

Suggestions for Mongolia

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Nature of Air Pollution in Mongol

- Sources of pollution:

- Inappropriate combustion of low-quality (dirty) coal.
 - Power Plants, District Heating Plant, Buildings and Housings (incl. Ger)
 - Inappropriate: low efficient facilities(furnace, boiler & generator), lack of emission gas cleaner facilities(dust removal, de-sulfurization etc)
- + Vehicle emissions, road and construction dusts

➔ Solutions on these sources are ready-available in the market

- Shifting Energy: Coal → (Clean Coal) → Gas → Renewables (solar power, etc.)
 - Producing clean fuel, such as Dimethyl Ether (DME), from domestic coal.
- Improving Energy Efficiency (high-efficient boiler technologies, etc.)
- Introduction of low emission vehicles, control technic of construction dust (watering)

➔ Some of them are being introduced as pilot measures with
LPG, briquette, solar PV, high-efficient boiler

Suggestions based on Japanese Experiences

- Resource mobilization is the matter / Political Leadership is crucial
 - Rapid economic and urban development are opportunities of investing on the solutions -- Don't lose the opportunities
 - Emphasis on economic gains of the solutions for the development investors
 - 'Uniform Regulation for all investors/polluters' or 'Individual consultation/agreement with selected investors/polluters, with awarding, make showcases'
 - Roles of not only the central but also the city governments are crucial.
 - Raise awareness of air pollution impacts and opportunities of solutions for the citizens, so that responsibilities of the obvious polluters and the city government.
 - Most solutions bring benefits for mitigating climate change
 - Utilize opportunities of financing mechanisms under climate change incl. national, regional and international schemes.
 - NDC of Mongolia, ADB, GCF, World Bank, JCM,
 - Rapid introduction of the end of pipe technologies, such as dust-removal, de-sulfalization, etc, in case domestic coal combustion needs to remain major sources for years.
 - Japanese history proved the prevention measures are much cheaper than the compensation to the victims.

Scaling up pilot measures (1)

- Raise awareness of solutions and their effectiveness through pilot interventions, with scientific and financial analysis, focusing on co-benefits.
- Build capacities of stakeholders (polluters) to introduce solutions
 - Japan: Business entities need to assign legally responsible managers, nationally qualified, for energy efficiency and pollution control (Legal requirement). Periodic education for these manager are conducted by the Gov.
- Identify leading stakeholder and support their actions
 - Conclude individual agreements between a government and leading stakeholder. Japan (without national legislations): Mayers firstly concluded agreements with major polluters in their cities to identify their pollution reduction plans with supportive measures for the plans of the cities.
 - Awarding, Media publications, involving policy development etc.

Scaling up pilot measures (2)

- Establish mechanisms to support small and medium scale stakeholders financially and technically
 - Japan: Pollution Prevention Agency - established in 1965, providing:
 - Financial measures: Supplement for loan interests
 - Concessional loan were supplied by Gov. for energy efficiency improvement and pollution reduction projects for SME through the Ministry of the Economic, Industry and Energy.
 - Technological and financial consultations, introducing potential technology providers and financiers, as the Agency can accumulate knowledge and know-how, and foster market.
 - Conduct Joint Implementation – consignment work - : bundle small stakeholders to form a group take for joint implementation for scale merit
 - High-efficient heat supply facility for group members, instead of small facilities for individual members
 - Group relocation of polluting factories to designated industrial zone where pollution abatement facilities available – such as sewage treatment facilities, a high smoke stack, green buffer perimeter zone