



БАРИЛГА, ХОТ  
БАЙГУУЛАЛТЫН ЯАМ

**UN HABITAT**  
FOR A BETTER URBAN FUTURE

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# MONGOLIA HABITAT-III NATIONAL REPORT

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Ulaanbaatar  
2016



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**UN HABITAT**  
FOR A BETTER URBAN FUTURE



“REGIONAL DEVELOPMENT POLICY RESEARCH CENTER”  
NGO

“DYNAMIC ANALYSIS INTERNATIONAL” LLC

Supervised by:

Ministry of Construction and Urban Development

Developed by:

Ph.D M.Altanbagana

S.Davaanyam

D.Tuvshinbat

B.Kherlenbayar

Ulaanbaatar

2016

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## PREFACE

Statement by minister,

The third UN Conference on Housing and Sustainable Urban development /HABITAT III/ assesses the commitment to sustainable urban development and represents the global platform with historical significance to develop “New Urban Agenda”. Mongolia has transitioned to market oriented economy since 1990s due to which population migration from rural to urban areas have been accelerated resulting in over-population in larger urban areas. Consequently, the challenges have been felt in various socio-economic issues including the heavy traffic jam, environmental pollution, exceeding public service capacity for infrastructure, education, health etc. It is delighted to note that under the framework of UN HABITAT program, certain projects have successfully been implemented for the development and capacity building of urban development sector in Mongolia.

As attributed with harsh and dry climate, fewer population and increased rural to urban migration in Mongolia, the challenges are expected further in population settlement system and urban development sector including single city centred overpopulation, air pollution, traffic jam, increased disparity between urban and rural development, frequent devastating disaster risks resulting from climate changes and more on. Therefore, it has been mandatory to undertake measures to reduce air pollution through the development and replacement with residential apartments for ger areas in the world’s coldest capital city, make city planning for sub-urban areas to decelerate the overpopulation, moreover, to throw light on the secondary status of urban area and to provide support the local urbanization through regional development policies etc.

Legislation framework has been adopted and enforced including the “Concept of regional development”, “Development Program on economic regions”, “Law on urban development”, “Law on land”, “Law on re-developing urban areas”, “Law on air pollution payment”, though the outcome have not been satisfactory due to limited financial resources, poor governance capacity and failure of establishing optimal management and organization structure.

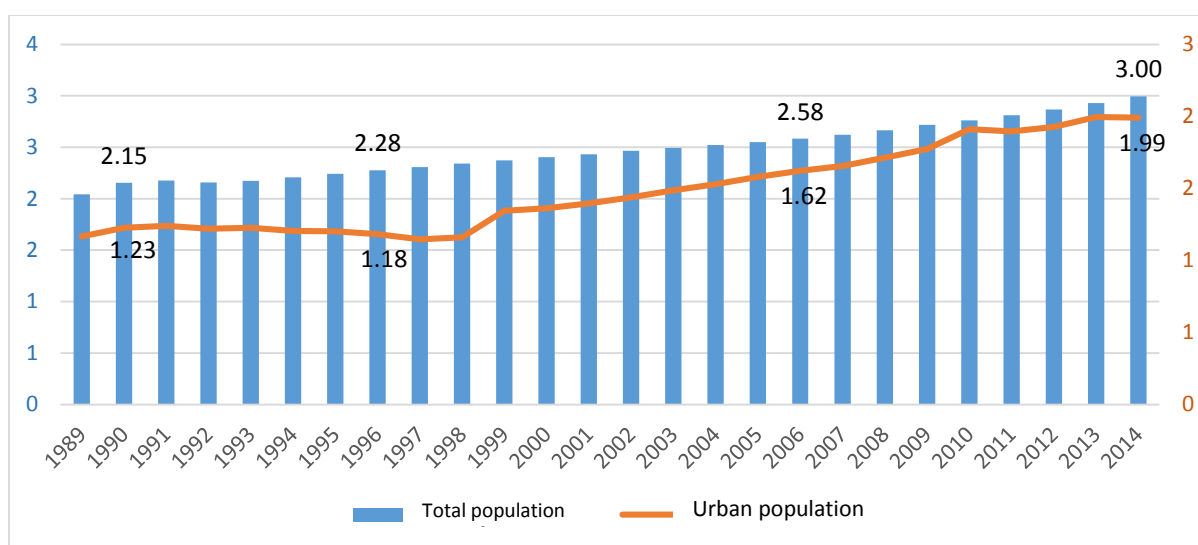
The development of the report on urban development under the framework of New Urban Agenda is considered as the most appreciable opportunity that enables the revision of the sector milestones and failures, global share of knowledge, challenges experienced, lessons learnt and best practices as well. New Urban Agenda is perceived as the key priorities and concept for developing countries to ensure sustainable urban development.

## 1. URBAN DEMOGRAPHIC ISSUES AND CHALLENGES FOR A NEW URBAN AGENDA MANAGING RAPID URBANIZATION

### 1.1. RAPID URBANIZATION MANAGEMENT

Mongolia has witnessed the rapid urbanization owing to the phenomenal transition to democracy and market oriented economy since 1990s. Due to the privatization of livestock along with privatization and bankruptsy of inefficiently running state owned enterprises and economic entities, urban-rural migration has swelled resulting in increased rural population in 1990-1998. However, since 1999, the urbanization has been rapid again due to reverse migration from rural to urban areas.

Figure 1. Urban population growth, 1990-2014

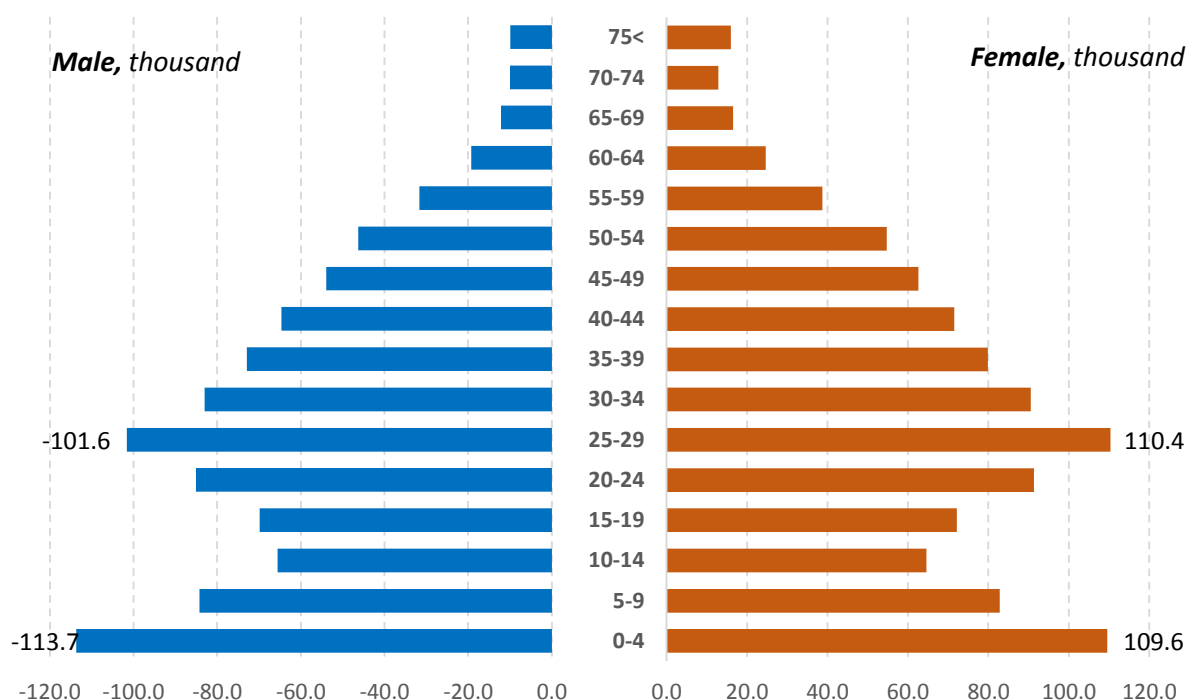


The urban population that accounted for 52 percent of total population of Mongolia in 1996 goes up to 63 percent in 2006 and 68 percent in 2013 subsequently.

The rapid urbanization process in Mongolia has been influenced with the following factors, including:

- Disparity of urban and rural development;
- Overcentralization of political, economic and social service centres in Ulaanbaatar city;
- Failure of policy on the development of rural town infrastructure and industrialization;
- Disparity in public services quality and adequacy in culture, education and health;
- Failure of appropriate demographic market centralization for rural small and medium business and services leads to shortage of workspace, hence the migration starts for sustainable employment opportunities with decent earning;
- Migration of rural people who have lost their livelihood resources due to natural disasters- draught, dzud etc, the consequence of climate change;

Figure 2. Pyramid of urban population age and gender, *Mongolia, 2014*



From the pyramid on urban population age and gender structure including Ulaanbaatar city and 21 aimag centres, the age groups of 0-4 and 25-29 prevail amongst male and female population. Generally, the urban population of Mongolia comprise of relatively young population in terms of population age structure.

The migrating population to urban cities seeking for employment opportunities and exceeding supply of labor market demand for urban population have been contributive to the increased unemployment and poverty rate. Within 9 goals and 24 targets of Millenium Development of Mongolia, the target was set out under the objective for poverty and hunger elimination that claims to “Halve the proportion of people whose income is below than minimum living standard between 1990-2015”, however, the target has not been achieved in reality.

In 1995 the poverty rate that was 36.3% by national average and 38.5% in urban city was supposed to halve to 18% in 2015 according to the target and as of 2014, the poverty rate indicates as 21.6% at national level, 18.8% and 27.9% in urban and rural areas respectively. The lowest level of poverty rate in urban areas is linked to the prevailing development of production and services along with the population density.

Mongolia has adopted and enforced the Law on Urban Development since 1998. The objective of the law underlies, within the legal framework of urban development policy of Mongolia, to regulate the relations between the government, business entities, institutions and citizens to develop appropriate regional development structure for population settlement and independant development and to establish towns and cities in accordance with urban planning.

The Law of Mongolia on “Administrative and territorial units of Mongolia and their governance” adopted in 1992 sets out to “specifically regulate the legal status of cities and towns within the administrative and territorial units”. Accordingly, the law on “Legal status of cities and settlements” was adopted in 1993. The objective of the law is to determine the cities and settlements within administrative and territorial units of Mongolia, the principles, system and authority of socio-economic basis and management functions, to regulate the management of territorial units and relations between business entities, institutes and residents.

As pursuant to the law of Mongolia on legal status of cities and settlements, the cities with national and aimag status are determined with criteria as the following:

- A city with national status refers to a city with over 50 thousand residents and in terms of contribution to national socio-economic development, urbanization and infrastructure development level;
- A settlement with aimag status refers to a settlement with not less than 15 thousand residents’ majority of who are employed in production and services industry and urban infrastructure has been developed.

A city with national and aimag status includes current 21 aimag centres and capital city of Ulaanbaatar. Darkhan, Erdenet and Ulaanbaatar cities comply with the criteria on residential population for a city with national status. In contrast, majority of 21 aimag centres have up to 15001-50000 residents and the cities with aimag status have been 15 in 1996, 13 in 2006 and 16 in 2013 respectively.

The Ministry of Construction and Urban Development of Mongolia has held the “Urban Development Forum” since 2012 jointly with representatives of ministries, local authorities, private sector, non-governmental organizations, foreign donors and UN Humans Settlement Program. The forum has enabled to address the urgent issues encountered in urban development sector with all stakeholders, in particular with local authorities and private sector as well as to introduce best global practice.

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## 1.2. MANAGING URBAN-RURAL LINKAGES

As attributed with population settlement of Mongolia, climate features and compatible lifestyle, the balanced development of rural and urban areas is the fundament for sustainable local living of the population.

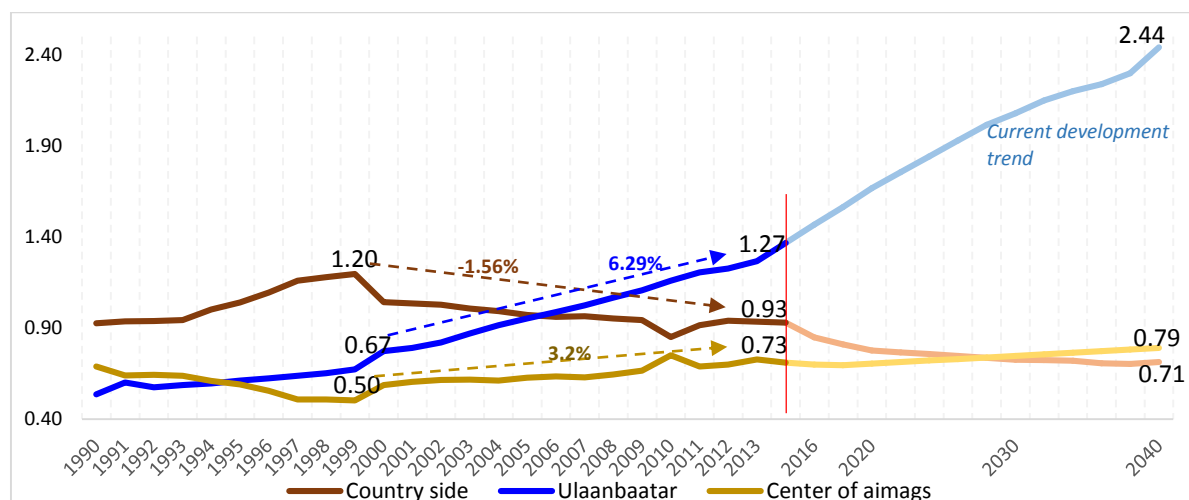
Four human settlement forms are evident in Mongolia depending on ecological, socio-economic characteristics and lifestyle. In terms of settlement forms and out of total population, the percentage of capital city and aimag centres’ population increased from 59% in 2006 to 65% in 2014. The settlement rate in a town, a form of urban settlement has been the least or 1% as of 2014. The rural population include residents of a soum centre and those dealing with animal husbandry in rural areas for 4 seasons. Soum population demonstrate no changes in 2006 and 2014 while the proportion of rural population in total population decreased from 26% in 2006 to 21% in 2014 indicating their rural-urban migration. Generally, rural population decrease according to four human settlement forms above, in contrast, the population of Ulaanbaatar city dramatically increase than aimag centres.

In 1999-2013, the average population growth decreased by 1.56% in rural areas while there were increases in Ulaanbaatar city by 6.29% and in aimag and town centres by



3.2% respectively. Moreover, if the urbanization pace remains, the population growth of capital city is expected to reach 2.4 million by 2040, accounting for 62% of total population whereas the rural areas will be more sparsely populated resulting in fewer numbers of soums with independent development capacity and increased disparity of urban and rural development.

Figure 3. Population growth, further trend, by million



It is required to develop peri-urban cities and facilitate local business development that may lead to the decentralization of overpopulation in Ulaanbaatar city. Compared to larger cities and settlement areas, the unemployment and poverty rates are demonstrated as higher in rural areas and household monthly average income is lower while product cost is soaring, quality and adequacy of education and health services are unsatisfactory. Thus, the disparity of urban and rural development increases resulting in accelerated rural-urban migration. There is a requirement to enable convenient investment environment in rural towns to improve the investment, to support small and medium business and launch advanced technology with higher productivity in order to improve livelihood of local community. In addition, it is necessary to reduce the disparity of urban and rural development through the improvement of quality and adequacy of education and health sectors as well as the infrastructure development of aimags and settlements.

In 2001, the Regional development concept<sup>1</sup> was adopted by the State Great Khural of Mongolia, accordingly the other policy framework was established including the “Law on regional development management and regulation”, “Regional development mid-term strategy<sup>2</sup>” and “Development program for western, eastern, khangaï and central regions”. Furthermore, in consistent with the commitment on promoting urbanization that serves leading contribution to regional development, it was decided to select two central settlement centres in each 4 economic regions and to promote their development.

<sup>1</sup>Resolution No.57 dated 2001 of the State Great Khural

<sup>2</sup>Resolution No.24 dated 2003 of the State Great Khural

Though, the implementation of legal documents has not demonstrated significant outcome due to financial constraints and other factors, moreover, the duration of regional development relevant policies and programs has ended in 2015. It is mandatory to conduct assessment on the implementation of these policies and programs to determine the causes for such failures. In particular, it is recommended to conclude:

- Whether economic resources and capacity have been adequate for implementation;
- If any political commitment has been evident in implementation;
- Whether programs have been developed as optimal, research and evidence based;
- If any failures have been evident to comply with contemporary development trend, needs and requirements.

Further, it is required to re-develop policy framework as oriented with contemporary needs and requirements, scientific and technological development, regional development trends, their socio-economic and environmental resources and opportunities available.

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### 1.3. ADDRESSING URBAN YOUTH NEEDS

From the demographic structure of Mongolia, the proportion of youth in total population prevails if compared to other countries, in particular, the proportion is higher in urban population. For instance, 45% of total urban population account for youth aged 15-39 and the proportion is 43% in rural areas. This is immediately due to the inadequate opportunities for acquisition of higher education and employment in rural areas that led to rural-urban migration of youth.

With this regard, the weight of youth in urban population is still high and is expected to grow more, the needs and requirements of youth should be more incorporated in urban planning. It is revealed that the participation of youth is mandatory in urban development and governance and planning should be based on active involvement. In order to enable youth to spend their leisure time as appropriate, grow and educate in healthy and safe environment, it is recommended to ensure the adequate development of facilities such as relaxation centres, outdoor playground, gardens, green zone, library, play centres, sports complex, halls, swimming pools etc. One of the alternatives to decentralize urbanization may include the transition of some higher institutes to local areas and enable inclusive planning and development of higher institutions as a campus. With respect to the annual growth of migrators from rural areas, the crime rate is still not reduced in urban areas. Hence, it is recommended to educate youth for urban culture and to organize information sessions/efforts in phases. The sustainable workplace and residential accommodation supply are the most urgent issues encountered for urban youth. Eventhough the enrollment rate in higher institutions indicates high, larger number of graduates fails to find appropriate workplace ending up as unemployed. Partially, it is due to the failure of preparing human resource in response to market demand. What is more, it is necessary to establish educational system to re-train youth who are not able to find workplace with most demanding areas of vocations.

With the support of Swiss Development Agency and Government of Luxembourg, the Government of Mongolia jointly with UN Population Fund has launched the "Project for

youth development” under which currently 16 centres have been set up in some districts of the city and aimags.

Programs have been available on providing convenient residential apartments for population of the city and aimag centres, however, because of the purchasing capacity the involvement indicates as relatively less in residential apartment programs for youth. For instance, out of 66 thousand young households at national level, 22 thousand or 30 percent of total young households reside in residential apartments. This reveals their limited capacity to afford mortgage deposit and relatively lower income. Thus, the reduced mortgage rate from 8% to 5% has been of great support, nevertheless the reduced minimum mortgage deposit would be far more beneficial. In order to leverage the youth- the graduates of higher institutes for local employment, there is a need to provide merit pay for young people employed in remote rural areas/aimags and address their social welfare issues. The introduction of urban tax could be another alternative for such decentralization endeavour.

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#### 1.4. RESPONDING TO THE NEEDS OF AGED

According to the demographic structure of Mongolia, the proportion of the aged or demographic load of aged demonstrates as less, however, from the population growth trend by National Statistics Office, the demographic load of aged is expected to grow several times between 2030-2050. Such structural changes are immediately pertinent to rapid urbanization, prolonged average aging, population fertility and mortality rate decrease. By 2015-2030, the average annual growth rate reaches 8.5% for elders aged 65 or over and is expected to grow 5 times faster than those aged 15-64. What is more, according to UN World Population prospects, the proportion of aged in Mongolia is expected to grow 1.8 times in 2030 and triples by 2050, an increase from 9.3% to 28.6% in 2015-2030.

Following the population growth prospects, the social welfare and public services for elders are expected to double as of 2030. Accordingly, it is required to improve public services quality and adequacy, inter alia the infrastructure of urban development for elders, leisure and resort/wellness centres, relaxation centres, sports facilities for physiological health strengthening, development centres for aged etc and incorporate such needs in urban planning. For these purposes, it is urged to develop national framework on population aging issues while estimating and planning the expected urgent needs and requirements from now on. Moreover, legal environment has been enabled to provide care for elders and improve public services. For instance, the law on social welfare of aged was adopted in 2005 and depending on needs and requirements of aged timely amendments and improvements have been included. Plus, the policies and areas of concerns are streamlined in national framework, the “Government policy on population development”, National program on “Healthy aging and health of aged”, “National program on health and social welfare of aged”, “Strategy for population aging” and more on. In parallel with these policy framework, Mongolian Association for elderly people was established by Ulaanbaatar city Mayor Office to listen to their voice, protect rights and interests, send to resort centres surrounding the city with discount rate and set up sports facilities to strengthen their physical health in capital city khoroos and aimag centres.

The proportion of disabled community account for 3.3 percent of 99.5 thousand in Mongolia. People with disabilities still remain with limited opportunities for employment

and social life involvement. There are limited or less number of buildings that are facilitated with specially designated steps, stairs or path to encourage the access for elders and disabled population. Further, it is required to introduce specially facilitated public WC and public transportation for citizens of such vulnerable social groups. The collaborative efforts and commitment of ministries, other sectors and non-governmental organizations are critical for the establishment of infrastructure in urban development designed for disabled community.

It is necessary to undertake global measures that conform to contemporary needs and requirements, inter alia the share of long-term knowledge and experience of elders to young generation and the launch of home care service for seniors.

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## 1.5. INTEGRATING GENDER IN URBAN DEVELOPMENT

In accordance with the settlement forms of demographic gender structure of Mongolia, 48 percent of total urban population account for male and 52 percent for female population. It reveals that the proportion of female population in urban population is three times more than rural population and it is largely relevant to the higher average life expectancy for female population in urban areas and bigger number of female students seeking for higher education from rural to urban areas.

Mongolia has significantly been concerned on gender equality areas. As pursuant to the resolution No 274, dated 2002 by the Government of Mongolia, the national program on promotion of gender equality was approved. Plus, the law on gender equality was adopted in 2011 and to ensure its enforcement, the mid-term strategy and action plan of the Government have been implemented. What is more, the gender equality has been streamlined in objectives and provisions of the “Millenium Development Goals based Comprehensive national development strategy” and legislations including “Law on labour”, “Law on combatting with human trafficking” and “Law on Family”. Under the Government resolution dated 2011, “National Gender Committee” was set up as headed by the Prime Minister of Mongolia.

Even in urban development sector the promotion of gender equality is of great concern. It is mandatory to ensure equal gender participation and incorporate proposals of disabled community and social groups in order to establish urban development planning as compliant to the varied needs and requirements of population groups and adequate for each citizen. For these reasons, it is critical to increase the participation and engagement of women in urban governance and urban development. The passive engagement of women in professional institutes of urban development sector has been evident according to the survey by Recruitment Agency, SOE. Under the survey, the average gender ratio for total employees is 47:53 and average gender ratio at executive management level is 21:79 for institutes functioning in areas of construction and urban development, inter alia the Centre for Construction Development, Land Relation, Geodesy and Mapping Authority and Mongolian Housing Finance Corporation. Concerns have been put on maintaining the gender ratio by the human resource officer of the ministry and sector council of Mongolian Civil Service Council when appointing officers and executive management of these organizations and authorities.

Furthermore, the access to property relations is an urgent issue for urban women as complementary to other social issues including unemployment, poverty and residential accommodation supply. The decreased adequacy of public services for child education and health have added excessive burden for women. In particular, it is crucial to involve and increase stable work places for women of vulnerable groups, level-single mothers and those with lower income.

Since the employment opportunities are limited for females at the newly emerging labor market compared to males, women seek for other income generating activities and get involved in a sector with lower earning. From some efficient initiatives, upon the initiatives of female members at legislative sector, the home child care services have been legalized since 2015 that have enabled hundreds of women to generate more workspaces and stable income sources.

If considering sectors with salary rate, the sector with more female recruitment demonstrate less earning than the sectors with more male recruitment and the unemployment rate relatively prevails for women than men. Also, the real estate used as collateral or business start-up funding is more often registered in the name of male members. This significantly obstructs females to seek for loan reimbursement. Women are more concerned that land may have registration in the names of males from the current land privatization process. Taking into account the prevailing social responsibility of women for loan repayment and affording of families, it is suggested to increase the participation of women in urban economic relations. A survey has revealed that out of total citizens with mortgage, majority of citizens who fully meet legal obligations for mortgage account for women. It is of great significance to improve the living environment of single mothers and households living on poverty and increase their opportunities to access adequate residential accommodation. Plus, to ensure the violence free and safe environment for women and girls, certain measures have been undertaken to prevent from exposures of crime such as improvements of lightning system in city centres and outskirting districts, frequent patrolling around school environment, setting up of security signalling and surveillance system etc.

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#### 1.6. CHALLENGES EXPERIENCED AND LESSONS LEARNT IN THESE AREAS

- Rapid urbanization increases the misuse of land management and exposures of urban infrastructure vulnerability to natural disasters resulting from climate change. Throughout the past 70 years, Ulaanbaatar and 9 settlement centres or aimag centres and 55 soum centres are located in the regions where climate changes have been felt or temperature has risen by 2°C. This reveals that the population for these urban areas and soum centres are settled in regions with higher exposures of climate changes and warming.
- It has been evident from the previous experience that state policy intervention is mandatory for regional development in order to decentralize population migration and reduce the load/burden of urban areas with dense population. Mongolia has established the framework for regional development policy and concept, yet not much has been apparent in reality. The main reasons include the failures of political commitment to implement regional development framework and optimal estimation of economic resources and opportunities when developing planning for key regional development centres. Moreover, the



loss of policy on population settlement has led to the abandonment of remote rural areas and over-centralization of few numbers of urban areas.

- From the population growth prospects of Mongolia, the proportion of youth and elders in total population tend to grow further. Therefore, it is urged to improve public services quality and adequacy, inter alia the infrastructure of urban development for elders, leisure and resort/wellness centres, relaxation centres, sports facilities for physiological health strengthening, development centres for aged and youth and incorporate such needs in urban planning. The “Law on rights of disabled people” by the State Great Khural of Mongolia in 2016. Within the framework of legislation, the incorporation of a provision that sets forth as “not less than one fourth of commission members to confirm the acceptance of new facilities/construction work shall be disabled citizens” has been of significant step to comply construction standard with the requirements of disabled community. Moreover, it is stipulated that stairs with tapered tread shall be set for old buildings within 10 years.

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#### 1.7. ISSUES AND CHALLENGES FOR A NEW URBAN AGENDA IN THESE AREAS

- It is required to enable convenient investment environment in rural areas to foster investment endeavours, encourage small and medium business, promote and transition to highly-efficient technology in order to improve local livelihood.
- Depending upon the employment opportunities and social services’ adequacy, there is an increased population migrating from rural to urban areas. Thus, there is a necessity to develop planning for regional urban centres development taking into account the population settlement forms, economic resources and environmental vulnerability. As a result of major regional development, migration could be decentralized. Due to urbanization impact, the herdsmen community is decreasing eventually. Further, in case such pace of rural-urban migration remains, nomadic civilization and cultural values may be at risk of extinction or loss.
- Availability of employment opportunities and better access to residential accommodation are the key urgent issues encountered for urban youth. What is more, in order to enable youth to spend their leisure time as appropriate, grow and educate in healthy and safe environment, it is recommended to ensure the adequate development of facilities such as relaxation centres, outdoor playground, gardens, green zone, library, play centres, sports complex, halls, swimming pools etc. it is recommended to educate youth for urban culture and to organize information sessions/efforts in phases. It is urged to train youth for demanding areas of professions at labor market, involve in most demanding vocational re-trainings and implement mortgage policy targeted at youth.
- The establishment of infrastructure designed for elders and disabled community remains as critical in urban development. The shortage of funding and inadequate legislation framework often lead to violations of elders and disabled people’s rights to access social relations and public transportation means. In Mongolia, the “Law on social welfare of elders” is enforced, though no legislation

is available to protect their legal rights. Therefore, it is required to learn from the global practice on areas of protecting elders' rights and enabling legal environment. In order to enable employment opportunities for retired elders to share their advanced professional practice and expertise in specific areas of professions, it is vital to build "National networking of senior professionals" in accordance with international practice.

- Due to poor lightning system in ger areas and weak public awareness, girls and women are at higher risk to be exposed to violence. In order to ensure healthy and safe living environment for citizens, in particular for females, the emphasis should be given on the improvements of lightning system on streets and squares, provision of frequent patrolling and security as well as extensive crime prevention interventions. Moreover, there is a need to improve health care services for disabled population and undertake phased measures to increase their access to health facilities.
- It is mandatory to adhere to policies that enable effective planning for local development when exploiting mega mining deposits and foster urban development of settlements along production and mining deposits areas in parallel with secondary production facilities development.

## 2. LAND AND URBAN PLANNING: ISSUES AND CHALLENGES FOR A NEW URBAN AGENDA

### 2.1. ENSURING SUSTAINABLE URBAN PLANNING AND DESIGN

Since population growth, uncontrolled urbanization, socio-economic and consumption changes and climate changes lead to increased risk of safety for urban energy, water and land resources, it is recommended to systematically manage the use of limited natural resources-the water, energy and land as in parallel with economic needs and requirements. Such inclusive development has been witnessed as the basis to sustainable development from the practice of various countries.

The urban planning policy framework of Mongolia is regulated with the legislation of Mongolia, procedures, regulations and other legislations including "Law on urban development", "Land Law", "Cadastral Mapping and Land Cadaster Law", "Law on "Administrative and territorial units of Mongolia and their governance", "Re-development of urban areas", "Legal status of urban areas and settlements", "Law on border checkpoint" and more on. Urban planning is defined with holistic approaches that include development of urban planning of settlements and regional areas, construction and facilitation efforts in order to establish healthy, safe and convenient spatial environment for population in conformity with economic and social development priorities, civilization, historical and cultural heritage and environmental protection endeavor.

The fundamental policy paper on urban planning include the "Master Plan for population settlement development" and "Detailed Plan for state land management" laid out in line with regional development concept and other legal acts. However, Master Plan for population settlement development has not yet been renewed or re-developed, yet is deemed as the advanced inclusive document for spatial plan for all sector planning such as inclusive planning of territorial and population settlements of the country, territorial organization, regional planning, regionalization, urban

development, socio-economic, environmental, transport and infrastructure and more on.

These documents underlie the general planning for regional and local areas or sector development, mid or short term strategic planning, projects, programs, budget and investment policies are developed.

The framework of legal and policy paper of Mongolia has been established on the development of urban areas and settlements, however, still the implementing mechanism and financial resources are ambiguous. For instance, the policy paper can be mentioned on development of peri-cities, planning to establish major 8 sub-centres of a capital city and major regional urban areas/metropolises, establishment of industrial complex, production and technology park, inter-soum centres, trade and economic free zone development etc. In recent years, certain measures have been undertaken to promote local urban development and to implement New Soum Centre or “Inter-soum centre” project to establish public service complex facilitated with energy efficient technology in accordance with inclusive urban planning. Further, 96 soum centres of Mongolia are targeted for continued implementation.

In conformity with sustainable urban development concept, commitments have been on the renewal and re-development of the general planning and partial planning for all urban and settlement areas and new initiatives for green city, smart city have been proposed, yet the poor urban governance and failures of urban land management in parallel with urban planning have obstructed the effective achievement of objectives.

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## 2.2. IMPROVING URBAN LAND MANAGEMENT, INCLUDING ADDRESSING URBAN SPRAWL

Along with the population growth, the urban and settlement areas sprawl extensively, thus, such urban expansion and urban land management require management with consolidated policy and planning. For instance, the capital city annually expands and once the single centred city is incapable to meet needs and requirements of such uncontrolled urban sprawls, Ulaanbaatar city has been planned to serve as a multiple centred city and the inclusive complex planning of 8 centres are to be built including administration, services and social infrastructure.

In accordance with the “Amendments to Master Plan for Ulaanbaatar city development until 2020” as approved with resolution No.23 dated 2013 by the State Great Khural of Mongolia and “National development strategy until 2030”, the population of Ulaanbaatar city and settlement areas are expected to grow by 400 thousand within the next decade. Such circumstances have resulted in ambiguity of legal environment, heavy air, water and soil pollution, uncontrolled sprawls of ger area and misuse of land management, inadequacy of road and public transportation, shortage of urban engineering infrastructure supply, residential and social infrastructure etc.

Urban planning, regulation and approaches have been outdated that have contributed to urban sprawl and land market distortion.

In case of allocating common areas for private business, more preference should be given to competitive and open land auction system that would be more efficient for the city than immediate authorization of land. The urban sprawl with less density and unavailability of infrastructure development immediately downgrade the quality of living



standard along with decreased overall urban competitiveness. It is not the population density, but the organization of urban street development and land use plan that largely contribute to traffic congestion. The land relations system is far more beneficial and requires transparency. Due to current shortcomings of land relations and management system, the city has been disadvantaged to potentially benefit from private sector investment for land management. The general and partial urban planning integrate the sustainable development principles of the city; yet because of unsatisfactory implementation, multiple subjects for land use authorization, failure to integrate land use and urban planning, weak monitoring and accountability system, some major cities have been observed to fail on the implementation of sustainable urban development.

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### 2.3. ENHANCING URBAN AND PERI-URBAN FOOD PRODUCTION

Due to the shortage of food products and dramatic price increase in global markets in recent years, many countries have reformed their food security policies and have undertaken government measures to increase funding and regulation on agriculture. In consideration of emerging external and internal factors, Mongolia has tackled with wider range of issues including the revival of agriculture to supply local demand with major food products, increase the reserves of major food products required during emergencies and economic instabilities and apply immediate measures to increase the government supports to eliminate population nutrition deficiencies and spread of non-communicable disease. These underlie as the practical groundings and requirements to re-develop the program. The National program on “Food security” and Government policy on food and agriculture target to establish a system for sustainable urban population supply for healthy and safe food. For instance, it is integrated in National program on “Food security” as:

- To provide financial and methodological support for citizens residing in outskirts of urban areas to build summer and winter green house, run hog breeding, broiler poultry, bee and hare raising farming, agriculture and plantations on potato, vegetable and berries;
- In conformity with requirements to supply urban population with industry processed meat and dairy products, to provide support to enhance industry capacity and technological innovation;
- Dairy farming with not less than 8 thousand dairy cattles has been established in peri-urban areas and not less than 20.0 thousand tons of milk are daily processed to supply population demand.
- Food processing industries have made technological innovation processing 30 percent of meat and 20 percent of milk supply for urban needs.
- To increase or provide incentives for investment efforts on agricultural technical renovation, irrigation system, fertilization, plant protection, mechanized storage system, warehouses of wheat, summer/winter green housing and re-generation of seed crops;

In addition, the Government policy on agriculture:

- Intends to deal with pastoral animal husbandry adapted to climate changes and maintain traditional cultures/values, develop intensive farming with highly-efficient breeds in peri-urban and agricultural regions;
- Ensures the sustainable a year-round supply for urban population demand with fresh vegetable through the development of winter/summer green housing and

warehouse farming to promote vegetable plantation etc sector institutes have made initiatives to ensure the healthy and safe food supply of urban population.

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## 2.4. ADDRESSING URBAN MOBILITY CHALLENGES

With the presence of urbanization impact due to accelerated migration from rural to urban cities, it is required to develop consolidated policy and planning for transportation sector of larger urban areas in line with general urban development planning. In order to decentralize population migration, obviously, the local infrastructure, inter alia the road networking should be developed. No consolidated planning and strategy is available for transportation networking development in Mongolia. The urban municipalities responsible for land management development and public transportation planning are required to synchronize their current functions and make collective commitment along with currently implemented projects to enhance capacity and accessibility capacity.

As in conformity with “New developments”, the mid-term target program approved by the State Great Khural of Mongolia in 2010, the road development project is included that aims to connect aimag centres and a capital city with hard cover road and build 7000 km road connecting urban and other settlement areas along the national and regional road routes. As of 2015, 17 aimag centres were connected with the capital city and planning is made to connect all aimag centres with the capital city by 2017.

Furthermore, traffic congestion is the urgent issue for heavily overpopulated Ulaanbaatar city, hence it is urged to develop urban road and transportation network in parallel with consolidated planning and organization. The current road network of Ulaanbaatar city was planned 50 years ago with a feasible road extension and new street development, however, due to inefficient policy on land use and construction, constraints have been on road expansion and re-development of streets. What is more, the pace of measures undertaken on road networking improvements fails to keep up with the rapid annual growth of auto cars and means of transportation resulting in increased traffic congestion in the city.

As pursuant to the resolution No.46 dated 2013 of the Government of Mongolia, it was resolved to expand and develop Ulaanbaatar city road network, provide inclusive planning for ger area infrastructure and implement project entitled “Street” and accordingly the designated funding was approved. The project “ Street” runs in four sub-components of a project including “Ger area”, “City centre”, “Highway” and “Aimag centres”. The project launches with the aim to eliminate traffic congestion and air pollution in densely construction areas, improve land use, adequacy of services, increase work space, accessibility of road and footpath, establish ger area engineering infrastructure, enable new business environment, enhance land value etc.

The sub-component of “City centre” piloted in Ulaanbaatar has exhibited positive outcome and all aimag centres are targetted for further implementation. For instance, “Street” project was implemented in Ulaangom and Tsetserleg towns and the design works have been completed to launch in remaining aimag centres. Moreover, measures to ensure safety of citizens have been implemented such as the enforcement of inter-city public transportation service standard and provision of public transportation services with larger buses as compliant to requirements and with published timetable and speed.

Road condition is another urgent issue tackled in intercity transportation and negative impacts are visible for road safety due to incomplete connection with hard covered road network, incompatible standard of road and inadequate road lightning and sign system.

In addition, the standard bathroom areas, catering services and relaxation stations with a motel/hotel are inadequate.

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## 2.5. IMPROVING TECHNICAL CAPACITY TO PLAN AND MANAGE CITIES

In an era with rapid globalization, land management changes, environmental and climate changes, it is mandatory to establish efficient and competent management and organization system to ensure sustainable urban development. As there is the demand in municipalities for technical staff including engineers and architects with expertise and knowledge to develop projects on underground facilities, skyscrapers, multi-level interchanges, underground development, concerns are given for human resource development in highly developed countries and preparation of human resource locally as well. Also, there is a great need to prepare human resource in the areas of leadership, urban economy, human settlements in addition to urban development managers, engineering and technical officers.

For the purposes of increasing urban citizens' engagement in contributing urban economic development and strengthen urban financial capacity, various measures have been undertaken to implement new initiatives to build local development fund as a resolution for investment planning through urban tax and participation of citizens, to develop and apply urban regulation as to strengthen culture, duties and accountability of urban citizens.

Since local community active initiatives and engagement, general planning of the city, planning for land management, urban standard and legal authorities of municipalities are not synchronized in the formation of urban management system, there have been frequent conflicts and dispute over land management due to conflict of private interest of authorities in charge. Therefore, it is recommended to implement wide range of measures to improve accountability system, duties and responsibilities of stakeholders, revise and re-develop legal documents, increase citizens' monitoring and engagement in enforcement efforts and promote the reform measures in these areas mentioned. Moreover, it could be an effective step to transition to voting system with immediate involvement of citizens in accordance with Action plan by the Mayor and Chairman of Citizens' Representative Khural. In order to improve the urban governance, it is crucial to enhance the synchronisation of institutes, foster collective efforts and partnerships, retain professional and experienced human resource, run transparent recruitment efforts and ensure fair competition.

Additionally, it is important to build consolidated information technology network to access transparent and open information on urban economy, society, services, population, households and business entities as well as to timely provide all stakeholders in planning with realistic information.

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## 2.6. CHALLENGES EXPERIENCED AND LESSONS LEARNT IN THESE AREAS

The implementation of “Street” project in a capital city has been construed as the best practice contributing to various issues in the most dense construction areas of the city, including the reduction of traffic congestion and air pollution, improvements in land management, ease of services’ adequacy, creation of work spaces, enhancement of auto and footpath accessibility. To seek solutions for resolving traffic congestion, measures have been taken to enhance the accessibility of vehicles, additionally, the decentralization of driving population towards peri-urban cities would be far more effective method. The reason underlies on daily increasing road capacity and failure to keep up with the pace of exceeding capacity. On the other hand, it is not the population density, but the urban street structure and land management planning that impact the traffic congestion.

If it switches to a system where urban municipalities are directly elected with the participation of citizens, it can leverage the engagement and active initiatives of citizens in urban development. It has been a positive step that the principle for citizens’ participatory method has been streamlined in major documents including the Land law, Law on urban development, General plan for urban development and land organization, yet, the criteria is still unclear how to measure that citizens’ participation is ensured.

The ger area expansion with less density and unavailability of infrastructure downgrade the living standard of citizens along with the overall urban competitiveness. Urban development regulation and approaches have been outdated that are contributive to urban sprawls and land market distortion.

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## 2.7. FUTURE CHALLENGES AND ISSUES IN THESE AREAS THAT COULD BE IN A “NEW URBAN AGENDA”

In Mongolia the urban development regulation and decision-making methods have been lagging behind due to which the land market relations are distorted and other issues pertinent to urban sprawls, ger area expansion and traffic congestion are evident. The failure of a land to serve as a collateral for loan security has been one of the factors impacting funding cost.

For the purposes of improving urban municipality governance capacity and accountability system, the transition to an election system where Mayor and Chairman of Citizens’ Representatives Khural are elected with direct participation of citizens could be one step to accelerate urban development pace.

There is a requirement to develop human settlement and general development project- the major documents of urban development and human settlement system in Mongolia. As guided with these documents, the general urban planning, land management planning etc urban development documents should be developed. It is not feasible to develop major development documents through professional company or expert team, instead it is required to establish an institute that comprises of professional researchers and scientists to deal with baseline study oriented development.

### 3. URBANIZATION AND ENVIRONMENT: CHALLENGES AND ISSUES FOR “A NEW URBAN AGENDA”

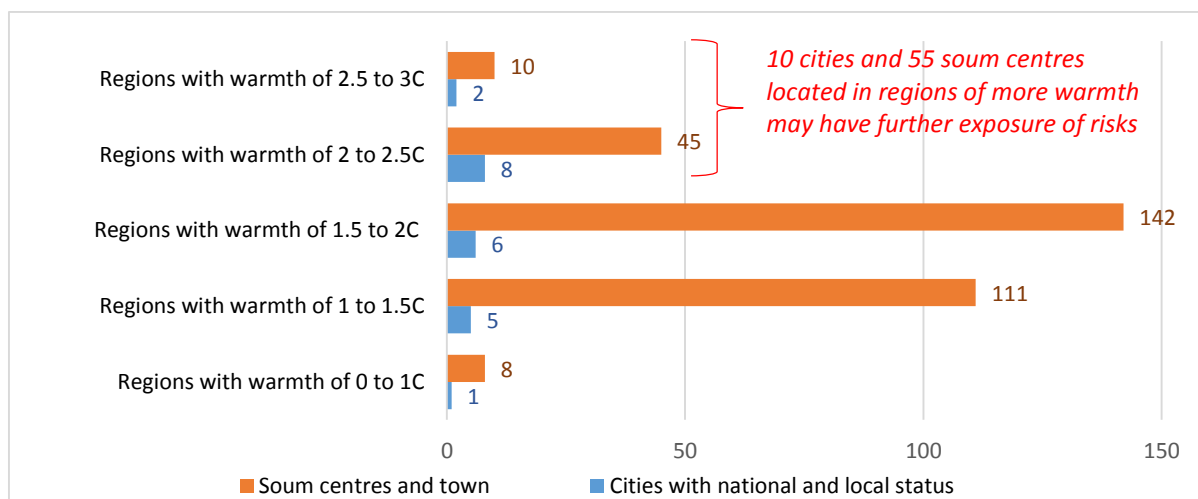
#### 3.1. ADDRESSING CLIMATE CHANGES

Global climate changes increases the socio-economic vulnerability. For instance, the global warming in 1940-2010 indicated as  $+0.85^{\circ}\text{C}$  while it is 2.4 times more or  $+2.07^{\circ}\text{C}$  in Mongolia ranking as 8th amongst over 100 world countries according to Global Climate Risk Index.

The climate changes have been evident in Mongolia through water resource and regime changes, melting of permafrost and glaciers, shrinking lakes, ponds and springs, downwelling of surface water level, degradation of soil and pasture land due to over heating in summer, draught and atmospheric convection diminishing plant diversity and accelerating desertification, changes of wild life dispersion regions and frequent forest fires and so on.

The spatial planning and human settlement considered in parallel with climate changes over the past 70 years and further prospects within a vast territory of Mongolia would be the basis to ensure sustainable development of urban and settlement areas, prevent from and adapt to risks resulting from climate changes.

Figure 4. Urban areas and settlements more vulnerable to climate changes



Over the 70 years of period and space, Ulaanbaatar and 9 cities, 55 soum centres are located within a region where over  $2^{\circ}\text{C}$  of warming is felt due to climate changes. In total 1.8 million or 60 percent of total population reside within the region revealing that majority of population in Mongolia are located in a region with higher risks resulting from global warming and climate changes.

Moreover, the rapid urbanization fosters misuse of land management and increases vulnerability of urban areas to natural disasters caused by climate changes.

The “Millenium Development Goals based National Comprehensive Development Strategy” and “National Security Concept of Mongolia” set out targets to enable sustainable development environment through the building of adaptation capacity for climate changes, elimination of loss and protection of eco-system balance.

In 2000, the “National program on climate change” were developed and within the scope of Millenium Development Comprehensive Policy framework, it was re-developed and approved in 2011. The priorities include to reduce emission through the maintenance of ecological balance, elimination of vulnerability and risks and launch of innovative technology and to promote green economic development and growth policy.

Furthermore, the objectives of Green development policy (2014-2030) adopted in 2014 set forth as “Plan and develop human settlements in compliant with climate changes, regional natural wealth and rehabilitation capacity”. The policy document intends towards the establishment of development module that aims for efficient and effective consumption of natural wealth, to foster eco-system services, to ensure reduced emission and waste less social involvement.

Energy sector solely generates the 52% of greenhouse gas emission of Mongolia. Further, in order to reduce green gas emission, the Law on renewable energy was adopted in 2007 that governs the relations pertinent to the generation and supply of energy based on Renewable Energy National Program (2005-2020) and Renewable Energy Resources (RER). Under the Renewable Energy National Program, the targets include to increase the proportion of RER to 20-25% in energy production and reduce system loss by not less than 10 percent.

The National Bureau of Clean Development Mechanism (CDM) by the Ministry of Environment and Tourism has successfully registered and is running 2 hydroelectric power plants and 1 wind power plant in clean development mechanism reducing 239 thousand tons of carbon dioxide (CO<sub>2</sub>) annually.

With regards to emission reduction targets as suitable to local characteristics, Mongolia has been demonstrating intense efforts to reduce emissions through actions in fields such as reduction of energy and heating loss, increased renewable energy production, policy promotion of low emission vehicles in transportation sector, reduction of traffic congestion, improved road quality and intersection accessibility, support of energy efficient green construction in construction sector and more on.

Energy solutions have been sought for soums and settlement areas that are not connected to rural energy centralized system with renewable energy generation resources with less capacity. As of 2013, out of total installed capacity for local energy demand 92% comprises of heating and 7.6% as renewable energy resources respectively.

Under the UN Development program, the project entitled “Energy saving for construction” has been implemented to reduce the annual growth of green house gas emission from construction sector. Within the scope of the project, wide range of measures have been taken to promote energy efficiency practice for residential apartments and public construction, introduction of innovative system, technique and technology for energy efficient construction facilities.

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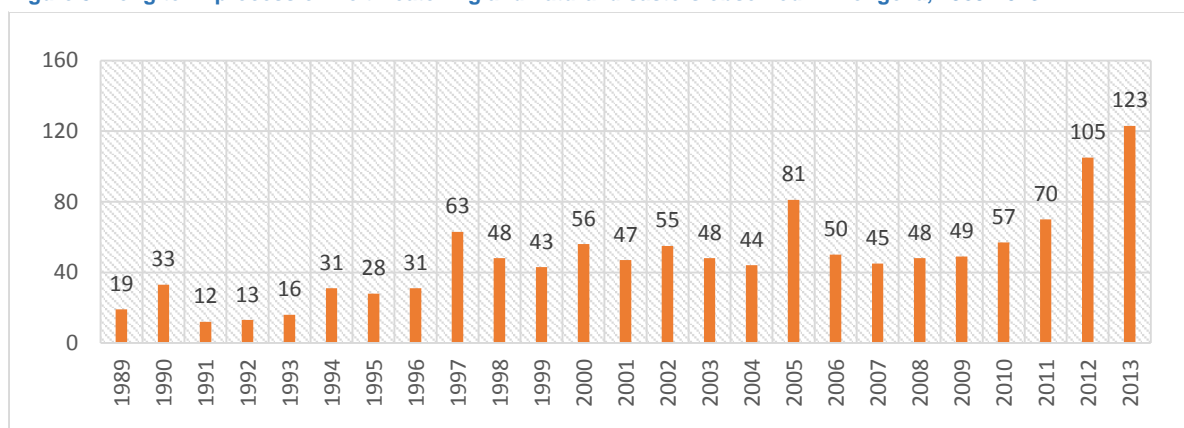
### 3.2. DISASTER RISK REDUCTION



According to UN Human Development Report 2010, Mongolia ranks as 2<sup>nd</sup> in terms of number of population /average annual per million people/ exposed to natural disaster. The most devastating natural disasters for socio-economy include drought, dzud, forest and steppe fire, snow blizzard, flood and harsh winter. Out of total natural hazards, 24% account for strong storms, 21% as torrents of rain and remaining 12% as flash flooding and thunders.

The number of natural hazards that causes devastating effect within a short period encompassing a small area and their frequency have doubled within the past 20 years. The damages to economy caused by natural disaster soars 10-14 times compared to 20 years of period.

Figure 5. Long term process of life threatening and natural disasters observed in Mongolia, 1989-2013



The frequency and devastating damages of natural disasters, such as drought and dzud have increased due to climate changes in Mongolia where harsh climate conditions are felt and nomadic animal husbandry serves as the backbone of the economy. For instance, during 1999-2002 and 2009-2010 when 80-90% of total country's territory were exposed to drought and dzud subsequently, millions of livestock were lost, thousands of herdsman families were left homeless resulting in boost of urban population due to accelerated migration towards urban areas.

75 percent of urban areas are located in a region with 7 and over earthquake magnitude scale and 12 soums are located in a region with 9 and over earthquake magnitude scale, in total 86 percent of total population are located within an active earthquake zone. Since 2005, earthquake activation has been observed within 20 km away from Ulaanbaatar city and 6 fault lines have been examined. Seismic noise has been recorded around Ulaanbaatar city 1000 times in 2005 and 2500 times respectively in 2009, 2000 and 2010.

In 2011, National Program to strengthen emergency prevention was adopted in order to enhance disaster risk management, mitigate disaster damages, ensure the participation of public organizations, professional institutes, private sector and citizens both in urban and rural areas and increase the technical capacity and preparedness.

The National program to mitigate earthquake disaster risks adopted in 2009 in order to prevent possible environmental damages of earthquake, to mitigate disaster risks in heavy earthquake regions, to strengthen the existing urban spaces as earthquake-resilient, safe, well-prepared and sustainable including residential apartments, civil engineering facilities, road, bridges, dams, channels, to ensure engineering pipeline security and to prevent from expected natural threats.

According to assessment conducted by Disaster Research Institute by the General Emergency Authority Umnugobi and Sukhbaatar aimags demonstrate highest risk of blizzard and sand storm, Khangai and Central regions and Ulaanbaatar city prevail with risks for flooding. Therefore, there is an urgency to restore, maintain and newly develop flooding barrier system and existing dams in major urban areas with dense population.

Under the target program on contemporary development framework and General plan of Ulaanbaatar city until 2030, it has been planned to newly develop flood barriers, maintain existing ones and build new evacuation road system.

As of 2013, 70 percent of total facilities in Ulaanbaatar city where nearly half of country's population is concentrated are more prone to expected earthquakes according to survey findings. The seismic microzonation map was re-developed across 9 districts of Ulaanbaatar city in 2015 and similar map will be prepared for 12 aimags in 2016.

Mongolia has enforced seismic norms and regulations in construction since 1971 and applies the norms and regulations for skyscrapers as in accordance with international practice from 2011.

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### 3.3. REDUCING TRAFFIC CONGESTION

The traffic congestion evident from the rapid urbanization due to population migration has been dramatic in overpopulated Ulaanbaatar city of Mongolia. Traffic congestion has been one of the significant obstacles in socio-economy of Ulaanbaatar city. The number of vehicles in Ulaanbaatar city has dramatically increased since 2007 and in comparison to 1996, the number has risen by 2.6 times in 2006 and 9.8 times in 2013 respectively and the pace of traffic had doubled between 1998- 2010.

The location of many largest trade services and business centres in the city centre has led to prevailing traffic towards the city centre earlier in the morning and towards the outskirts of the city later in the evening, the key circumstance of heavy traffic congestion.

Overpopulation, auto car increase, weak road networking and constructions built as incompliant to general urban planning dramatically increases population density and road capacity resulting in traffic congestion.

Within the framework of new development efforts and mid-term target program, the "Street" project piloted has brought positive outcome in re-developing road network crossroads, building new road and streets and enhance the accessibility of road network.

Restriction interventions have been applied in the traffic practice to reduce exceeding traffic load, popularize the use of public transportation for citizens, public transportation allowed on first lane in order to increase the accessibility of public transportation and reduction of traffic pace, temporary regulations with plate numbers for vehicles etc.

The funding has soared for the road maintenance leveraging the stagnant urban transportation network, in particular 42.5 km new road was newly built, 67.9 km road was expanded, in total 110.4 km road development works were performed.



The amendment to general planning of Ulaanbaatar city until 2020 and Development trend concept until 2030 include mega development projects for reduction of traffic congestion-including widening of urban streets, road network, intersections, establishment of tunnel and special bus routes to develop effective public transportation means, building of underground etc.

The most appropriate solution to reduce traffic congestion should not only focus on increased traffic accessibility since it does not keep up with daily increasing road traffic load, but also the development of peri-urban areas could contribute to the decentralization of driving population.

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### 3.4. AIR POLLUTION

With the impact of rapid urbanization in Mongolia where combustible mineral fuels meet the energy demand in harsh winter seasons, in particular in Ulaanbaatar city-world's coldest capital, the air pollution exceeds the permissible level with several times in winter causing life-threatening and severe health impact to population.

The smoke, key contributor of the air pollution is mainly generated with fire wood and burning of raw coal in ger areas, coal fueled power plants and oil combustion of vehicles. Following the rural-urban migration in the past 20 years, the uncontrolled expansion of ger areas in larger urban areas has contributed to the increased air pollution.

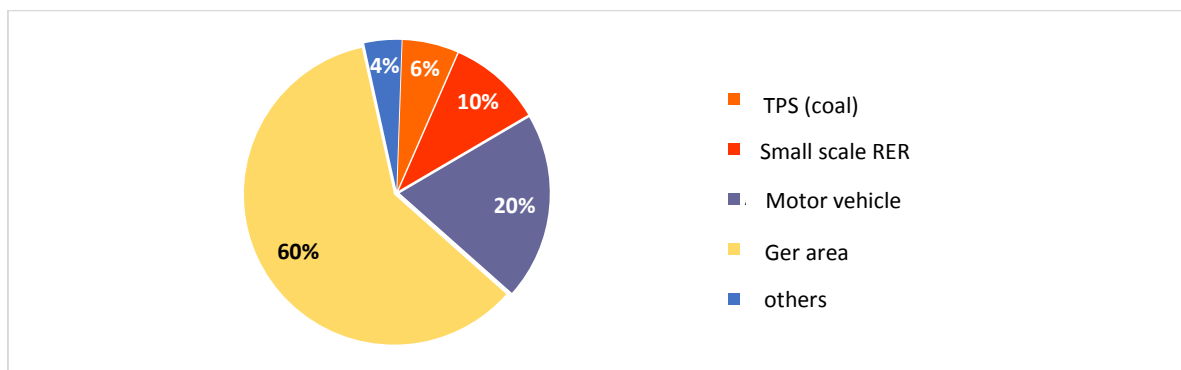
The the law on air pollution payment adopted in 2010 governs the relations pertinent to air pollution tax imposition and payment to air polluting persons. It has enabled the legal environment to impose air pollution payment to a citizen, business entities and organizations for coals mined and organic solvents either produced or imported.

In 2012, the Law on air quality was revised in order to regulate the relations to protect and prevent air and air pollution, reduce disposal of air polluting substance and conduct monitoring accordingly. One of the targets of "New Development" Mid-Term Target Program (2010-2016) focuses on the "elimination of air pollution in Ulaanbaatar city". Plus, the legal draft on urban green facilities are being developed.

The World Health Organization study claims that as of 2009-2010, dust size of PM10 /micrograms per cubic meter air/ exceeds 14 times than standard, 279 micrograms or 4 times higher than permissible amount in Ulaanbaatar city, referred as the world's most polluted capital.

Air pollution reaches the peak level in cold season, 2-4 times higher than permissible air quality standard. In Ulaanbaatar city, the larger air pollutants are emitted respectively from the stoves used by ger area households as 60%, obsolete auto vehicles as 20%, 1.4 thousand small and medium pressure stoves as 10%, 3 power plants as 6% and the remaining 4% from dusty road, construction, soil contamination and waste respectively.

Figure 6. Factors of air pollution in Ulaanbaatar city



The heating stoves of ger areas and households are the key contributors of the air pollution and in Ulaanbaatar city the number of households living in ger area increased 2.4 times between 1998-2012 and as of 2012 ger areas account for 78.8% or 21823 hectare land. The number of ger area households rose by 1.46 times in 2006-2013 whereas it was 1.51 times for households in residential apartments.

In addition, the air pollutants emitted from vehicle fuel combustion becomes the second largest source of air pollution. 67% of total vehicles are aged 10 or more years or with most emission.

The Air Quality Department of the capital city has collaborated with Japanese International Cooperation Agency since 2006 in order to put monitoring on air pollutants, supply equipments, build capacity for technical staff dealing with measurements and strengthening the monitoring capacity to reduce air pollution in Ulaanbaatar city.

In consistent with the air protection, prevention of air pollution and reduction of air pollutants, the Clean Air Fund was initiated to finance projects and programs targeted in air pollution reduction. Clean Air Fund has provided financial subsidies to connect ger area households to central heating system, renovate household stoves and supply households with clean fuel. Additionally, the projects targeted to reduce fuel combustion of vehicles and air pollution reduction in aimag centres where air pollutants exceed from permissible level.

Out of 138797 households of ger areas, 11% replaced their conventional heating system with electric heating system and accordingly involved in cheap tariff of electricity.

In order to reduce the air pollutants by vehicle emission that account certain percentage of air pollution, excise tax is imposed in consideration of imported vehicle classification, engine capacity and manufactured date, air pollution payment is charged annually from all vehicles involving in technical monitoring examinations.

However, those hybrid and plug-in electric vehicles that produce lower emission are exempt from excise tax.

As a result of air pollution reduction efforts, in January or during the peak air pollution season the average monthly concentration of air pollutants were reduced by 24 percent for larger particulate solutions, 13 percent for inhalable coarse particles and 20 percent for nitric oxide respectively compared to 2014.

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### 3.5. CHALLENGES EXPERIENCED AND LESSONS LEARNT IN THESE AREAS

- The accelerated shift of population settlement forms from nomadic to urban style and significant concentration of population in major urban areas makes it more prone to flood, fire and earthquake. Certain outcome has been demonstrated from the trainings and commitments on reduction of disaster risk for rural and local herdsmen, adaptation of local community and establishment of fodder reserve during emergencies. The integration of conventional practice of pastoral animal husbandry and agriculture with advanced scientific know-how and strengthening of economic capacity building may result in reduced migration to urban cities and may constrain the population growth in disaster risk zones of urban areas.

- The air pollution is expected to increase due to accelerated pace of population growth and ger area sprawls. The replacement and renovation of heating stoves of ger area households with full combustion stoves may not be significant measure for air pollution elimination. Hence, it is required to promote housing for ger area households and reduce the use of firewood, raw coal and other combustion materials. It is suggested to promote the heating system solutions fueled with natural gas and electricity.

- Substantial investment has been made in recent years on renovating road network and intersections, development of streets and improvements of road accessibility for aimag centres and capital city.

The regulation and short-term measures to restrain auto transport vehicle growth, reduce the pace of traffic, restricted access with plate numbers, regulation of public transportation on the first lane have been effective to encourage citizens to use public transportation and further to improve their services.

Therefore, the approval of general urban planning needs to be integrated with public transportation network and land management. It is mandatory to launch underground etc different means of public transportation.

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### 3.6. FUTURE CHALLENGES AND ISSUES IN THESE AREAS THAT COULD BE IN A NEW URBAN AGENDA

- The impact of climate change will remain to be significant in the future. The Government of Mongolia should encourage the joint projects with developed countries such as Clean Development Mechanism and Bilateral Offset Credit Mechanism, in order to maintain climate and environmental balance. Moreover, one of the focal points of combatting climate change is cities. Thus, the importance of urban planning works is revealed and it is required to re-define plans to cover climate change and environmental problem.
- Since there is inadequate experience on earthquake disaster and comparatively less damages incurred, it is encouraged to seek for foreign collaboration with adequate practice. The existing technique and equipments are obsolete and insufficient for the General Emergency Authority, substantial investment is required to renovate with advanced technique and facilities as well as to build technical capacity for human resource.

- Unless no measures are taken to relieve the traffic congestion, the rising of potential traffic congestion will be evident in future. In this regard, preference should be put on undertaking significant policy measures to short term regulations. Population growth, urban sprawls and increasing number of vehicles are expected to have larger impact in urban development.
- Air pollution can significantly be reduced through the reduction of ger area expansion, addressing infrastructure concerns in ger areas, re-develop/plan ger areas in negotiation with residents and establishment of affordable and quality residential housing areas.

#### 4. URBAN GOVERNANCE AND LEGISLATION: ISSUES AND CHALLENGES FOR “NEW URBAN AGENDA”

##### 4.1. IMPROVING URBAN LEGISLATION

The urban development sector of Mongolia traces back with long term development as attributed with ancient history, customs and traditions, nomadic culture and civilization, dispersion in vast territories and continental harsh climate and so on. Upon the people’s revolution in 1921, the country was challenged with a choice for new civilization path and start of economic development and construction field was the underlying fundament. Prior to this phenomenal transition, settlement areas were concentrated with temple complex and trade and cooperative facilities.

The “Urbanization Council” was set up by the Ministry of Economic Affairs in 1926 and the launch of construction development projects and design documents was the basis to consolidated management and systematic development of construction and urban development sector. Since 1950s, the population migration to urban areas was accelerated and circumstances were enabled for developing aimag centres and major urban areas. Moreover, the Institute for Urban Development Surveying and Design was founded and accordingly general urban development roadmap were designed and confirmed for urban development mega projects.

The transition to market oriented economic relations in 1990 and adoption of New Constitution established the legal framework for citizens to migrate freely for settlement and urban areas were systematically developed along with administration and territorial units. Furthermore, the population migration pace was dramatically increased towards larger urban areas such as Darkhan, Erdenet and capital city resulting in exceeding capacity of capital city urban development and socio-economic infrastructure load, other urgent issues such as environmental pollution, traffic congestion etc. These reveal the requirements to revise and re-develop urban development legislation and legal environment.

The classification of urban areas and development trend for major cities were defined based on group settlement systems in the “Population settlement and development trend projection” developed by National Institute for Design and Research of the (former) Ministry of Infrastructure Development.

Researchers claim that primarily the variety of population settlement system should be examined and within such systematic framework the network of urban and settlement

areas should be ranked through the projection of their structure, functions, transformations and driving factors (social, economic and environmental etc).

Under the Regional development concept and in consistent with the decentralization of over population, support of sustainable population settlement conditions as regional socio-economic centres, urban areas were selected and approved as metropolises as pursuant to the decree of the State Great Khural in 2003, Khovd and Uliastai for western region, Erdenet and Kharkhorin for Khangai region, Darkhan and Zuunmod for central region and Choibalsan and Undurkhaan for eastern region respectively. What is more, the general urban planning was prepared for regional metropolises until 2020. The priorities to establish and develop industrialization and technology park were defined in conformity with decree of the State Great Khural in 2003. Accordingly, it was resolved to establish industrialization and technology park based on Darkhan, Erdenet, Zuunmo, Baganuur, Choibalsan, Choir, Khovd, Nalaikh, Uliastai and Sukhbaatar. The master plan of Sainshand industrial complex was approved and development works have been launched for this strategically significant town for economic and industrial development.

Moreover, the Master and detailed urban planning for land use and development along with Construction plans were approved and implemented for aimags, towns, major urban areas and soum settlement areas. As pursuant to decree of State Great Khural, the Master Plan to develop Capital city until 2020 was re-newed and capital city development trend until 2030 was elaborated. The key urban development legal documents were respectively adopted, the Law on legal status of cities and settlement areas in 1993, Urban development law in 1997, Law on administrative, territorial units and their governing bodies in 1993, Land law in 2002, Construction law in 1998. Timely amendments made to these legal framework in order to increase citizens' participation, improve accountability system and promote sustainable development have been significant steps for the sustainable development of urban cities and establishment of legal environment.

Improving urban legal environment is urgent concern for urban development sector since the Constitution stipulates as "The territory of Mongolia shall be divided administratively into Aimags and a capital city; Aimags shall be subdivided into Soums; Soums into Baghs; the capital city shall be subdivided into District and Districts into Khoroos". Accordingly, local towns in terms of administrative unit remain similar with rural soums or the status "soum". On the other hand, as pursuant to the Law on legal status of cities and settlement areas, administratively urban areas are divided into national and aimag level that such dual structures are legally available. Such circumstance obstructs urban areas to become national or aimag level urban town and to promote their independent development.

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#### 4.2. DECENTRALIZATION AND STRENGTHENING OF LOCAL AUTHORITIES

The transition of Mongolia to democratic society and free market economy has had phenomenal impact on establishing legal environment that decentralizes and strengthens local authorities and promotes independent/self development capacity of administrative units. In conformity with the New Constitution and Law on administrative, territorial units and their governing bodies, the duties and authorities of Local Self-Government are defined for Capital city, Aimag, Soum and District Citizens'

Representatives Khural, Bagh and Khoroo citizens' General Meeting elected through democratic election system and comprise of local citizens' representatives, such as make proposals to appoint Local Governor of an administrative unit, approve mid-term policy, programs and annual socio-economic priorities, their budget of implementation, approve administration of budget for development period, approve budget performance report and so on. Such elaboration has been contributive to the decentralization efforts. Within the scope of Local Self-Government, the local governance system which demonstrates independent and legal decision-making capacity to resolve socio-economic issues within a territory as compliant to rights and interest of citizens is enabled under which representatives are elected with open election and executive bodies are available.

Furthermore, the legislation of local citizens' participation in local self-governance has been a significant milestone. The revised budget law was approved in 2011 and key amendments are implemented and integrated in areas of decentralization and enhancement of local budget authorities with local citizens' participation. For instance, under the law, each aimag, soum, district and khoroo are allocated from Local Development Fund the funding to administer for local development projects and programs and General Meeting of Citizens is authorized to conduct monitoring on the selection and implementation of such development projects and programs.

The projects and programs that have received majority of votes and proposals are selected by the General Meeting for implementation demonstrate the efficiency of democratic manner of practice in local areas. In this regard, citizens are enabled with immediate participation to improve living environment in their municipality and jurisdiction, develop and approve development programs and projects and demonstrate in-person participation in the implementation stages.

For Mongolia with such vast territory, it is recommended as efficient to apply regional development approaches for administrative units. In this regard, legal environment is enabled, yet implementation mechanisms and funding are not available. For instance, Development program for 4 economic regions was approved in 2005, Ulaanbaatar region Development program in 2006, National Committee of Regional Development and Regional Council were set up and are functioning with certain structure, however, due to financial constraints and other factors they have failed until present time.

Within the framework of local government capacity building and within the framework of urban government building, additional vacancies were created for recruitment.

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#### 4.3. IMPROVING PARTICIPATION AND HUMAN RIGHTS IN URBAN DEVELOPMENT

Plethora of initiatives have been made and implemented effectively concerning human rights and public participation in urban development. Within the scope, decision making efforts, decisions made and functioning have been transparent for Citizens' Representatives Khural, General Meeting of Citizens and local executive bodies elected through open local election system. Significant progresses have been felt in areas of ensuring public participation. For example, the law on glass accounts, revised Fiscal Law, Local Development Fund, Citizens' Hall and more initiatives and legal documents have been enforced effectively.



Citizens' Hall was established by the initiative of the President of Mongolia in capital city, aimag, soum and district by the Local Self-Government to encourage citizens to demonstrate their proposals and initiatives openly. In addition, the purposes rely on public panel discussions of legal drafts, projects and programs initiated by Citizens' Representatives Khural, Citizens' General Meeting and other legal subjects of urban and local areas, to integrate their proposals and opinions and increase citizens' involvement in decision making efforts to build open, transparent, responsible and accountable civil society.

Moreover, it was streamlined in the law on re-development of urban and settlement areas adopted in 2015 to adhere to the principle that public interests are respected in urban planning and re-development commitments and public participation is ensured.

As pursuant to revised version of land law adopted in 2002, Citizens' Representatives Khural of aimag and soum approves aimag and soum Land use plans and conduct monitoring on its implementation. In addition, the principle is adherent in ensuring public participation in Land use plans of capital city, soum and settlement areas.

In order to promote equal participation of citizens in urban development, city council was founded for cooperation and is composed of citizens' representatives to collaborate for the purposes of increased voice of women, elders and disabled community. For instance, the Association of Women was founded in Ulaanbaatar city in 1926 and through its branch units in district and khoroos at grass root level has been contributive to urban development, progresses and efforts have been evident in protecting women's rights.

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#### 4.4. IMPROVING URBAN SAFETY AND SECURITY

Migration to cities, rapid population growth, environmental degradation such as air, water, soil and noise, unemployment, poverty, pollution of food and clean water resources and inappropriate use of alcohol problems created by the urban trends of today. These problems also bring forth social problems and increase crime rates in cities. In order to ensure the right to a safe and healthy living environment according to the Constitution, to be able to provide sustainable urban development, the support of social integrity and the decrease of crime rates via social policies have great importance.

It will be effective to hold short term trainings and information sessions for rural to urban migrators on coping with obstacles and stress, urban policies, regulations, acquisition of urban culture and adaptation skills. The current measures have exhibited some outcomes including the school police /representatives of parents patrol/ in school environment, assistance to tourists, student-police patrol for prevention of crimes, installment of signalling and surveillance system in each street and organization, re-training of citizens with criminal conviction history and mediating for employment opportunities.

In addition, it is mandatory to take measures to train and involve social vulnerable groups who are unemployed, poor and demonstrate basic education in public endeavours with lower payment, such as traffic regulation, snow removal and so on. Plus, it is of great importance to build leisure centres for social vulnerable groups in cities and other urban areas.

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#### 4.5. IMPROVING SOCIAL INCLUSION AND EQUITY

From the UN HABITAT III held in 2003, 9 major principles for urban development of new era incorporates the increased citizens' participation in urban development while promoting population gender equality in urban areas and social inclusion via decreasing or eliminating their disadvantages. More specifically, land, infrastructure, housing and basic services are planned to meet needs and demands of household lower income and it is required to ensure the rendering of public services as adequate and equal for women, youth and social vulnerable groups.

The amendments made to the Law on urban development, Law on re-planning of cities and urban areas and Land law and adherence to the key principle to ensure local citizens' participation in urban development and land use have been positive steps in implementation.

Measures are taken to ensure equal inclusion of all social groups and representatives of all levels in urban planning and development, to protect their rights, have their voice to demonstrate in implementation efforts. For instance, in 2015 the Association of Disabled People by the Mayor's Office and concerns are given to protect their rights and provide employment opportunities.

The revised draft Law on Urban Development stipulates to create infrastructure for citizens with disabilities and accordingly, special standard including the "Space and environment of civil construction planning that includes requirements of disabled people" is enforced in local administration offices of the capital city. Further, it is required to resolve infrastructure not only in public sector, but also in private sector and common areas where access to infrastructure to disabled people is equal and adequate.

In response to needs and demands of all levels of population-children, youth, women, elders and disabled people in urban areas, urban planning takes place to ensure social equality-the key principle for contemporary sustainable urban development and eliminate the disparity between rich and poor. In this regard, it will be optimal to build financial system with fair tax imposition: more for wealthy social groups and less for disadvantaged groups with small or low income.

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#### 4.6. CHALLENGES EXPERIENCED AND LEASSONS LEARNED IN THESE AREAS

In order to ensure healthy, secure and safe living environment for urban population, the air pollution, unemployment, poverty, alcoholis, inadequate urban culture and infrastructure affect negatively.

Pertinent regulations and legislation stipulate the social inclusion of citizens in urban development and governance, additionally, the re-development of ger area with citizens' involvement, development and enforcement of urban regulations, proposals and implementation of other creative and innovative initiatives for urban tax, citizens' hall, new fiscal law, law on information transparency, local development fund and so on have been of significance in the practice.



Councils and association of disabled people, elders, youth and women that aim to address the needs and demands of urban planning and development deliver their voice in required infrastructure development and protect their rights.

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#### 4.7. FUTURE CHALLENGES AND ISSUES IN THESE AREAS THAT COULD BE ADDRESSED BY A NEW URBAN AGENDA

The current population settlement system of Mongolia, the country with fewer population and dense concentration on single centre continues to witness migration to urban areas, thus it is required to ensure the preparedness of accelerated urbanization and development planning in advance.

In consistent to ensure equal social inclusion-the key principle to contemporary and sustainable urban development, the urban planning and development need to address needs and demands of all social groups /children, youth, women, elders, disabled community/ of urban and settlement areas and establish a system to render adequate social services for population with small or lower income.

In compliance to the urban development norms and standard in Master plan for future urban development, land use is expected for urban infrastructure development for green zone/facilities, accessible road and areas, though the complications or ambiguity of current land property relationships may result in disputes over land ownership and occupancy or failures of Master plan implementation.

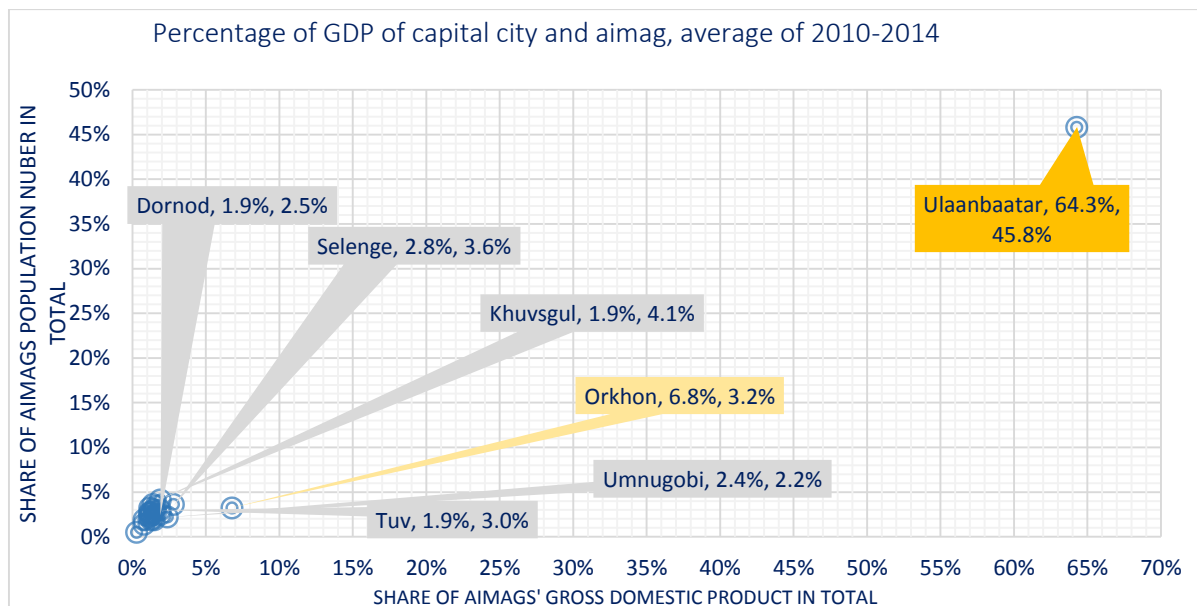
The improvement concerning urban legal environment is an urgent issue in urban development sector. Accordingly, local towns in terms of administrative unit remain similar with rural soums or the status “soum”. On the other hand, as pursuant to the Law on legal status of cities and settlement areas, administratively urban areas are divided into national and aimag level that such dual structures are legally available. Such circumstance obstructs urban areas to become national or aimag level urban town and to promote their independent development.

## 5. URBAN ECONOMY: ISSUES AND CHALLENGES FOR A NEW URBAN AGENDA

### 5.1. IMPROVING MUNICIPAL/LOCAL FINANCE

As similar to the importance of urban cities in global economy, the capital city and other major urban areas play contributive role year by year in the economy of Mongolia where urbanization takes place rapidly. For instance, the total value of goods and production of Ulaanbaatar city and Orkhon aimag account for over 70 percent of GDP of Mongolia.

Figure 7. Share of aimags' Gross Domestic Product in total Gross domestic product

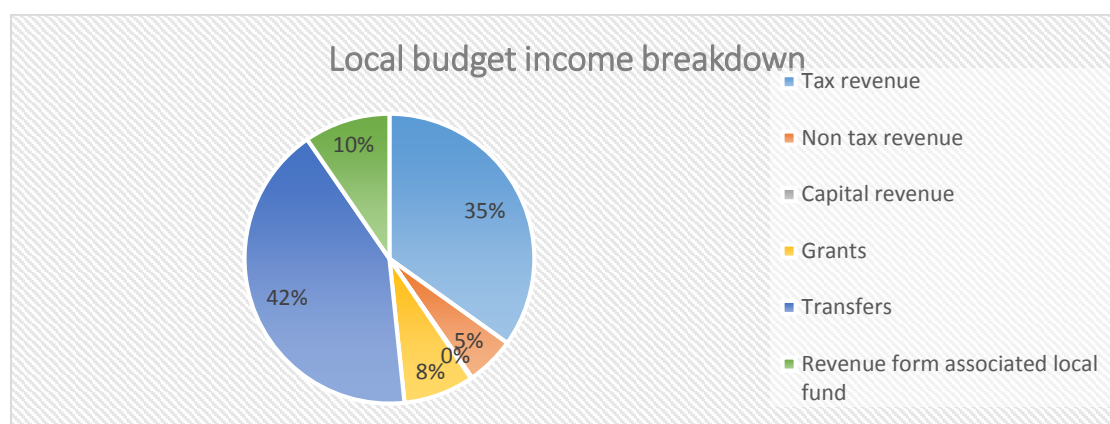


The socio-economic impact towards these major cities, the over-concentration occurs for production and services in fewer number of metropolises that may obstruct the independent economic development of other aimags. At present, Ulaanbaatar city, Orkhon, Dornogobi, Umnugobi aimags are fiscally capable to recover expenditures with local income whereas other aimags are fully subsidized.

Even though the number of aimags funded by the government remains, the total amount of subsidies decreases by about 7 percent. With national average, about 40 percent of local budget income is generated with current income and remaining percent includes aids. Local financing of current expenditure is funded with state budget subsidies accounting for 8 percent of local budget. The procurement of works and services with state fund prevails the most or the share of about 42 percent the local budget. Such expenditures more often spent on health facilities, schools, residential housing and maintenance. In accordance with the Public Sector Management and Finance Law of Mongolia adopted in 2003, current expenditures of budgetary bodies can be delegated to Portfolio Minister. As a result, dramatic changes have been felt in the outdated system that budget formerly developed from top down manner has been tightened. As a result, expenses for local development administered by Portfolio Minister reach 30 percent and local budget size tightened. The remaining 10 percent of local budget is generated by "Local development fund". In 2011 the revised budget law was approved and the local development budget was set up to enhance local

budget authorities under the legislation, improve initiatives and accountability of local authorities and increase citizens' participation in budget administration.

Figure 8. Local budget income breakdown



for the purposes of building the funding, the Government of Mongolia raised approximately 250 billion tugrics in 2013. To ensure the sustainability of the funding, it is stipulated to charge 25 percent of value added tax income from works and service except import, 5 percent of payment for mineral wealth exploitation, aids, donations and contributions by local non-governmental organizations to promote local development and the other income exceeding local budget. Local development index is applied in setting restrictions on funding allocated from state budget to local development fund. The index includes indicators of population, territory size, remoteness and local tax initiatives estimated with equivalent percentage.

The tax income, the largest component of the local budget indicates as about 35 percent by national level. Mongolia has introduced the revised "Tax law" in 2008. Under the law, the percentage and amount was set out by Citizens' Representative Khural of aimag, capital city, soum and district to concentrate in local budget and defined tax forms applicable in areas.

Figure 9. Local tax income breakdown

Tax income of Aimag and capital city budget	Tax income of soum and district budget
<ul style="list-style-type: none"> <li>•Urban tax</li> <li>•Land fee</li> <li>•Realestate tax</li> <li>•Auto vehicle and self-propellig means tax</li> <li>•Water fee used for production and services</li> <li>•Individual tax income</li> <li>•Inheritance and gift tax</li> <li>•Stamp duty tax</li> </ul>	<ul style="list-style-type: none"> <li>•Individual tax income</li> <li>•Firearm tax</li> <li>•Stamp duty tax</li> <li>•Game reserves, hunting license fees</li> <li>•Payment for use of natural herbs</li> <li>•Fees for firewood preparation from forest</li> <li>•Common mineral royalties</li> <li>•Fee for water consumption for drinking and household utilities</li> <li>•Individual tax income</li> <li>•Pet /dog/ tax</li> </ul>

Depending on disparity of local population concentration and resources, the share of budget revenue differs for current income revenue. For instance, 80 percent of the budget of Ulaanbaatar city is generated with current income revenue while it is 92 in Umnugobi, 80 in Darkhan-Uul and 42 in Zavhan aimag.<sup>3</sup>

State Great Khural of Mongolia adopted the Glass account law in 2014 to ensure the efficient and proper use of state and local government funds, the transparency of decisions and actions concerning budget management and public overview of the same.

The Accounts Law applies to the following entities and the officials who have the authority to contractually bind those entities:

- Legal entities with state or local government ownership such as ministries, agencies, local governors' offices and all other entities established by the government;
- State-owned enterprises;
- Companies where one-third or more of the shares therein are held by the state, local government or their affiliated parties;
- Business entities and organisations making investments and implementing projects and programmes, activities, work and services with state and/or local funds; and
- Entities implementing state functions pursuant to law or contract.

The key feature of the Accounts Law is that it obliges all government agencies and legal entities with state involvement to make information on budgets and financial matters, including the utilisation of financing and other government indebtedness, available to the public.

It is expected that as a result of the implementation, the administration of local budget improves while shifting to more responsible budget system.

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## 5.2. STRENGTHENING AND IMPROVING ACCESS TO HOUSING FINANCE

One of the major factors that have impacted the urban economic growth includes construction, in particular the residential development projects in recent years. The construction sector growth in recent 5 years has seen 48.5 percent, a swift growth since 1990. With the comparative estimation by 2005, the construction sector growth has been 1.9 times more in 2006 and 1996 and 4.2 times more in 2013 and 1996.

50 percent of total constructions completed in 2005-2014 account for residential housing. In other words, construction sector growth has been leveraged with the boost of construction projects. As of 2013, 25 percent of total households of Mongolia were living in convenient residential apartments connected to engineering lines and network

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<sup>3</sup>Estimated with the average of past 5 years.

and the rate increases to 30 percent in 2015. As of 2013, the total volume of residential plumbing reached 11.5 million.m<sup>2</sup>, 1.5 times more growth compared to 2006.

The Government has launched a program to implement “Long term residential housing finance” in cooperation with the Bank of Mongolia since June, 2013. Within the frame of the program, citizens who purchase residential apartment with up to 80m<sup>2</sup> square are dispursed with mortgage loan with annual interest rate of 8±1 and term up to 20 years of period through all commercial banking institutes. As of 2015, in total about 77 thousand citizens were involved in housing mortgage program for 3.3 trillion tugrics.

The demand for residential housing has increased resulting in boosted rate since opportunities have been enabled to access housing mortgage with long term and discount rate. Thus, discount loan programs with 18 months of term have been implemented by the Bank of Mongolia to meet the correlation of demand and supply of housing and restrain housing rate growth. Under the program, over 400 billion tugrics were dispursed to construction companies in 2013.

Plus, within the scope of New Development mid-term target program,110,171 residential housing in Ulaanbaatar city and 22,240 residential housing in rural areas are projected for construction and currently 74 thousand have been completed. A study reveals that 22.9 thousand households live in rented residential apartments in 2014 (Ministry of Construction and Urban Development, 2014). Along with the annual growth, the demand is revealed for residential housing of citizens, though rental apartments still remain as inadequate, of unsatisfactory quality and inaffordable.

Upon the financial capacity of citizens, the purchasing capacity fails to comply with housing mortgage conditions and requirements of commercial banks. As there is a requirement to determine housing and financing alternatives for disabled people, elders, young families and households who have lost homes due to force majeure, the Government has launched the “Rental social housing program” since 2015. Within the framework of the program, committments have been given on establishing 20 thousand residential apartments in Ulaanbaatar city and other aimags and as of today, 300 residential housings were constucted with capital city funding and rented at the affordable or 3-5 times cheaper rate.

In accordance with the action plan 2013-2016 of the Mayor of Capital City, “elders’ housing program-4000” was launched based on utility payment rate for elders and social vulnerable groups, the people with disabilities and single mothers in order to improve their living environment. Under the program, out of over 10 thousand citizens who have submitted applications for housing to the authorities of capital city, over 1700 elders and war veterans were granted with housing resolutions.<sup>4</sup>

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### 5.3. SUPPORTING LOCAL ECONOMIC DEVELOPMENT

For the purposes to decentralize socio-economic overconcentration and promote sustainability of rural population, autonomous local development capacity and enable legal environment to enhance local authority, new initiatives and proposals have been implemented including revised Budget law, local development fund, urban tax and more on.

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<sup>4</sup>Resource: <http://archive.olloo.mn/News/1224467.html>

Cities and urban areas demonstrate active economic involvement for citizens. For instance, as of 2013, the GDP per capita was 6.5 million MNT in Mongolia, 8.9 million MNT in Ulaanbaatar city and 12.7 million MNT in Orkhon aimag respectively. In spite of Ulaanbaatar city and Orkhon aimag, the GDP per capita is 3.9 million MNT in rural areas or 2.3 times less than national average. The economic growth has been stagnant in other areas other than Ulaanbaatar city and few major areas where mining and extraction industry have developed. This indicates the needs of the consistent regional development policy for rural economic development.

In conformity with the decree No, 57 dated 2001 of the State Great Khural of Mongolia, the “Regional development concept of Mongolia” was approved. Within the framework of the concept paper, the regional development methods were outlined and economic regionalization is divided into Western, Khangai, Central and Eastern regions and Ulaanbaatar city will develop as the independent region.

With such regional development policy, the targets have been set forth to ensure territorial development balance, promote regional autonomous development through the integration of policies on socio-economics, population settlement, urban development as well as to leverage local development.

In consistent to the implementation of regional development concept, it was set out in 2003 that Khovd and Uliastai are selected as metropolises of western region, Kharkhorin and Erdenet for Khangai region, Zuunmod and Darkhan for central region and Choibalsan and Undurkhaan towns for easter region respectively. In addition, the mid-term strategies for regional development was prepared by the State Great Khural of Mongolia in the same year.

The aimags in far western region remain as economically lagging behind in Mongolia. This is mostly due to the remote location and if compared to other regions, the infrastructure development is poor and unavailability of larger industry development. The major economic activities in this region rely on conventional animal husbandry and agriculture, thus concerns should be put in diversifying regional economy and transportation infrastructure.

The subsequent endeavours on promoting regional and local development include the “Priorities to establish and develop industrialization and technology park” as approved with the decree No.54 dated 2003 by the State Great Khural.

This document sets forth the potential forms of industry and technology park that could develop in Mongolia and locations as in parallel with regional metropolises. The adoption of the “Law on legal status of industrialization and technology park” by the State Great Khural in 2009, the legal fundaments for industry and technology park development was built to govern the relations pertinent to the establishment of industries and technology parks and related management, functions and monitoring system.

Under the current framework of industry and technology park development, state owned enterprises with limited liabilities were set up whose terms of references include the management and coordination of Sainshand Industry Complex, industrialization and technology parks to be built in Darkhan and Erdenet cities. Moreover, the Municipality of Ulaanbaatar city has initiated the development work for Emeelt Light industry and technology park and the technical feasibility study was completed and infrastructure development works have commenced.

The concept on free zone was approved by the State Great Khural of Mongolia in 1995 along with its principles and criteria for opening free zone. Accordingly, the first law on free economic zone was adopted in 2002 and revised version was approved in 2015 subsequently. As of today, the free trade and economic zones have respectively been established in Altanbulag, Zamiin Uud, Tsagaannuur and Choir. The free economic zones in Zamiin Uud and Altanbulag function actively. In consistent with the establishment of free economic zone and streamlining their functions, the Government of Mongolia has invested 27.9 billion MNT as of 2013.

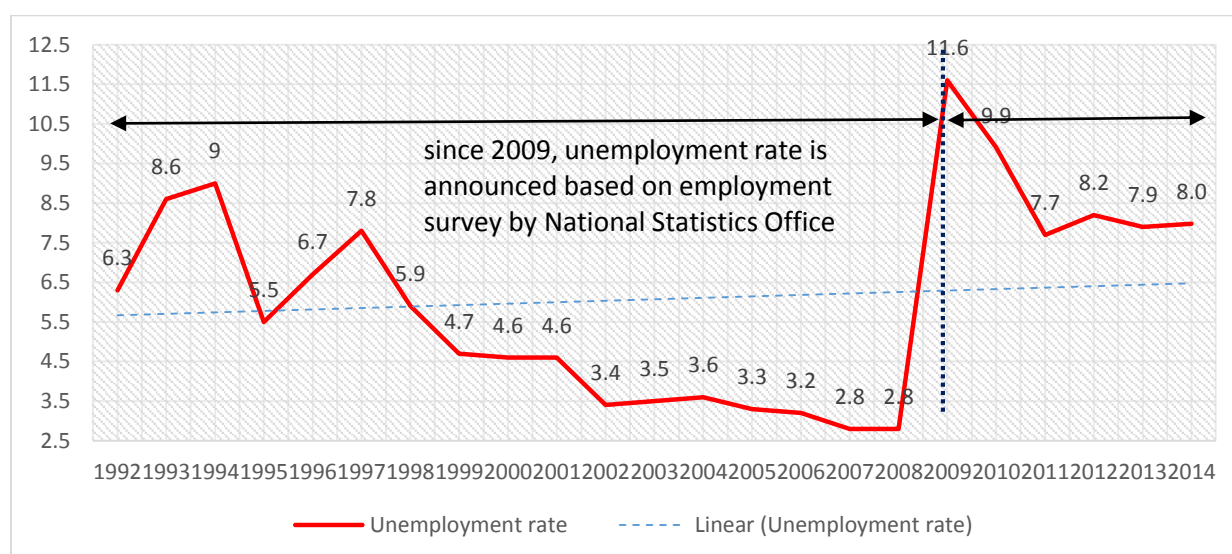
With respect to the commitment on promoting local and rural economic development, the Government approved the “Local industry development priorities” in 2009. In order to encourage the local investment, annual subsidies amounting 500 mln MNT have been allocated by the state to promote small and medium business in each aimag. Moreover, “Soum development fund” was built with budget investment resource in 2011 and individuals and business entities have been granted with loan program with lower interest rate in order to leverage small and medium business in soums and create work space. Currently, funding dispursed from Soum development fund totals 72 billion MNT.

Regarding the commitment to increase the local and rural trade and freight flow, phased measures have been taken to develop transport infrastructure. As of today, 15 aimag centres are connected with hard cover road network and in 2016 all aimag centres are expected to connect with capital city.

#### 5.4. CREATING DECENT JOBS AND LIVELIHOODS

One of the major driving forces to ensure the urban economic growth relies on reducing unemployment rate and promoting employment opportunities for urban population. As of last 5-year average, the unemployment rate in Mongolia reaches 8.3 percent. Because of the modified projection method on unemployment rate in 2009, the unemployment comparisons have to be conducted as before or after 2009. From either dynamics, the unemployment is prospected to fall in Mongolia.

Figure 10. Unemployment rate, 1992-2014

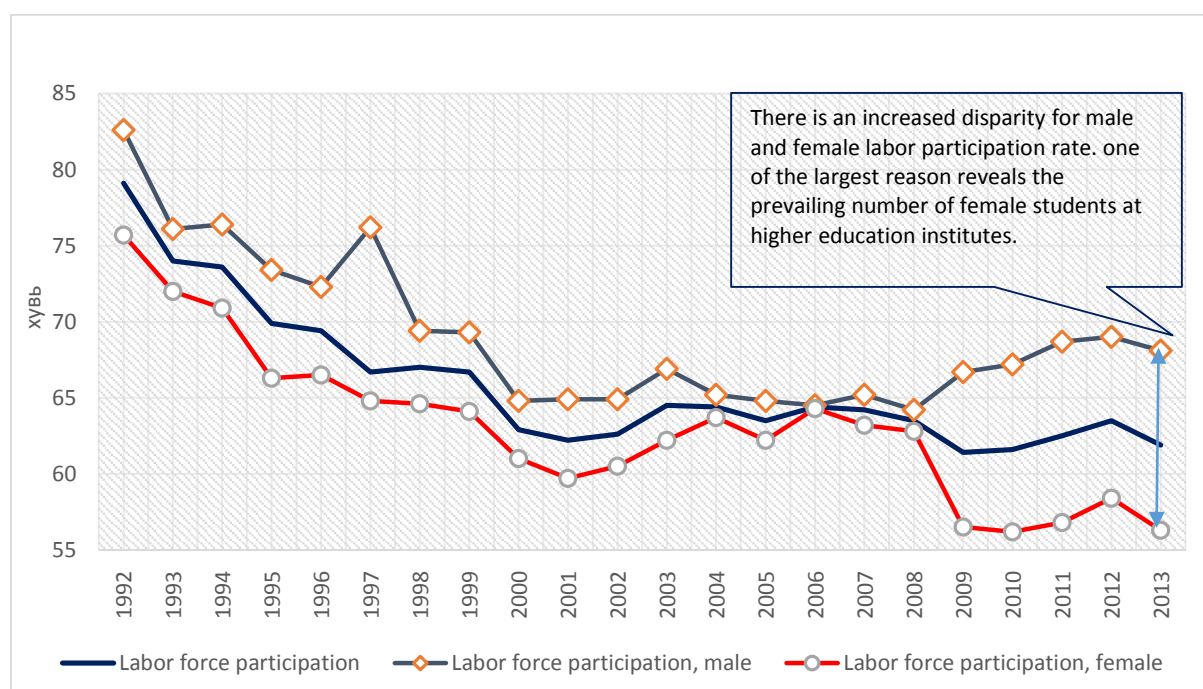




As of 2013, the economically active population reach 1198.3 thousand in Mongolia; total number of employed as 1103.6 thousand and total unemployed people as 94.7 thousand.

Regarding the unemployment level per region, western region prevails with 11.9 percent and Ulaanbaatar city ranks as the least with 4.6 percent. The concentration of economically active population in Ulaanbaatar city indicated as about 34 percent can be explained with the locations of major economic sectors in this region. Economically active population demonstrates only 7.8 percent in eastern region, in contrast it is 14.8 percent in western region, however, the prevailing unemployment rates in these regions are largely due to failure of establishment of industrial centres and inadequacy of workspaces. The labor participation rate exhibits annual decline in Mongolia. From one side, it has been the requirement for public employment during the centrally planned economy. Since 1990s, it has been individual choice for employment resulting in declined labor participation rate. Nevertheless, the labor participation rate compared to countries with transitioning economy is lower revealing the need to accelerate employment promoting policy.

Figure 11. Labor participation rate



At present, the state owned and budgetary organizations in charge of employment matters run 252 recruitment officers in 134 soums and 65 khoroos with larger population and aimag, capital city and district recruitment departments.

The Government of Mongolia implements employment supporting activities in major 2 forms:

- Concerns are put on coordinating employment support services as oriented with advanced contemporary technology and in line with international best practice as transparent and adequate. Commitments have been made to renovate sectoral information and registration database, create consolidated database, enhance information quality and diversify information channels.



- Measures for employment support or programs targeted to support focus groups of population have been implemented. For instance, 10 projects and programs were implemented with the funding of total 46,9 billion MNT and with duplicated statistics 97,286 citizens were involved and 73,660 workspaces were created and 37.1 percent out of which or 27,052 are permanent work spaces.

The legal environment of employment is regulated with legislation framework including “Law on labor”, “Employment promotion”, “Law on Sending Labor Force Abroad and Receiving Labor”, “Labor safety and hygiene requirements”, “Minimum labor wage” and “Vocational education and training”. In addition, within the commitment on clear policy development on employment, the “Government policy on informal employment” and “Government policy towards herdsmen” were respectively approved in 2006 and 2009.

Further, with the purposes of advancing sectoral legal environment and coordinating with consolidated management system and policy reform efforts, the draft project on “Government policy on employment” has been planned and developed until 2025.

The “Labor Law” approved by the State Great Khural of Mongolia in 1999 accurately defines the common interest and duties of actors /employer and employee/ in labor relations with relevance to labor agreements.

The law on “Labor safety and hygiene” adopted by the State Great Khural of Mongolia in 2008 enabled the regulation of such relations. Throughout the implementation, significant progresses and advancement have felt in labor safety and hygiene and national program, about 130 standard, about 10 regulations and procedures on general areas are enforced in the practice.

In 2011, the revised Law on employment promotion was adopted and accordingly “Employment promotion fund” was set up. The designated funding is dedicated on professional counselling to citizens, provision of information, mediation for employment opportunities, organization of trainings/workshops, supporting employers, encouraging herdsmen, business individuals and citizens who set up cooperatives, promote employment opportunities for citizens who struggle to seek for employment, formation and development of employment records, information database, registration and information network and further improvements. The following projects are implemented with the funding by Employment promotion fund and other state budget resources:

Projects and programs targeted to create workspace	Aims and instruments of programs
Soum development fund loan	For the purposes of increasing soum production and services and ensure permanent employment opportunities, loan up to 1-10 mln MNT is dispersed with 3 percent of annual interest rate for up to 18 months
SME loan	For the purposes of increasing number of manufacturers and ensure permanent employment opportunities for citizens, loan up to 5-100 million MNT is dispersed with 8 percent annual interest rate for up to 2 years of term /only interest rate repayment/

Employment promotion programs for citizens aged over 40	For the purposes of increasing employment opportunities for citizens aged over 40 who are registered at Recruitment Department and are actively seeking for employment, loan up to 1-10 million MNT is dispersed with 8 percent annual interest for environmental protection and rehabilitation services. In some cases, it is feasible to disburse as grant aid
Employment promotion program for disabled people	Citizens who are disabled but create workspace are dispersed with loan up to 1-10 million MNT as grant aid with the purposes of employment promotion
Program on Ownership Mongolians	In order to encourage collective efforts for environmental protection and rehabilitation and development works for living environment and common areas, grant aid up to 1-10 million MNT is dispersed
Promoting economic activities	Employers who provided employment opportunities for citizens with previous crime records or orphanage background, incentives are provided that is equivalent to minimum wage multiplied 12 times
Program on promoting herdsman-employers	If a herdsman household with livestock of 1000 or over hires a herdsman and pays social security for 1 year or afforded 200 livestock, the social security premium equivalent to 1 year is reimbursed.
Vocational training	In case of involvement in vocational training, employer and employee are paid with an incentive equivalent to minimum wage
Consulting services by senior experts	Manufacturers who recruit senior expert team that is composed of not less than 3 members registered in Recruitment Department of aimag and district and integrate their consulting in services and production growth are granted with aid up to 1 mln MNT

Government concerns are given on training and preparation of professionals for labor market. In an academic year of 2014-2015, in total 76 institutes coordinated their activities in the field of vocational trainings and education involving 42,797 learners.

Frame of actions have taken place on standardizing curriculum for vocational education and training centres, integrating and re-developing curriculum of institutes running in similar areas. To improve professional expertise of learners, it is planned to shift from academic based training to practical training forms with the ratio of academic training and practice as 30:70. Moreover, for the purposes of improving educational environment of vocational education and training institutes and renovating facilities and equipments, the investment totalling over 3.5 billion MNT is made with grant aid of foreign donors and state budget in 2013 and 2014.

## 5.5. INTEGRATION OF THE URBAN ECONOMY INTO NATIONAL DEVELOPMENT POLICY

In order to maintain economic growth of Mongolia as oriented with prospective growth of mining export and foreign investment, the rapidly growing urban economy, in particular the services sector is of great significance.

As of 2013, about 50 percent of gross domestic product of Mongolia consist of service sector while 36 percent as industry and 14 percent as agriculture. The share of agriculture in economy gradually declines shifting to service oriented urban economic form.

The constant growth of shares for urban industrialization and services in total economy exhibits the needs to consider urbanization and economic issues in parallel. Presently, over 70 percent of GDP is produced by Ulaanbaatar, Erdenet and Darkhan cities demonstrating significant urban economic contributions. Without the consideration of urbanization and economic development issues with close correlation, it is not feasible to foster sustainable socio-economic development.

With the declined share of local and regional economic contributions to the economy of Mongolia, overconcentration and abandonment of rural areas are expected to happen.

In consistent with the assessment and definition of local development level and competitiveness, the "Provincial Competitiveness Index" is annually conducted by the The Economic Policy & Competitiveness Research Center since 2012. The Competitiveness Index estimation conducts assessment with 4 major indicators including local economic capacity, governance capacity business effectiveness and infrastructure development. In the past 3 years, no significant changes have been evident in Provincial Competitiveness Index. As of 2013, Orkhon, Umnugobi, Darkhan-Uul aimags prevail with indicators while Bayankhongor, Dundgobi and Arkhangai aimags have been the least. The Competitiveness Index reveals that remote aimags lag behind with economic and infrastructure development. This is the revelation of uneven country's development and increased disparity for local development.

The Millennium Development Goals based Comprehensive National Development Strategy adopted by the State Great Khural of Mongolia in 2008 sets forth to consistently implement regional development policy and eventually decrease rural and urban development disparity. Within the framework, targets set forth include the optimal regional development planning and management, accelerated regional development and knowledge oriented regional economic development. Under these targets, actions have been in place through the implementation of "Rural development" program, establishment of free economic and trade zones.

In 2011, the "Regional development concept" was adopted by the State Great Khural of Mongolia and under the concept paper, the major state priorities on regional development include to decentralize the overcentralization of population, production, services and governance and loss of ecological balance in Ulaanbaatar, Erdenet cities and surrounding areas and to systematically upgrade the regional development rate. Within the scope, Master plan on urban development approved by the Government of Mongolia in 2005 stipulates to develop 2 major development centres in each 4 region respectively and certain investment commitments have been made.

Even though it has been a while since the approval of Master plan for regional major development centres, due to financial circumstances and constraints actions planned have not been adequately performed. Regional development centres are not yet capable to decentralize migration heading to cities and urban areas.

Presently, out of 21 aimags and 330 soums of Mongolia, 107 have laid out local long-term and mid term development plan in line with “Millenium Development Goals based Comprehensive National Development Strategy” and “Regional development concept” and implementation efforts and committments have taken place with local funding and state budget investment.

With regards to 17 new development targets for sustainable development until 2030 laid out by 70th Regular Session of the UN General Assembly, Mongolia has given emphasis and efforts to re-develop long-term development policy framework. Under the commitment, aimags and soums have commenced their efforts to re-new their development policy concept as well.

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#### 5.6. CHALLENGES EXPERIENCED AND LESSONS LEARNED IN THESE AREAS

- Teh reforms have brought certain outcomes in areas of increasing the authority for local budget administration and improve citizens' participation local development. Further, there is a need to continue the functions of local development fund and be concerned on efficient administration of funding. The increased monitoring of citizens on local budget administration and acquisition of knowledge and capacity on selecting effective projects and programs are vital. Moreover, it is required to optimizie the index applied in allocation of local development fund from the observation.
- Even though the supply of residential housing soars and legal environment is enabled for citizens to be involved in housing mortgage programs, citizens with lower and medium income remain as restrained with their inaffordability for housing deposit and unavailability of savings. The soaring value of land in larger urban areas accompanied with the real estate and residential apartments have added much burden for citizens. Further, it is urged to decentralize rural to urban migration and enable convenient living environment in rural areas through the alternatives for long-term sustainable housing finance and creation of local workspaces.
- Since the rural areas, in particular remote aimags are lagging behind with their economic development, concerns should be put on ensuring their balanced development. Thus, it is important to address basic infrastructure development needs in aimags, to increase opportunities to run production and services and leverage local manufacturers with taxation and loan policies. Instead of separate planning on local development, it is more effective to develop clustering and create local value added chain. The establishment of industrial park and free economic trade zone, development of local tourism, development of national parks in natural sites to attract foreign and local travellers all will significantly contribute to the decentralization and creation of workspace. Since Mongolia largely lacks experience and pracice in developing industrial parks and clusters, technical assistance and constulting are required from international donors and partner countries.
- Mongolia has been concerned on creating workspace in rural areas, however, unemployment rate remains as higher. Herdsmen houeholds are considered as employed in Mongolia, yet their workstation is instable and is more prone to natural and weather hazards. Depending on drought and dzud, multiple number

of herdsmen remain unemployed and head to urban areas. Unless stable work spaces are available in rural areas, the migration will not decrease as learnt from the previous experiences.

- Shortage of professional labor force is the part of obstacles encountered for local business community. In particular, it has been frequent challenge for local business. Therefore, the government investment commitment for establishing vocational education and training centres have been significant leverage to address the challenges for professional labor force. Further, it is crucial to build market demand oriented labor force development and prepare teaching community to work locally.
- The impact of larger urban areas has been increasing annually in the economy of Mongolia that it is compulsory to foster balanced spatial economic development in terms of space. Changes have been felt in agriculture and animal husbandry oriented economic structure and the rate of employers in these sectors demonstrates falling trend. Plus, climate changes constrain the sustainable existence of pastoral animal husbandry and conventional agriculture. In this regard, migration has been accelerated annually and population concentration has occurred in fewer major cities reveal the real needs to timely implement regional development policy and to establish metropolises/major development centres in underdeveloped regions immediately.

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#### 5.7. FUTURE CHALLENGES AND ISSUES IN THESE AREAS THAT COULD BE ADDRESSED BY A NEW URBAN AGENDA

- One method to increase local financial capacities will be the effective administration of budget and local property. The heightened criteria and increased efficiencies of local projects and programs will significantly improve the livelihood of local community. The selection and development of effective projects and programs depend upon the expertise and knowledge of local community. For these reasons, the commitments on building technical capacity to efficiently administer local funding and optimal development of projects and programs require collective implementation for the government, non-governmental organizations in partnership with international organizations resulting in short term efficiencies. Local citizens' participation has been increased in administration of local budget and certain outcomes have been evident, yet, still active participatory methods for citizens should be practiced. It is crucial to introduce more efficient participatory method and culture where local citizens are involved in local development planning merely with raising hands or passive hearing, but also delivery of their voice and active engagement to incorporate their proposals realistically in planning.
- The maintenance of housing finance as adequate and affordable for long term immediately depends upon economic stability. The inflation rate held at lower rate for long term leads to lower interest rate of credit while decreased state subsidies for housing finance will maintain long term sustainable funding. It is not simple to ensure the economic stability in developing countries, thus, the

establishment of sustainable housing finance system should be injected with long-term and cheaper funding resources from international organizations.

- The decline in labor participation rate negatively impacts the overall economic growth. Future commitments will be to increase of labor participation rate through the tightening of shadow economy. What is more, it is required to accelerate taskforces that intend to increase technical capacity and skills through the active stimulation of citizens for employment, involvement in re-trainings, and vocational education.
- The creation of training centres that prepare professional labor force in rural areas will significantly decrease the shortage of labor force. Again, there are needs to promote local business activities, address challenges in infrastructure and create convenient condition for taxation and loan disbursement for local business community.
- Concerns should be given on promoting workspaces through the development of local clustering and enable the establishment of planned industrial parks and further to consistently apply decentralization policy. Support of regional diversification and promotion of brand production will be the driving force for balanced local development.

## 6. HOUSING AND BASIC SERVICES: ISSUES AND CHALLENGES FOR A NEW URBAN AGENDA

### 6.1. GER AREA UPGRADING AND PREVENTION

The sprawling process of urban ger areas is immediately relevant to the accelerated population migration to urban cities. With the impact of migration, the population of Ulaanbaatar city and 21 aimag soum centres in total population increase from 51% in 1996, 60% in 2006 and 65% in 2013 respectively.

According to 2010 population and housing census, out 713,780 households counted in Mongolia, 45 percent reside in ger dwelling, 53 percent in housing and 2 percent in other forms of accommodation. Out of 382,808 households residing in housing, 36 percent of 138,545 households live in convenient residential apartments with access to engineering network. This reveals that 80.6 percent of total households live in accommodation that are either do not have or partial access to engineering lines and network.<sup>5</sup> The number of households living in housing or ger with no full access to infrastructure in larger soum centres of aimags and Ulaanbaatar city totals 323,824 account for 45 percent of total households of Mongolia.<sup>6</sup>

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<sup>5</sup>The population dealing with conventional animal husbandry and ger account only 22 percent of total population in Mongolia, it should be noted that households with no access to engineering lines and network prevail higher.

<sup>6</sup>Please note that households residing in ger area zones of larger urban areas are excluded.



The contributing factors to population migration can be outlined as the following:

The population migration issue was strictly controlled by the Government before 1990. Such mechanic restrictions on migration was deregulated in 1997 resulting in accelerated pace as complemented with the interest of citizens to seek for more adequate cultural and social services.

- Due to devastating dzud in 1999-2001 and 2009-2010, multiple number of herdsmen lost their income resources, thus the number of population immigrating from rural areas to Ulaanbaatar city dramatically increases. The urban population totalled 624 thousand in 1996 increased to 987 thousand in 2006 and 1,267 thousand in 2013 respectively with annual average growth of 4%.
- Throughout the transitional period, the collapse of state owned local larger industries, bases and cooperatives led to dramatic increase of unemployment rate. Due to shortage of local workspaces, citizens start to migrate to larger urban areas to seek better opportunities.

In this regard, the housing supply failed to comply with rapid population growth in larger urban areas, thus the outskirts of the city has been sprawled with unplanned formation of ger area zones since 2000. As of today, about 60 percent of population of Ulaanbaatar city reside in ger areas with no access to basic infrastructure.

The households continuously grow in unplanned areas of the city and burning of raw coal and firewood during cold seasons for heating purpose leads to air pollution that exceeds permissible level of air quality and population health is heavily affected. In particular, the average concentration of sulphur dioxide during winter previously indicated 16  $\text{mkr/m}^3$  in 2000 currently increases as 62.5  $\text{mkr/m}^3$  or 3.9 times more in 2013 in Ulaanbaatar city.

According to the study, the diseases of respiratory system prevail the leading diseases of the population and continuously increase year by year. As of 2010, diseases of respiratory system account for 24 percent of total diseases (Ariguun S, 2011, p. 12).

Urban ger areas still remain with no access to sanitation and drainage system. The study reveals that 85 percent of bathrooms of ger area households and 89 percent of sewage system do not comply with standard (Urjee Ch, 2013, p. 23). Due to household waste removal either as open disposal or burying in deep ground, soil contamination and water pollution occur while citizens' right to safe, healthy and secure living environment is seriously violated.

The unplanned ger area sprawls heavily contaminate soil with sewage water, ash, dusty road and waste disposal. From the bacteriological study on soil collected from 56 sites of the capital city in 2012, the results matched against the soil hygiene assessment standard reveal that 47.8% of sampling are highly contaminated and 49.3% are moderately contaminated. According to the study on heavy metal, 26% of 50 samplings indicate lead that exceeds the permissible level. Moreover, from the bacteriological study on soil collected from 11 aimag centres, the results reveal 50.7%

of samplings refer as highly contaminated, 34.9% as moderate and 14.3% as less (Urjee Ch, 2013, p. 6).

Supply of water for drinking and household use that complies with hygiene standard is urgent issue for ger area community. The average water footprint per capita of a ger area household is 2.5 times less than the recommended footprint of UN.

The 2010 population and housing census indicate that 50.7% of total population with no access to central water supply system deliver their consumption water within 200 metres of distance, 37.3 percent between 200 to 2000 metres and 11.9percent 1000 metres away (Batima P, 2014, p. 10). According to the study on contamination assessment of drinking water tanks for ger area households, out of total households involved in the study during winter, 36% reveal escherichia coli bacteria that increases to 55.7% in summer (Uddin, 2015).

For ger area residents, the adequate and inclusive social services and mitigation of natural disaster risks are perceived as the most urgent issues.

In order to address urgent issues encountered for the rapidly expanding ger area in Ulaanbaatar city, target projects and programs have been launched with the funding of state budget and international organizations. For instance, in consistent with the improvement of air quality in Ulaanbaatar city, night tariffs are introduced for ger area household energy consumption and 46.4 thousand consumers with electric heating system are involved in energy discount tariffs. Moreover, with the funding of World Bank and Clean Air Fund of Mongolia, “Clean stove” project that could reduce coal burning as 50-60 percent and gas emittance up to 80 percent was launched and over 100 thousand households were supplied with affordable rate.

In order to eliminate soil contamination in ger areas of Capital city, disinfection has taken place for over 180 thousand bathrooms and sewage holes of households, business entities and organizations in accordance with the technology as funded with the Clean Air Fund of Mongolia. Plus, US Millenium Challenge Account has introduced eco bathrooms.

Within the framework of improving energy supply for ger area households and complying the rapidly increasing needs, energy resolutions have been provided for newly migrated households: 12.8 thousand households with no access to energy and 20.3 thousand households with voltage drops.

In 2008-2012, the lightning system has been improved for more than half of ger areas of capital city resulting in dropped rate of crime and living environment has been improved. The amendments to the Master Plan to develop Ulaanbaatar city until 2020 and Development trend until 2030 as approved with the decree.No 23 dated 2013 of the State Great Khural of Mongolia stipulate the re-development of 4618.05 hectare territory of Ulaanbaatar city.

In accordance with the planning of ger area of Ulaanbaatar city as divided into 3 zones of location: central, middle and outskirts, respective development works are stipulated to take place for the ger areas with potential access to central engineering lines and network as highly dense residential housing area, ger areas in middle areas as less dense residential housing area and outskirting ger areas as housing area with independant engineering infrastructure through the development improvements.

Accordingly, policy has been adherent to ensure engineering infrastructure and increase service adequacy.

Within the framework, respective procedures on “Release of ger areas and coordination of housing in capital city” and “Re-planning of ger areas” were developed by the Capital city Governor’s Office and approved by the Citizens’ Representative Khural. Moreover, in order to consolidate re-development framework and other projects and programs launched for ger areas, Ger area Development Department of Ulaanbaatar City was established.

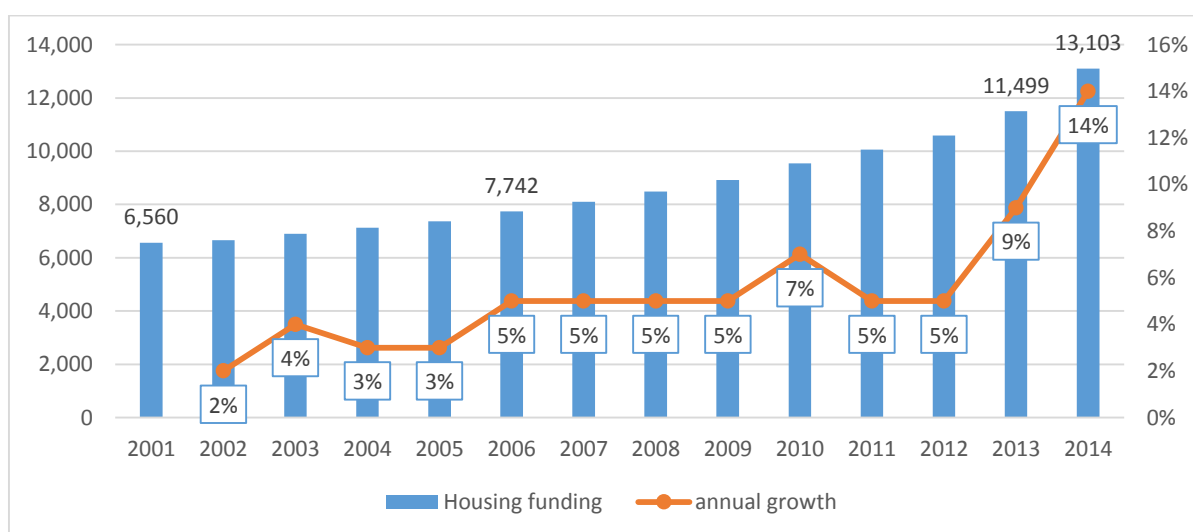
Presently, within the coordination scope of re-planning and constructing ger areas, 24 locations were selected for 6 districts and re-development works have commenced in accordance with the detailed planing.

## 6.2. IMPROVING ACCESS TO ADEQUATE HOUSING

As of 2014, out of 823,412 households counted in Mongolia, 28 percent or 164,682 households live in convenient housing with access to full engineering lines and network (Legalinfo.mn, 2015).

As of 2013, housing funding totals 11.4 million.m<sup>2</sup>, 1.5 times more compared to 2006.

Figure 12. Housing funding, thousand m<sup>2</sup>



The policy framework to provide population of Mongolia with housing is considered in 4 steps.



The initial significant step to provide citizens with private housing underlies the “Law on privatization of residential apartments” approved in 1996. With the adoption of legislation, it was initiated to commence privatization of state owned residential apartments for free. Within this frame, out of 85,859 state owned residential apartments, 85,779 or 99.99 percent of total residential apartments were privatized.

In consistent with the provision of convenient residential housing that comply with hygiene and safety requirements, the “Government policy on residential apartments” was adopted in 1999. At the same year, the approval of the Law on residential apartments enabled the legal environment to govern the relations pertinent to the use of residential apartments, changes made to the designation of residential apartments, funding of activities related to planning and development of residential apartments and authorities of public organizations in charge of residential housing are set forth.

The mortgage market development in Mongolia can be outlined in two phases. With the initiatives of Asian Development Bank, the project on residential housing finance commenced in 2003-2006. Mortgage loans dispensed under the project through commercial banks have been the most recognized product in banking industry and impacted private sector to invest in construction and housing sector.

Since 2006, government policies have launched to develop secondary mortgage policy in Mongolia and Mongolian Mortgage Corporation-the first institute for the secondary mortgage market was founded jointly by ten major commercial banks.

What is more, in order to support and promote sustainability of mortgage market the legal environment was established with the adoption of respective legislation and resolutions including the “Real estate collateral law” (2009), “Law on Asset backed security” (2010) and Government resolution on “Development of secondary mortgage market” (2013).

In consistent with improving livelihood standard for citizens through supply with convenient housing that comply with purchasing capacity and requirements and create healthy economic environment in residential housing industry, the Government succesfully launched “40000 residential apartments” program that became the driving force of stagnant construction sector.

For the purposes of implementing the program, Mongolian Housing Finance Corporate was established in 2006.

In 2008, the State Great Khural approved the Millenium Development Goals based long term Comprehensive National Development Strategy and the targets pertinent to housing were defined as the following:

- Increase housing finance resources;
- Establish and develop long term primary and secondary mortgage market;
- Establish housing fund and launch contracted mortgage savings system;
- Transform ger area into residential apartments with residents’ participation;
- Increase the supply of housing that complies with purchasing capacity of population,
- Offer financial alternatives (subsidized housing) to citizens with small and low income and social vulnerable groups;
- Promote private sector participation in constructing new residential areas and infrastructure development;
- Provide housing to majority of households by 2021.

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### 6.3. ENSURING SUSTAINABLE ACCESS TO SAFE DRINKING WATER

Mongolia refers to countries with relatively low surface and ground water resources. Out of total consumable water resources, 82 percent comprise of lakes, 10 percent as glaciers, about 6 percent as surface water and the remaining 2 percent as ground water. Regarding the consumption supply, 80 percent comes from ground water and 20 percent from surface water and 39 percent of water consumed is used for industrial purpose, 24 percent for animal husbandry, 18 percent for household utility and 17 percent for agricultural needs.

90 percent of 330 soums of Mongolia have no access to clean water supply system and sewage, intsead consumption water is delivered from deep well and water delivery points. According to the study by a profesional institute, 20 percent of population consume water with exceeding minerals and 68.2 percent consume iodine and flourine less water resulting in increased expectancy of kidney, urinary tract stones, tooth decay and goiter disease. Thus, it is required to address the challenges of providing healthy and quality water supply to citizens.

Fewer soums<sup>7</sup> have an access to centralized sewerage system and water supply , though these facilities were established with the assistance of Soviet Union since 1960, are obsolete and no timely maintenance has been performed, thus consumers are challenged with reliable water supply. Furthermore, renovative works have been

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<sup>7</sup>21 aimag centres

performed for water supply and sewerage system of 5 aimags with the concessional loans by ADB.

In order to ensure sustainability of increased water supply, “Water” National program was approved as pursuant to the decree dated 2010 by the State Great Khural. The main objective of the program relies to protect water resources from shortage and pollution, leverage as the key to country’s development based on appropriate use of available resources and to implement government policies to ensure healthy and safe living environment for Mongolians.

Furthermore, the “New Development” mid-term target program approved with the decree No.36 by the State Great Khural, the Government Platform and policy framework on socio-economic priorities have laid out inclusive targets and measures to supply population with water for drinking and household use as compliant to standard, renovate water supply system, sewerage, engineering facilities and complex, increase ger area water supply and launch small scale water treatment technology with no adverse impact to environment through local funding, central state budget and foreign aid as well as in-phased involvement in projects and measures.

For instance, with the investment of 270 billion MNT of state budget in 2009-2013 renovation development works have been performed in total 450 km water supply system, sewage, heating system, water reserve, water treatment plant, deep wells, dams and so on in Ulaanbaatar, Erdenet, Darkhan, Ulaangom etc over 10 aimags and urban areas.

Within the framework of projects on improving public utilities in Ulaanbaatar city, 150.0 km drinking water pipes (mains) were installed in 18 ger areas. As a result, the water supply adequacy has been improved for over 400 thousand consumers.

With these development works, the secure and adequate water supply has been increased from 39.2 percent of total population in 2006 to 80.4 percent in 2015 (П.Батима, 2014, хууд. 4).

Upon the global warming and climate changes, mining, mineral extraction and faulty human activities, surface water reserve has dramatically decreased. For instance, the 2011 surface water census, 683 rivers, 1484 headsprings and 760 lakes and ponds have shrunk so far. With this respect, it is of great urgency to secure the water supply reliability in major urban areas. For instance, the population of Ulaanbaatar city is expected to reach 2 million by 2030 indicating the intensive water consumption in future.

In consistent with governing relations concerning the protection and rational use and restoration of water resource and its basin in Mongolia, promote appropriate consumption and rehabilitation, water law was adopted in 1996 and revised versions were approved in 2004 and 2012 respectively. Under the amendments made in 2004, the legal environment was enabled to apply varied tariff for water consumption payment (for ex, mining and production needs) since consumers are classified as water consumers and users.

In recent years, while taking into account the accelerated development of mining production which often result in negative impact on land use and consequence on the ecological balance, the Law to Prohibit Mineral Exploration and Mining Operations at



Headwaters of Rivers, Protected Zones of Water Reservoirs and Forested Areas was adopted and it has been significant step in protecting water reservoirs.

In-phased measures are taken to apply rational water use in the practice. Upon the water engineering facilities adequacy in Mongolia, water consumption footprint is relatively different. Average water consumption footprint per capita in ger area where no access is available for water supply engineering system is 2 times less than UN World Health Organization's standard. Nevertheless, the household consumption footprint in residential areas is too high with excessive misuse of water.

Since 1990s, the installation of water meter system commenced for consumers connected to central system in urban areas. As a result, household water consumption is reduced twice, water loss and inefficient cost are decreased. Moreover, water tariff and rate serve as major economic leverage to develop appropriate and efficient consumption, prevent from water reservoir shortage and pollution. To increase water rate and decrease loss, the Water Services Regulatory Commission of Mongolia made a decision to change the water services rate and tariff in 2014. The base rate for water was introduced for the first time with the aim to recover cost and ensure normal service operations for sustainable water supply and 24-hour availability for consumers.

Further, it is mandatory requirement to deregulate water rate in phases. For instance, average delivery water cost per litre ranges MNT 5.02-6.20 for ger area where over 60 percent of total consumers live while in practice Water Supply and Sewerage Authority operates with a loss with a price tag of MNT1 per litre.

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#### 6.4. ENSURING SUSTAINABLE ACCESS TO BASIC SANITATION AND DRAINAGE

Attributed with population settlement characteristics and economic resources and capacity, 90 percent of 330 soums of Mongolia still remain with no access to central water supply and sewerage system. Larger urban areas and aimag centres were facilitated with engineering infrastructure with sewerage system, yet due to population growth and depreciation the capacity fails, thus it is mandatory to renovate, extend and improve water supply and sewerage system.

The adequacy of sanitary networks as compliant to requirements indicates as 41.1 percent in 2014 that Millennium Development Goals based Comprehensive National Development Strategy achieves the target set forth as 40 percent. Nevertheless, the target has been achieved nationally, though other aimags except Ulaanbaatar city, Darkhan-Uul, Orkhon, Selenge, Dornogovi and Govisumber demonstrate lower rate.

As of 2013, at national level only 26.4 percent of total household and 37.2 percent in Ulaanbaatar city are connected to water treatment facilities and sewerage system demonstrating the inadequacy of waste water treatment facilities (П.Батима, 2014). Nationally, out of 103 waste water facilities available, 39.8 percent operate with compliance to standard, 26.2 percent with incomplete functions and 34 percent fails in operation, revealing the need for renovation in phases. Moreover, no laboratory is available to conduct monitoring on waste water treatment facilities in areas other than Ulaanbaatar city, Baganuur, Darkhan-Uul, Orkhon, Zuunkharaa and Khutul obstructing the operation in compliance with technology regime (Г.Долгорсүрэн, 2012, хууд. 57).

No sanitary and sewerage system is available and the prolonged use of hole toilets and pits for ger areas where prevailing number of population is located in urban areas, cottages, remote spa and resort places from urban areas and tourist camps remaining as polluting factors for soil contamination and water pollution.

In connection with extended scope of production and economic activities, the capacity of waste water treatment facilities exceeds and fails to provide treatment services as compliant to standard result in increased adverse impacts to environment and human health. For instance, the result of analyses on waste water from tannery industry running in Ulaanbaatar city, the oxygen, suspended solids of waste water treated exceeds the permissible level as 5-20 times and the excessive amount of sulfate and sulfite cause failures in technology regime of central waste water treatment facilities. It is mandatory to immediately maintain and operate the part of waste water treatment facilities that treat industry waste water before hand.

The State Great Khural revised the law on “Water supply and sanitary utilities of urban areas” that established legal environment to provide urban consumers with water supply as compliant to standard, discharge waste water and govern the relations pertinent to ownership and utilities of engineering facilities for water treatment.

In recent years, renovation and expansion works have been performed over outdated sewer lines with state funding investment, loan facilities and aid by foreign donors. For instance, water supply and sewerage 67.5 kilometer long lines were installed with the funding of MNT 15.8 billion around Bayangol Am of Ulaanbaatar city and Nagoon zoori, along Dari eh and Nalaikh route. Within the frame of connecting each household to engineering infrastructure, engineering lines and network have been built for some districts of ger areas as a model khoroo.

Since central waste water treatment plant of Ulaanbaatar city fails in capacity, it is of great urgency to construct new waste water treatment plant in near future. Accordingly, the feasibility study has been completed with the technical assistance of French company. In addition, “Development trend to develop Ulaanbaatar city until 2030” outlines the sanitary facilities in 5 areas of development:

- Expand and connect centralized system when re-planning and developing central part of the city;
- Expand some ger areas with closer proximity to central system to connect with central system;
- Independant system for remote ger areas and new residential areas;
- Install small scale waste water treatment facilities in remaining parts not included to any of the regions;
- Cottage region. Further, it is recommended to immediately implement works to renovate central waste water treatment plant and waste water treatment plant for industry waste water with environmentally friendly technology and launch technology to re-use waste water and sludge through phased steps.

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## 6.5. IMPROVING ACCESS TO CLEAN DOMESTIC ENERGY

Mongolia has plenty of resources of energy and research have been accelerated for potential use of coal, oil, solar, wind energy and other resources. 70 percent of territory demonstrate high solar radiation energy, 4.5 кВт/м<sup>2</sup> in the north and 5.5-6.0 кВт/м<sup>2</sup> in the south. Capacity for wind resources is 1100 ГВт and power density is 400-600

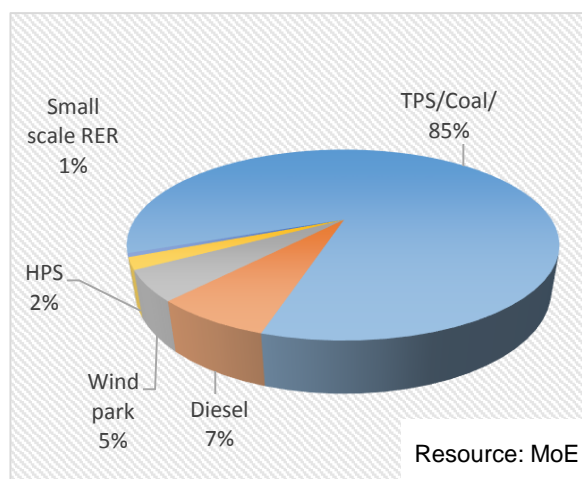
BT/m2 or locations that are suitable to build and utilize energy producing resources account for 10 percent of the territory.

Geothermal resources are at the stage of research and areas with proven reserves are utilized for spa and resort purposes. Hydro power resources are located in Altai mountain, Tagna, Khankhukhii, Khuvsgul, Khangai, Khentii mountain range and Khalkh river. Within these resources, in total 6.2 GBt installed capacity can be generated out of which, over 1GBt resource is proven in advance.

At national level, the total installed capacity for power producing is 1,082 MBt majority of which or 85 percent are produced by coal-fired combined heat and power plants. The 5 percent of power is supplied with wind power, 7 percent with hydropower plant, 7 percent with diesel generators, 2 percent with hydro-electric power station and remaining 0.6 percent with small scale renewable energy resources with less than 5MBt capacity.

The energy supply of Mongolia reached 6,215 million KWT/h in 2013 out of which 81 percent is supplied with locally produced energy and 19% with import energy. Nationally, the average annual energy consumption growth is 7% and energy supply per capita is 2,120 KWT/h.

Figure 13. Power generating capacities, by resources



The energy sector of Mongolia consists of 4 independent power systems including western, eastern, central and Altai-Uliastai energy system due to remoteness and infrastructure development. As oriented with coal resources, electric and heating production prevail.

316 out of 330 soums of Mongolia are connected to local central energy systems with power transmission line and 4 out of remaining 15 soums are supplied with renewable energy resource, 5 are connected with power energy system of neighbouring areas of Russia and PRC and supplied imported energy through power transmission lines.

The Energy Law of Mongolia was approved in 2001 that to regulate matters relating to energy generation, transmission, distribution, dispatching and supply activities, construction of energy facilities and energy consumption that involve utilisation of energy resources. In 2007, the “Law on Renewable energy” was introduced it regulates the generation and supply of renewable energy. In addition, respective legislation and procedures were approved and developed, including the Law on amendments to Nuclear Energy Law, Nuclear Energy Law, Law on oil products and the procedure to implement the Law on oil products and so on.

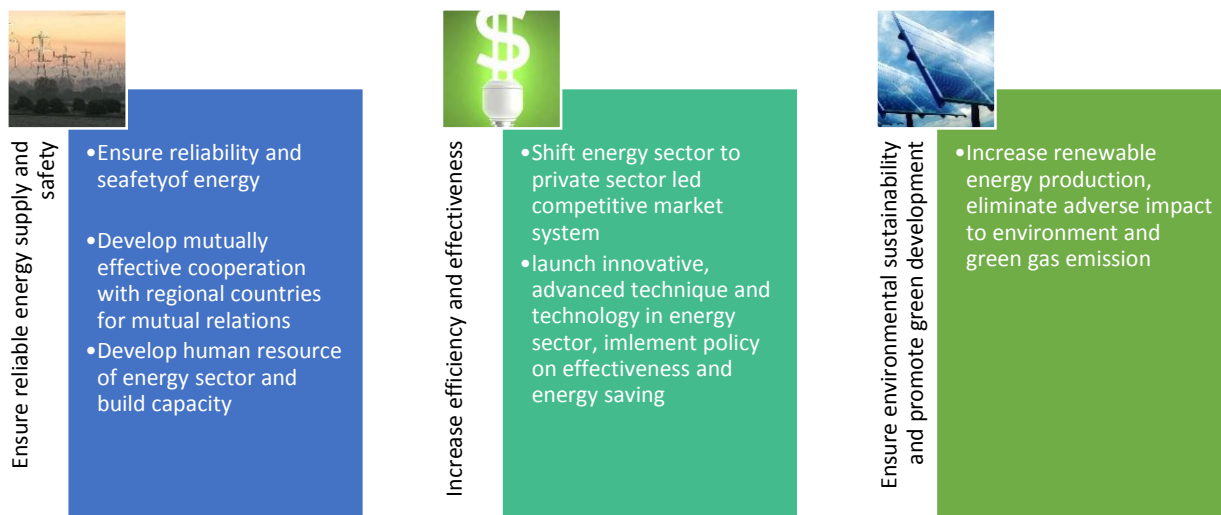
Mongolia adopted “Government policy on energy” in 2015. As in parallel with resources, opportunities and urgent issues in Mongolia, the priorities of government policy are laid out to:

1. Ensure reliable energy supply and safety
2. Increase efficiency and effectiveness

### 3. Ensure environmental sustainability and green development гэж тодорхойлсон.

Within the scope of priorities, 6 strategic targets are set out as the following:

Figure 14. Strategic targets to develop energy sector



Resource: Ministry of Energy

The Government policy on energy has emphasized the renewable energy development and targets are set forth in Mongolia accordingly to increase the proportion of renewable energy in total energy to 20 percent in 2020 and 30 percent in 2030 respectively.

## 6.6. IMPROVING ACCESS TO SUSTAINABLE MEANS OF TRANSPORT

Mongolia has sparsely populated vast territory and transportation is economically significant sector. The transportation sector of Mongolia consists of auto transport, air transport, rail transport and waterway transport. Nationally, the road network total 98.2 thousand km, out of which 49.3 thousand km or 50 percent consists of road, 46.5 thousand km or 47 percent as airway, 1.9 thousand km or 2 percent as railway and approximately 0.5 km or 1 percent as waterway.

Transportation sector growth continued until 1990 and during the earlier years of transition to market oriented society foreign trade declined and local industries were stagnant resulting in dramatic falls in freight and passenger transportation.

Since 2004, with respect to economic growth, in particular with prospective mining export increase, transportation sector has seen growth.

In all means of transportation, the transport of 49.7 million tons of freight and 308.7 million passengers in 2013 reveals the increase in freight transportation by 20.5 million tons or 70 percent and in number of transportation by 58 million people or 23.6 percent respectively.

The volume of freight and passengers demonstrates annual growth, yet the sector development is somewhat lagging behind international practice.

According to Global Competitiveness Report published annually by Global Economic Forum, Mongolia ranks as 119 out of 144 world countries in terms of competitiveness

in 2014-2015. This indicates the requirement to increase sectoral investment efforts and renovate technology.

Auto transport is the major sector in local passenger and freight transport. If compared with improved or paved road infrastructure and territory, the country demonstrates less.

Nationally, the total length of road is 49,753 km as of 2014 and 81 percent out of which is regular dusty road, 19 percent is improved road and 6,461 km is paved.

The highway of Altanbulag-Zamiin Uud is paved for AH-3 route of Asian Highway Network and road construction works have commenced for Bulgan-Yarant route of AH4 route. Within the scope of connecting aimag centres with capital city through paved road, 15 aimag centres have been connected with paved road to capital city.

In 2016, all aimag centres are projected to get connected with capital city. The connection of all aimag centres with paved road to capital city has brought positive outcome including reduced cost, passenger safety and convenience ensured and eliminated adverse impact to environment.

As consistent with the road network improvements within capital city and aimag centres, "Street" project has successfully been implemented. In areas of extending and developing road network of capital city, 0.16 km road was built in 2012-2014, 144.74 km road network and 26 intersections were re-developed to reduce road network load and eliminate adverse impact of auto transport vehicles to environment.

Regarding rail transport network, nationally in total 1815 km railway is available as of 2013, 1.2 km railway per 1 thousand km<sup>2</sup> or Mongolia is considered as a country with least density. Rail transport prevails the most in freight forwarding and circulation. In connection with economic and social development, still there is high need for freight transport. More specifically, the efficient and reliable transport network for mining and processing industry products and delivery to third market require the advanced development of rail transport.

Mongolia introduced "Government policy on rail transport" that stipulates priorities of rail transport network expansion and construction steps in depth.

Initial stage of development includes the construction development of 1100 km along the route of Tavantolgoi-Sainshand-Zamiin Uud-Baruun Urt-Choibalsan, second stage includes 240 km along the route of Tavantolgoi-Gashuun suhait and 50 km railway along the route of Nariin suhait and Shiveekhuren.

Within the frame of increasing carrying capacity of UB railway, Mongolian-Russian joint venture, the Government of Russia made the investment of 250 million USD between 2011-2013. Accordingly, maintenance of railway infrastructure is completed and locomotives and rolling stock are renovated. Additionally, freight transport logistics centres are being constructed with the loan facilities of Asian Development Bank in Zamiin Uud.

For the purposes of attracting more private sector investment in railway development projects, authorization for railway infrastructure development has been issued to private sector and approximately 98 km were constructed. Furthermore, the policy will be adherent to increase the railway capacity with dual railway and electrification.

With regards to air transport, Mongolia has strategically important air routes that connect Europe and North America with Eastern and South Eastern Asia. The disadvantages as land-locked, poor land infrastructure development highlights the

significance of air transport. At present, nationally 79 air routes are available and 34 out of which refer to high routes and 45 routes or 57 percent are lower routes.

10 regular international pass flights cross over territory of Mongolia. Thanks to investment efforts made in areas of increasing and advancement of air navigation facilities, the number of flights passing over the territory of country increases in recent years.

Within the frame of targets to expand and develop air transport infrastructure, the construction of new international airport commenced in Hushig Valley of Tuv aimag. Moreover, within the scope of measures taken to develop local air transport infrastructure, an airport was constructed with paved runways for flights to Khovd, Ulaangom, Ulgei, Altai and Uliastain towns. For the purposes of increasing the fleet capacity, Mongolia has made first ever direct purchase of Boeing 767-300.

Regarding the sea transport, Mongolia is a land-locked country, thus objectives are set forth to be involved in ocean international trade and transportation activities through ships with the flag of Mongolia and access the ocean resources.

In order to establish legal environment on ocean affairs, certain legislations were adopted including "Law of the sea" and "Procedure on ship registration" was approved and Mongolia has joined 27 treaties, conventions and their protocols.

Agreement between Governments have been successful on using some harbours of PRC, Russian Federation, DPRK and South Korea with concessional conditions for the purposes of exporting goods and services through the access of harbours of neighbouring countries.

Mongolia set up "Ship registration of Mongolia" LLC jointly with Singapore in 2003. As of today, in total 3012 ships of 30 countries have been registered and 518 ships are regularly listed. Further targets are set forth to independently record the ship registration, prepare national crew and crew members to transport export and import goods. Within the target, commitments have been to set up sea transport company jointly with Republic of Korea.

Regarding the preparation of human resource for sea transport, 10 sailors have been trained in Republic of Korea in cooperation with Sea Transport and Fishing technology Institute. There is less use of local waterway which is limited merely with the purpose of tourism and research through small ships and boats to transport travellers, tourists and researchers. As of 2014, 128 vehicles were registered for waterway transport.

Within the frame of a target to "Establish infrastructure for transport, telecommunications and energy that is competitive in Asia and regional level" set forth in the strategy of Millennium Development based Comprehensive National Development Strategy of Mongolia, sector development policy paper has been approved and implemented.

For instance, such documents include the "New development" mid-term target program, "Government policy on railway transport", "Government policy on civil aviation until 2020", "Transit Mongolia" in conformity with Government resolution, "Civil aviation security program", "National program to simplify civil aviation", "Mid-term program to strengthen road sector capacity" and "National program to ensure traffic safety" have been developed and approved.



Commitments have been made with budget funding to ensure technical integrity of motor vehicles, to establish auto diagnostic centres for technical check-ups to restrain waste disposal and to set up auto stations for passenger and transport services to provide convenient services to passengers.<sup>8</sup>

In order to address the challenges in public transport, approximately 100 vehicles as compliant to standard and requirements were procured with private sector investment and 21 duo-buses are assembled locally with state funding for public transportation services.

With the technical assistance of ADB and in areas of introducing efficient public transportation system, "Establishment of underground" research is conducted with capital city funding and "Research on introducing special route bus service" within the framework of Project "Development of transportation in Ulaanbaatar city".

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#### 6.7. CHALLENGES EXPERIENCED AND LESSONS LEARNT IN THESE AREAS

- Environmental pollution and infrastructure development issues evident due to ger area sprawls remain as urgent challenges for the Government. In recent years, target programs have been implemented to constrain ger area sprawls and address accumulated issues in recent years, not much improvement has been felt. It is considered as beneficial to decentralize migration through the creation of plethora of work spaces, make phased re-development planning for major urban areas to decrease ger area expansion and improvements of environment.

Substantial funding and investment are required to coordinate such endeavor, it is crucial to seek external funding with affordable rate and for long-term from international donors, financial and banking institutes and establish monitoring mechanism to administer funding effectively.

- In the past few years, the Government of Mongolia has successfully launched housing programs and has seen certain milestones. The generation of affordable mortgage resources enables citizens to purchase residential apartment suitable to their purchasing capacity with long term mortgage and increase the adequacy of residential housing.
- Since infrastructure supply fails to keep up with demand, the increased value of land in major urban areas or central part of capital city and inadequate local production of construction materials, the value of residential apartments exceed beyond the purchasing capacity of citizens. Further, it is perceived as feasible to lower the housing value through the redevelopment of ger areas, release of land, construction of residential apartments in accordance with planning that may largely result in soaring demand.
- The efforts to increase the number of water supply points in recent years have enabled to circumstance to supply citizens with safe drinking water. However, water supply in rural areas has not achieved the target and water pollution caused disease have been prevailing. The lower cost of water distributed to ger

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<sup>8</sup>Autostations and diagnostic centres that comply with standard are available in Darkhan, Erdenet, Bulgan, Khuvsgul, Selenge, Umnugobi and Dornogobi.

area households becomes the major reason of obstructed water supply quality. Further, it is urged to set and timely re-set water rate and waste water removal rate/tariff as integrated with the cost of heating, energy, fuel, petroleum and spare parts, inflation rate and actual cost.

- In order to ensure the financial capacity of utility companies to operate independantly while responding to consumer needs as sustainable and reliable, it is recommended to locally provide subsidies and compensation in line with livelihood level and purchasing capacity of citizens. In addition to improved water supply, elimination of misuse may be the major method to prevent from shortage of water resources.

Be concerned on developing mind-setting and practice on efficient use of water for citizens and metering system has realistically reduced the misues of drinking water in Mongolia.

- Provision of population with energy is the part of priorities of the Government of Mongolia. Owing to the internal and external funding in energy sector, local production capacity is continuously grows year by year and outages of energy have been eliminated. Though, the local capacity is not yet capable to fully supply local needs.

The existing major power and thermal power stations that are outdated and obsolete may pose risk to energy safety. Therefore, it is of great urgency to renovate technology while increasing the investment in energy sector.

- In the past years, substantial investment has been made by the Government of Mongolia. Mongolia is targeted to conect 21 aimag centres with paved road and the frame of actions are expected to complete in 2016. Within the actions implemented in auto transport sector, the volume of passenger and freight transport and freigh circulation improved and positive impact is seen in local economy.

Further, it is required to improve road quality and comply with international standard. In this regard, it is important to train local human resource in developed countries and re-train engineers as well. Committments have been on extending railway network based on public-private partnership and targets are set forth to transport export goods through railway.

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#### 6.8. FUTURE CHALLENGES AND ISSUES IN THESE AREAS THAT COULD BE ADDRESSED BY A “NEW URBAN AGENDA”

- Improvement of ger areas is not only the challenges for urban Municipality and Government of Mongolia. Challenges may effectively be addressed and resolved with active participation of urban citizens. Therefore, positive impact and outcome can be seen from the increased citizens’ participation in urban development and incorporation of their interests and rights. One of the biggest obstacles tackled urban in re-development includes the approaches of citizens over land release. Delayed land release pushes backward the implementation effort of planned activities. Therefore, it is vital to disseminate the reality to citizens and establish external monitoring system to prevent from violations of citizens’ rights and interest. Aong with the urban re-development, the resolution of newly migrated population has been part of challenges as well. Unless

convenient living environment is enabled and plethora of workspaces are created in rural areas, it may not be feasible to decentralise migration.

In the next few years, the Government and local municipalities may experience challenges in seeking for long-term funding with respect to ger areas re-planning and creation of work spaces in rural areas.

- The Government needs to be concerned on increasing housing supply that are compliant to purchasing capacity of citizens and standard. With this regard, it is very significant to make investment in infrastructure development and increase supply. Thus, the expected failure to supply mega infrastructure investment with limited local resources may obstruct the reduction of housing value and compliance with citizens' purchasing capacity.
- There is a trend that rivers and lakes may shrink and water level lowers due to climate changes. In this respect, some areas already have seen water shortages. Further, the water supply with safe drinking water may be hindered more. Thus it is mandatory to develop mind setting on efficient use of water from earlier age, shift to clean technology that enables to create water reservoir, re-use of water and rainfall, reduce consumption of water.

The existing waste water treatment facilities operating in major urban areas are already obsolete, aged longer and outdated in terms of technology and no timely maintenance services were rendered may end up in failures of operation. The unexpected failures of operation due to depreciation of waste water plants, there is a high risk of environmental pollution that waste water may be disposed immediately to rivers without treatment. Therefore, there is an urgent need to renovate waste water treatment facilities in near future.

- It is necessary to reduce inefficient operation of energy sector and recover energy rate as equivalent to actual cost of production and cost. The Government intervention in setting the rate lower than actual cost immediately reduces investment opportunities in energy sector and prolonged delays on renovation of technology and facilities may have negative impact on weakened competitiveness. Deregulation of pricing and setting of tariff to actual rate would obviously enable the circumstance for technological renovation and further to seek for opportunities to supply citizens with affordable and reliable resources. It is mandatory to complete the Eg and Shuren hydro-electric power station in order to achieve 30 percent of total installed capacity of energy by 2030. Adjustments to thermal power stations may lead to damages, it is of great urgency to establish hydro-electric power station that may have immediate maneuvering system.
- Depending on population growth in Ulaanbaatar city where more than half of total population of the country live, traffic congestion has been a challenge. Traffic congestion cause much negative impact to the economy and environment. Therefore, urban transportation issue requires urgent resolutions by next year. Improvement of Ulaanbaatar city mobility, increase the adequacy of public transport and development of underground system require substantial investment efforts, thus is considered as challenging issue.

The road development works are economically inefficient in such sparsely populated vast territory of Mongolia. For this reason, there is a requirement to develop freight and passenger transport services based on airways. Within the framework, airways should be constructed and flight crews need to be developed.

## 7. INDICATORS

Indicators		1996	2006	2013	Resource
Percentage of people living in ger area (slums)		35.5%	33.2%	23.3%	Households socio-economic survey-2014 Human development report 2005, UNDP
Percentage of people residing in urban areas with standard residential apartments					
Percentage of people residing in urban areas with access to safe drinking water		62.0	68.6	75.0	Program for population with safe drinking water, <a href="http://www.legalinfo.mn">www.legalinfo.mn</a>
Percentage of people residing in urban areas with access to adequate sanitation		30%	40%	45%	Program for population with safe drinking water, <a href="http://www.legalinfo.mn">www.legalinfo.mn</a>
Percentage of people residing in urban areas with access to regular waste collection		100	100	100	
Percentage of people residing in urban areas with access to clean domestic energy					
Percentage of people residing in urban areas with access to public transportation			44	52	Consolidated statistical database, (calculation based on major three cities with national status Ulaanbaatar, Darkhan, and Erdenet)
Level of effective decentralization for sustainable urban development measured by:	Percentage of policy and legal documents on urban development ensuring regional and				

	local management participation From 1996 to present				
	Percentage share of both income and expenditure allocated to local and regional governments from the national budget		Percentage share of subsidies allocated to local income by the national budget- 7.46%, Percentage share of subsidies allocated to local expenditure by the national budget 7.5%	Percentage share of subsidies allocated to local income by the national budget 59.2%, Percentage share of subsidies allocated to local expenditure by the national budget 62.7%	Consolidated statistical database, <a href="http://1212.mn">http://1212.mn</a>
	Percentage share of local authorities expenditure financed from local revenue		Local revenue 89016.4 mln.tugrics, total expenditure 95574.1 mln.tugrics or 93%	Local revenue 775854.2 mln.tugrics, total expenditure 1794118.8 mln.tugrics or 43%	Consolidated statistical database, <a href="http://1212.mn">http://1212.mn</a>
Percentage of urban and local areas that have laid urban development plans to promote population livelihood, employment and economic development		4.0%	12.5%	45.8%	Local governments' web sites
Percentage of urban and local areas that have laid and implemented urban security and protection strategies		4.0%	12.5%	12.5%	Local governments' web sites
Percentage of urban and local areas that have laid and implemented sustainable urban development plans and design with regards to urban population growth		4.0%	12.5%	45.8%	Local governments' web sites
Share of national gross domestic product (GDP) that is produced in urban areas		61%	72%	72%	Consolidated statistical database, <a href="http://www.1212.mn">www.1212.mn</a>

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- Ministry of Environment, Green Development and Tourism of Mongolia
- Ministry of Roads and Transport
- Ministry of Human Development and Social Welfare
- Ministry of Energy
- Ministry of Labour
- Administration of Land affairs, Geodesy and Cartography
- Construction Development Center
- National Emergency Management Agency
- The Capital City Administration
- Mongolian Association of Urban Centers

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