total Mongolian population today are Sunni Muslims, mainly ethnic Kazakhs populating the western region. As a result of the post-1990s' missions to Mongolia, the number of Christians may have reached several thousand, although Buddhism remains the dominant religion.

8.3.9 Educational Level

The World Bank reported¹² that the Mongolian education sector was recovering from the fall of communism and the subsequent removal of Soviet support for education from the early 1990s. The Mongolian Government has, in recent years, placed considerable efforts to protect public spending on education and to recover from the drop in enrolments that occurred in the mid-1990s. The main goals are to nurture both the physical and intellectual development of Mongolian youth and to enhance their ability to study, work and live independently.¹³

To combat persisting problems with education, the Government also introduced a number of national initiatives including the World Bank funded Rural Education and Development (READ) Project and the "Education for all" Fast Track Initiative. Rural areas are a key target group for both strategies. Key education indicators are provided in *Table 8.3*.¹⁴

Table 8.3: Education Indicators in Mongolia

Indicator	Year	Percentage
School enrollment, primary (% net)	2009	90.5
Primary completion rate, total (% of applicable age group)	2008	93.3
School enrollment, secondary (% net)	2009	82.4
School enrollment, tertiary (% gross)	2009	52.7
Literacy rate, adult total (% of people ages 15 and above)	2009	97.5

Source: World Bank.

The education system in Mongolia reflects the Soviet model of successive education: nursery school, kindergarten, ten-year primary and secondary school, followed by higher education. The academic year begins on September 1st. School attendance is high with primary school attendance estimated at over 90% (as a national average).¹⁵ The school system, previously based on the ten-year school, has been shifting towards a longer educational span. The Government has recently introduced a set of important

¹¹ The classical vertical script.

¹² World Bank, Development Topics: Overview of Education in Mongolia, June 2007.

Source URL: <http://web.worldbank.org/>

¹³ Booklet of laws in educational sector, 2006

¹⁴ World Bank: Mongolia: Encouraging a better educated tomorrow. July 2010. Source URL: <http://web.worldbank.org/>

¹⁵ World Bank: Open Data 2011. Source URL: <http://data.worldbank.org/topic/education>

reforms, including the decision to expand the primary-secondary cycle to 11 years. The ultimate goal is to move to a 12-year system.¹⁶

In 2004, the official school entry age to Grade 1 changed from eight to seven, and then was further lowered to six starting from 2008. The proportion of pupils entering Grade 1 that reach Grade 5, known as the *retention rate*, has remained stable at 88% from 2005-2008. There is no major gender difference in Net Enrolment Ratio¹⁷ (NER) in primary education. In 2007, the gender ratio in NER in primary education was equal for boys and girls (at 92.7%). Overall, gender equity has been attained in primary education, while at secondary and tertiary levels there is a gender gap in favour of female students. For tertiary education, the share of female students exceeds the share of male students at 1.53:1.00 (only 2005 data available). This difference can be explained by the males' predominant traditional role in herding and livestock management.

Although education levels are relatively high in Mongolia compared to other low-income countries, there are disparities between rural and urban education outcomes. There are still many children in rural areas who do not attend primary or secondary school. According to UNESCO¹⁸, enrolment in most rural schools was estimated at below 80% in 2005, with more than 20% of primary school children dropping out of school. The *2002 World Bank Living Standards Measurement Survey* showed that 3% of rural students never enrol in school, Grade 4 completion is 95% and 9% drop out before completing Grade 8. In addition, urban schools are becoming overcrowded due to rapid rural to urban migration.¹⁹ Access to education for rural and predominantly nomadic people in remote areas remains restricted. The lack of access can be attributed to a number of socio-economic factors, including:

- Limited state funding for rural schools, most of which consequently lack adequate amenities (e.g. heating and boarding facilities to cater for nomadic children);
- Local modes of production (for rural Mongolians that are predominantly nomadic herders, education may not be of enough value to their socio-economic life; as a result, many children and particularly boys, drop out of school in order to assist their parents, with some studies suggesting that boys account for only 40% of enrolment in upper secondary education); and
- A lack of public awareness regarding the laws which require all children under the age of 16 to attend school.²⁰

8.3.10 Literacy

Recent data show a growth in the literacy rate following the post-Soviet recovery period (*Figure 8.2*). The adult literacy rate is 97.8% with a slightly higher figure for females.²¹

¹⁶ World Bank, Development Topics: Overview of Education in Mongolia, June 2007.

Source URL: <http://web.worldbank.org/>

¹⁷ Enrolment of the official age-group for a given level of education expressed as a percentage of the corresponding population.

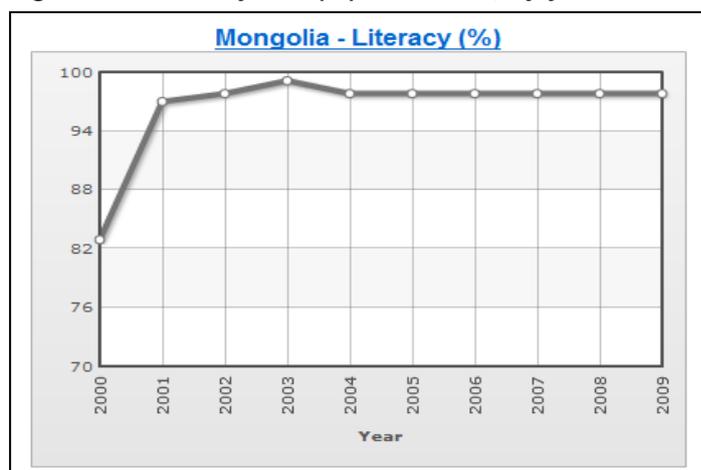
¹⁸ UNESCO, Literacy through Distance Learning, Country Profile: Mongolia; <http://www.unesco.org/ui/litbase/?menu=4&programme=51>

¹⁹ World Bank, Development Topics: Overview of Education in Mongolia, June 2007; <http://web.worldbank.org/>

²⁰ UNESCO, Literacy through Distance Learning, Country Profile: Mongolia.

²¹ Oyu Tolgoi Project Social, Economic and Environmental Subset, Centre for Policy Research, Population Training and Research Centre, 2009.

Figure 8.2: Literacy rate (%) 2000-2009, by year



Source: CIA World Factbook²²

8.4 OMNOGOVI AIMAG

8.4.1 Population and Population Growth

In 2010, Omnogovi *aimag* had an estimated population of 48,500, the third lowest of all Mongolian *aimags*, and making up less than 2% of the national population.²³ One third of the population is classified as urban, whereas two thirds are rural. Population density in Omnogovi *aimag* is 0.28/km², making it the lowest in the country.

Since 1980, fertility in the *aimag* has declined by almost five children per woman (from 8 to less than 3), which is a greater downward trend than for the same indicator at the national level (from 6.5 to less than 3 children per woman).²⁴ The current fertility rate of 2.08 children per woman is close to the national average of 2.2. One of the reasons behind declining fertility and birth rates may have been the overall societal change since the end of the communist era, changes in traditional lifestyle structures and traditions, and the move to modern, small-family trends.

The estimated life expectancy at birth for the period of 2005-2007 was 61.2 years for men and 71.2 years for women, and the average life expectancy rose from 64.3 in 2000 to 66.5 in 2010.

The average household size is 3-4 people with less than 1% of households now comprising extended families. Three generations co-residing in one household used to be a common practice, but this tradition has decreased due to outwards migration, urbanisation, as well as changes in traditional family structure and size. As shown in *Table 8.4*, Khanbogd *soum* is the most populated of its neighbouring *soums* (Bayan-Ovoo and Manlai). Dalanzadgad, the *aimag* capital, has the greatest number of population of nearly 18,000.

²² As quoted in Index Mundi, <http://www.indexmundi.com/>

²³ It should be noted that *Aimag* and *Soum* government's population estimates are based on citizen registration.

²⁴ National Statistical Office of Mongolia, 2003. Mongolian Population in XX Century, Ulaanbaatar National Statistical Office, pp. 185-188.

Table 8.4: Soum and Aimag Population

Year	Khanbogd (Key Urban Service Centre for Oyu Tolgoi 45 km)	Bayan-Ovoo (Satellite Urban Centre, Oyu Tolgoi 80km)	Manlai (Satellite Urban Centre – Oyu Tolgoi 120 km)	Dalanzadgad (Aimag Centre)	Total Aimag
2007 Total Population	2,974	1,539	2,510	15,176	47,299
2010 Total Population	3,522	1,600	2,441	18,746	48,517
Population Growth Rate 2006-7	2.5	1.3	1.6	3.1	2.1
% Rural	59.7	74.5	79.6	3.1%	
% Female HH Head	18.3	17.4	21.9	22.1	20.0
Density km ²	0.2	0.15	0.2	31.9	0.28

Source: 2007, 2010: Omnogovi Aimag Statistical Office, 2010 from Khanbogd Government Office. HH: household, as cited in KTKK Health Impact Assessment, 2010; National Statistics Office, 2010 Census Data.

Table 8.5 below summarises key features of the Omnogovi population in 2000 and 2010 respectively. The data reflect the overall national trend for a growing and aging population.

Table 8.5: Omnogovi Population, 2000 and 2010

Key Indicators	Omnogovi 2000	Omnogovi 2010
Total Population	45,420	48,517
Sex ratio (% male/female)	49.6/50.4	49.1/50.9
Age structure (%)		
0-14 yrs	40.3	30.0
15-64 yrs	54.9	64.9
65+ yrs	4.8	5.1
Median age	18.5	23.3
Mean Life expectancy at birth	64.3	66.5

Source: Oyu Tolgoi Community Health Safety and Security Impact Assessment 2011.

8.4.2 Age Structure

In 2010, 30% of the Omnogovi population was in the 0-14 yrs age group, 64.9% in the 15-64 years age group and 5.1% over 65, compared with 27.6%, 68.4% and 4% nationally.

8.4.3 Gender Composition

The *aimag* had a fairly even gender balance with the ratio of males to females in 2010: 49.1% males to 50.9% females. 20% of households in the *aimag* are female-headed households, compared to only 11% nationally.

8.4.4 Ethnic Composition

According to the 2000 census, 99.87% of the South Gobi population were Khalkha Mongols and other ethnic groups only accounted for 0.13%. When interviewed for the Omnogovi baseline study, most people were inclined to consider Khalkha and Mongolian as almost interchangeable terms, although some did acknowledge that there were ethnic minorities in Mongolia (even if scarcely present in Omnogovi).²⁵ This implies that the majority of respondents, almost half of whom were herders, considered themselves to be Mongolian, rather than belonging to a minority group.

²⁵ Source, Oyu Tolgoi SEE Baseline Subset, p. 403.

The number of people in the *aimag* from ethnic minority groups, such as Durvud, Torguud, Uriankhai, Zahchin and Oold, had been recorded as only 177 individuals in 1989 and had decreased to 63 by 2000. This decrease probably resulted from the lifting of regulations on people's movements that had prevailed during the Soviet era which had often led to population displacements. Relaxing of the restrictions may have enabled these ethnic groups to return to their places of origin.

8.4.5 Language

The language spoken in Omnogovi *aimag* is Khalkha Mongol, i.e. standard Mongolian. According to the baseline survey results, 29.2 % of literate population in the Project Area of Influence are literate in the old Mongolian script, although the figure varies by *soum*.

8.4.6 Religion

In Omnogovi *aimag*, the only religious organisations that are registered are Buddhist and Christian. The baseline survey results indicated that in the four *soums* that neighbour the Oyu Tolgoi site, about 66% of the people surveyed are Buddhist, and 3.3% are Christian, with 31% not following a formalised religion (*Table 8.6*). Whilst Christianity is a more recent religion, it is practised within all *soums* of Omnogovi *aimag*. There are currently 9 Christian churches operating in 8 *soums* in the *aimag*. Funding of the Christian groups is covered by the one tenth ('tithes') contributions from believers as well as donations from the Mongolian Evangelism Organisation, World Vision, and other religious forums such as Eternal Truth, etc.

Table 8.6: Religious Diversity in Omnogovi Aimag

Soums	No Formal Religion	Buddhist (%)	Christian (%)	Other (%)
Bayandalai	34.9	63.5	1.6	n/a
Bayan-Ovoo	67.4	26.1	6.5	n/a
Bulgan	12.8	83.3	3.8	n/a
Gurvantes	13.0	86.1	n/a	0.9
Mandal-Ovoo	13.7	82.4	3.9	n/a
Manlai	26.6	73.4	n/a	n/a
Nomgon	49.3	50.7	n/a	n/a
Noyon	12.2	85.4	2.4	n/a
Sevrei	32.4	64.8	2.8	n/a
Khanbogd	11.9	86.2	1.8	n/a
Khankhongor	22.9	77.1	n/a	n/a
Khurmen	33.9	64.3	1.8	n/a
Tsogttsetsii	18.3	80.0	1.7	n/a
Tsogt-Ovoo	15.2	81.8	3.0	n/a
Dalanzadgad	20.5	73.3	5.4	0.8
Aimag Total	23.3	73.5	2.9	0.3

Source: Oyu Tolgoi Project. Social, Economic and Environmental Subset, Centre for Policy Research, Population Training and Research Centre, 2009.

8.4.7 Education

The Oyu Tolgoi Social, Economic and Environmental Subset included a survey of education levels in Omnogovi. The survey involved interviews with the total of 4,779 individuals from the *aimag* aged 10 years and above, including 983 individuals from 285 households within the four *soums* that neighbour the Oyu Tolgoi site. *Table 8.7* provides information on the educational levels of those surveyed.

Table 8.7: Educational Level of Surveyed Individuals (%)

	No Education	Primary	Basic	Secondary	Technical / Professional	Higher	Total
Bayan-Ovoo	5.2	22.7	41.6	16.9	4.5	9.1	100
Manlai	16.8	25.5	34.1	14.1	4.1	5.5	100
Khanbogd	11.0	23.8	33.7	20.6	4.5	6.4	100
Tsogttsetsii	11.9	26.0	28.1	23.0	3.4	7.7	100
Average of <i>soums</i> in Oyu Tolgoi Project Area of Influence	11.2	24.5	34.4	18.6	4.1	7.2	100
Dalanzadgad	5.6	15.2	22.2	28.3	10.1	18.7	100
<i>Aimag</i> average	7.7	23.3	28.0	23.4	7.0	10.6	100

Source: Oyu Tolgoi Project Social, Economic and Environmental Subset. September 2009.

In the four *soums* that neighbour the Oyu Tolgoi site (Khanbogd, Bayan-Ovoo, Manlai and Tsogttsetsii); about 25% of the population have received education up to primary level, 34% basic level education, and 19% up to secondary level. About 4% have been educated to technical/professional level and 7% of the surveyed population had reached higher education. About 11% have no formal education.

Various kinds of informal courses are used to augment formal education for those attending schools, and also to contribute to the education of those not attending schools. The Department of Education and Culture organises various courses within the framework of informal education in collaboration with 15 educational centres. A distance-learning council was established in the *aimag* to regularly provide various courses on health, English language, computer skills, everyday life skills, professional studies, and vocational training for teachers in rural *soums*. There is also a vocational and technical education centre – the only institution providing vocational education in the *aimag* that currently caters for over 500 students studying on 12 different speciality courses.

8.4.8 Literacy

The majority (97%) of people surveyed in the *soum* are literate in Cyrillic, including about 96% of men and 98% of women.

8.5 KHANBOGD SOUM

Khanbogd *soum* is the *soum* in which the Oyu Tolgoi Project is located and all the major physical components of the Project are located here.

8.5.1 Population and Population Growth

The total population of Khanbogd *soum* was estimated to be 3,522 people in 2010, up from 2,974 in 2007 and 3,154 in 2009.²⁶ Table 8.8 illustrates key demographic data for the *soum* over the period of 2007-2010.

Table 8.8: Population, Khanbogd *soum*, 2007-2010

Key Indicators	2007	2008	2009	2010
Population size (<i>soum</i>)	2,974	3,041	3,156	3,522
Population growth rate	Not available	2.3%	3.8%	11.6%
Males	1,441	1,474	1,562	1,753
Females	1,533	1,567	1,594	1,769

²⁶ Confirmed by the 2011 census.

Key Indicators	2007	2008	2009	2010
Sex ratio (males/females)	0.94	0.94	0.98	0.99
Households	839	918	985	1,112
Herders	Not available	Not available	1,793	2,067
Percentage herders	N/A	N/A	56.8%	58.7%
Soum centre residents	Not available	Not available	1,363	1,455
Average household size	3.54	3.31	3.26	3.17

Source: Khanbogd soum population database 2011, CRSD (soum statistics office).

Table 8.9 illustrates the population breakdown by *bagh* (subdivision of *soum*).

Table 8.9: Population Sub-Division by Bagh

	Javkhlant		Nomgon		Gaviluud		Bayan		Soum	
	Pop	HHs	Pop	HHs	Pop	HHs	Pop	HHs	Pop	HHs
2007									2,974	839
2008									3,041	918
2009	944	285	544	205	928	264	740	231	3,156	985
2010	997	315	693	227	1012	308	820	262	3,522	1,112

Source: Statistics and Treasury Officer, Khanbogd Soum Governor's office

In 2010, over 40% (or 1,455 people²⁷) of the overall *soum* population lived in the *soum* centre (the remaining 60% in rural areas of the *soum*). In 2010, there were 2,067 herders within Khanbogd *soum*.²⁸ Herders accounted for just under two thirds of the overall *soum* population with an even balance of females and males.²⁹ Whilst the majority of herders in the *soum* live rurally, some herder households are based in the *soum* Centre and use other herders or contract workers to manager their herds (see *Chapter B9: Employment and Livelihoods*).

Average household size in Khanbogd *soum* has been declining rapidly. In 2000, for example, there were on average 4.2 people in each household across the *soum*. By 2007, this number dropped to 3.5, and in 2010 fell further to 3.1 people per household on average. The overall downward trend follows the similar national and regional patterns discussed earlier in this Chapter.³⁰

The number of herders in Khanbogd has grown each year between 2007 and 2010, as shown in *Table 8.10*.

Residence data are collected annually, at the change of calendar year, in winter. Anyone registered as a herder will have their primary residence in the rural area, although they may have alternative temporary or permanent residences in the *soum* centre, depending on means and relatives. There are also *soum* centre residents who have livestock but, if they do not list their primary income as herding, they will not be counted as herders.

²⁷ IFAD (2007, 2010) Rural Poverty in Mongolia quoted in Oyu Tolgoi Community Health Safety and Security Impact Assessment 2011.

²⁸ *Soum* Governor Statistics Office.

²⁹ Khanbogd *Soum* Government; Source: Statistical Department of South Gobi, 2011.

³⁰ Note: Population estimates are imprecise, partly due to the practice of only counting the registered population and partly due to the fact that approximately 20% of local urban population is made up of seasonal pastoralist families who live in the *soum* centre during winter and move with their livestock to pastures in summer (IFAD, 2010).

Table 8.10: Number of rural herders and soum centre residents in Khanbogd Soum, 2007 – 2010³¹

Khanbogd soum	2007			2008			2009			2010		
	Total	Male	Female									
Total Population	2,974	1,441	1,533	3,041	1,474	1,567	3,156	1,562	1,594	3,522	1,753	1,769
Rural herder							1,793	887	906	2,067	1,015	1,052
Soum centre							1,363	675	688	1,455	738	717

Source: Khanbogd Soum Government; Source: Statistical Department of South Gobi, 2011

About 40% of the *soum* rural population are seasonal pastoralists³² who move herds of camels, horses, goats, sheep and other livestock between summer and winter grazing areas. Many herders are increasingly sedentary and move their herds around without having to move their household. Moreover, there is an increasing movement towards a more urbanised lifestyle within the herder population, as many herder households now have permanent residences in the *soum* centre. During the summer and autumn months when pastures grow, herders move their *gers* to a location which they consider to have good pasture. These summer camps are typically located in the vicinity of hand dug shallow wells that provide water for animals and herder families. Despite their itinerant life style, most herder families send their children to stay with relatives in the *soum* centres during term-time so that they can attend school. Herder livelihoods are discussed in detail in *Chapter B9: Employment and Livelihoods*.

8.5.2 In-migration and Out-migration

In the recent past Khanbogd experienced the same depopulation as nearly all other rural *soums* in Mongolia, with most migrants moving to Ulaanbaatar. More people left Khanbogd than arrived in all but one year of the seven years between 1997 and 2003. In 2004 activity increased at the Oyu Tolgoi site and from that date arrivals have increased and the proportion of departures has decreased, with arrivals far exceeding departures by 2006³³. These migration dynamics have contributed to the growing population of Khanbogd with numbers growing by 18% between 2007 and 2010 from 2,974 people to 3,522.

Table 8.11: Number of in-migrants and out-migrants and net migration, Khanbogd, 1997 to 2006

Year	Number of in-migrants	Number of out-migrants	Net change (in-migration less out-migration)
1997	31	40	-9
1998	8	18	-10
1999	23	27	-4
2000	22	20	2
2001	33	59	-26
2002	36	42	-6
2003	10	23	-13
2004	68	6	62
2005	60	9	51
2006	230	43	187

Source: Khanbogd Labour and Social Welfare Office Statistics published in Barclay (2007) Oyu Tolgoi Influx Risk Assessment

³¹ There was no disaggregated data before 2009 i.e. separating rural herders and town centre residents.

³² See *Chapter B10* for a definition of rural pastoralists.

³³ Khanbogd Labour and Social Welfare Office Statistics published in Barclay (2007) Oyu Tolgoi Influx Risk Assessment

Most of the in-migrants to Khanbogd have been from local areas and over a third had family links already in the area. An analysis of the Khanbogd *soum* arrivals register for 2006 showed that three quarters (77%) came from elsewhere in Omnogovi *aimag*, a further 9% came from the adjoining *aimags*, and 7% came from Ulaanbaatar³⁴. Nearly all in-migrants settled in Khanbogd *soum* centre and over a third (36%) had family or relatives in Khanbogd. According to the 2008 baseline survey, 7% of all households living in Khanbogd had migrated into the *soum* from another area.

Oyu Tolgoi commissioned an Influx Risk Assessment in 2007 to estimate construction phase in-migration related to the Project³⁵. The results from this assessment estimated between 500 - 1700 in-migrants would settle at least temporarily in the vicinity of the Oyu Tolgoi mine site in 2010 based on predicted numbers of 1,700 Mongolian workers at the mine and related facilities. Workforce numbers have increased more quickly than assumed for these calculations. The effective peak construction workforce as at December 2011 was 17,904 people, 11,722 of whom were Mongolian nationals.

The Health Impact Assessment³⁶ notes that the *aimag* capital Dalanzadgad and Khanbogd *soum*, have experienced population growth related to in-migration from the overall momentum of the Project and the intensive construction phase. In the other two impacted *soums*, Bayan-Ovoo and Manlai, which are adjacent to Khanbogd, there is movement of people in both directions (out-migration to Khanbogd for mine-related jobs, and in-migration from more distant places to seek employment in the area).

A trend noted by the Health Impact Assessment in all four impact areas including Khanbogd *soum* is the consolidation of the population in the Soum Centre, as herder families increasingly move in from pasturelands. Contributing factors are:

- Loss or degradation of grazing land;
- Extreme winters;
- Transition in livelihoods from traditional herding to waged employment; and
- The slow recovery of markets for animal products after the global financial crisis and poor seasons.

This has intensified attempts by herders to find work in Oyu Tolgoi and other enterprises.

Recent In-migration Data for Khanbogd Soum Centre

Influx to Khanbogd *soum* centre over the past few years (including Oyu Tolgoi contractors and staff living within the *soum* centre, but not including workers living in construction camps in the Mine Licence Area and other remote construction camps) is as shown below:

Table 8.12: Khanbogd Soum Centre Population and Migration

Year	Soum Centre Population	In-migration	Out-migration	Net migration	Percentage increase due to migration
2006	2901	183	33	150	5.2%
2007	2974	126	72	54	1.8%
2008	3022	71	68	3	0.1%
2009	3154	96	50	46	1.5%
2010	3522	305	49	256	7.3%
2011 (to October)	Approx. 3900	323	86	237	7.3% (annualised)

Source: Khanbogd *soum* Governor's Office

³⁴ Barclay (2007) Oyu Tolgoi Influx Risk Assessment

³⁵ Barclay (2007) Oyu Tolgoi Influx Risk Assessment

³⁶ Oyu Tolgoi Community Health Safety and Security Impact Assessment 2011

All in-migrants to Khanbogd *soum* (as across Mongolia) are required to register with the *soum* administration. This includes permanent and temporary from within Mongolia and also national and international contractors. As a result, the table above captures all residents, of whatever nature, within the *soum* centre.

8.5.3 Gender Composition

There are similar numbers of males and females in the population of the *soum* as well as amongst the rural herder population and the *soum* centre population. Nearly one in five households is headed by a woman in Khanbogd *soum* (18.3%)³⁷. The most likely explanation for this level of women-headed households is the differing life expectancy in Mongolia between men and women (71.0 for women and 63.7 for men), and also the increasing number of men from rural areas seeking employment outside their primary places of residence, i.e. in the main cities of Ulaanbaatar and Erdenet. As evidenced in *Table 8.10* above, however, the number of males as a proportion of the population has been increasing slightly faster than the number of females over the corresponding period, which may be a reflection of influx trends related to employment in the mining sector (and for the population in Khanbogd *soum* as a result of job generation at Oyu Tolgoi).³⁸

8.5.4 Ethnic Composition

The Khalkha Mongol people constitute the ethnic majority in Khanbogd *soum*.

8.5.5 Language

The language spoken in the *soum* is Khalkha Mongol, i.e. standard Mongolian.

8.5.6 Religion

Khanbogd has the highest percentage of religious followers in the *aimag*. The majority of respondents within the baseline survey recorded themselves as Buddhist (86%). A small number (about 2%) are Christian and nearly 12% are not recorded as members of a formal religion.

8.5.7 Education

Traditionally, education in unschooled pastoral families began at the age of two or three by learning the names of seasons, directions, and familiar objects, moving on to memorization games. As a custom, pastoral skills were specifically taught, including knowing the proper names for the different breeds and 'colours' of livestock, for which an extensive and exact vocabulary exists in Mongolian. At the same time, children's senses were trained to see and count things from far off, to track wild animals, and to observe weather signs. The names of mountains and other geographic features were also memorized. However, there is now a move towards a more formalised education system.

The existing official statistical data for Khanbogd show that there were 360 children in primary school with 11 teachers, 258 in secondary school with 10 teachers and 77 in High School with 9 teachers in the academic year 2007-2008.³⁹ Due to rapid population growth, the pressure on education facilities in Khanbogd has increased, leading to pre-school children being turned away from the kindergarten and significant overcrowding in the school (over 700 students in a school designed for 360). Oyu Tolgoi plans to support an extension of the kindergarten in response to the capacity issue: this is described under the Local and Regional Planning and Infrastructure Programme (LRPI) (see *Chapter C8: Population and Influx*).

³⁷ Khanbogd *soum* population database 2011.

³⁸ The ADB study published in 2009 forecast a rapid population influx, initially comprised of unaccompanied men, to be brought about by the new economic development in South Gobi, Source: Asian Development Bank, *Mongolia: Southeast Gobi Urban and Border Town Development Project and Mainstreaming Managing for Development Results in Investment Planning and Public Funds Management*. November 2009

³⁹ Khanbogd *soum* population database 2011

The Oyu Tolgoi baseline subset study⁴⁰ showed that the enrolment levels in Khanbogd were above average for the *aimag* at primary level, but fell just below the average from age 12 onwards. The level of female enrolment was higher in Khanbogd than in any other Project Area of Influence *soum* apart from Dalanzadgad. The number of children aged between 7 and 15 who had dropped out of school was higher in Khanbogd than in any other *soum* in the Project Area of Influence. All but one of the children who had dropped out of school were herders' children.

8.5.8 Literacy

98% of people in Khanbogd were literate (i.e. able to read and write) in Cyrillic, 28% in Old Mongolian script and 53% in Latin (Roman language).

8.6 PLANNED WORK

CRSD, through its ongoing programmes, will continue to translate and complete the Khanbogd *Soum* Social Mapping Database. CRSD will continue to capture information on education levels and provisions, population dynamics, housing and other social infrastructure demands, by drawing on the CRSD's regular surveys as well as the National Population Census 2010 data. Socio-economic data at the *soum* level is collected on a continuous basis by CRSD and other groups within Oyu Tolgoi.

⁴⁰ (through questionnaires, semi-structured interviews and focus group discussions)