

Session 21: Clean Energy Projects

Investing in Inclusive Growth through Energy Access

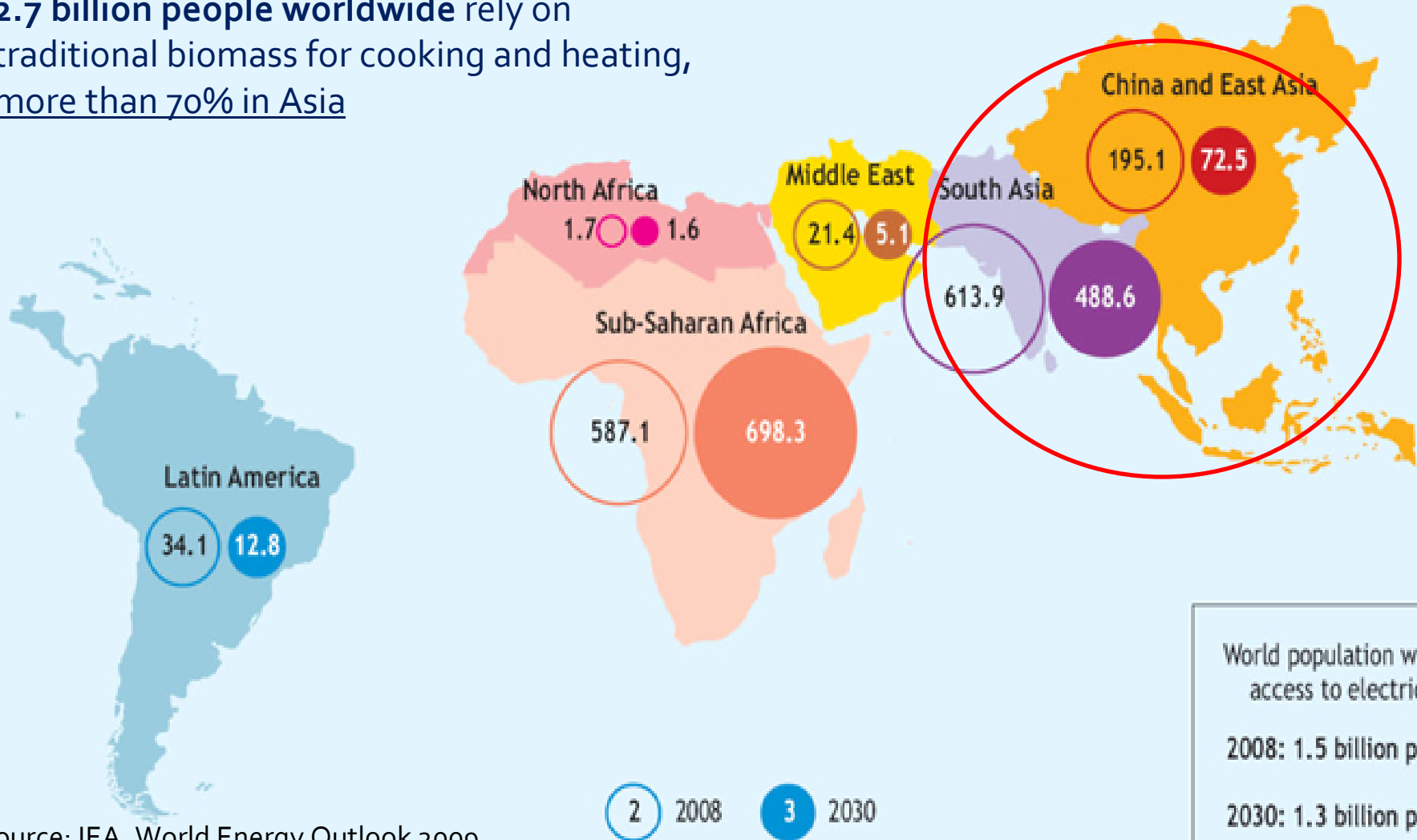
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Asian Development Bank
4 November 2010



Energy poverty persists in Asia

1.4 billion people worldwide lack access to electricity, 800 million in Asia (IEA 2010)

2.7 billion people worldwide rely on traditional biomass for cooking and heating, more than 70% in Asia



World population without access to electricity
 2008: 1.5 billion people
 2030: 1.3 billion people

ADB's Response: Energy for All

- underpins ADB's **Strategy 2020**
- one of three pillars of ADB's **2009 Energy Policy**
- key component of ADB's clean energy and climate change agenda



Energy for All Initiative: a two-pronged approach

Internal: mainstream access to energy for the poor

External: pursue partnerships to tackle energy poverty



Photo credit: Abbie Trayler-Smith / Panos Pictures

Energy for All Partnership

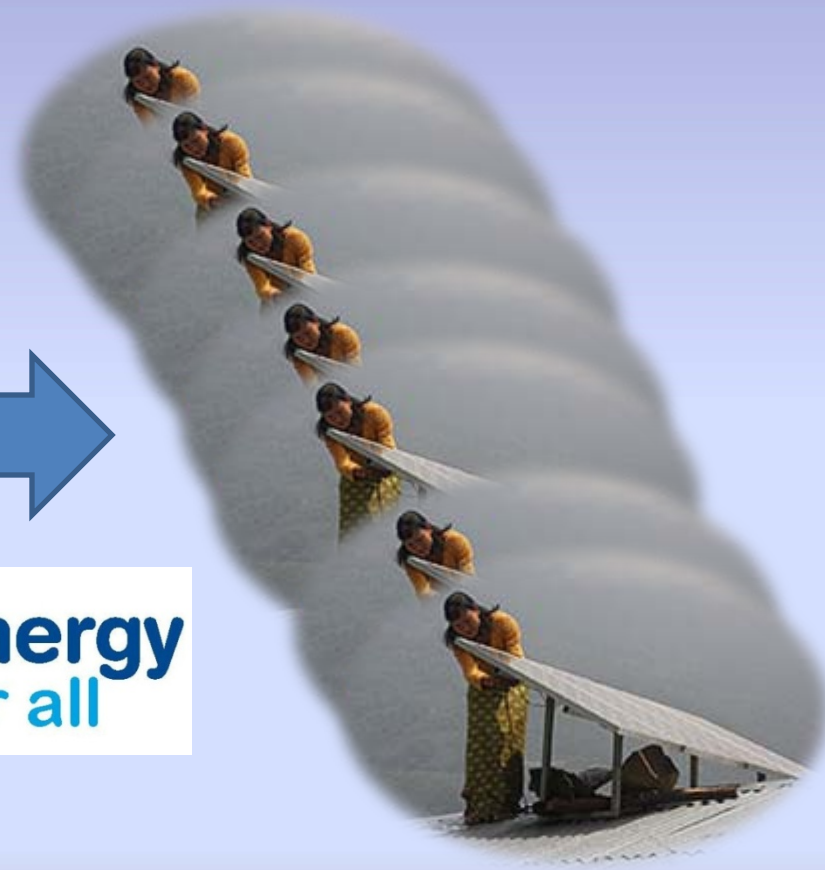


Objective: access to energy to 100 million people by 2015

Energy for All Partnership is a Vehicle for Scaling Up



2010

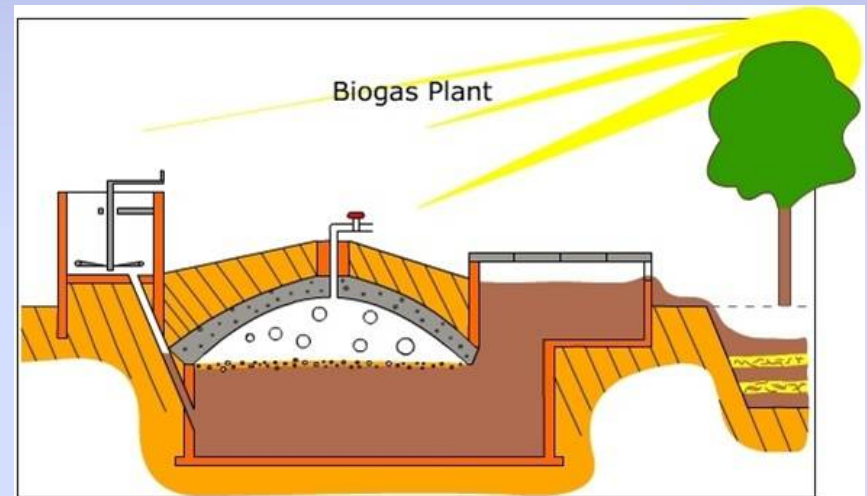


2015

Working Group on Domestic Biogas

Target: 1 million domestic biogas installations by 2016

- Strategy
 - Scale up ongoing biogas programs in 9 countries
 - Initiate new programs in 6-7 countries
- Progress
 - ADB investing in projects initiated by working group in Vietnam, Bhutan and Laos
 - ADB, SNV, KfW are in exploratory talks to establish a regional fund to finance biogas



Source: SNV

Working Group on Solar Lighting

Target: Clean, modern lighting for 50 m people by

2015

- Strategy
 - “Lighting for All” regional platform to promote off-grid lighting – focus on quality, financing, enabling framework
- Progress
 - Supporting projects to transfer technology and business models in Cambodia, Indonesia and soon Philippines



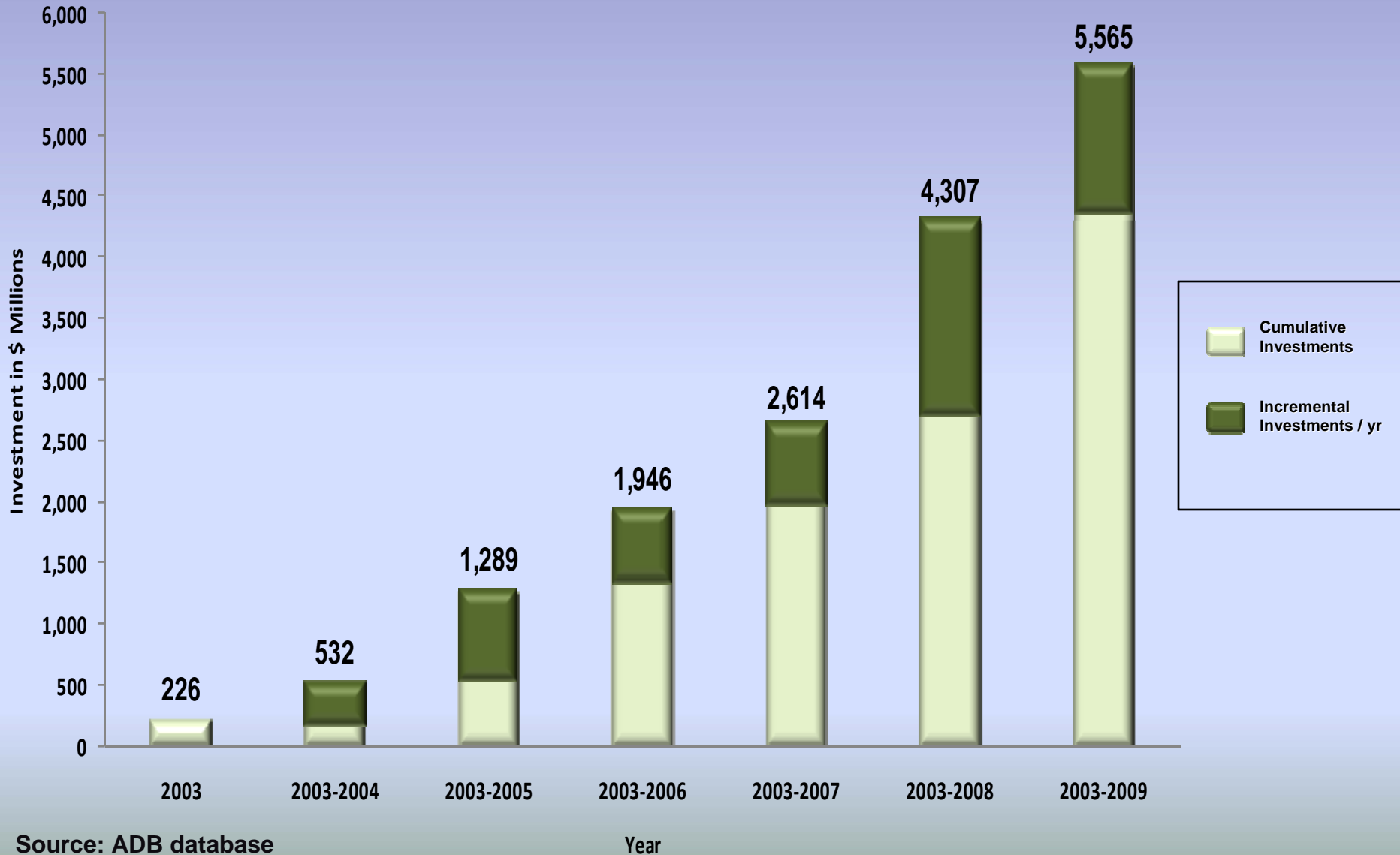
ADB Private Sector Investment in Energy Access

- Sungas LLC, LPG Distribution, Afghanistan
 - ADB investing up to \$8 million equity
 - Company building LPG distribution centers in 6 Afghan cities.
 - 230,000 households to switch from solid fuels to LPG by 2019



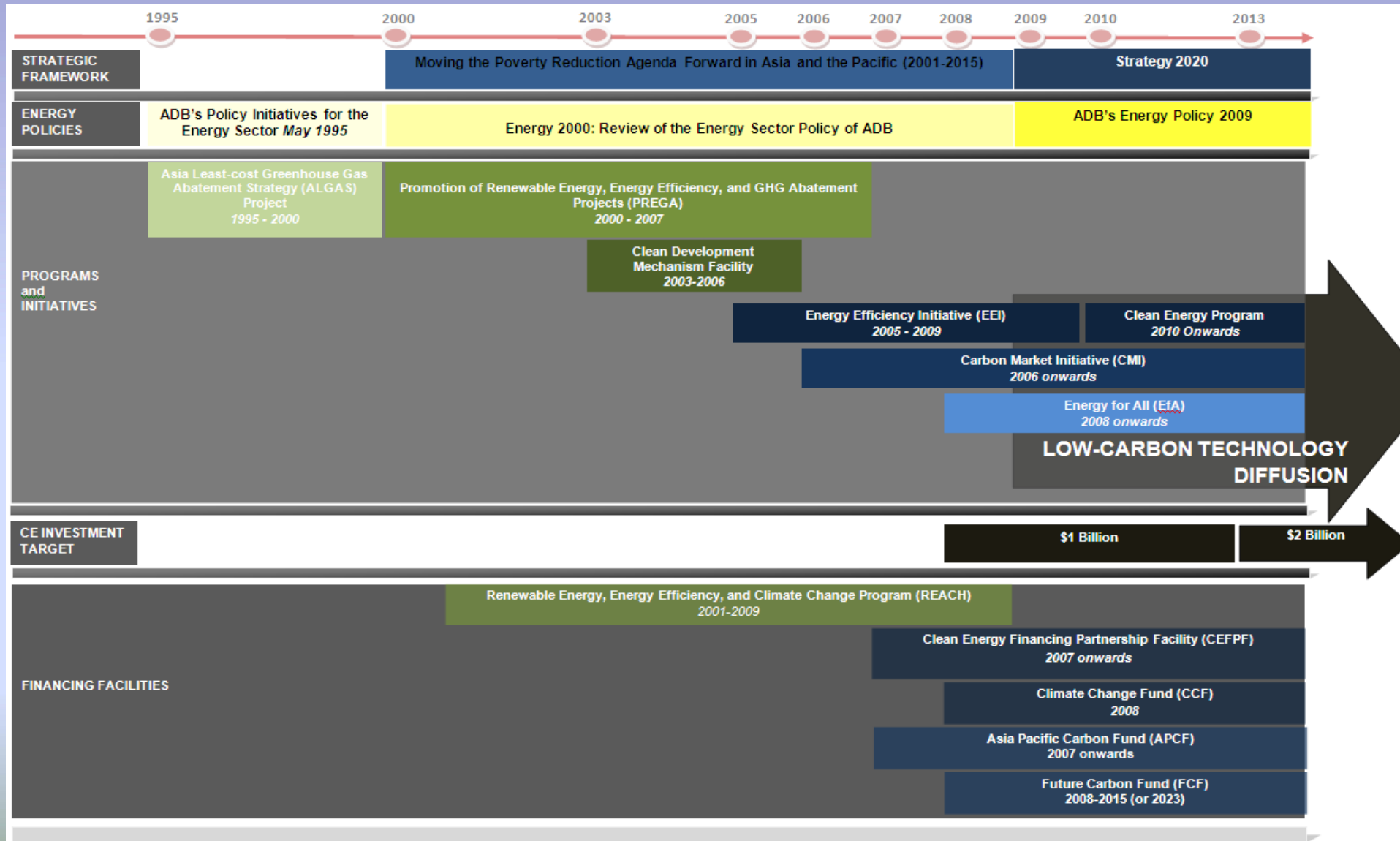
ADB's Clean Energy Program

ADB CE Investments 2003-2009

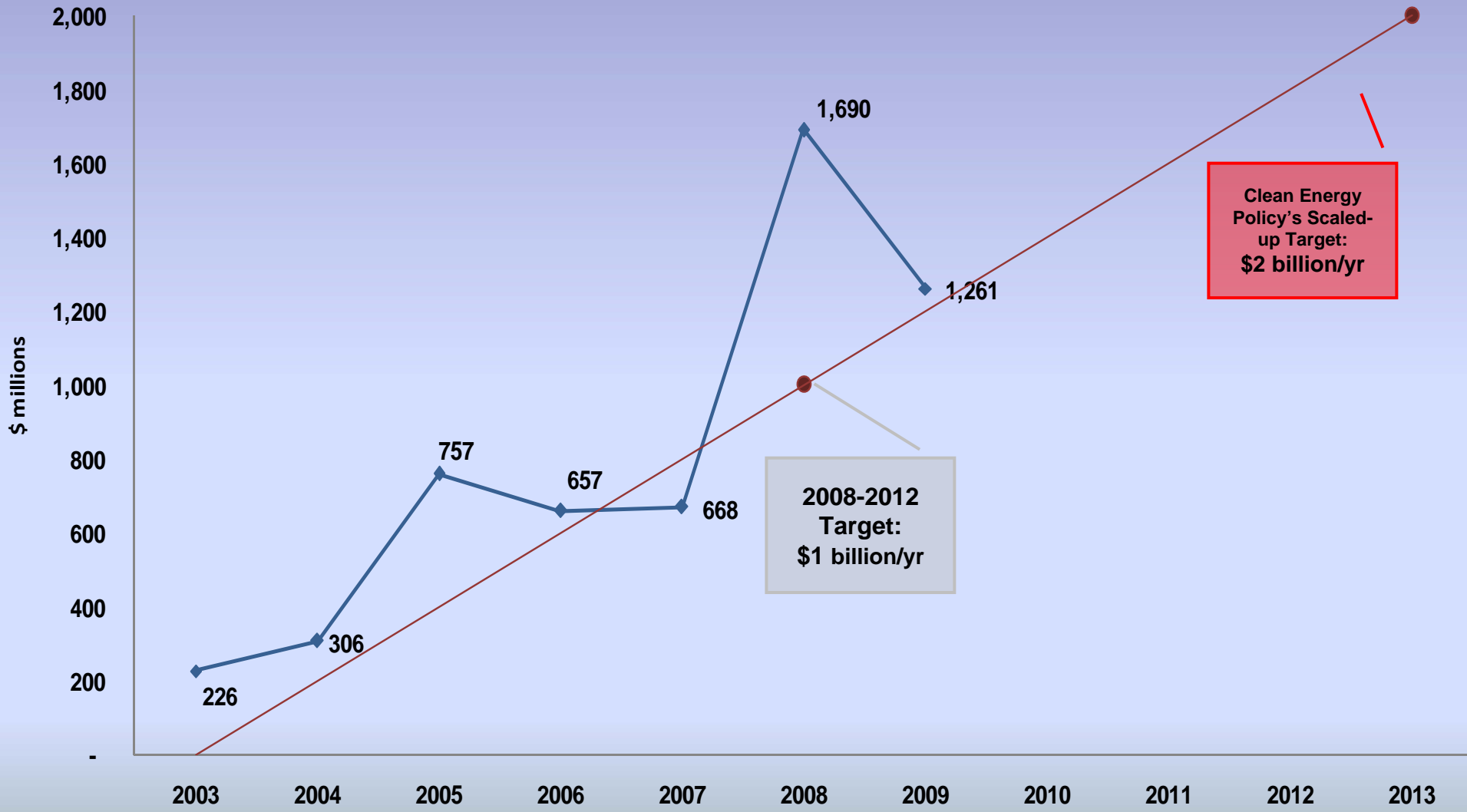


Source: ADB database

ADB's Clean Energy Agenda



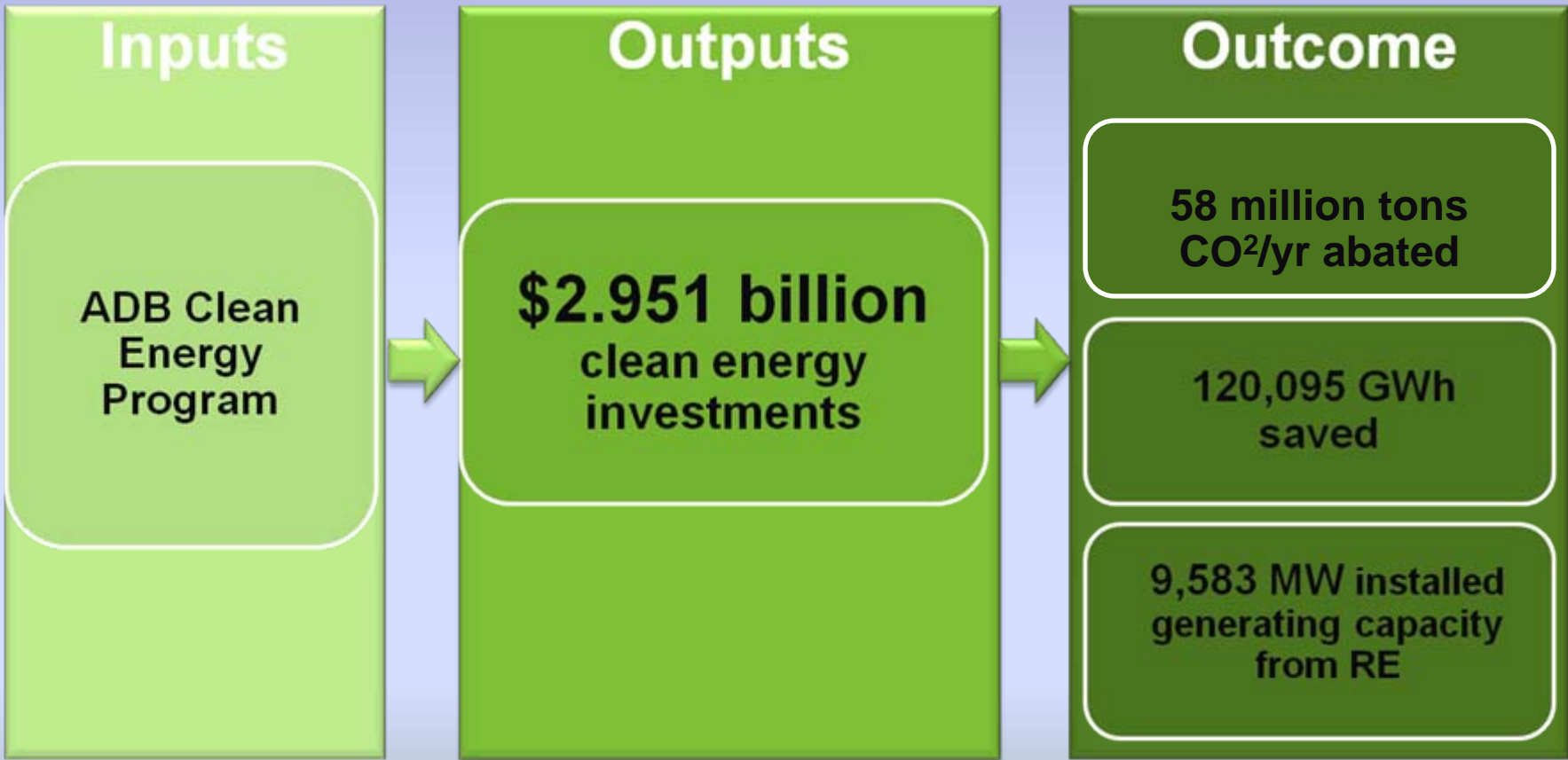
Scaling-up Clean Energy Investments



Clean Energy Policy's Scaled-up Target: \$2 billion/yr

2008-2012 Target: \$1 billion/yr

Clean Energy Activities Toward Outputs, Outcomes and Impacts (2008-2009)



Source: ADB database

Catalyzing Rapid Clean Energy Technology Diffusion

- **First Asia Solar Energy Forum**

This will serve as a platform to lower key barriers to developing utility-scale solar PV and concentrated solar thermal technology while developing incentives to accelerate technology diffusion in the region.

- **Quantum Leap in Wind/Small Wind**

These programs are intended to aggregate the market for wind to lower cost of technology and catalyze deployment in the region

Facilitating Clean Energy Technology Development and Diffusion

- **Asia Clean Technology Exchange**

Establish a marketplace to support willing buyers and sellers of low carbon technologies to facilitate technology transfer and rapid diffusion of these technologies in the region.

- **Asia Clean Energy Venture Initiative**

Provide early equity to start-up Asian companies with readily deployable clean energy technologies to: (i) kick-start the development of nascent eligible technologies; and (ii) helping minimize perceived risk of investing in target technologies among potential co-investors.

- **Working with the P8**

The P8 Group brings together senior leaders from twelve of the world's largest public pension funds to develop actions relating to climate change.

Supporting growth through clean and environmentally sustainable energy

- **Energy for All**

Lead efforts to expand access to energy - investments in 2009 of about \$420 million, and connecting over 220,000 households to electricity and almost 35,000 households to modern fuels for cooking and heating.

- **Sustainable Transport Initiative**

Fundamental change in transport policy to "avoid-shift-improve" approach - integrating land use developments with mobility demands to avoid the need to travel; promotes the shift to energy efficient modes of transportation; improve vehicle and fuel technologies.

- **Cities Development Initiative for Asia**

Works with cities, development partners, and the private sector to implement needed investments for sustainable urban development, such as public transport, solid waste methane capture, energy efficiency in buildings, and alternate energy sources.

- **Carbon Capture and Storage (CCS)**
Produce a comprehensive road map for CCS demonstration projects, as well as policies, legal and regulatory frameworks to overcome barriers to broad commercial scale deployment of CCS in the region
- **Renewable Energy Certificate (REC)**
Market-based instrument to promote renewable energy - provides flexibility and innovative funding mechanism to support renewable energy development without actually receiving electricity generated by renewable energy.
- **Regional Policy and Regulatory Dialogues: Bridging the Gap for Renewable Energy and Energy Efficiency**
Work with partners to develop a dialogue intended to break down regulatory and policy barriers to improve the environment for clean energy investment and promote energy efficiency and renewable energy markets.