



**Africa ETF**

# **World Bank Energy Trust Funded Programs**

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# Agenda

- 1. Short presentation of the Three Energy Trust Funds**
- 2. Opportunities for the private sector**

# What are the Energy Trust Funded Programs?

Presently, the World Bank manages three energy trust funded Programs:

- **ESMAP** – Energy Sector Management Assistance Programme (1983)
- **ASTAE** – Asia Alternative Energy Program (1993)
- **AETF** – Africa Energy Trust Fund (replaced AFFREI and RPTES- 2004)

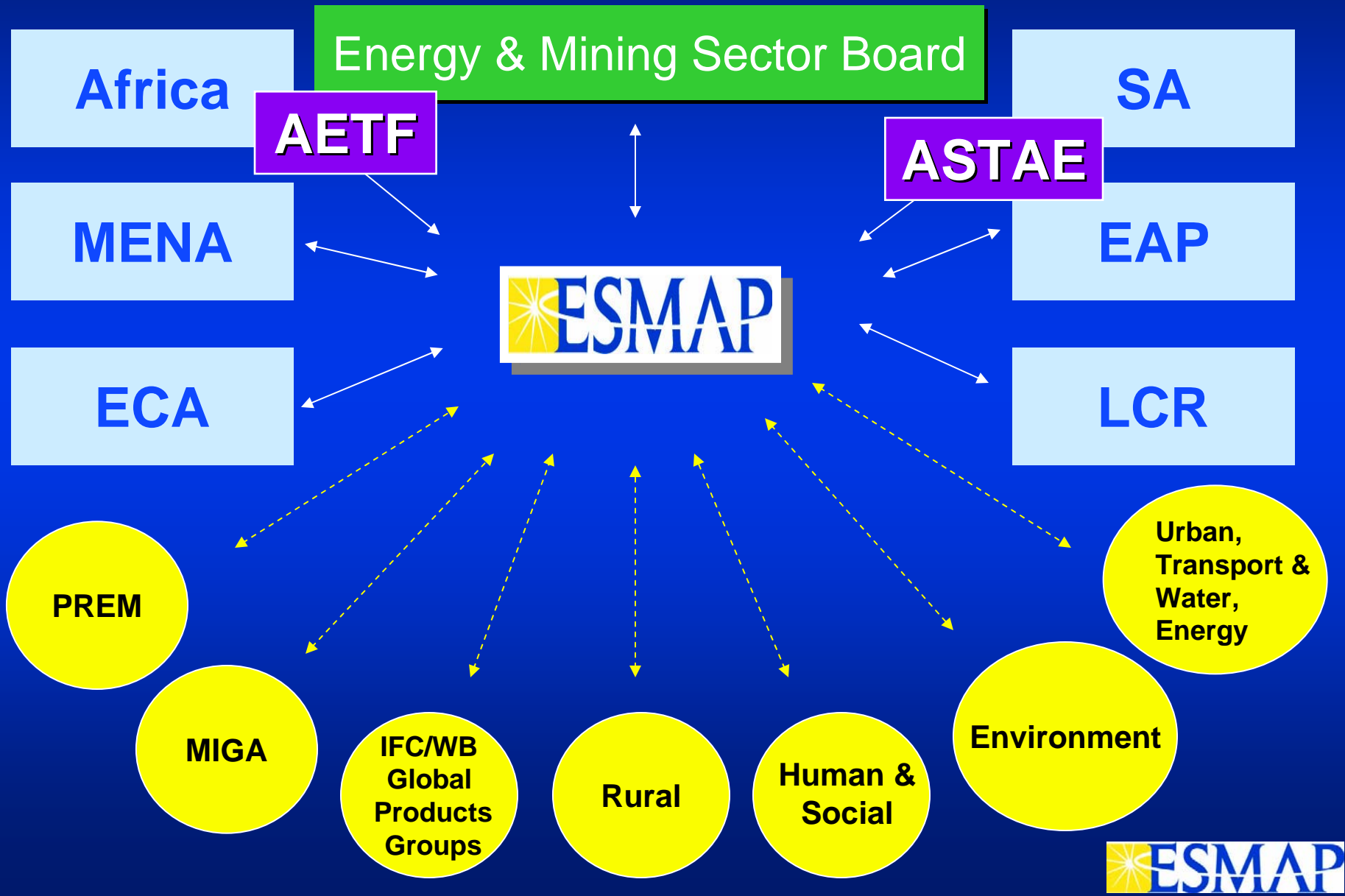
Financed by a number of donors, they provide about \$12-15 million dollar a year to undertake innovative work.

These are additional to those managed by IFC and the Carbon Finance Group

# Purpose of the Energy Trust Funded Programs

- To help find solutions to secure energy services for underserved people or countries, i.e. to increase access to modern energy services for the 2-3 billion poor.
- ESMAP: to provide technical assistance
- ASTAE: to promote the use of alternative energy technologies
- AETF : to find innovative solutions for rural energy (AFFREI) including the use of traditional biomass (RPTES)

# ETFPs in the Energy Practice



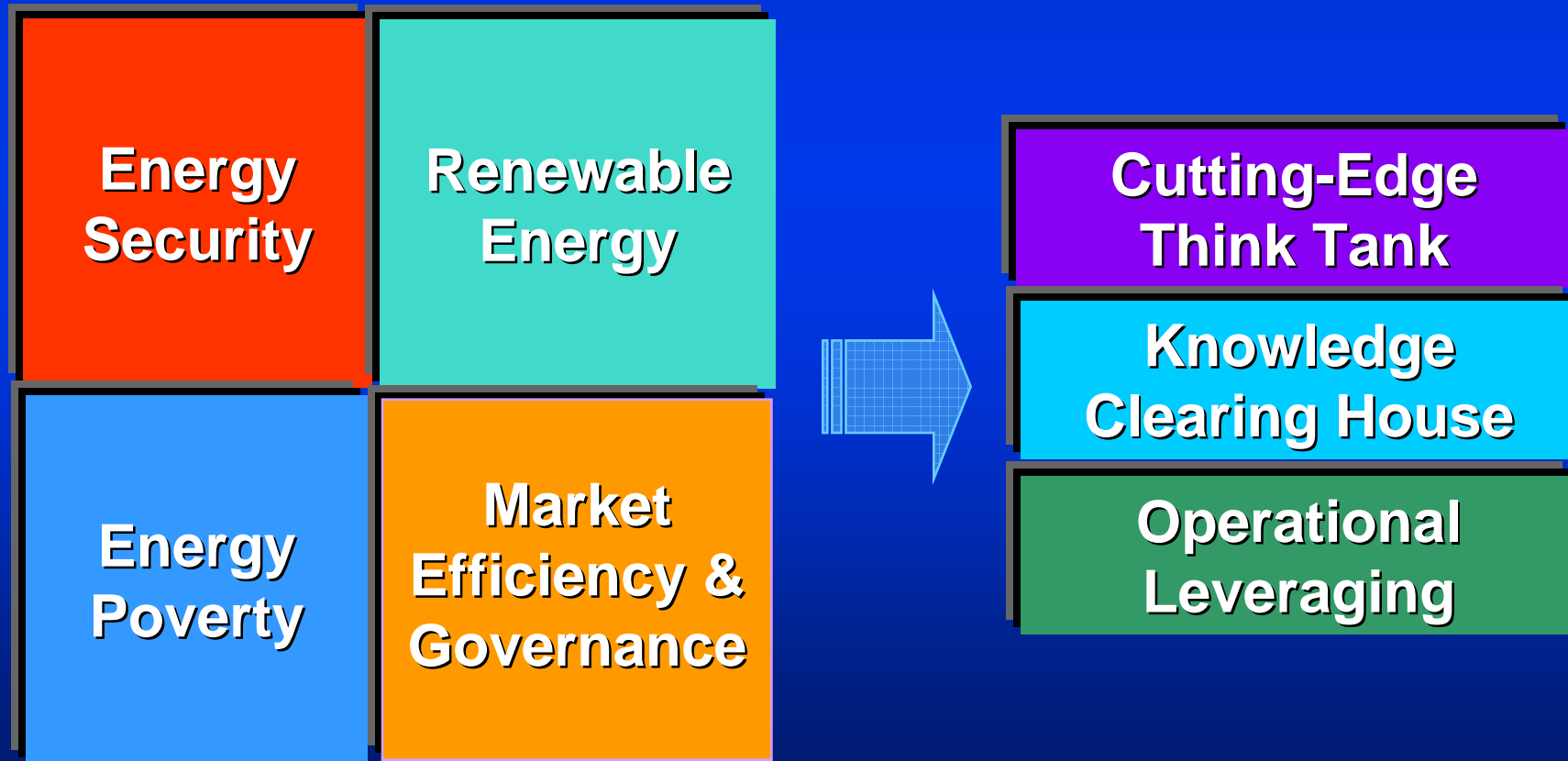
# Donors

- Denmark (DANIDA)
- Sweden (SIDA)
- Netherlands (DGIS)
- Canada CIDA
- UK (DFID)
- UNDP
- USDOE
- UN Foundation
- Finland
- Belgium
- Switzerland
- Norway
- Germany BMZ/GTZ
- EC
- USAID
- Japan

# ESMAP?

- Partnership including: World Bank, UNDP, Bilateral and Private donors, Recipient Countries, Energy Institutions.
- 20+ donor organizations
- Global Technical Assistance Program.
- Focuses on both Pre-investment and Ex-Post Activities.
- Currently funding 100+ Projects.
- 80% Donor Funded, 20% World Bank Group.
- 2005-2007 Business Plan: \$45-50 million

# Business Plan 2005-2007: Four Thematic Programs & Three Operational Functions





# Four Thematic Programs

## ■ Energy Security

- Map the macro economic impact of hydrocarbon price volatility
- Deepen understanding of responses to price instability
- Analyze solutions such as portfolio diversification, energy efficiency

## ■ Renewable Energy

- Support implementation of commitments made at 2004 Bonn conference
- Help develop implementation tools, RE toolkit, financing mechanisms
- Help countries develop their Legal, regulatory frameworks, identify new investment opportunities

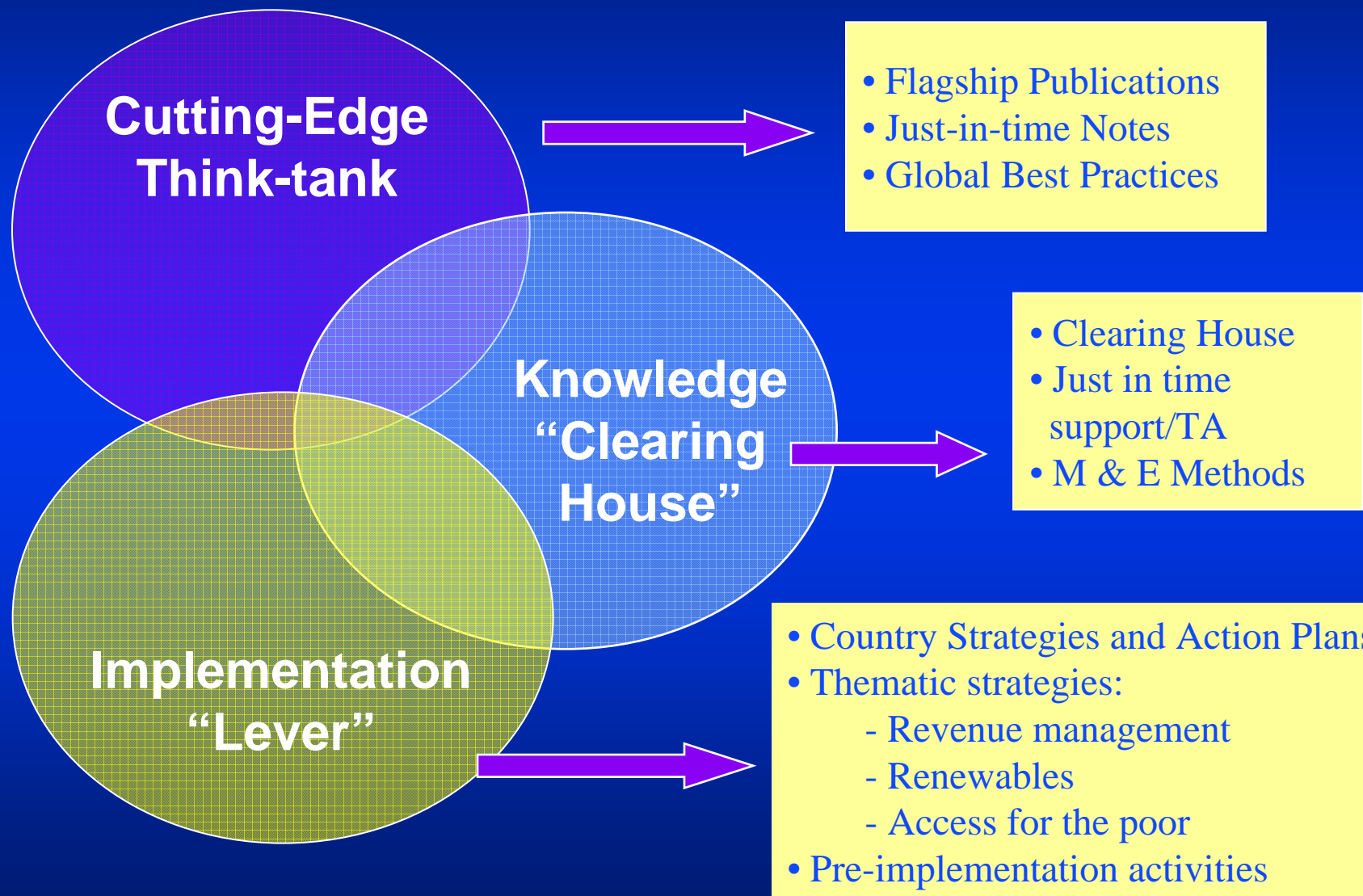
## ■ Energy-Poverty

- Support scaling-up initiative
- Analytical work and knowledge dissemination on Peri-urban issues
- Analytical work on such issues as Subsidies

## ■ Energy Market Efficiency & Governance

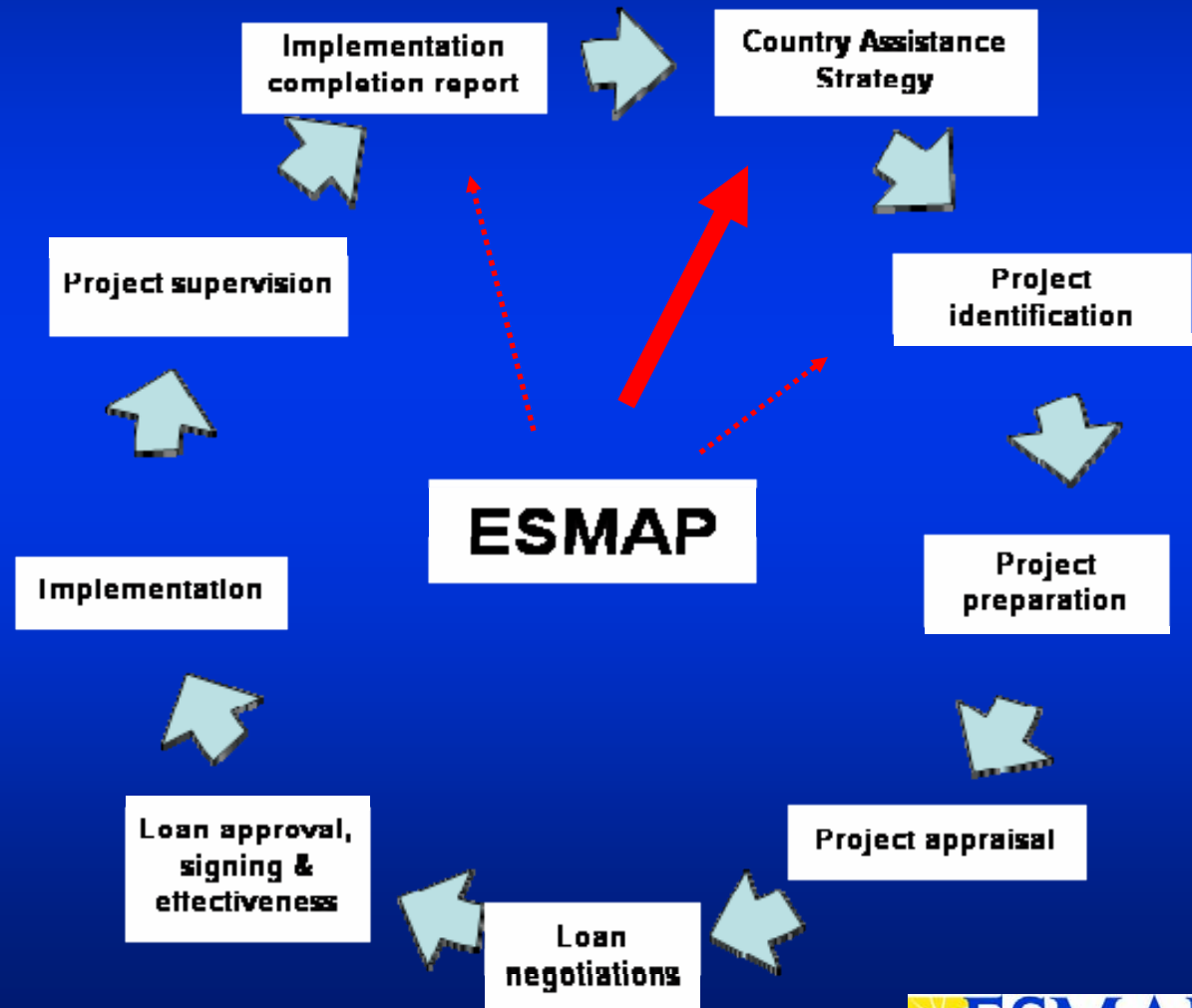
- Building up Public-Private partnerships
- Improve capacity of policy makers and regulators
- Regional Power Trade

# Three Complementary Operational Functions



# ESMAP work w/in the WBG Project Investment Cycle

1. Primarily focused on development of Country Assistance Strategies.
2. Also assists in pre project identification work...
3. And project completion / “lessons learned” / knowledge dissemination work.



# ESMAP Products & Services

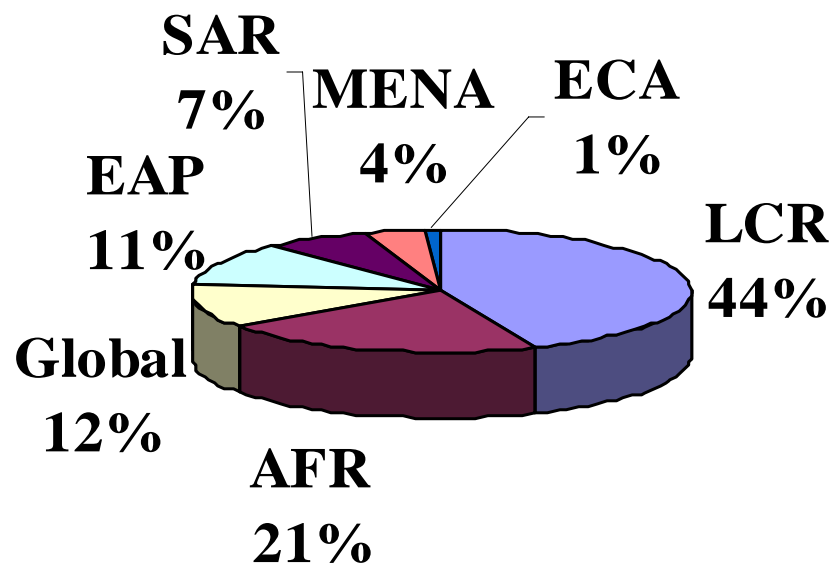
- Technical Assistance
- Capacity Building & training
- Knowledge Dissemination
- Publications: e.g. Country Energy Assessments. 40-50 publications a year
- New investments identified

[www. Esmap.org](http://www.Esmap.org)

# ESMAP Rural and Renewable Energy Program: 1997-2004

70 projects, totaling \$17 million, 40% of total ESMAP portfolio cost

**ESMAP RE Activity by Region**



# ESMAP Renewable Energy Portfolio

## 1. Business models:

- Fee for service model: *PV in Bolivia*
- “Concession” model: *PV in Comoros*
- Management contract model: *Micro-hydro in Peru*
- Introducing small batteries for SHS: *Kenya*

## 2. Financing mechanisms:

- Consumer credit mechanisms: *SHS in Kenya*
- Financing SMEs (suppliers): *Biomass Fund in Bolivia, Village Power Fund in the Philippines, Financing women micro-enterprise in Bangladesh*

# ESMAP Renewable Energy Portfolio (cont.)

3. Productive use applications:
  - *Passive solar heating for rural schools in Bolivia*
  - *ICT services from solar in Honduras*
  - *Ice-making from micro-hydro in the Philippines*
  
4. Renewable energy policies and action plans:
  - *Cambodia, Mexico, Nicaragua, the Philippines, and Vietnam*
  
5. Knowledge generation and dissemination:
  - *Best Practice of Micro-hydro Development*

# Impact on Investments: some examples

## *India: Renewable Energy Strategy*

- Launched the RE program, led to establishment of IREDA
- Today, over 10,000 MW of installed capacity with RE

## *Mexico: TA for Long-term RE Program*

- **Comparative analysis** of economic costs of RE and fossil fuel options:
- **Optimal portfolio analysis:** *substantially increase the share of wind and geothermal*
- **Policy recommendation:** *Auction based least-cost subsidy mechanism (NFFO/CEC)*
- Follow-on \$70 million Bank/GEF project

## *Honduras: TA for SolarNet Village*

- Assisted GoH to test a **less expensive way** to obtain remote **internet and phone access** via solar-powered packet radio transmission
- Rural tele-centers: **education and business development** services (agriculture, flower business, and ecotourism)
- Follow-on \$8.5 million IADB investment



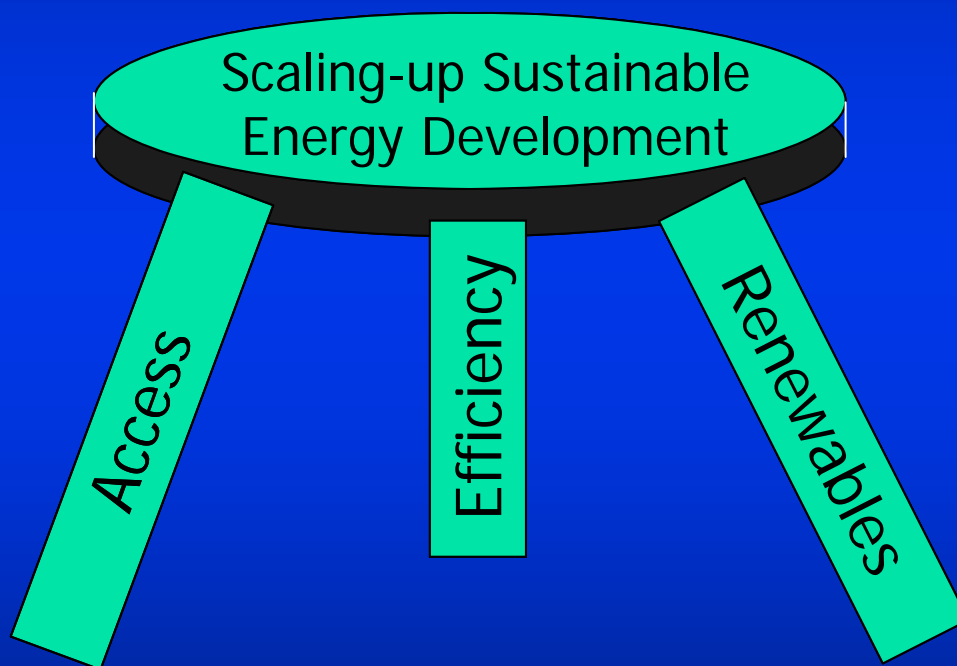
# ASTAE?

- Purpose - mainstream alternative energy services (renewable energy and energy efficiency) in WB operations in Asia.
- Cooperation - with WB staff and client countries to incorporate alternative energy options into the design of energy sector strategies and lending operations.
- Assistance in identifying and preparing RE and EE projects for WB/GEF-supported operations.
- 2004-2006 Business Plan: \$ 7 million

# ASTAE's sharper focus on access

- ASTAE's goal is to "Scale-up the use of sustainable energy options in Asia to reduce energy poverty and protect the environment"
- To scale up access, 'alternative energy' has been expanded to include **non-renewable options focused on poverty reduction**
- Examples of added options: grid extension, off-grid access using diesel, and the promotion of modern fuels for cooking and heating

## Standing on Three Legs



# ASTAE Technical Assistance

- TA provided to improve local expertise, system performance and institutional capability, activities have included:
  - training modules in EE and RE options;
  - formulation of alternative energy policies;
  - design and implementation of pilot innovative delivery mechanisms;
  - technical support to improve the performance and availability of alternative energy systems; and
  - strengthening of institutional capacities.
- Impact: Of the \$209m WB annual lending commitments for renewables and energy efficiency in FY02-04, ASTAE was involved in \$63m. Over 1000 MW of new installed capacity

# AFRICA ETF

## Operational Support

- Project Level Activities
  - ✓ Refining and implementing models and institutions for scaling up access
  - ✓ Deepening direct impact of energy access on productive and human capital
  - ✓ Better managing production and distribution of biomass, wood-fuels etc. in a sustainable and efficient manner
  - ✓ Energy security interventions for poor and vulnerable (taxes, subsidy regimes etc.)

# Analytical and Knowledge Management Activities

1. Improving Utility Performance
  - ✓ Examples – Nigeria, Guinea (Conakry), Zambia, Ghana
2. Learning from Reforms
  - ✓ Some work carried out in Kenya and Uganda
3. Enhancing the impacts of energy access
  - ✓ Some work is being carried out in Ghana and Ethiopia, but this area requires quick, but systematic analysis to really impact poverty reduction and promote growth through energy access.
4. Regional market structures and integration
  - ✓ Some highly challenging and innovative work is underway e.g. Nile Basin, that can change the economies of several countries in the next generation – but countries have to make the right choices

# Modalities for Managing Partner Support

## Operations

- ✓ Stand-alone trust fund for Africa, mainstreamed into Africa operations and managed by AFTEG
- ✓ Quality assurance and deliverables integrated with Africa Region Operational procedures

## Analytical and KM

- ✓ Africa window in ESMAP
- ✓ Programmatic approach
- ✓ Single governance process as per Africa Region guidelines for analytical and sector work
- ✓ Defined resource envelope subject to periodic review

# **ESMAP – ASTAE – AETF**

## **Opportunities for Business**

- **Technical assistance**
- **Policy and strategy and other analytical studies**
- **Development of new product lines**
- **Supply and/or installation of equipment**
- **Other Services**
- **Investment opportunities:**

**Help identify and develop new investments to be funded by governments, IFIs and private investors**

**Help prepare investment climate**

# Information on Business Opportunities

How can I learn about current or upcoming business opportunities?

1. At the World Bank's vendor kiosk:  
<https://info.worldbank.org/vendorkiosk/>  
and procurement website.
2. Development Gateway Market  
<http://www.dgmarket.com/>
3. United Nations Development Business  
<http://www.devbusiness.com/>
4. The Monthly Operational Summary (MOS) reports on the status of projects while they are in the World Bank's lending pipeline.
5. [www.Esmap.org](http://www.Esmap.org)



THANK YOU!