

USAID/India

U.S.-India Collaboration - Methane to Markets Partnership

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**Workshop on
“Landfill Methane to Markets Workshop”
March 9, 2006
New Delhi**



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Outline

- U.S. Approach to Climate Change
- USAID Environment and Energy Program
- Case Study: Petha Waste Activity
- Methane to Markets Partnership
- New Collaborative Activities in India

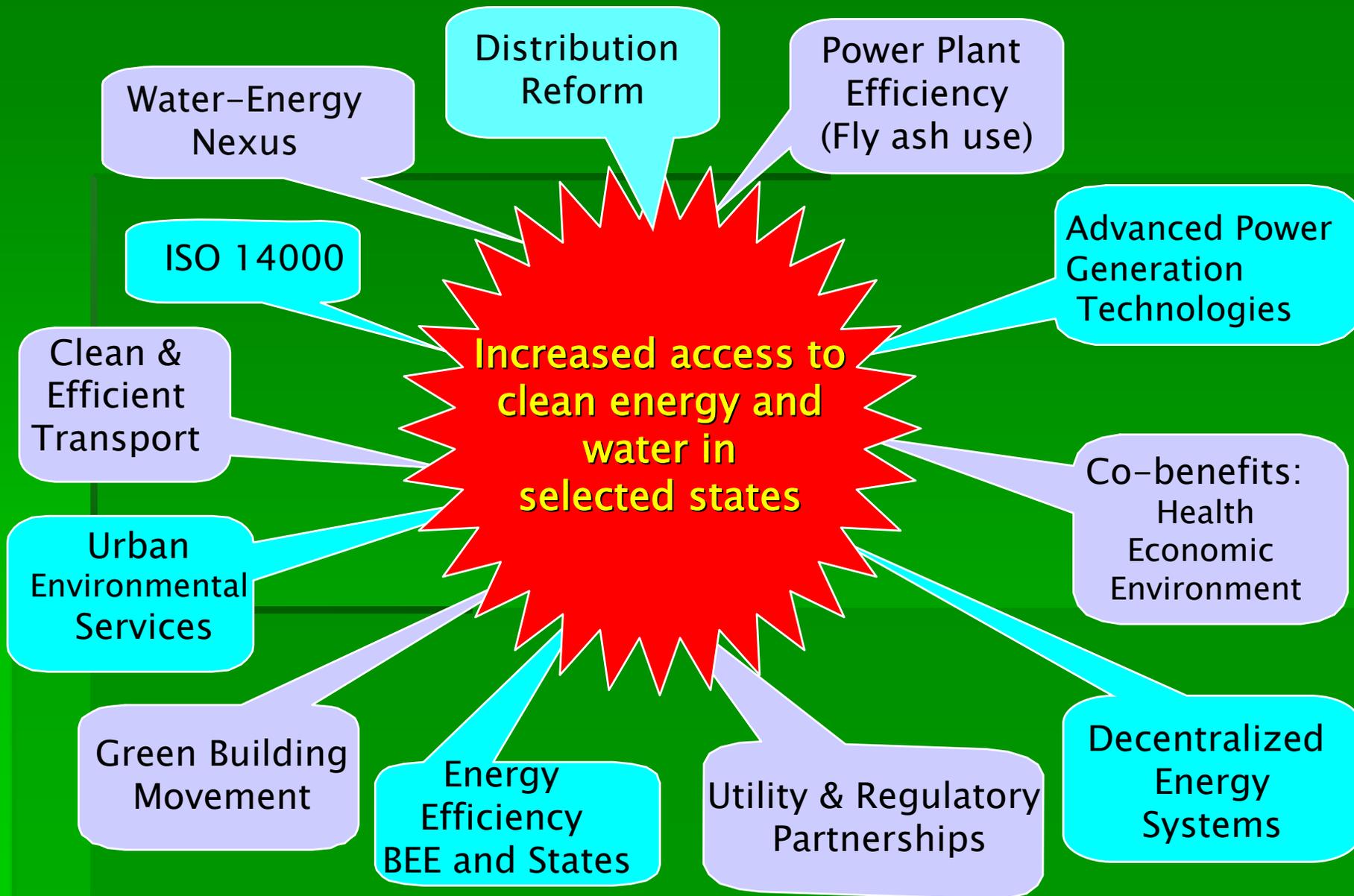
U.S. Government Approach to Climate Change

- Supports UN Framework Convention on Climate Change
 - Represents a long-term commitment
 - Based on science and technology cooperation
 - Ensures economic growth
 - Harnesses the power of markets
 - Seeks global participation
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- Consistent with what USAID has been promoting under our climate change strategy in India for many years.

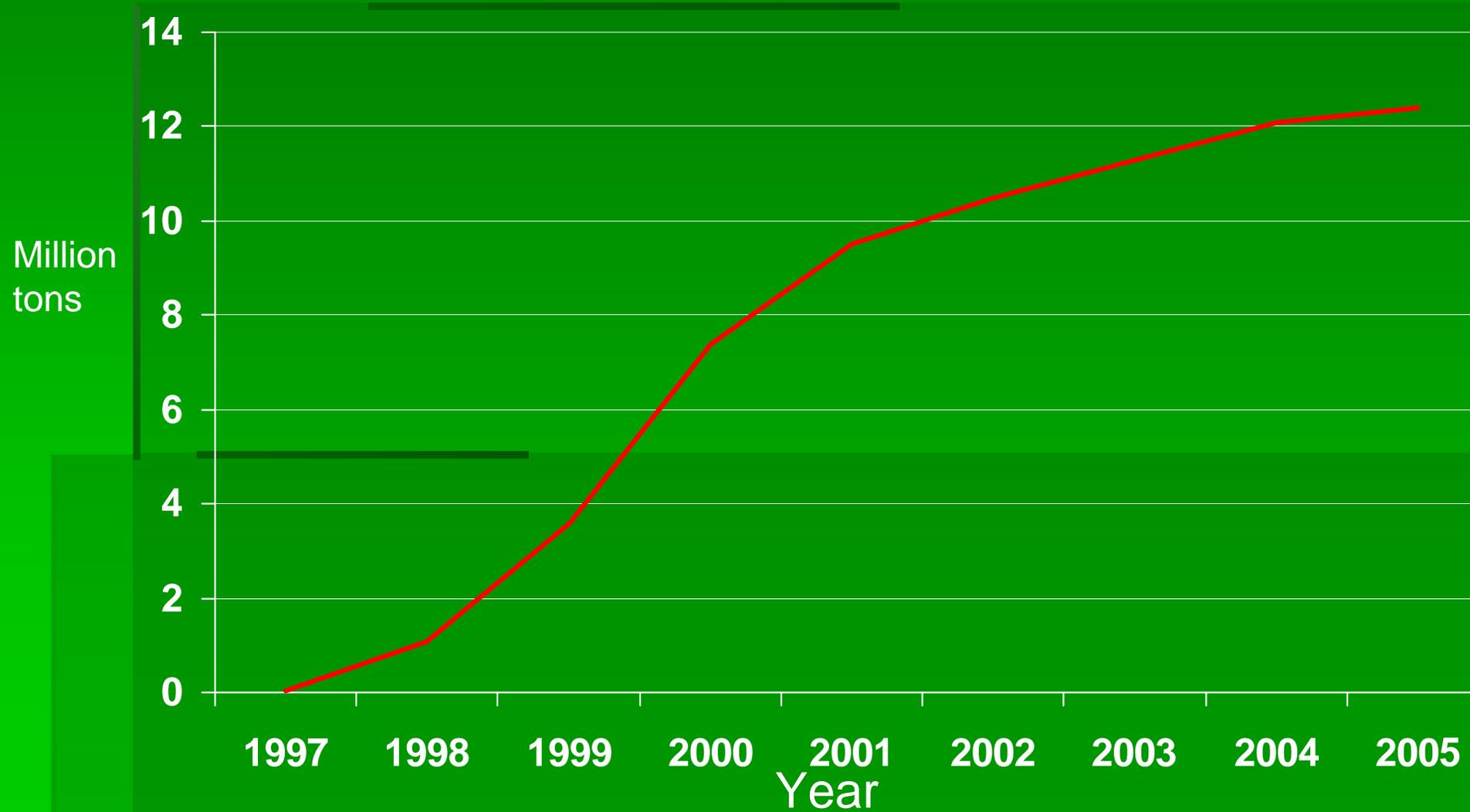
Rationale for US-India Cooperation

- US and India are significant GHG emitters
- US and India share common values:
 - Democracy
 - Economic development
 - Environmental protection
- Relationship is stronger today than ever before
- Cooperation is mutually beneficial for scientific, trade, and policy agendas

USAID/India's Environment and Energy Program



CO2 avoided per annum from USAID/India activities



Waste to Energy Project

Petha Industry

- Agra sweet “Petha” made from pumpkin
- Currently 35 tons per day organic waste
- Petha industry employs thousands
- Industry uses coal for cooking purposes

Converting Challenges into Opportunity...

**PILOT PROJECT FOR SOLID (PETHA)
WASTE MANAGEMENT SYSTEM (BIOGAS PLANT)**

USAID – CTI PROJECT

**DESIGNED AND INSTALLED BY
MAILHEM ENGINEERS PVT. LTD., PUNE**

TEL. : 4002285 FAX : 020 - 4002286

Website : www.mailhem.com

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Biomethanation Pilot Plant for Petha Waste to Energy



Shredder



Primary
Digester

Secondary
Digester

Petha Waste Processing...



Compressor

Gas Receiver
Tank

Biogas
Balloon
Room



Petha Pilot Project

- Demonstrated disposal of waste, 25 – 30 m³ biogas per ton waste.
- Gas used for *petha* and *namkin* processing
- Residue is excellent organic fertilizer
- Gas sample tested at IOC lab
- Can design full scale petha WTE plant

M2M Overview

- Methane to Markets is Presidential Initiative
- 17 countries have joined partnership
- Focus on oil/gas, landfills, coal mining, agriculture (animal) waste
- USG agencies – State, USAID, EPA, DOE, USDA, DOC, USTDA; private sector
- www.methantomarkets.org

Why Methane?

- Greenhouse gas 20 times more potent than CO₂
- Can be captured and used productively for energy generation and other purposes
- Cost effective, clean energy source
- M2M is designed to facilitate investment in capture and use
- Economic, health and environmental benefits by reducing methane emissions and using it for productive purposes

USAID/India Assistance

- Build on access to clean energy and municipal services
- Facilitate partnerships and private investment
- Reduce investment risk or capital costs
- Total of \$400K for up to six projects
- Concrete demonstrations that prove concept

Next Steps

- Continue telling story
 - Build Coalitions (Link to M2M)
 - Demonstrate
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- Unify Environment and Economic Development Paradigm

Dhanyavada



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