

Date: July 5th, 2018

Environmental and Social Considerations in Detailed Planning Survey
(Technical Cooperation for Development Planning)

1. Full title of the Project

The Project for Formulation of National Comprehensive Development Plan (hereinafter referred to as “the Project”)

2. Type of the study (e.g. Master Plan, Feasibility Study, Detailed Design, etc.)

Formulation of a Master Plan

3. Categorization and its reason

3-1. Categorization

The Project is classified as a “Category B” because of the following reasons:

3-2. Reasons

The Project is not likely to have significant adverse impact on the environment under the JICA Guidelines for Environmental and Social Considerations (2010) in terms of its sectors, characteristics and areas.

4. Agency or institution responsible for the implementation of the project

- Ministry of Construction and Urban Development (hereinafter referred to as “MCUD”)
- National Development Agency (hereinafter referred to as “NDA”)

5. Outline of the Project (objectives, justification, location, proposed activities, and scope of the study)

(1) Expected Goals which will be attained after implementing the proposed plan

To reduce disparity between urban and rural area and improve urban issues through promoting well-balanced and sustainable development thereby achieving Sustainable Development Vision 2030 (hereinafter referred to as “SDV2030”) as the highest level of development policy in Mongolia, by implementing National Comprehensive Development Plan (hereinafter referred to as “NCDP”).

(2) Outputs

- a) Formulation of NCDP that includes Regional Development Policy (hereinafter referred to as "RDP") based on the "Law on Development Policy and Planning (2015)" and Law on Management and "Coordination of Regional Development (2003)", which focuses on national and regional policy for guiding sector policies, and Human Settlement Plan (hereinafter referred to as "HSP") based on the "Urban Development Law (2008)", which focuses on spatial plan at national / regional level for physically realizing SDV2030 (Outputs in the course of the implementation of the Project will be utilized for finalizing RDP and HSP.)
- b) Enhanced capacity of the Counterparts in formulating and updating NCDP.

(3) Location

The target area for planning is whole of Mongolia (1,564,100km².)

(4) Activities

- a) Current Status Evaluation and Analysis of Mongolia
 - Review of the country profile of Mongolia
 - Review of the relevant existing development policies, strategies, plans and etc.
 - Review of the relevant legal and institutional framework
 - Review of cooperation by other donors, the relevant projects, surveys and researches
 - Review of the related studies, existing statistics, information including GIS, data on economy, society, land use, geology history of the past disasters and available resources such as water, mineral, agricultural resources
 - Review of the current status about infrastructure and industries
 - Review of the current status and issue about national economy including foreign trade
 - Review of the current status and issue about the public services (education, medical care, public facilities, and etc.)
 - Analysis of the current status of the demographic feature including domestic migration of Mongolia and the existing settlement
 - Review of the information relevant to environmental and social consideration including Mongolian culture, custom, tradition and archeological heritage
 - Review of the information relevant to tourism
 - Spatial Analysis in order to properly deploy regional and sub-regional centers

and key industrial complex

- Analysis of the disparity between urban and rural areas
 - Implementation of gap assessment between current Key Result Indicators (hereinafter referred to as “KRI”) and KRI set in SDV 2030 by sector and region
 - Preparation and analysis of development potentials, issues, constraint and trends
- b) Formulation of development vision, socio-economic framework, and development scenarios
- Formulation of development vision, that will serve for formulating Regional Development Vision (hereinafter referred to as “RDV”) in accordance with SDV2030
 - Setting of socio-economic framework
 - Setting of the basic strategy of NCDP
 - Formulation of development scenarios
 - Comparative analysis of alternative scenarios based on, among other viewpoints, Strategic Environmental Assessment (hereinafter referred to as “SEA”)
- c) Formulation of NCDP
- Review of relationship between RDP and HSP and the scope of each policy and plan
 - Formulation of NCDP includes RDP and HSP
 - Overview of economic and spatial structure of Mongolia
 - Policy for industrial deployment and development
 - Policy for deployment of regional and sub-regional centers
 - Policy for urban development and human settlement
 - Policy for infrastructure development
 - Policy for national land conservation
 - Policy for other relevant social issues
- d) Recommendation for implementation framework of NCDP
- Recommendation for implementation and monitoring
 - Recommendation for necessary budget and its fund source
 - Recommendation for legal framework if necessary

- Recommendation for formulation of Sector Policies and Regional Development Programs
- e) Discussions at national, regional and local level
- f) Capacity Development
 - On the job training
 - Training in Japan

6. Description of the project site (maps, environmental and social condition, current issues, etc.)

6-1. Location Map of the project Site

The map of Mongolia is shown in Figure 1.



Source: Map of Mongolia Political Map of Mongolia Satellite View
Mongolia/nationsonline.org

Figure 1 Map of Mongolia

6-2. Environmental and Social Conditions¹

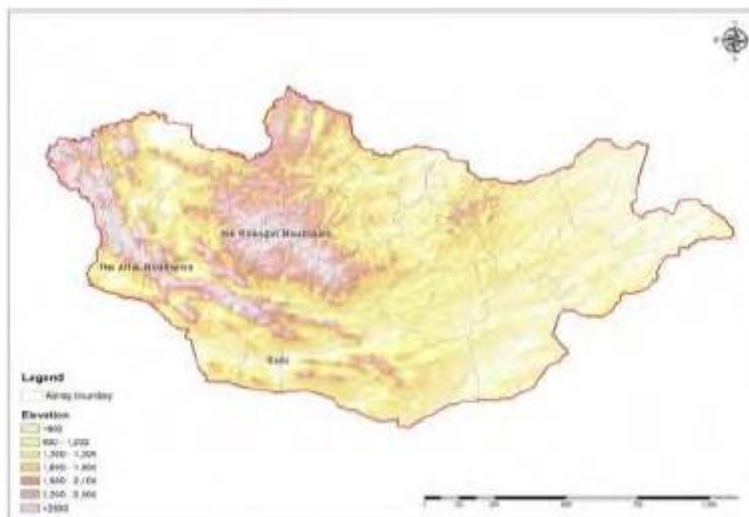
(1) Environmental Condition

a) Geographical Features and Climate

Mongolia is geographically characterized by highlands in the west region and lowlands in the east region. In the west are the Altai mountain which is 4,300m above sea level, and the Khangai mountain which is 3,500m above sea level. There are also highlands

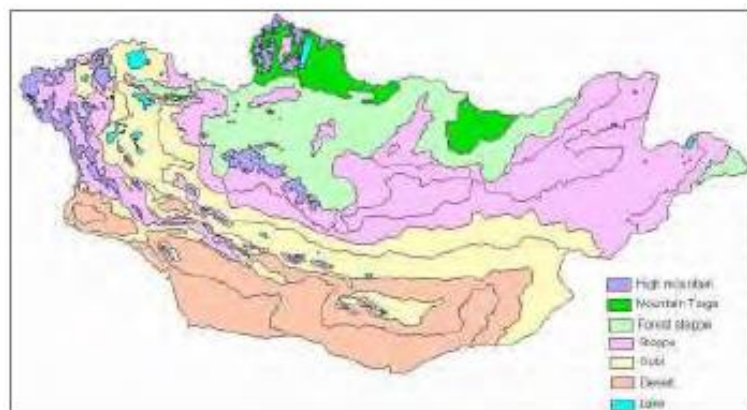
¹ Source: Final Report of “Data Collection Survey on the Regional Comprehensive Development in Mongolia” (November 2016)

which are 900–1,500m above sea level in the east (see Figure 2). Over 80% of national land is 1,000m above sea level. Since Mongolia has vast plains, there are several climatic zones and different geographical characteristics. The north area around Khuvsgul Lake, or the northern part of Khentii aimag and Tuv aimag, belongs to the subarctic zone. The southern part belongs to the arid region including the Gobi Desert (see Figure 3).



Source: ALAGaC

Figure 2 Elevation Map of Mongolia



Source: Integrated Water Management National Assessment Report Vol. II, Strengthening Water Resource Management in Mongolia Project & MEGD, 2012.

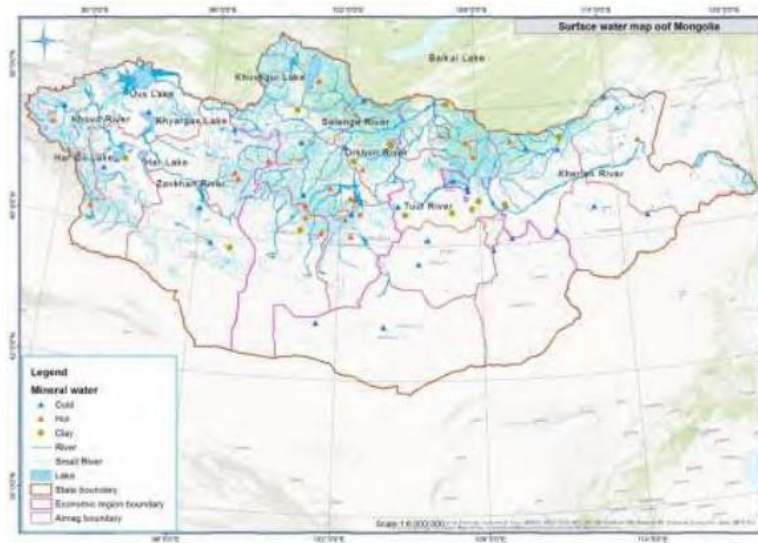
Figure 3 Climate Zone Map of Mongolia

b) River Basin

As shown in Figure 4, there are rich water resources such as lakes and rivers in the northern part of the country. Mongolia has two international rivers. The Kherlen River

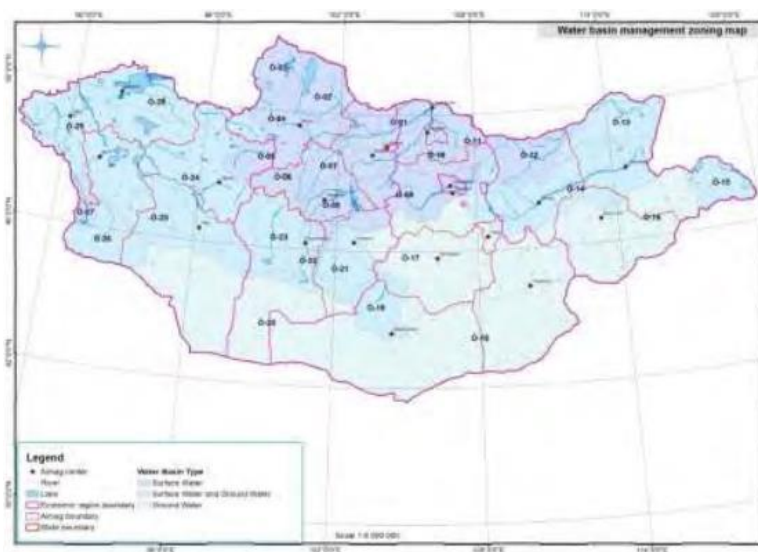
which flows in the eastern part connects to the Pacific Ocean through the Amur River, and the Selenge River which flows in the central part connects to the Arctic Ocean via Baikal Lake. In these international river basins, there are organizations in the river basin communities for the maintenance and management of these water resources, including Russia and China.

According to the water basin map of Mongolia, it is managed by 29 zones, and underground water is the water source in four basins (0-18~18, 20) in the southern part of Mongolia (see Figure 5).



Source: ULTF, ALAGaC, ESRI

Figure 4 Surface Water (Lake and River) Map of Mongolia



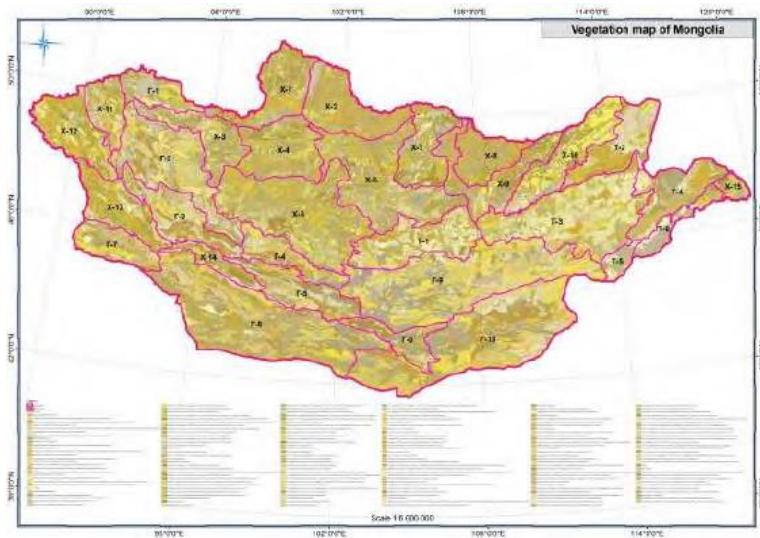
Source: ULTF, ALAGaC, ESRI

Figure 5 Surface Water (Lake and River) Map of Mongolia

c) Vegetation and Forest

Vegetation distribution is prominent in some regions. Herb is planted in the northern part (X-1 to X-10 in Figure 6) and needlegrass is planted from the central part to the eastern part. Vegetation in the southern part is low-grass or stony grassland.

Figure 7 shows the distribution of forest area. Conifer forest can be seen in the northern part such as Khuvsgul aimag, Alkhangai aimag, Bulgan aimag, Selenge aimag, Tuv aimag and Khentii aimag. In the southern-western part, saxual, populus and tamarix trees are also planted.



Source: ULTF, ALAGaC

Figure 6 Vegetation Map of Mongolia

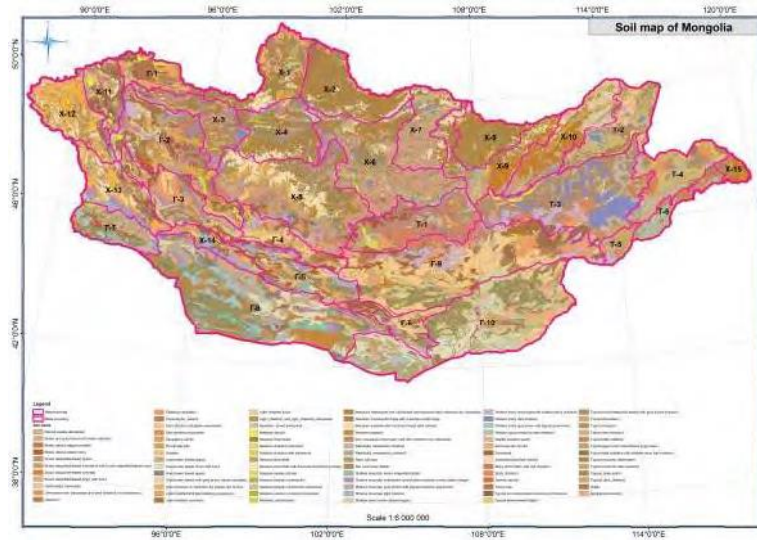


Source: ULTF, ALAGaC, ESRI

Figure 7 Forest Map of Mongolia

d) Soil

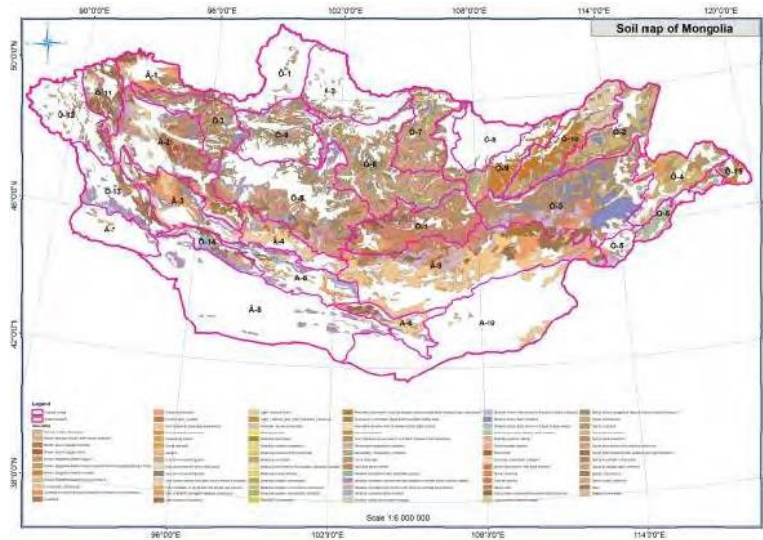
Various types of soil are formed by area. Fertile alluvial soil is formed around the river basin (see Figure 8) and chernozem² soil, which is suitable for planting wheat, is formed at the area shown in Figure 9.



Source: ALAGaC

Figure 8 Soil Map of Mongolia

² Chernozem is the richness of the soil which has a good balance of physical and chemical nature.



Source: ALAGaC

Figure 9 Distribution of Chernozem Soil

e) Special Protected Area (SPA)

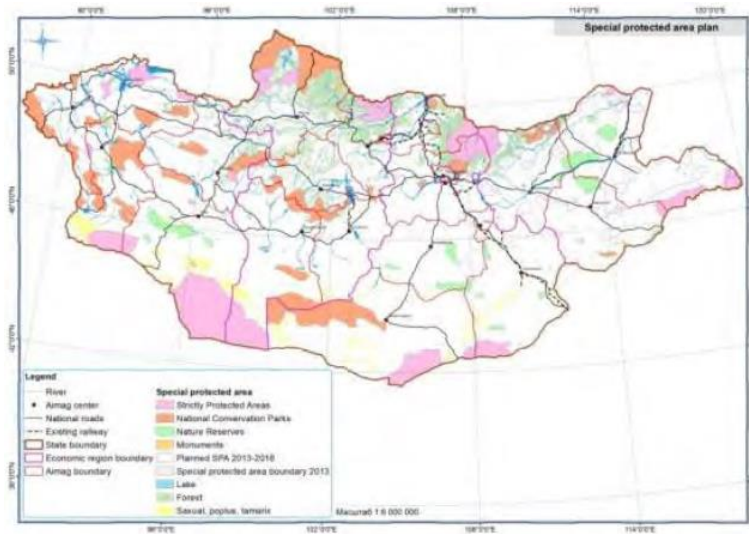
The existing Special Protected Areas (hereinafter referred to as “SPAs”) and planned SPAs in Mongolia are shown in Table 1 and Figure 10. SPAs include Strictly Protected Areas, National Conservation Parks, Nature Reserves, and Monuments. The total area of SPAs is about 2,720,000ha, which is about 17% of national land. Strictly Protected Areas are located near state borders and many National Conservation Parks are located in the center to the western part of Mongolia.

New SPAs are planned for 2013 to 2016. In particular, new SPAs of about 311,000ha are planned in the eastern region. It is necessary to have appropriate measures, such as development regulations for these SPAs, when future land use is considered.

Table 1 Area of Special Protected Areas

	Name	Area (ha)
Existing	Strictly Protected Areas	12,411,006
	National Conservation Parks	11,711,815
	Nature Reserves	2,958,142
	Monuments	126,848
Planned	Planned SPAs 2013–2016	3,107,598

Source: ULTF, ALAGaC



Source: ULTF, ALAGaC

Figure 10 Special Protected Areas

(2) Social Condition

a) Mongolia's Administrative Boundary

Mongolia is an inland country which is adjacent to Russia in the north, China and the Inner Mongolia Autonomous Region in the east and south, and China and Xinjiang Uyghur Autonomous Region in the west. Mongolia's administrative units consist of the Aimag (Prefecture), Soum (County) and Bag. Mongolia has 1,613 bags in 330 soums³ in 21 aimags. The country is also divided into five regions, namely the West region, Khangai region, Central Region, East Region and Ulaanbaatar. However, these regions are not administrative units except for Ulaanbaatar⁴ (see Figure 11).

³ Based on the "Mongolian Statistical Yearbook 2016"

⁴ Based on the Development Policy by Region (Parliament Order No. 57 in 2001)



Source: Data Collection Survey on the Regional Comprehensive Development in Mongolia

Figure 11 Administrative Boundary Map of Mongolia

b) Demography

(i) Mongolia

Mongolia's population has continued to steadily increase. In 2014, its population was about 3 million, an increase of about half from the 1989 population of about 2 million. Average annual population growth rate was 1.5% from 1989 to 2000, but has increased to 2.1% from 2010 to 2014 (see Table 2).

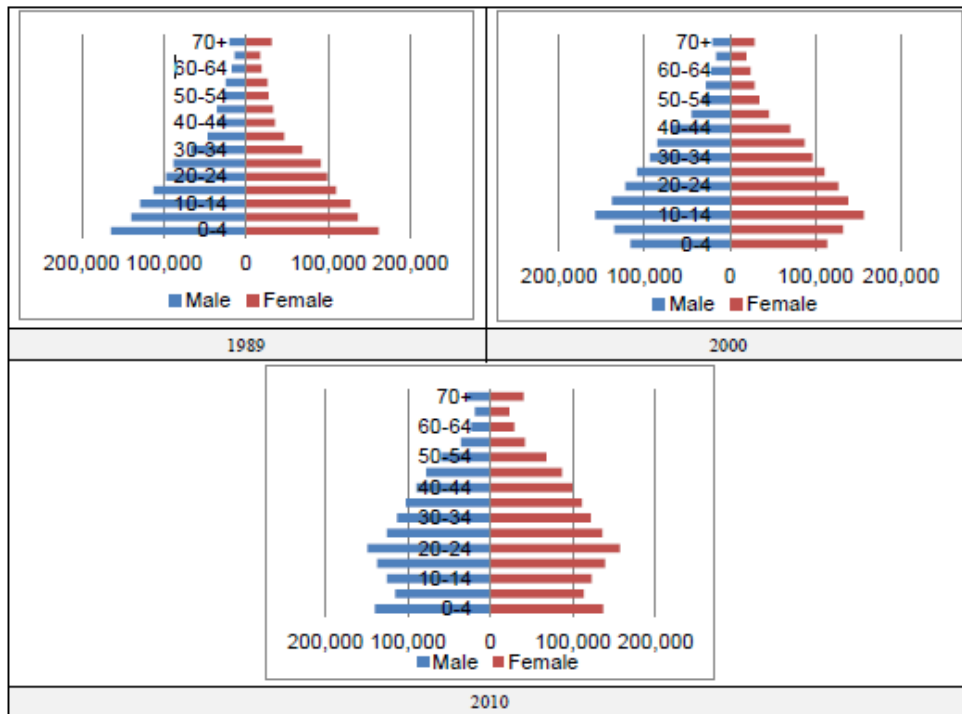
The population structure has evolved from the population pyramid shaped Mount Fuji type until the 1990s into the pot type⁵, where the 20–24 year-old population is the biggest, in 2010 through the turmoil of socialism collapse in the 2000s (see Figure 12).

Table 2 Change in the Total Population in Mongolia

	1989	2000	2010	2014	Average Annual Growth Rate (1989–2000)	Average Annual Growth Rate (2000–2010)	Average Annual Growth Rate (2010–2014)
Male	1,020,669	1,190,244	1,342,081	1,466,455	1.4%	1.2%	2.2%
Female	1,023,285	1,212,861	1,418,887	1,529,494	1.6%	1.6%	1.9%
Total	2,043,954	2,403,105	2,760,968	2,995,949	1.5%	1.4%	2.1%

Source: Data Collection Survey on the Regional Comprehensive Development in Mongolia

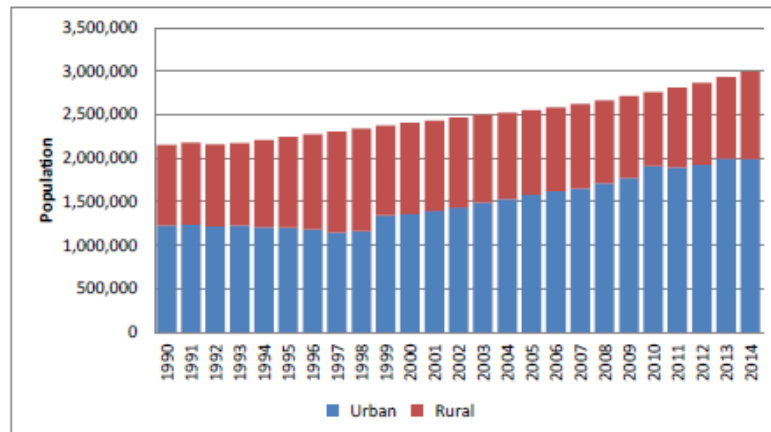
⁵ Pot-type population pyramid is evident in the 1970s in Japan, 1990s in China and 2000s in Thailand. This means that population aging is advanced in Mongolia.



Source: Data Collection Survey on the Regional Comprehensive Development in Mongolia

Figure 12 Changes in Population Pyramid in Mongolia

Before the shift to the market economy, rural population was increasing while that in the urban area was decreasing. After 1999, however, the trend was reversed (see Figure 13). The population moved to the urban area rapidly and increased population growth concentrated in the urban area. When economic growth is high, the population moves to the urban area, but when it is low, population flow to the urban area is reduced. Much of the population goes to the city to seek higher income work and higher education opportunities. People who come to the urban area are often from the low-income bracket, and this causes urban poverty issues, such as lack of employment opportunities and low-cost housing. The improvement of income in the rural area would be one of the solutions to the problem of overconcentration of population in the urban area.



Note: Based on Mongolia Statistical Yearbook 2014, urban population is defined as the population which lives in Ulaanbaatar, aimag centers and towns, and rural population means the population which lives in soum centers and other areas.

Source: Data Collection Survey on the Regional Comprehensive Development in Mongolia

Figure 13 Growth of Urban Population

The rate of urbanization tends to increase, especially in Asia, and this trend is the same in Mongolia (see Figure 14, Table 3). The only urban area where the population is more than one million is Ulaanbaatar, while the second largest city of Erdenet only has 110 thousand. This overconcentration of population in the urban area is highest in Ulaanbaatar, where 45% of the country's population (or about 1.32 million⁶) lived in 2014, and is expected to continue in the future. Solving these issues is one of the most important challenges in the capital city.

⁶ Data of "Residents in Mongolia" from Mongolia Statistical Yearbook 2014.



Source: UN 2006, World Urbanization Prospects: The 2005 Revision

Figure 14 Urbanization Rate by Region in the World (1950-2030) in Mongolia

Table 3 Trend of Urbanization Rate

Year	1956	1963	1970	1980	1990	2000	2010	2014
Urban Population Rate	22%	40%	44%	51%	57%	57%	69%	66%

Source: Data Collection Survey on the Regional Comprehensive Development in Mongolia

(ii) Population and the Number of Households by Aimag

Comparing the populations of 2010 and 2014 by aimag, it has increased in all aimags except Omnogovi. Especially in Govisumber, the average annual population increase rate was 3.8% (compared to the average annual national growth rate of 2.1%). Aimags with the large natural population increase were Govisumber and Bayan-Olgii (26 people per 1,000 persons compared with 22 people per 1,000 persons nationwide). Birth rate in these aimags was also higher than in the other aimags (32 and 31 people per 1,000 persons, respectively, compared with 28 people per 1,000 persons nationwide), and the average life expectancy was longer (73 years old compared with 70 years old nationwide). In Bayan-Olgii, the number of population to get married was larger than any other aimags (18 people per 1,000 people compared with 6 people per 1,000 persons nationwide), as well as population per household (4.2 persons/household compared with 3.6 persons/ household nationwide).

The total number of households in Mongolia was 823 thousand in 2014, with an

average of 3.6 persons per household. In all aimags, an increase in the number of households was seen in 2010 and later. The increase was particularly large in Omnogovi and Ulaanbaatar, with the average annual growth rates of 3.8% and 3.7%, respectively, as compared to 2.1% nationwide.

Nationwide urbanization rate based on the number of households was 65%. Besides Ulaanbaatar (100%), Orkhon (95%) and Darkhan-Uul (83%) where aimag sizes are small and predominantly urban areas, the aimags where 60% of households lived in urban areas are Govisumber and Dornogovi. On the other hand, in the other aimags, more than 60% of the population live in rural areas. Between 2010 and 2014, the high increase rate in the number of households particularly in the urban areas was seen in Uvurkhangai and Omnogovi (over 5% compared with 3.0% nationwide), and the one in rural areas was in Omnogovi (3.0% compared with 0.5% nationwide).

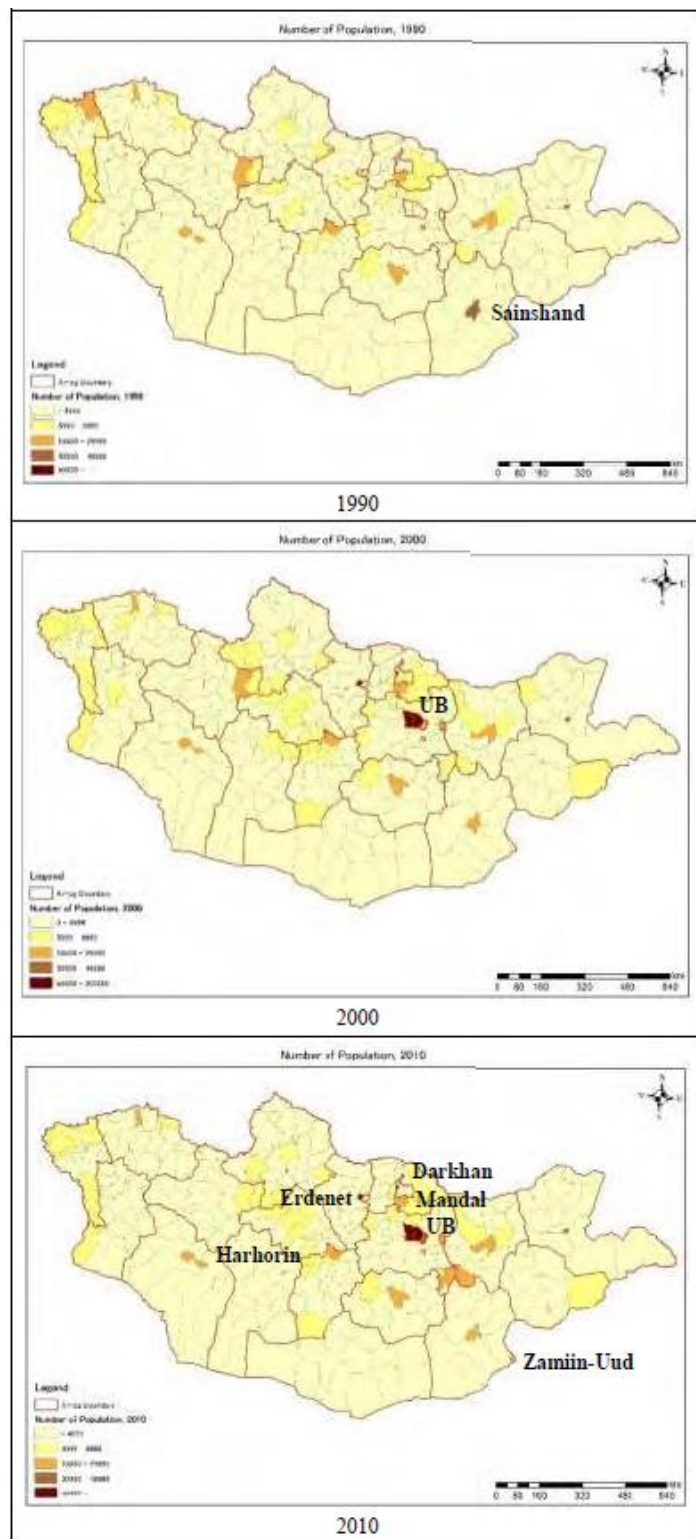
(iii) Population by Soum

The population distribution by soum in 1990, 2000 and 2010 are shown in Figure 15. In 1990, the most populous soum was Sainshand at the south. However, there was an emergent shift to a concentration of population in Ulaanbaatar from 1990 to 2000. Moreover, the number of soums with population of over 5,000 people has increased in 2000, especially around Khangai Mountain. However, in 2010, the number of soums with population under 2,500 people increased and the population tends to be concentrated in Ulaanbaatar and the aimag centers.

In 2010, almost all the cities with population of over 10,000 people are aimag centers. It is remarkable that population concentration seems to be in the north area such as Ulaanbaatar (1,159,899), Darkhan (77,547) and Erdenet (85,783) compared with other aimag centers. Except for aimag centers, there were only 4 soums with population of over 10,000 people in 2010, namely Mandal soum (25,009 people) in Selenge aimag between Tuv aimag and Darkhan-Uul aimag, Zamiin-Uud soum (Dornogovi aimag, 13,799 people) at the border of China, Harhorin soum (Uvurkhangai aimag, 12,933 people) and Darkhan soum (Khentii aimag, 11,196 people) which are neighboring soums of Choir, the center of Govisumber aimag.

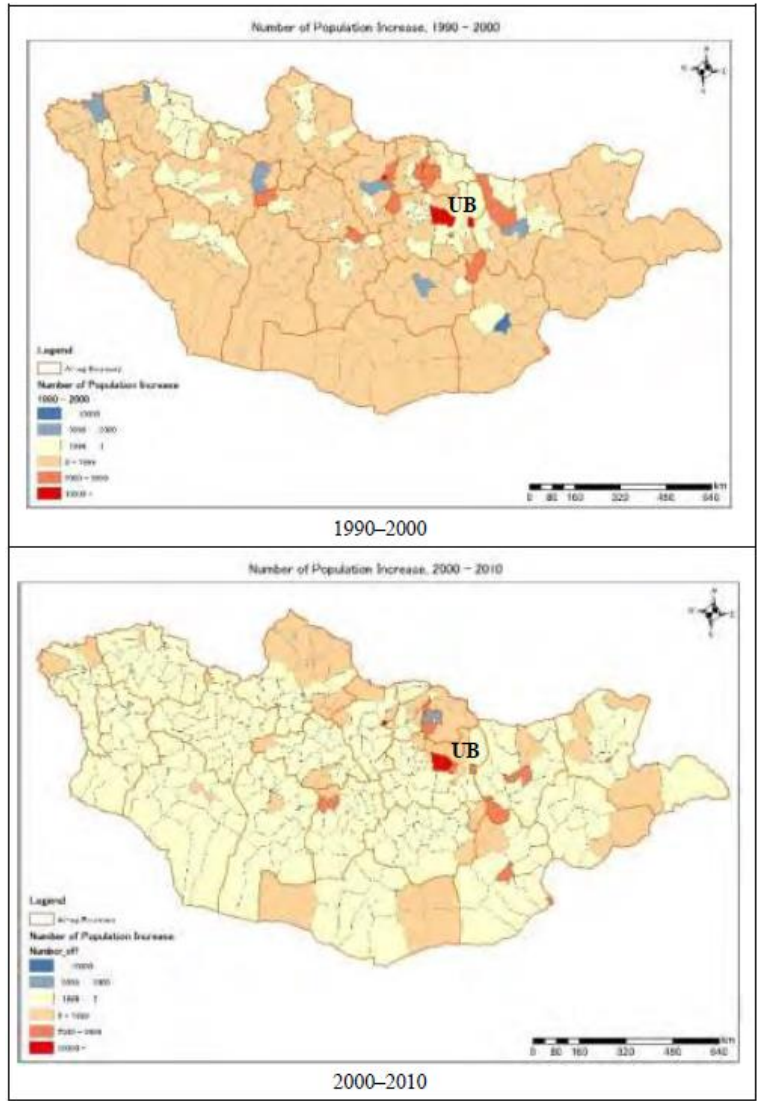
The number of soums with declining population was 78 soums (23% of the total) from 1990 to 2000, increasing to 252 soums (74% of total) from 2000 to 2010. Almost all the soums which population did not decrease from 2000 to 2010 are aimag centers, and population became intensely concentrated in Ulaanbaatar.

Moreover, population growth is observed around the soums bordering Russia in Selenge aimag, around Choir in Govisumber aimag, Oyu Tolgoi and Tavan Tolgoi mines in Umnugovi aimag. Population growth rate in Zamiin-Uud, which is a gateway to China, is 125% during the 5 years from 2010 to 2014. On the other hand, the high rate of decreasing population is observed in the west region especially between Khangai Mountain and Altai Mountain such as Zavkhan aimag. The changes in population from 1990 to 2010 are shown in Figure 16 and population growth rate is shown in Figure 17.



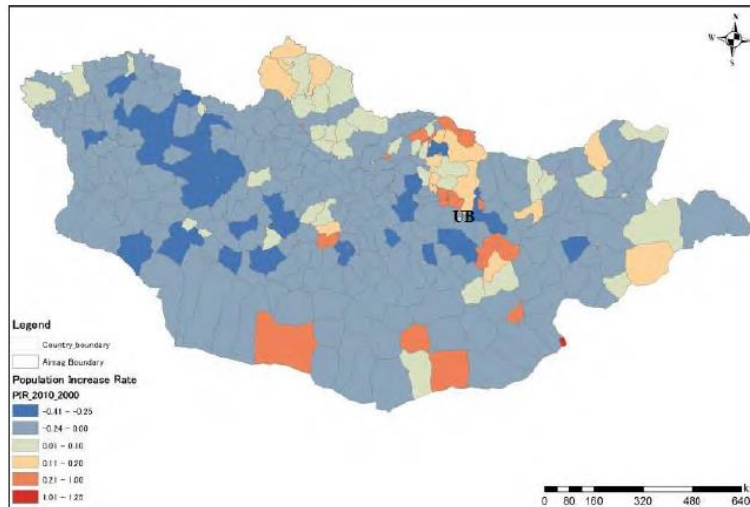
Source: Data Collection Survey on the Regional Comprehensive Development in Mongolia

Figure 15 Population by Soum (1990, 2000, 2010)



Source: Data Collection Survey on the Regional Comprehensive Development in Mongolia

Figure 16 Changes in Population by Soum (1990-2010)



Source: Data Collection Survey on the Regional Comprehensive Development in Mongolia

Figure 17 Population Growth Rate by Soum (1990-2010)

7. Legal Framework of Environmental and Social Considerations⁷

(1) Laws, regulations and standards related to environmental and social issues including requirements and procedures of Environmental Impact Assessment (EIA), stakeholder participation, and information disclosure.

a) Legal framework of Environmental Assessment

The Law on Environmental Impact Assessment, passed in January 1998 and last amended in May 2012, regulates “relations concerning protection of the environment, prevention of ecological imbalance, the use of natural resources, assessment of the environmental impact and decision-making on the start of a project”. This law sets out the general requirements and procedures for project screening and conduct of environmental assessment and review. Order No. A-2, dated 4 January 2010, of the Ministry of Environment and Green Development (MEGD) approved the Procedural Guidance for Environmental Impact Assessment, which provides:

- Guidelines on EIA document requirements and screening;
- Methodologies for impacts and risk assessment, cumulative impact assessment (CIA) and environmental health impact assessment;
- Background information on strategic environmental assessment (SEA);
- Other additional information about mitigation measures and significant features of

⁷ Source: “Profile on Environmental and Social Considerations in Mongolia” (March 2014, JICA)

different types of project; and

- Templates for the environmental protection plan and environmental monitoring plan for inclusion in the detailed environmental impact assessment reports.
- b) Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA)

(i) Projects subject to the IEE/EIA

The impact assessment shall consist of: 1) Screening of Environmental Impact Assessment, and 2) Detailed Environmental Impact Assessment (EIA). The screening of EIA shall be made before implementation of projects or allowing utilization permit of land for household purpose, use and search of mineral resources and use of natural environment. EIA shall be conducted for projects intending to make use of natural resources in the construction, renovation or expansion of new or existing industries, services or structures or in other forms, and such assessments shall involve an advance determination and evaluation of the expected environmental impacts of the project.

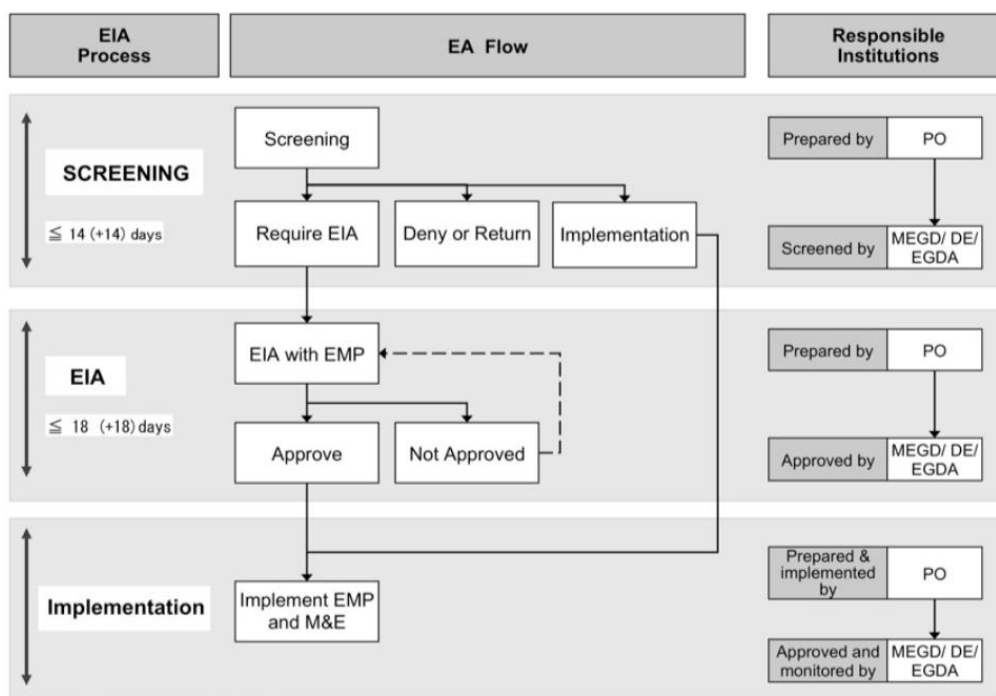
The classification of projects subject to screening of EIA is as follows:

- Mining project
- Heavy industrial project
- Light and food industry
- Agricultural project
- Infrastructure development project
- Project of service
- Other project such as Urbanization, Project must implement for defense and civil protection, Water supply project, Purification facility, Refuse dump
- Project of biological species
- Business related with trans mutative living organism
- Project of chemical toxicant, radio activation substance and hazardous waste
- Operation on special protected area

(ii) Procedures

Procedure

Procedure of EIA is shown in the figure below.



Notes: PO: Project Owner/ Project Proponent
 MEGD: Ministry of Environment and Green Development
 DE: Department of Environmental for Aimag (Province)
 EGDA: Environment and Green Development Agency for Municipality of Ulaanbaatar
 EIA: Environmental Impact Assessment
 EMP: Environmental Management Plan

Source: Law on Environmental Impact Assessment 2012

Figure 18 Mongolian EIA Approvals Process

Screening

The project proponent shall submit the environmental conditions of the territory related to the projects and technical and economic planning documents for screening by the appropriate authority.

Ministry of Environment and Green Development (MEGD) or Department of Environment (DE) for Aimag (Province) or Environmental and Green Development Agency for Municipality of Ulaanbaatar (EGDA) shall make screening and conclusion within 14 working days (can be extended when extension becomes necessary). Conclusion can be classified as follows:

- The project is rejected on grounds of non-conformity with the relevant legislation, or adverse impact of the equipment and technology on the environment, or absence of the project in the land management,
- The project shall be implemented with concrete term or conditions without making EIA, and
- The project which does not fall into 1 nor 2 above shall require EIA.

EIA

The project which does not fall into 1 nor 2 above requires the detail EIA. The terms of references shall have been defined. Detail EIA shall be conducted by the local economic entity which obtains the license. The Detailed EIA shall include the following items:

- Environmental baseline data and indices;
- Analysis of the extent, distribution and reducing possible adverse impacts and consequences;
- Recommended measures to mitigate and eliminate potential; adverse impacts;
- Recommendation to use alternative technology and possible methodology for reducing possible adverse impact;
- Risks assessment;
- Protection measures;
- Environmental management plan including environmental protection (mitigation) plan and environmental monitoring program;
- Opinions and comments of local citizens in the project area; and
- If applicable, other issues regarding cultural heritage in the project area and special nature of the project.

The licensed economic entity that conducted the detailed EIA shall submit the report of the detailed EIA to MEGD/ DE/ EGDA that conducted the screening. The economic entity shall obtain its license to conduct the detailed EIAs. The expert of MEGD/ DE/ EGDA who receives the report of the detailed EIA shall do the assessment within 18 working days (can be extended up to 18 days at once). MEGD/ DE/ EGDA shall decide problem of the project implementation, conclusion, and suggestion by the public. MEGD/ DE/ EGDA shall organize the work on introducing it to the public.

(iii) Public participation

The Aarhus Convention is a Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, adopted by the United Nations Economic Commission for Europe (UNECE), which has been in force for 10 years. On 5 July 2011, the Meeting of the Parties to the Convention adopted a decision encouraging the accession by States outside the UNECE region and a simplified procedure for doing so, thus encouraging the propagation of the important and unique protections offered by this international environmental rights treaty on a fully global scale.

The Mongolian Government sent a letter to the UNECE during the Meeting of the Parties in July 2011, stating its interest in acceding to the Convention. Mongolia intends to be the first non-UNECE country to accede. Mongolian law already aligns with Aarhus requirements, nevertheless this letter of intent is an important commitment by Mongolia that demonstrates its willingness to ensure public participation in decision making on protection of the environment and of human rights.

MEGD shall inform the information for population via its website on the project included in the development plan or program of strategic assessment and EIA. For operation to conduct strategic assessment on development program, plan or policy to pursue along the national and regional planning implementation shall take suggestion from the population. The time to deliver suggestion for strategic assessment shall be not up to 30 working days and take and suggestion. The legal entity conducting detailed EIA shall take official suggestion from population or local administration.

(iv) Participation of experts, NGOs and other third parties

EIA law 2012 stipulates that project proponents hire the expertize who check whether EIA are undertaken correctly. Project proponents also provide necessary information to the expertize.

(v) Information disclosure

In accordance with the Law on Environmental Impact Assessment, MEGD shall have an obligation to disclose information on EIA for the public. In addition, according to the law on Environmental Protection, MEGD is responsible to maintain State Environmental Information Database (EID) where all summary of conducted EIA should be placed for public access.

c) Environmental Management Plan (EMP)

The project proponents shall develop EMP for the purpose of environment protection of the project areas, satisfying the implementation of strategic environmental assessment, reducing/ eliminating and preventing negative impact defined by the detailed EIA, monitoring and detecting possible negative impacts. Environmental management plan shall be counterpart of detailed EIA. The organization which conducted the assessment shall allow permit to implement project and approve environmental management plan of project. The State Administrative Central Organization shall approve rule and methodology of rehabilitation and develop environmental management plan and the authorized organization shall approve rehabilitation standard an according to relevant

legislation separately.

The environmental management plan shall consist of environmental protection plan and environmental monitoring program. Environmental protection plan shall include required cost, implementation period of correlate protection, reducing and eliminating measurement of negative impact defined by environmental impact assessment. Environmental monitoring program shall define required cost, implementing methodology, report the result, monitoring and do analysis of changes affecting environmental gravity due to project activity.

d) Strategic Environmental Assessment

Strategic environmental assessment (SEA) is stipulated in law on EIA 2012. Sectorial ministry who formulates policies, programs and plans shall make a strategic environmental assessment (SEA) during formulation of documents and shall submit the assessment report with projects to MEGD. SEA report shall be discussed by professional commission; and MEGD shall submit the SEA report with a conclusion to the government. Sectorial ministry shall notice information on SEA conclusion to the public in its website.

e) Monitoring

The project proponent shall conduct monitoring as part of Environmental Management Plan (EMP). The state administrative organization or governor at all level shall monitor the implementation of EMP.

f) Major issues and challenges in the current system

The new law on EIA 2012 stipulates the framework of EIA. However, the implementation of EIA is still weak because of weak human and institutional capacities, weak enforcement mechanisms.

The EIA may be a new policy tool in Mongolia, but the ministry lacks proper knowledge and expertise about it and is understaffed. The government has reduced the ministry budget and staff numbers, due to its policies of decentralisation, reducing bureaucracy, and for strengthening capacities. Therefore, a few government officers cannot comprehensively review and assess EIAs given the limited time frame and excessive workloads.

The number of EIA companies has grown rapidly in response to the dramatic increases in mining, infrastructure, construction and tourism sectors that require EIAs. While EIAs have been a new business area for environmental and technical experts by EIA companies, their lack of expert knowledge and skills about EIAs has resulted in poor

quality EIAs, and conflicts of interest.

Public participation is lacking in an EIA because legislation fails to formalize public involvement. Therefore, public participation is left to the discretion of the proponent and the government authority, in spite of the law saying that the ministry should consider public opinion when reaching a final decision.

g) Gap analysis between the present domestic regulations, the JICA Guidelines for Environmental and Social Considerations, and the World Safeguard Policy

The differences of guidelines and rules among WB, ADB, Mongolia and JICA are compared. Although revised Mongolian EIA law 2012 improved and become closer to donors' guidelines, some gaps exist among those regulations.

Following major gaps exist between JICA guidelines and Mongolian laws.

Initial Environmental Examination (IEE)

Mongolian laws do not have Initial Environmental Examination (IEE). EIA law 2012 stipulates only Screening of EIA and the Detail EIA. Current practice of WB, ADB and JICA is undertaking IEE for the category B projects.

Categorization

Under the Mongolian regulations, projects are not categorized after screening of EIA. However, under the policies or guidelines of JICA, ADB and World Bank, projects are screened and categorized as A, B, C and FI. Donor supported project are categorized in the current practice. Terms of references are not specified in detail in Mongol.

Public consultation and information disclosure

Public consultation and information disclosure are not in detail in Mongolia. Under the JICA guidelines, project proponents consult with local stakeholders through public participation. Project proponents also disclose information well in advance when they have meetings with local stakeholders.

Project proponents shall undertake environmental assessment in line with both governmental laws and JICA guidelines.

h) Legal framework of land acquisition and involuntary resettlement

In Mongolia, any land other than that given into ownership to citizens of Mongolia shall be the property of the government, as stipulated in Land Law 2002. Land, excluding pastureland, land for common tenure and land for special government use, may be given into ownership to citizens of Mongolia only. The following types of land, regardless of ownership, shall be used for common purpose under government regulation: pasturelands, water points in pasturelands, wells and salt licks; public tenure

lands in cities, villages and other urban settlements; land under roads and networks; lands with forest resources; and lands with water resources.

The Land Law specifies three kinds of private land tenure: (i) ownership, which may be granted only to citizens of Mongolia; (ii) possession, granted under license, to Mongolian citizens, economic entities and organizations, for terms of 15 to 60 years, extendable up to 40 years at a time; and (iii) use, granted under contract or lease to foreign countries and legal entities.

Land Acquisition and Resettlement

Mongolia does not yet have specific laws regulating the acquisition of land. As such, land acquisition and resettlement issues are regulated by the specific provisions of key Mongolian laws that regulate access to ownership or possession of land. These laws are Land Law (2002), Law on Allocation of Land to Mongolian Citizens for Ownership (Law on Land Allocation, 2003), Civil Code of Mongolia (2002) as well as Constitution (1992).

In Mongolia the State can “take back land” for state special needs. Currently, it is regulated by the Land Law and Land Allocation law.

- The Land Law governs expropriation of land allocated for possession or use. Article 42 of the Land Law specifies that the relevant State Administrative Central Organization of land issues may, following an agreement with the land possessor on withdrawing his/her land, with or without replacement, and with full or partial compensation for state special needs, submit a proposal to the Government (42.1).
- The Land Allocation Law contains provisions respecting expropriation of land given in private ownership. Article 32 of the Law on Land Allocation stipulates that land owned by citizens may be replaced or taken back with compensation based on special need of the state including among others ‘to build roads, lines and networks and other objects of national scale’ (32.1.3).

With regard to infrastructure development, land acquisition and resettlement issues are regulated only for construction of national scale infrastructure. Land acquisition and resettlement associated with other infrastructure development will be achieved through agreements with affected landowners or possessors in accordance with the Civil Code. Both laws provide for compensation to a certain extent. The provisions of the Civil Code of Mongolia provide a legal framework for land acquisition and resettlement.

Table 4 Legal Framework Relevant to Land Acquisition and Resettlement

Law	Description
Constitution of Mongolia, 1992	<p>The Constitution of Mongolia guarantees the citizen of Mongolia the privilege to enjoy the rights for having private property, safe and peaceful living accommodation and to receive material and financial assistance.</p> <p>Article 6.4 of the Constitution is the source of the state's power to expropriate land owned or possessed privately. The grounds for involuntary acquisition are special public need.</p> <p>Article 16.3 obligates the State to make due compensation and payment in the case of taking private property for public need. Land may also be confiscated (i.e. without compensation) if it is used in a manner adverse to the health of the population, the interests of environmental protection or national security.</p>
Civil Code, 2002	<p>The provisions of the Civil Code of 2002 provide a legal framework for land acquisition which place land acquisition for local scale infrastructure facilities unequivocally in the context of negotiated land acquisition and resettlement, as this implies that the state and affected persons engage with each other contractually as equal and autonomous legal persons and participants in a civil legal relationship (Article 1).</p> <p>Article 1 stipulates that state and affected persons engaged with each other contractually as equal and autonomous legal bodies in civil legal relationship.</p> <p>Citizens and organizations, as well as Aimags, the capital city, Sourns and districts are able to enter into civil legal relations with regard to objects of material and non-materials wealth and their acquisition and possession (Articles 6, 7 and 8).</p> <p>Chapter 10 defines property and assets including land and other immovable property.</p> <p>Chapter 11 describes the possession by legal acquisition and Chapter 12 for property ownership by individuals and other legal entities.</p> <p>Article 101 provides general terms for the possession, use and disposal of property (further elaborated in Articles 109 to 112), but refers to the subsequently enacted Land Law and Land Allocation Law with regard to land ownership and possession. A number of special provisions pertaining to common property ownership (Article 108), common property of family members (Articles 126 and 128) and easements (servitude) (Article 151) may be relevant to specific cases in the Project. Central to a negotiated agreement on transfer of land are the stipulations on contract in Chapter 15.</p>
Land Law, 2002	<p>Any land other than that given into ownership by citizens of Mongolia shall be the property of the government. Land, excluding pastureland, land for common tenure land and land for special government use, may be given into ownership to citizens of Mongolia only.</p> <p>The Land Law contemplates three kinds of private land tenure:</p> <ol style="list-style-type: none"> 1) Ownership, which may be granted only to citizens of Mongolia; 2) Possession, granted under license, to Mongolian citizens, economic entities and

	<p>organizations, for terms of 15 to 60 years, extendable up to 40 years at a time;</p> <p>3) Use, granted under contract or lease to foreign countries and legal entities.</p> <p>Article 16.1 lists special needs for which land in private possession can be acquired by the state:</p> <ul style="list-style-type: none"> • Land under special government protection; • Border strip lands; • Land for ensuring national defence and security; • Land for foreign diplomatic missions and consulates, as well as resident offices of international organizations; • Free zone area; • Land for scientific and technological tests, experiments and sites for regular environmental and climatic observation; • Aimag level reserve rangelands. <p>The ministry in charge of land issues must notify affected persons and undertake negotiations. If the negotiation is amicably completed, the government issues a decision on land acquisition and the governor of the appropriate level concludes an agreement with the affected person. The affected person must vacate the land within 90 days of the agreement date, except that this may only be required between 15 May and 15 September. If there is no agreement or if a dispute arises, it may be referred to the court.</p> <p>Under Article 43, possessors are entitled to replacement land and compensation for land under possession, reflective of the current market price of buildings and other constructions plus all expenses related to relocation.</p> <p>There is no clear provision in the Land Law concerning Land Acquisition and Resettlement (LAR) over land that is in use, except the obligation of the land office to provide prior notice. The Law is silent on negotiation and compensation, except to say that the provision on compensation for possessors is not applicable to them.</p> <p>There is possible protection for users of land under the principles of the Civil Code, which may entitle them to compensation for immovable assets built in accordance with the contract and with the proper permission.</p> <p>Although the Land Allocation Law and Land Law require that land be compensated at market value, this is not the case in practice. Rather, the practice is to value land for compensation purposes on rates set by the government. Private land is valued at MNT 13,200 per square meter, based on Cabinet Resolution No. 103 of 2003.</p> <p>In case of valuation of buildings, depreciated replacement cost is calculated in accordance with International Valuation Standards, under Cabinet Decree No. 111 of 2006. There is no regulation governing the calculation of other damages. General principles of the Civil Code</p>
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		should apply.
Law on Land Allocation of Mongolian Citizens Ownership, 2003 (Law on Land Allocation)	on	<p>Article 32.1 of the Land Privatization Law states that special needs for which private land can be acquired are:</p> <ul style="list-style-type: none"> • Ensuring national defence and security; • Creating a permanent surveillance field for scientific and technological tests or experiments and environmental or forecast observation; • Building national roads, engineering lines, buildings and constructions. <p>The State must notify owners and enter into negotiations with owners at least one year prior to a decision to expropriate, attempting to agree on:</p> <ul style="list-style-type: none"> • Value of the land and immovable property located on it; • Transportation costs regarding resettlement or relocation; • Investment made by the owner on the land; • Location, size, characteristics and quality of replacement land that is provided by state; • Conditions and deadline for vacating the land; • The amount of compensation, payment procedures and date. <p>If an agreement is reached, the owner must vacate within one year of the agreement date.</p> <p>If there is no agreement, the dispute will be referred to the court.</p> <p>Under Article 33, district governors may establish servitudes over private land for the purposes of access through the land, installing survey markers, drainage or other land management measures. No compensation need be paid for such access. If the land becomes difficult or impossible to use because of the servitude, the owner has the right to demand that the authority purchase the land or compensate for damages.</p> <p>Article 37 of the Land Privatization Law outlines the principles applicable to compensation that landowners are entitled to upon expropriation:</p> <ul style="list-style-type: none"> • Replacement land must be not worse in character and quality than the owner's land; • Land and immovable property will be compensated at their value; • Improvements made to the land will be compensated; • Losses incurred by the owner due to the taking of the land and relocation must be compensated; • No compensation is paid for immovable property built or improvements made after the notice given at the start of the process.

Source: Land Law, Law of Land Allocation, Civil Code, and Constitution

Mongolia does not yet have specific laws regulating the acquisition of land. Recent economic developments have evolved many cases of land acquisition and resettlement in urban areas. According to officials from the Ministry of Construction and Urban Development (MCUD), current legislative acts do not fully address or regulate land

acquisition and resettlement procedures. In particular, the valuation of land to be acquired and properties is unclear.

The Government of Mongolia has been reformulating its legal and procedural systems for Land Acquisition and Resettlement. MCUD is developing the following laws to improve the legal framework for land acquisition and resettlement.

- New Law on Urban Re-planning and Development (at the preparation stage): This law will propose provisions on Resettlement Action Plan. The law will also specify different steps for land acquisition and resettlement. The Law will define various stakeholders' roles in land acquisition.
- Land Acquisition Law (at the preparation stage): With the support of ADB, a Land Acquisition Law is being drafted, which will introduce eminent domain to all public projects at both national and local levels. Under the new law, the land acquisition process will begin with preliminary land acquisition study by land office along with project feasibility study. The approval of land acquisition study will be made following the approval of project feasibility study, which will be followed by approval of project and land acquisition budget.

i) Procedures of land acquisition and involuntary resettlement

Land acquisition Procedure by an individual

Private land ownership rights are established for residential land and, according to the Mongolian Agency for Land Administration and Management, Geodesy and Cartography, the majority of urban households in the country now own their residential plots, but the extent of these rights has not been tested by time or courts. Acquiring a fully marketable title requires that a plot first be privatized, and then registered. The land registration process in Mongolia reportedly requires five steps, an average of 11 days, and costs approximately 2% of the overall value of the property. In practice, however, the process suffers from confusion, inefficiency, and corruption.

Current Practice of Land Acquisition and Resettlement

For the projects at national scale projects, they will use of eminent domain in accordance with the Land Law and Land Allocation Law. Under the process, the State retains the right of eminent domain and the process must follow two steps: (1) agreements are negotiated with affected persons on compensation and related issues; and (2) if mutual agreement cannot be reached resolution of compensation and other entitlements is decided by the courts.

For those local level projects, they need to follow the process of negotiation for local

sales. Here, negotiation is the main basis for the transaction between the State and the affected person. The two parties engage contractually as equal and autonomous legal entities and participate legally in the civil transaction. If mutual agreement cannot be reached, the State does not have the right to forced eviction or use of demand notices.

The local practice of land acquisition and resettlement among district or soum and khoroo or bagh level land administration officers, sanctioned by the Directors of the Capital City or Aimag Property Relations Departments, does to some extent reflect the legal framework of the Civil Law based on contracts between autonomous legal persons, but also contains certain elements of involuntary land acquisition and resettlement. After identification of the required properties, affected persons are sent official notifications or “demand letters” by the Property Relations Department, often repeatedly, if no positive response to the government’s claim to land is forthcoming. Thereafter, negotiations about the terms of compensation take place with titled affected persons (owners and possessors) and eventually a written agreement is reached. The land administration officers generally follow Cabinet Resolution 103 of 13 April 2003, which determines land valuation tariffs. Once at least 50 percent of the agreed compensation is paid, the land is acquired; when structures have been moved or land is vacated so construction works can commence, the remaining compensation is paid.

Table 5 Steps for Land Registration

No.	Procedure	Time to complete	Associated costs
1	<p>Obtain a non-encumbrance certificate from the Immovable Property Registration Office</p> <p>The seller obtains, before signing the contract, the mortgage-free certification from the Immovable Property Registration Office.</p> <p>Administrative fees of General Authority for State Registration is determined by the Government Resolution No. 237 dated September 15, 2010. According to the Government Resolution providing “detailed reference” relating to immovable property the fees are as follows: MNT 5, 000 to obtain a non-encumbrance certificate within 3 days, expedited service MNT 10, 000 (to obtain a non-encumbrance certificate within 1 day or 8 business hours).</p>	1 day	<p>MNT 5, 000 (regular) obtained in 3 days, MNT 10,000(expedited) obtained in 1 day or 8 business hours</p>

	Agency: Immovable Property Registration Office																
2	<p>Notarization of the contract of purchase</p> <p>The contract must be certified by the notary public who is authorized to operate in the district in which the immovable property is situated. The contract is prepared by the parties. The authorized representatives of the parties must be present at the notary office. In Mongolia, a legal entity cannot own land, only real estate. Thus calculation shall be made only for the building. As to the land ownership the purchaser after the transfer of the title of the immovable property, shall make an application to the Land department of the relevant district to transfer the Land use right to the purchaser's name. The documentation shall include:</p> <ul style="list-style-type: none"> · Non-encumbrance certificate (obtained in Procedure 1) · Immovable property registration certificate (already in possession of seller) · ID card number and registration number of citizen or name, address and state registration number of legal entity who is certifying documents. · Permission of citizen, legal entity and authorized organization if required by law · Copy of contract · Copy of power of attorney, if required · All documents shall be in original or notarized--Notary Law of February 10, 2011 established that the ID cards and the permission of citizen, legal entity and authorized organization do not need to be notarized any longer. The originals can be shown and the officer or related agencies will only keep a copy. <p>Agency: Notaries</p>	1 day	<p>Notary fees according to the following schedule</p> <table border="1"> <thead> <tr> <th>Value of contract (in MNT)</th> <th>Notary fees (in MNT)</th> </tr> </thead> <tbody> <tr> <td>1,000,001 to 10,000,000</td> <td>10,000</td> </tr> <tr> <td>10,000,001 to 25,000,000</td> <td>25,000</td> </tr> <tr> <td>25,000,001 to 100,000,000</td> <td>50,000</td> </tr> <tr> <td>100,000,001 to 300,000,000</td> <td>100,000</td> </tr> <tr> <td>300,000,001 to 500,000,000</td> <td>200,000</td> </tr> <tr> <td>500,000,001 or above</td> <td>300,000</td> </tr> </tbody> </table>	Value of contract (in MNT)	Notary fees (in MNT)	1,000,001 to 10,000,000	10,000	10,000,001 to 25,000,000	25,000	25,000,001 to 100,000,000	50,000	100,000,001 to 300,000,000	100,000	300,000,001 to 500,000,000	200,000	500,000,001 or above	300,000
Value of contract (in MNT)	Notary fees (in MNT)																
1,000,001 to 10,000,000	10,000																
10,000,001 to 25,000,000	25,000																
25,000,001 to 100,000,000	50,000																
100,000,001 to 300,000,000	100,000																
300,000,001 to 500,000,000	200,000																
500,000,001 or above	300,000																
3	<p>Payment of Income or Transfer Tax at a commercial bank</p> <p>Pursuant to Article 21.6 of the Corporate Income Tax Law, the seller shall withhold the tax imposed on income from the sale of immovable property and transfer the withholding to the Budget (relevant local tax authority) within 10 business</p>	Less than a day (online procedure)	2% of property value														

	<p>days upon the sale of the property. However, in practice, this tax has to be paid and a receipt acknowledging the payment of income tax has to be submitted to the Immovable Property Rights Registration Office for the Procedure 4.</p> <p>Agency: Commercial Bank</p>		
4	<p>Submit application to the Immovable Property Registration Agency</p> <p>Parties submit relevant materials to the Immovable Property Registration Agency. At the desk, the officer will check all documents and if satisfied will receive the application; if not he will note the missing documents and reject the application. The certificate of ownership will be issued within 7 days after the Registration Agency analyses all the documentation presented, if the normal procedure is followed but in 1 day if the urgent procedure is chosen. The documentation shall include:</p> <ul style="list-style-type: none"> · A request for registration (fill an application form) · Original immovable property registration certificate. · A notarized copy of the contract (obtained in Procedure 2) · Notarized permission of a citizen, legal entity and authorized organization if required by law · The original tax paid slip for income taxes paid at the district tax office · Receipt of acknowledgement for the tax payment for immovable property sale as discussed in the Procedure 3. <p>Agency: Immovable Property Registration Office</p>	1 day	Standard service fee MNT 20,000, rush delivery fee MNT 40,000
5	<p>Transfer of the land use right</p> <p>Ownership of the land belongs to the state. It is prohibited to possess land without valid land certificate. Land use certificates can only be issued to the Citizens of Mongolia and legal entities established and organized under the laws of Mongolia. Land authorities of relevant districts of Ulaanbaatar deal with land management including issuance, renewal and transfer of land use right certificate within their districts.</p> <p>The documentation shall include:</p>	7 days	MNT 70,000 fee for new certificate

	<ul style="list-style-type: none"> · A request for registration from both parties. · Copy of the immovable property registration certificate. · A notarized copy of the contract (obtained in Procedure 2) · Notarized permission of a citizen, legal entity and authorized organization if required by law · The original tax paid slip for income taxes paid at the district tax office · Receipt acknowledging the payment of income tax <p>Agency: Land Department</p>		
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Source: The World Bank, doingbusiness.org, 2013

(2) Relative agencies and institutions

a) Agencies and institutions relevant to Environmental Assessment

The MEGD is the lead agency for environmental management in Mongolia, the state administrative organization in charge of nature and environment.

Depending on the type of project, scale of a project, or population size of project location, project screening and approval of EIA is done by either the MEGD or the concerned local administrative body through its Department of Environment (DE) for Aimags/ Municipality of Ulaanbaatar (MOB). The table below provides the project thresholds for EIA by the MEGD and local administrative bodies.

Table 6 Classification of Project to Conduct Screening of EIA

Classification of project	Implementer	
	MEGD	Aimag or MOU
1. Mining project	- All mining operation	Others
2. Heavy industrial project	- Concentration of mineral resource - Process - Chemical industry - By product coke industry - Others	Others
3. Light and food industry	Largest nationalization industry	Others
4. Agricultural project	- water pond - watering system - activity to bring virgin lands under cultivation	Others
5. Infrastructure development project	- Electric station with capacity up to 1mBt - Electric line with capacity up to 35kb heating line - Water electric station - Railway - Airport - Interstate or long distance road - Interstate communication - warehouse of oil production	Others
6. Project of service	- hotel, vacation or sanatorium and others with capacity up to 50 bed-days	Others
7. Other project	- Urbanization - Project must implement for defense and civil protection - Water supply project - Purification facility - Refuse dump	Others
8. Project of biological species	- largest fishing farm - activity to use and domicile fauna and vegetable	Others
9. Business related with trans mutative living organism	- Get trans mutative living organism - Do business - Growing - Import - Merchandise trans bordering	Others
10. Project of chemical toxicant, radio activation substance and hazardous waste	Operate, use, storage, transport and elimination activity of chemical toxicant, radio activated substance and hazardous waste	Others
11. Operation on special protected area	Operation within border menu of national special protected area	Others

Source: Law on Environmental Impact Assessment 2012

b) Agencies and institutions relevant to land acquisition and involuntary resettlement

Under the Ministry of Construction and Urban Development (MCUD), the Administration of Land Affairs, Construction, Geodesy, and Cartography (ALACGaC) was established in 2003 and changed its name into “Agency for Land Administration and Management, Geodesy and Cartography (ALAMGaC)” in 2016.

MCUD is responsible for the infrastructure development project. It is responsible for land management, geodesy and cartography. ALAMGaC has been given the mandate to consolidate the functions of:

- National land geodesy and cartography,
- National land administration and management,
- And the immovable property registry.

The General Authority on State Registration (GASR), which is separated from MCUD, manages property registration.

The smallest administrative levels (bag, soum and aimag) have roles in both land management and implementation of legislation. Since 1995, soum and aimag-level governments have struggled to fulfil their role regarding land administration, management, and ensuring the security of land rights. A central Land Management

Agency was established in 1997 and made provisions for representatives at national, provincial, and district levels. Their roles were to supervise and support the implementation of legislation and regulation of land use. However, some soum and aimag authorities have limited capacity and are insufficiently prepared to implement regulations and enforce elements of the land laws.

8. Provisional Scoping (types and magnitudes of possible adverse impacts and mitigation measures)

Provisional scoping was done based on the environmental and social conditions of Mongolia. The likely impacts were expected due to potential development projects, and the results of the scoping summarized in Table 7. In the rating, it was mainly considered that the likely impacts were expected in both construction and operation phases in the long-term, cumulatively, or in broader area. As this scoping is to identify important items to be studied for the NCDP, tentative impacts to be managed by construction plan in future were excluded from the scoping. Further detail scoping shall be conducted and discussed among stakeholders in the Project. Mitigation measures and plans will be also studied in the Project.

Table 7 Provisional Scoping of the Project

Category	No	Environmental Item	Evaluation		Explanation on impacts
			Planning & construction stages	Operation & monitoring stage	
Pollution Control	1	Air quality	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <p>[Construction Stage]</p> <ul style="list-style-type: none"> ➤ Air pollution caused by heavy machines and vehicles <p>[Operation and monitoring stage (O&M stage)]</p> <ul style="list-style-type: none"> ➤ Air pollution by factories in industrial parks ➤ Air pollution by increased cars in

					<p>regional and sub-regional centers</p> <ul style="list-style-type: none"> ➤ Air pollution by dusts from mines
	2	Water quality	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <p>[Construction Stage]</p> <ul style="list-style-type: none"> ➤ Water pollution caused by heavy machines and vehicles <p>[O&M stage]</p> <ul style="list-style-type: none"> ➤ Waste water from factories and accommodations such as hotels ➤ Waste water from regional and sub-regional centers ➤ Waste water from mines especially tailings (surface and ground water) ➤ Waste dumping site leachate
	3	Wastes	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <p>[Construction Stage]</p> <ul style="list-style-type: none"> ➤ Wastes from construction sites <p>[O&M stage]</p> <ul style="list-style-type: none"> ➤ Wastes from factories and accommodations such as hotels ➤ Wastes from regional and sub-regional centers ➤ Medical wastes ➤ Wastes from mines especially tailings
	4	Soil contamination	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <p>[Construction Stage]</p>

					<ul style="list-style-type: none"> ➤ Soil contamination by oil and others from heavy machines and vehicles <p>[O&M stage]</p> <ul style="list-style-type: none"> ➤ Soil contamination by factories in industrial parks ➤ Soil contamination by mines ➤ Soil contamination by waste dumping site leachate
5	Noise and vibration	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <p>[Construction Stage]</p> <ul style="list-style-type: none"> ➤ Noise and vibration from heavy machines and vehicles ➤ Noise and vibration during road works <p>[O&M stage]</p> <ul style="list-style-type: none"> ➤ Noise and vibration from factories in industrial parks ➤ Noise and vibration from mines 	
6	Subsidence	C	C	<p>[Construction Stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p> <p>[O&M stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ Large-scale activities of pumping up ground water for factories ➤ Ground subsidence by development of mines 	
7	Odor	C	C	<p>Details of impacts (including their</p>	

					<p>existences) are not known because specific plans are not available, but the following items should be noted.</p> <p>[Construction Stage]</p> <ul style="list-style-type: none"> ➤ Odor from construction sites <p>[O&M stage]</p> <ul style="list-style-type: none"> ➤ Odor from waste water and/or wastes from factories and accommodations such as hotels ➤ Odor from wastes from regional and sub-regional centers ➤ Odor from waste dumping sites
	8	Sediment	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available.</p>
Natural Environment	9	Protected areas	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <p>[Planning stage]</p> <ul style="list-style-type: none"> ➤ Regarding plans related to transport sector, it is necessary to consider not cutting cross the protected areas. ➤ If there is a protected area in the downstream of target area of the Project, impacts including indirect ones to the protected area need to be carefully assessed. <p>[O&M stage]</p> <ul style="list-style-type: none"> ➤ If project sites are close to the protected areas, it is necessary to conduct appropriate monitoring.
	10	Ecosystem	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following</p>

					<p>items should be noted.</p> <p>[Planning stage]</p> <ul style="list-style-type: none"> ➤ One of the final goals to be achieved in 2030 of SDV2030 states that “Preserve ecological balance and be placed among the first 30 countries on the rankings of the countries by Green Economy Index in the world”, and it is required to recognize that all natural habitats in Mongolia are important and to integrate the its philosophy into the planning. ➤ Accommodation facilities should be well planned to limit their impacts to the surrounding ecosystems. <p>[O&M stage]</p> <ul style="list-style-type: none"> ➤ If project sites are close to unprotected important ecosystems, it is necessary to conduct appropriate monitoring.
11	Hydrology	C	C	<p>[Planning stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ If hydropower plant with reservoir is planned, there may be some impacts to hydrology of the river and others. <p>[O&M stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p>	
12	Topography and geology	B-	C	<p>[Construction stage]</p> <p>Construction works in mountainous and/or hilly areas may cause soil erosions.</p> <p>[O&M stage]</p> <p>Details of impacts (including their</p>	

					existences) are not known because specific plans are not available.
Social Environment	13	Involuntary resettlement	C	C	<p>[Planning stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ It is necessary to avoid involuntary resettlement as much as possible especially in densely populated areas. <p>[O&M stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p>
	14	Poor people	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available. One of the final goals to be achieved in 2030 of SDV2030 states that “End poverty in all its forms”, and the Project is to develop the country in line with SDV2030. The Project therefore needs to pay attention to the people who are in poverty.</p>
	15	Indigenous or ethnic minority	C	C	<p>There are some ethnic minorities and their cultures in Mongolia</p> <p>Although details of impacts (including their existences) are not known, the Project understands these cultures well and develops the plan of the country to achieve a balanced society.</p>
	16	Local economies, such as employment, livelihood	A+	A+	<p>It is expected that the basic and social infrastructures are improved and new industries are to be developed, which contributes local and national economy throughout the Project period including O&M stage.</p>

17	Land use and utilization of local resources	C	C	<p>[Planning stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ Protected areas and areas prone to natural disaster should be avoided. <p>[O&M stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p>
18	Water usage	C	C	<p>[Planning stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ It is necessary to consider climate resilience of industrial and agricultural sectors. <p>[O&M stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p>
19	Existing social infrastructures and services	C	A+	<p>[Planning and construction stages]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p> <p>[O&M stage]</p> <p>It is expected livelihoods of local people are improved.</p>
20	Social institutions such as social infrastructure and local	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available.</p>

		decision-making institutions			
	21	Misdistribution of benefits and damages	C	C	Details of impacts (including their existences) are not known because specific plans are not available.
	22	Local conflicts of interest	C	C	Details of impacts (including their existences) are not known because specific plans are not available.
	23	Cultural heritages	C	C	<p>[Planning stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ 3 sites are registered as UNESCO World Heritage sites (Cultural Heritage sites), and 7 traditional festivals, songs, and dances etc. are registered in the list of UNESCO Intangible Cultural Heritage. Especially these intangible cultural heritages are highly evaluated by World Economic Forum through the assessment of competitiveness in tourism previously discussed and ranked 6th among 141 surveyed countries.⁸ It is therefore necessary to pay special attention to these cultural heritages to contribute especially to the promotion of tourism. <p>[O&M stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p>
	24	Landscape	C	C	[Planning stage]

⁸ Source: Final Report of “Data Collection Survey on the Regional Comprehensive Development in Mongolia” (November 2016)

					<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ It is necessary to pay special attention to natural and cultural landscape to contribute especially to the promotion of tourism. <p>[O&M stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p>
25	Gender	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available.</p>	
26	Children's rights	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available.</p>	
27	Infectious diseases such as HIV/AIDS	C	C	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ Although the percentage of population suffering from tuberculosis and HIV prevalence is much lower than in other developing countries⁹, the governments states that "Implement a national program on communicable diseases prevention and control to take comprehensive preventive measures against HIV/AIDS, Tuberculosis and STDs" in "Action Program of the Government of Mongolia for 2016-2020." 	

⁹ Source: Final Report of "Data Collection Survey on the Regional Comprehensive Development in Mongolia" (November 2016)

	28	Labor conditions	C	C	<p>[Construction stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <ul style="list-style-type: none"> ➤ The percentage of vulnerable employment and child labor are high because many people work in the livestock farming sector. Considering the future development of the national industry, the issues on labor conditions in Mongolia need to be addressed.¹⁰ <p>[O&M stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available.</p>
Others	29	Accidents	B-	B-	<p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p> <p>[Construction stage]</p> <ul style="list-style-type: none"> ➤ It is necessary to prevent accidents to workers and neighboring residents as much as possible. <p>[O&M stage]</p> <ul style="list-style-type: none"> ➤ Increase of traffic is expected and it is necessary to prevent traffic accidents as much as possible.
	30	Trans-boundary impacts / global warming	C	A+	<p>[Construction stage]</p> <p>Details of impacts (including their existences) are not known because specific plans are not available, but the following items should be noted.</p>

¹⁰ Source: Final Report of “Data Collection Survey on the Regional Comprehensive Development in Mongolia” (November 2016)

					<ul style="list-style-type: none"> ➤ Reduction of idling of heavy machines and vehicles ➤ Introduction of low-fuel consumption machines and vehicles <p>[O&M stage]</p> <p>Decrease of greenhouse gasses emissions from vehicles is expected. The forest cover and protected areas are maintained.</p>
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A+/-: Significant positive/negative impact is expected. B+/-: Positive/negative impact is expected to some extent. C: Extent of positive/negative impact is unknown. A further examination is needed, and the impact could be clarified as the study progress. D: No impact is expected.

9. Alternatives to the project activities including ‘without project’ option

9-1. Without project option

Without project option means no NCDP and will not take any actions on the present situation of Mongolia. The serious concentration of economic and development activities in Ulaanbaatar will be accelerated without project, resulting further deterioration of air pollution and environment in Ulaanbaatar. The regional disparities between urban and rural areas will be also worsened, which will have negative impact on society.

9-2. Consideration of alternative / optional activities

Alternatives to the project activities will be studied in the Project.

10. Result of the consultation with recipient government on environmental and social consideration including roles and responsibilities.

Strategic Environmental Assessment (SEA) will be conducted in accordance with the ‘JICA Guidelines for Environmental and Social Considerations (April2010)’ in the Project.

11. Terms of Reference for Environmental and Social Considerations

(1) Rationale

The Project formulates a comprehensive development plan for Mongolia. It is required to conduct a Strategic Environmental Assessment (SEA) as the Environmental and Social Considerations for the Project under the following Mongolian laws, regulation and JICA Guidelines.

- Law on Environmental Protection (1995 Amended total 12 times including 2005 / 2006 / 2008 / 2010);
- Law on Environmental Impact Assessment (1998 Amended total 3 times including 2001, 2006, 2012);
- Guidelines on Method of Natural Environmental Impact Assessment (2010);
- Regulations and Guidelines on Preparation of Natural Environmental Protection Plan, Environmental Management and Monitoring Plan, and Rehabilitation Plan (2006);
- Regulations and Guidelines on Method of Detailed Natural Environmental Impact Assessment (2000), and,
- JICA Guidelines for Environmental and Social Considerations (2010)

(2) Description of the SEA

a) Objectives

The objectives are;

- To identify and assess potential impacts induced by the Project;
- To avoid, reduce and mitigate these impacts;
- To collect comments from stakeholders and reflect them to options proposed by the Project;
- To evaluate the options from technical, financial and environmental points of view; and,
- To select the optimal option for the Project.

b) Study areas of the SEA

Entire Mongolia

c) Methodology and the flow of the implementation of the SEA

- Review of existing development policies, strategies, plans;
- Confirmation of existing environmental and social conditions of Mongolia as baseline data (land use, natural environment, protected areas, culture and lifestyle of indigenous people and their communities, culture and lifestyle of vulnerable people and their communities, local economy and socio-cultural environment and others);
- Confirmation of the legal framework and institution of Mongolia on environmental and social considerations, and examination of the experiences

of SEA study in Mongolia;

- Laws, regulations and standards related to environmental and social considerations (Environmental Impact Assessment, resettlement, public participation, information disclosure, and others)
 - SEA study reports conducted in development projects in Mongolia and other relevant information
 - Gaps between the “JICA Guidelines for Environmental and Social Considerations (2010)” and the legal framework of Mongolia on environmental and social considerations
 - Review of relevant agencies responsible for implementation of projects and their roles on environmental and social considerations including EIA and SEA
- Identification and analysis of development constraints and factors promoting development;
 - Planning the options by which potential negative impacts on the social and natural environments are avoided, reduced and mitigated as much as possible;
 - Scoping for the options (Clarify extremely important items on environmental and social impacts and the evaluation methods at the time of decision making of NCDP);
 - Social and environmental surveys based on the results of the scoping in order to collect more information if necessary;
 - Analysis and evaluation of impacts of the options from technical, financial and environmental points of view;
 - Examination of the mitigation measures (to be avoided, minimized, and compensated) and the monitoring methods (monitoring items, frequencies and etc.) of the selected option;
 - Collection and reflection of comments from stakeholders in the process of developing the options and selection of the optimal option.; and
 - Holding Stakeholders Meetings (hereinafter referred to as “SHM”) in the Project. (Table 8 shows proposed participatory planning process under the SEA for the Project, and Table 9 shows proposed participants for the Stakeholders Meetings.)

Table 8 Proposed participatory planning process under the SEA

No.	Step	Note
1	Information analysis	To evaluate and analyze data collected by Mongolia side and the Project.

2	Formulation of alternative scenarios	To formulate alternative scenarios by working groups. The working groups composed of related governmental agencies.
3	1st SHM	To collect opinions about development needs and ideas for NCDP from related stakeholders. The 1st SHM is held at each of twenty one (21) Aimags and Ulaanbaatar City. The 1st SHM is conducted as a workshop, and its duration is one to two days.
4	Formulation of the optimal scenario	Based on the opinions, the alternative scenarios are further developed and evaluated from environmental/ social, economic and technical points of views. The working groups are in charge of the works. The optimal scenario is formulated.
5	2nd SHM	The alternative / optimal scenario is presented at the 2nd SHM. The 2nd SHM is held at each of five (5) regions ¹¹ . The 2nd SHM is conducted as a workshop, and its duration is two days.
6	Review and approval	The draft final report is reviewed and approved by JCC.

Table 9 Proposed participants for the Stakeholders Meetings

SHM	Place	Participants	Number of participants
1st SHM	Held at each Aimag.	<ul style="list-style-type: none"> ➤ Representatives and planners from local. ➤ Representatives from related governmental agencies, NGOs and private sectors. 	The number of participants will be decided in the Project.
2nd SHM	Held at each region.	<ul style="list-style-type: none"> ➤ Representatives and planners from each Aimags. ➤ Representatives from related governmental agencies, NGOs and private sectors. 	The number of participants will be decided in the Project.

End of the document

¹¹ Five regions are Ulaanbaatar, Central Region (seven Aimags), Eastern Region (three Aimags), Khangai Region (six Aimags) and Western Region (five Aimags).