

Methane to Markets Partnership Expo  
New Delhi, India  
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## Energy for All: Promoting win-win solutions to harness methane and increase energy access for the poor

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## ADB's Commitment to Energy for All



- ADB's mission: alleviate poverty in developing Asia and the Pacific
- Strategy 2020: long-term strategy for inclusive & sustainable growth
- 2009 Energy Policy:
  - access to energy one of three pillars for ADB's support to the energy sector
  - annual investment of \$2 billion on clean energy from 2013
- Energy for All Initiative

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## Energy for All Initiative

- Develops scalable and replicable approaches for extending access to modern energy to poor households
- Mainstreams access to energy in ADB's operations through:
  - Project identification, design and development
  - Knowledge management
- Supports the Energy for All Partnership



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## Why Energy for All?

### Energy poverty persists!

- More than 800 million people lack access to electricity in Asia; 1.8 billion people depend on biomass for cooking and heating
- Gender bias : women and children disproportionately affected
- Health issue: indoor air pollution from burning solid fuels kills 1.5 million people worldwide each year.
- Environment impacts: harvesting and burning wood reduces forest cover, increases CO<sub>2</sub> emissions
- Energy a crucial link for poverty alleviation, achieving all MDGs
- Good models exist. Need for new approaches to scale up

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## Energy Access and GHG Emissions

- Universal energy access can be achieved with only minor increases in GHG emissions
  - Achieving universal access to electricity would increase GHG emissions by just 1.3% (IEA, WEO 2009)
  - Fuel switching from biomass to LPG for 2 billion people would increase emissions by 2%, but emissions from unsustainable harvesting of wood and deforestation decline
  - Energy from off-grid renewable sources (solar PV, micro-hydro, biogas) and grid-interactive hydro, solar, wind: reduce emissions
- Energy derived from biogas substantially reduces GHG emissions from fugitive methane and displaced fossil fuels

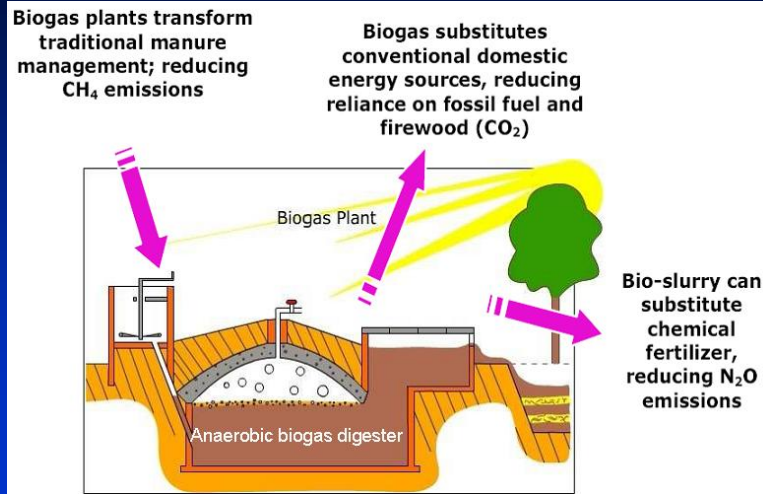
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## ADB Energy Access Projects Reduce Methane Emissions

- Household biogas
  - Viet Nam: \$19 mn loan to expand domestic biogas to 40K households through credit facility
  - Lao PDR: Expanding the existing Biogas Pilot Program into a national program installing 15,000 plants in 12 provinces
  - Bhutan: developing a national biogas program installing about 6,000 plants in 12 provinces
- Large-scale biogas:
  - China: \$80 mn proposed loan for grid-connected biogas production from poultry and livestock farms. Reducing 1.21 mn tCO<sub>2</sub>e/year

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## Household Level Biogas: CDM potential for small farmers



Source: SNV

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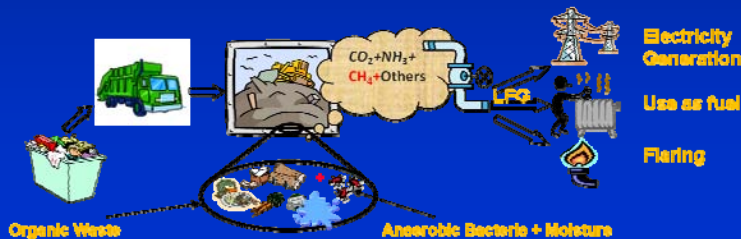
## Potential development impact of carbon finance for HH biogas

Project Title	Biogas Programme for the Animal Husbandry Sector of Vietnam (Programme CDM)
Location	Vietnam
Project Description	140,000 biogas facilities
Capital Investment	\$ 678 (VND 11.86 million) per plant
Source of Emission Reduction	I. Decrease in the consumption of fossil fuels
Emission Reduction	0.561 tCO <sub>2</sub> per year per plant (preliminary estimation)
CER Revenue (10 \$ / tCO <sub>2</sub> )	\$ 56.1 per plant (for 10 years' crediting period)
SD Benefits	<ul style="list-style-type: none"> <li>&gt; Significant reduction of the expenses for domestic energy</li> <li>&gt; Avoidance of the labor required for firewood collection</li> <li>&gt; Application of bio slurry increases the yield</li> <li>&gt; Reduction of respiratory illness resulting from indoor air pollution</li> <li>&gt; Reduction of firewood use, reduction of forest encroachment</li> </ul>

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## Other CH<sub>4</sub> Reduction Technologies Can Increase Access to Energy

- Decomposition of the municipal solid waste in landfills and open dumps release vast amounts of Landfill Gas (LFG) responsible for ~10% of global methane emissions
- Emissions reductions and access to energy opportunities from LFG:
  - Combustion of LFG for electricity generation for off-grid or grid applications, as alternative fuel for cement and brick kilns and other thermal applications
  - When purified to natural gas quality, LFG can be injected into natural gas pipelines supplying fuel for household cooking and heating



## Energy for All Partnership

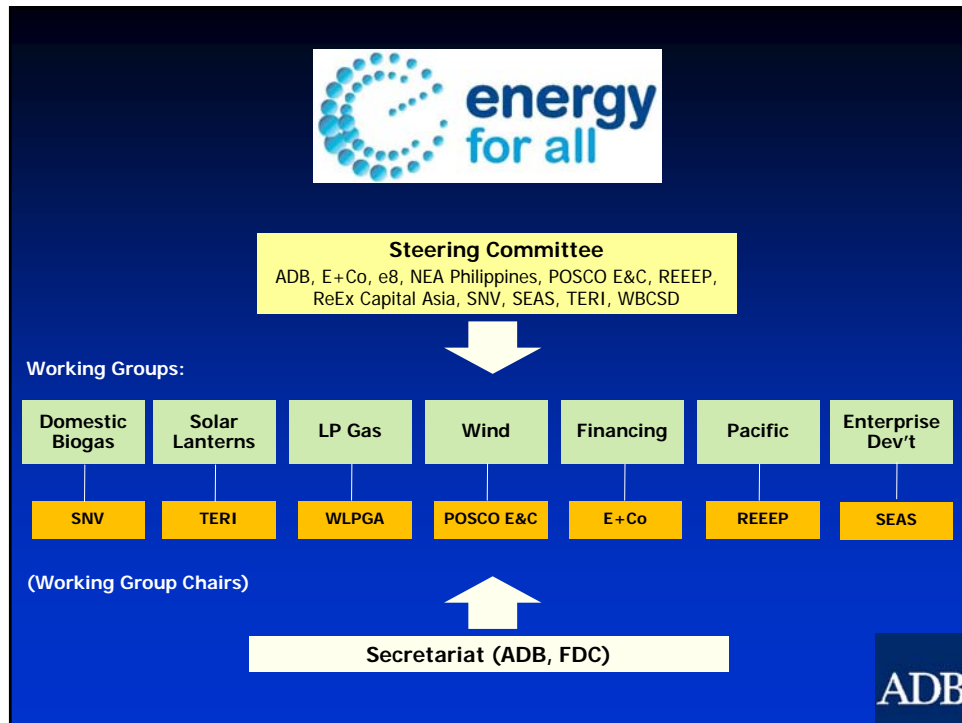
**What:** Regional, multi-stakeholder platform for networking, cooperation, sharing lessons learned, developing “scaling up” pro-poor access to energy projects

**Objective:** Provide access to reliable and affordable modern energy services to 100 million people in Asia and the Pacific by 2015

**Why:** Responds to stakeholders’ call for a regional platform to overcome the challenges of scaling up successful models

**Who:** Brings together key stakeholders from private sector, financial institutions, governments, NGOs. Secretariat hosted by ADB and facilitated by FDC.

**How:** Seed funding provided by ADB for secretariat and working group activities



- ## Working Groups
- Bring together key stakeholders active on a particular technology/issue/region
  - Objective: project development
  - 7 working groups established
    - Technologies: solar lanterns, biogas, LPG, wind
    - Themes: energy enterprise development, financing
    - Geographic: Pacific region
    - 8<sup>th</sup> WG on small hydro planned
  - Secretariat support provided to develop work plans, coordinate with other WGs, carry out activities
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## Working Group on Domestic Biogas

- Convenor: SNV
- Objective:
  - Install 1 million domestic biogas plants in about 15 countries in Asia and the Pacific by 2015/2016
  - providing access to sustainable energy to ~5 million people
- Activities:
  - Feasibility studies in 10 new biogas countries
  - Develop national biogas programs in 15 countries
  - Resource mobilization
  - Networking and joint learning
- Participation from a wide range of stakeholders, countries encouraged!

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## Benefits to Partners

- Networking and mentoring
- Exchange of information and know-how
- Pipeline development
- Access to financial institutions and investors
- Partnerships formed to develop projects
- Newsletter, publications, invitations to Partnership events

*Leveraging activities to achieve greater impact!*

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## Getting Involved

- Register online: [www.energyforall.info](http://www.energyforall.info)
- Contact the secretariat: [secretariat@energyforall.info](mailto:secretariat@energyforall.info)
- Contact working group chairs



## Contact:

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<http://www.adb.org/Clean-Energy/energyforall-initiative.asp>

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