



MILLENNIUM CHALLENGE ACCOUNT MONGOLIA

PROPERTY RIGHTS PROJECT



The adoption of energy efficient products and homes in the ger districts and supporting the development of renewable energy in Ulaanbaatar city

17-18 October 2011 Suwon, Korea

Introduction

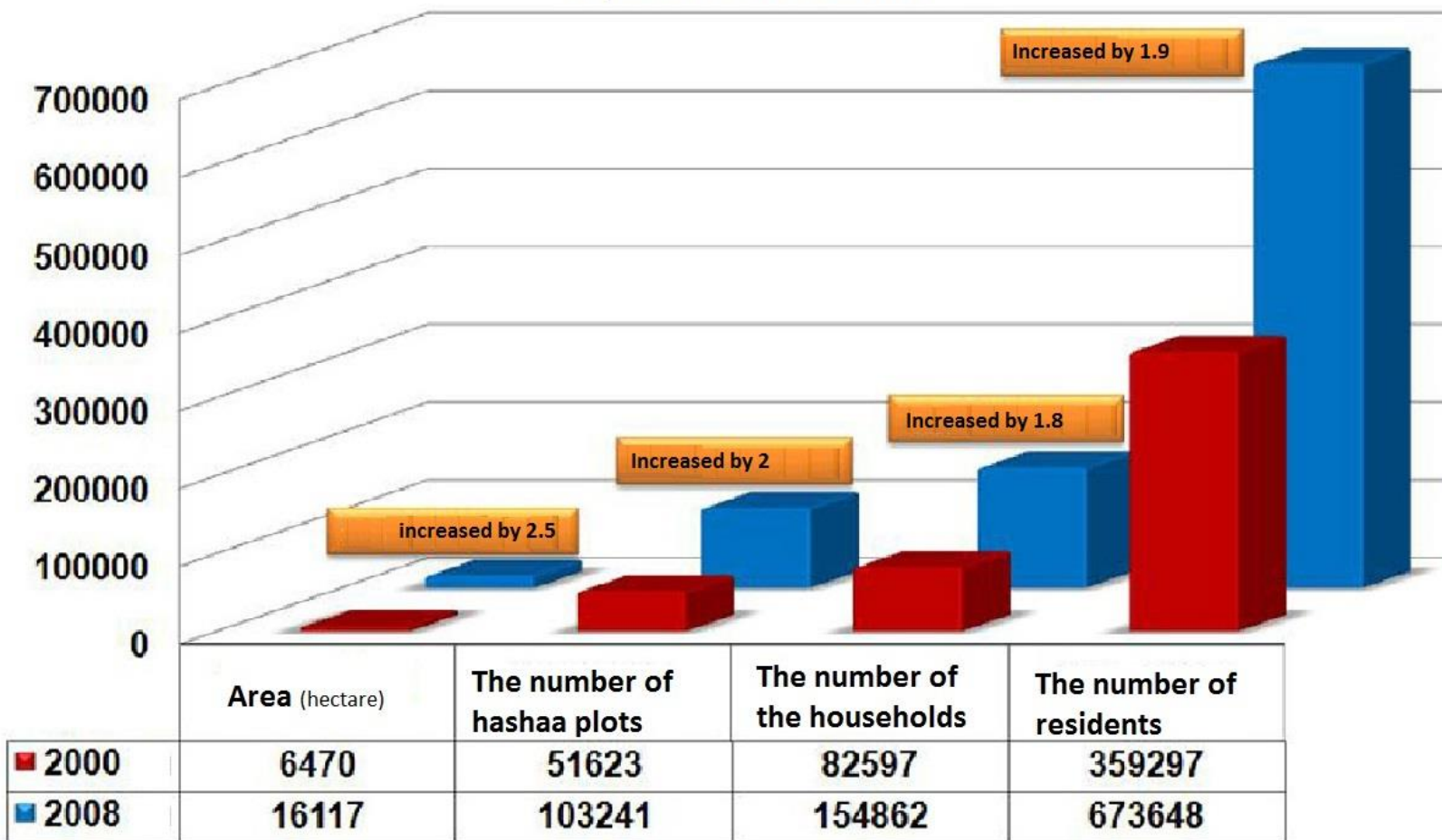
- MCC, a U.S. government corporation, is based on the principle that aid is most effective in countries that promote good governance, economic freedom, and investments in people.
- In October 2007, a \$285 million Compact was signed between the Government of Mongolia and the Millennium Challenge Corporation. The Compact provides grant funding to support a five-year Program to reduce poverty in Mongolia through economic growth through projects in Property Rights, Technical and Vocational Education, and Health.
- In December 2009, the Government of Mongolia submitted new project proposal to reduce air pollution in Ulaanbaatar to MCC and was signed by U.S. and Mongolian governments on 2 February, 2010. The Compact ends in September 2013.

Background

- Mongolia has an extremely harsh winter climate with an eight-month heating season. Midwinter (late December and early January) daytime temperatures range between -10C to -30C, and can drop to as low as -40C at night.
- Ulaanbaatar, where nearly half of the population lives, is the coldest capital city in the world. A steady stream of poor rural Mongolians are abandoning traditional nomadic herding practices and migrating to the cities in search of better lives and settle in suburban “ger area”. The total number of the household in ger area is approximately 176000 and increased by 2 times in 2008 compare to 2000.
- There is severe winter air pollution in Ulaanbaatar. Among other contributing factors such as heat only boilers, vehicles (3%), dust and combined heat and power plants (7%), a significant factor in the deterioration of air quality is the heavy use by ger district residents of raw coal for heating and cooking (90%), producing winter air pollution at levels from two to ten times the international standards.

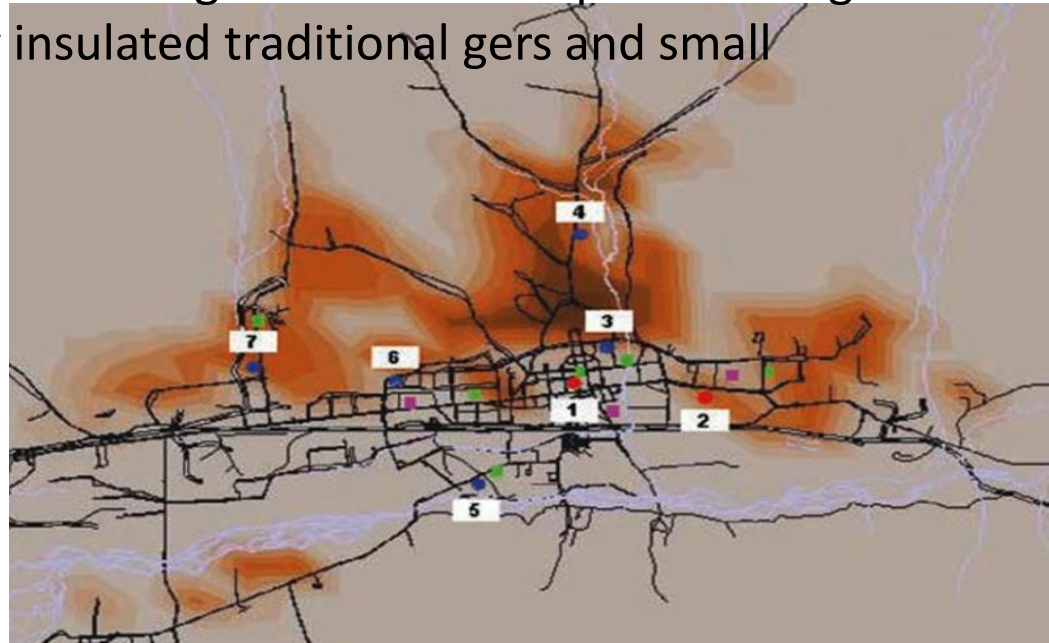
Expansion of the Ger Area

Expansion of the Ger area



Air pollution density in Ulaanbaatar (source Air quality center)

- Air pollution is a major cause of serious respiratory problems among urban residents. Those especially at risk include the poor, undernourished, very young, and elderly, people with preexisting respiratory disease and people with other health diseases.
- An estimated 90 percent of Ulaanbaatar air pollution comes from the ger areas, which tends to include lower income households. The primary source of air pollution is from the burning of raw coal for space heating in inefficient stoves to heat poorly insulated traditional gers and small homes.



Energy and Environment Project

- The project objective is sustainable reduction of air pollution in Ulaanbaatar by increasing the adoption of energy efficient products and homes in the ger districts, and supporting the development of renewable energy.
- The total number of the project beneficiary is 80.000 households in ger area of 5 districts of Ulaanbaatar Mongolia. Specifically, the Project creates a facility to fund financial incentives and technical assistance for adoption of cleaner, more efficient technologies and supports the introduction of wind energy into the national electric grid.
- The Government of Mongolia, Ulaanbaatar city Governors office and land office and Xas bank are assisting the project by promising to decrease the electricity cost by 50% during night time for the ger households who purchased the energy efficient stove, by warning to annual the land ownership certificate of the ger households who are reluctant to purchase the energy efficient stove and by offering cheaper price.

Energy and Environment Project activities

- **Activity I: Millennium Challenge Energy Efficiency Innovation Facility (MCEEIF), Benefits include:** reduction in air pollution of Ulaanbaatar, reduced fuel costs, reduced health costs, increased productivity
- **Beneficiaries include:** all Ulaanbaatar residents but primarily ger district residents. Consumer subsidies for energy efficient products and certified homes that have met set standards and/or otherwise demonstrated a superior efficiency over previous models;
- Replacement and rehabilitation of up to 50 inefficient Heat Only Boilers, which are one of the major sources of air pollution in Ulaanbaatar;
- The Grants Program: 1) Greening the Ger Districts: Reduce particulate matter and dust by providing trees and shrubs for planting and maintenance by participating households;
2) Air quality research: Support research of new initiatives and technologies to improve air quality. etc

Energy and Environment Project

- **Activity II: Wind power electricity generation activity**

The main objective of this activity is to support the development and production of the first commercial wind powered electricity generation facility in Mongolia and critical infrastructure upgrades for the introduction of renewable energy into the national grid,

- **Benefits include:** improved power quality, reduced greenhouse gas emissions.
Beneficiaries include: electricity consumers In Ulaanbaatar.
- An operating subsidy for each kilowatt-hour produced to be paid to the state-owned transmission company, CRETN, to temporarily smooth the impact of the increased estimated cost of power from the wind farm at Salkhit;
- An upgrade to the nearest substation and an installation of training simulator for dispatchers of the National Dispatching Center in Ulaanbaatar, NDC, to accommodate power from variable sources, and a 22 km fiber optic cable between the substation and the NDC to connect the substation to the dispatching system;
- Support for renewable energy sustainability by providing technical assistance for the establishment of a renewable energy fund, according to the Renewable Energy Law.

Energy and Environment Project

- **Activity III: Public Awareness**

The public awareness campaign will increase consumer awareness of renewable energy and energy efficiency. This campaign is designed to increase consumer familiarity with the benefits of and use of energy efficient products, and homes. The campaign is also designed to support the rapid adoption of energy efficient products.

- **Benefits include:** increased awareness and positive changes in consumer behavior
Beneficiaries include: all Ulaanbaatar residents but primarily ger district residents.



Thank you for your attention