Concept of Co-benefits Approach - Development Needs Oriented Way

- Promoting development offers a great potential to address greenhouse gas reduction

- Renewable energy supply and management know-how
- GHG reduction and contribution to global environmental improvement
- Building a new thermal power plant - more energy supply
- Nation-wide reduction of pollutant emission

Global Problems (Global Environmental Problem)

Efforts to address Climate Change

Needs for Environmental Improvement

Co-benefits Areas

National & Local Needs

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Japan’s Co-benefits Approach
我が国のコベネフィットアプローチ

Toku...
### Possible Target Areas of Co-benefits

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<th>Co-benefits Action Area</th>
<th>Project Examples</th>
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<td>Air Quality Management</td>
<td>Improvement of combustion efficiency</td>
<td>Air pollutant (SOx, NOx, and dust) reduction</td>
<td>CO2 Reduction</td>
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<td>Waste heat recovery</td>
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<td>Wastewater Treatment</td>
<td>Prevention of methane emission from sludge</td>
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<td>Utilization of biomass residue for energy</td>
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<td>Segregating &amp; composting of municipal solid waste</td>
<td>Proper treatment of waste</td>
<td>CH4 Reduction</td>
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<td>Utilization of biomass waste as energy</td>
<td>Reduction of waste amount</td>
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### Co-benefits CDM Model Projects

- Support scheme newly launched in 2008
- Financial support for initial investment of potential co-benefits CDM projects
- Climate Benefit + Environmental Benefits (air & water quality management and waste management)
Malaysia: Waste Management

- Open dumping of waste under anaerobic condition
  - Serious local environmental issues (pest, fire, odor, landslide and leachate) and climate change issue (CH$_4$ emission)
- Wastes are decomposed to methane (CH$_4$), not CO$_2$ under insufficient oxygen condition

**Climate Benefits**
- Estimated GHG emission reductions
- 162,846tCO$_2$e/9 years
  (Year 2010-2018)

**Local Benefits**
- Improvement of water quality
- Reduction of explosion risk
- Early safe closure of landfill site
- Introduction of new technology
- Prevention of odor

Thailand: Water Quality Management

- Ethanol wastewater → Serious local environmental issues (odor and BOD) and climate change issue (CH$_4$ emission)
- Biogas including CH$_4$ (methane) for electricity generation

**Climate Benefits**
- Estimated GHG emission reductions
- 79,996tCO$_2$e/14 years
  (Year 2010-2024)

**Local Benefits**
- Improvement of water quality
- Reduction of cost for fossil fuel
Bilateral Cooperation on Co-benefits

- In December, 2007, “Statement of intent on environmental protection through the co-benefits approach” signed between
  - Ministry of Environmental Protection (MEP), China and MOEJ
  - Ministry of Environment (MOE), Indonesia and MOEJ

Indonesia-Japan Cooperation

- Term: 3 years (2008-2010)
- Banjarmasin and Palembang as Model Cities
- Tangible Co-benefits Projects
  - Final Disposal Site and Slaughterhouse
  - Preliminary FS in 2008 for selecting possible candidate sites
  - FS in 2009
China-Japan Cooperation

• Term: 3 years (2008-2010)
• Panzhihua (Sichuan Province) as a model city
  ▫ Tangible co-benefits project
    • Environmental Improvement (pollutant emission reduction)
    • GHG emission reduction
  ▫ Quantitative assessment of city’s pollutant reduction plan in terms of GHG emission reduction
  ▫ Capacity building

Way Forward

• Schemes to support activities to bring tangible co-benefits into the reality
  ▫ Evaluation Tool ("MRV" manner)
  ▫ Qualitative/Quantitative Evaluation of Policy/Plan for Local Environmental Improvement
  ▫ Technology Diffusion
• Institutionalization and scaling up of co-benefits in NAMAs (e.g. Development of co-benefits information platform)
• Development of cooperation framework on co-benefits approach in Asia particularly.