ULAANBAATAR
MONGOLIA

CITIES AND CLIMATE CHANGE INITIATIVE

CITY OVERVIEW

Ulaanbaatar is the capital and the largest city in Mongolia. It is located in the north central part of the country, elevated at 1,310 m (nearly 4,000 ft) above sea level and lies in the Tuul River valley. It is surrounded by the beautiful foothills of the Khentii mountain range, with the centuries-old protected holy Bogd Khan Mountain in the south.

CLIMATE CHANGE AND CITY VULNERABILITY

Ulaanbaatar is probably the coldest capital in the world. It has four seasons with a continental and semi-arid climate. During the period 1940-2009, the annual average temperature increased by 2.73^{0}c and annual precipitation decreased by 9.97 mm in the city. The number of hot days increased and cold days and days with precipitation decreased. These changes are high compared with the national average.

The city is densely populated and at high risk to climate extremes. Consistent and severe droughts and Dzud[1] disasters have resulted in intense mass migration of the rural population to the city. Expansive unplanned settlements result in increased pressure on public services and the environment. These factors combined with poor waste management, air and soil pollution, limited social services and water supply, and unemployment negatively affect the health and safety of people and their livelihoods. 22% of the city's population - who live in poverty in the densely populated areas and is inadequately covered by social services - is particularly vulnerable.

The city is heavily affected by air pollution especially during winter, as all domestic and industrial heating systems use raw coal with a high ash and sulfur content, and most vehicles in the city use leaded gasoline. The concentration of pollutants in the air is also exacerbated by the topography of the city. Acute respiratory diseases, tuberculosis and other lung diseases are reportedly higher during winter.

With its aging and poorly maintained drainage facilities, and low quality houses, Ulaanbaatar is also vulnerable to intense flooding and storms. Floods often occur due to degradation of the land water retention capacity, urbanization in the hilly, steep sloped-areas, as well as deforestation in the watershed area. Limitations of the early warning systems, emergency management services, and unawareness among the citizen and public servants increase climate risk.

PREPARING FOR CLIMATE CHANGE

City specific climate change adaptation and mitigation options and measures have not been studied, assessed and/or planned yet. However, there are national level measures in place with regard to energy, transport and industry sectors, land use, water supply, air quality, waste management and emergency management. At the city level, the following initiatives and activities are on-going:

- Implementation of three 'E's that is Environmental, Enforcement and Engineering measures;

1 A multiple natural disaster consisting of a summer drought followed by very heavy winter snow, winds and lower-than-normal temperatures.

Ger area settlements near drainage channels in Ulaanbaatar
©UN-HABITAT/Bharat Dahiya

Population: 1,106,719 (2010)
Growth Rate: 4.06% (average for 2000-2009)
Economy: Trade, services and industry
Political/administrative Structure: Democratic, decentralized
Role in country: Capital city, administrative, cultural, commercial and financial center of the country

Based on Map No. 3721 UNITED NATIONS, January 2004
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations

Climate indicators
Rainfall: Annual total precipitation 216 mm (8.50 in)
Mean annual temperature: –0.7°C (30.7 °F)
Seasons: Winter, spring, summer, and autumn

Ger area in Ulaanbaatar ©UN-HABITAT/Bharat Dahiya

View of Ger area in Ulaanbaatar ©UN-HABITAT/Bharat Dahiya

- Community-led and participatory developments in Ger[2] areas;
- Renovation of the management system and Public-Private Partnership;
- Introduction of local cluster sub-systems as an alternative solution with decentralization of heating and sewerage utilities and services.

Mongolia has recently joined UN-HABITAT's Cities and Climate Change Initiative. The national scoping study and city level vulnerability assessment is the first effort towards specific planning for climate change adaptation and mitigation in the city.

Recently a national team of 14 members from local government, research and engineering organizations, NGOs and community representatives was established and has started its work with participatory impact and vulnerability studies on pilot sites of Ger area.

KEY ACTIVITIES PLANNED

- Learn from good practices and pilot methodologies, methods and tools for climate change risk study and assessments;
- Conduct national scoping study and city vulnerability assessment, identify stakeholders, prioritise tasks, plan activities and develop project proposals towards climate change adaptation and mitigation;
- Build and strengthen institutional capacity and networking of stakeholders;
- Implement a green growth strategy with technology transfer, effective collaboration and partnership of stakeholders and good governance;
- Develop knowledge products that will enhance sharing of insights from national and city assessments and advocate for action in policy reform, planning and implementation of city responses, and community-based initiatives;
- Build and advocate for awareness on Climate Change among the general public, particularly in Ger areas, and all stakeholders through the media and community activities; and
- Develop and implement a system for sustainable management of long term collaborative activities of national and local stakeholders and encourage active networking with international partners.

2 Informal settlement

UN-HABITAT'S CITIES AND CLIMATE CHANGE INITIATIVE

UN-HABITAT launched the Sustainable Urban Development Network (SUD-Net), an innovative network of global partners, promoting inter-disciplinary approaches to sustainable urban development.

The Cities and Climate Change Initiative (CCCI) is the flagship programme of SUD-Net. The initiative aims to strengthen the climate change response of cities and local governments. Cities are key drivers of climate change due to their high energy consumption, land use, waste generation and other activities that result in the release of the vast majority of greenhouse gases. At the same time, it is cities, and in particular the urban poor, in the developing world, that are most vulnerable to and have the least resilience against, for example, storms, floods, and droughts. Cities need to respond to Climate Change by cutting their greenhouse gas emissions (mitigation). The negative impact of climate change seems however unavoidable and for most cities in developing countries adaptation to the risks is a must.

The Cities and Climate Change initiative brings together local and national governments, academia, NGOs and international organizations with the aim to alert cities to the action they can take and by strengthening capacities of cities and their partners to respond to Climate Change. The key components of the Cities and Climate Change initiative are:

- Advocacy, policy dialogue and policy change
- Tool development and tool application
- Piloting climate change mitigation and adaptation measures

Knowledge management and dissemination, through, amongst others, the UN-HABITAT partner universities and the partnership with UN-HABITAT's Local Government Training Institutes Network.

The following cities are currently participating in CCCI. In Africa - Bobo Dioulasso, Burkina Faso; Kampala, Uganda; Kigali, Rwanda; Mombasa, Kenya; Maputo, Mozambique; Saint Louis, Senegal and Walvis Bay, Namibia. In Asia and the Pacific - Apia, Samoa; Batticaloa and Negombo, Sri Lanka; Lami, Fiji; Port Moresby, Papua New Guinea; Port Vila, Vanuatu; Semarang, Indonesia; Sorsogon, Philippines; Thanh Hoa, Viet Nam and Ulaanbaatar, Mongolia.
In Latin America - Esmeraldas, Ecuador.

A boy fetching drinking water in Ulaanbaatar ©UN-HABITAT/Bharat Dahiya

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May, 2010

Design, Layout and Printing: United Nations Office at Nairobi (UNON) Publishing Services Section, ISO 14001:2004-certified