MBIs for Air Quality Improvement in Ulaanbaatar Opportunities to Scale Up Economic and Market-Based Instruments to Address Air Pollution

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Ulaanbaatar's air pollution problem





- Ulaanbaatar is the coldest capital city in the world
- The average PM2.5concentration exceedsWHO guidelines by 6x
- Hourly concentrations >3,300 µg/m3 have been recorded (130x WHO guidelines)
- The largest contributor
 is ger area household
 stoves burning coal

Incentives for coal-to-electricity switching

Raw coal ban

- Since May 2019, use of raw coal by households has been banned
- Coal briquettes are supplied as an alternative, with producer subsidies used to keep prices equivalent to the raw coal they are replacing

Free night-time electricity

- Ger area households receive free electricity at night during the heating season
- 109,000 households benefitted in 2019, with the saving estimated at ~1/3rd of electricity bills

Environmental taxes

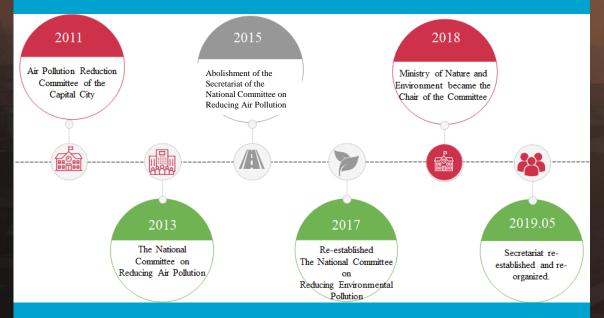
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- The 2010 Law on Air Pollution Fees imposes a small tax on coal production (set at \$0.1-0.2/tonne)
- Higher taxes are authorized on households using coal, but have not yet been imposed

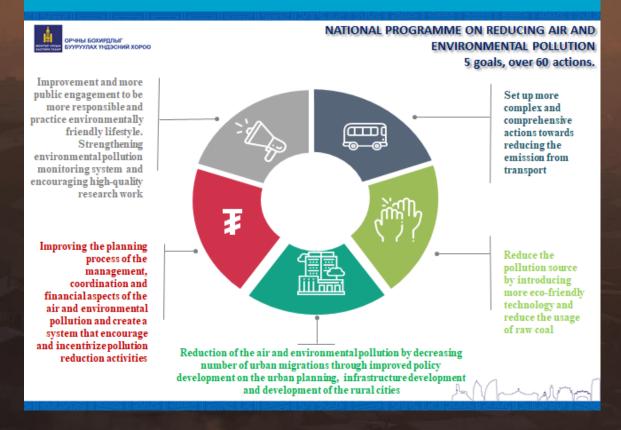
Effective coordination has been important

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National Committee on Reducing Environmental Pollution reestablished in 2017

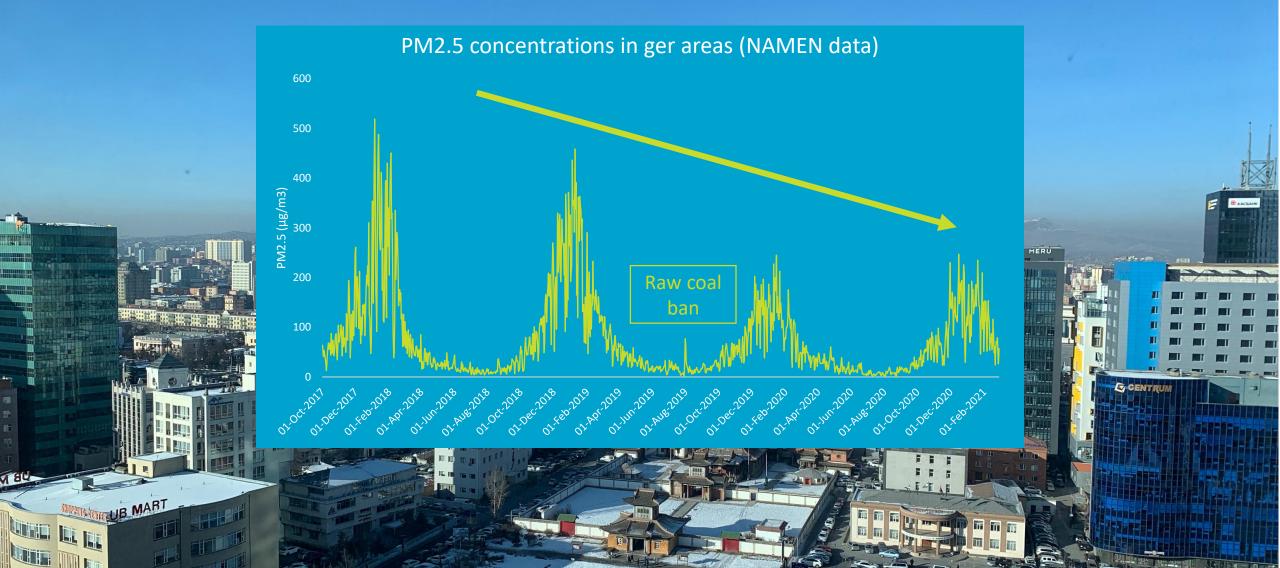


Chaired by the Minister of Natural Resources and the Environment. Includes representatives of 17 ministries and agencies plus three NGOs and the Prime Minister's office The guiding National Programme on Reducing Air and Environmental Pollution was issued in 2017



Large improvements in air quality





Opportunities and challenges



- Further strengthen incentives for switching away from coal to electricity by introducing environmental taxes on households (as already permitted in law)
- Encourage self-supply by households using Mongolia's ample solar resources, to relieve potential overloading on local electricity grids

Challenges

- Sustainability of electricity subsidies as more households switch (forecast to triple to \$10.5 million by 2023)
- Affordability for poorer households, who cannot fund the up-front costs of conversion to electric heating
- Continued dependence of the Mongolian electricity grid on coal-fired generation and resulting CO₂ emissions



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