



Energy Sector Management Assistance Program (ESMAP)

A Bridge to a Sustainable Energy Future

HOW WE WORK

ESMAP is governed and funded by a **Consultative Group** of official bilateral donors and the World Bank. With a core team of technical experts located in Washington DC, ESMAP delivers its services through annual block grants to the World Bank's regional units, and through its own analytical and knowledge-sharing activities. A panel of external experts appointed by the Consultative Group—the **Technical Advisory Group**—conducts annual reviews of ESMAP's programs to ensure its efforts continue to serve client countries and provide cutting-edge responses to existing and emerging energy challenges.

ESMAP Consultative Group

| | |
|-----------|-----------------|
| Australia | Iceland |
| Austria | Lithuania |
| Denmark | Norway |
| Finland | Sweden |
| France | The Netherlands |
| Germany | United Kingdom |

Co-Sponsoring Organization: The World Bank





The **Energy Sector Management Assistance Program (ESMAP)**—a global program administered by the World Bank—helps low- and middle-income countries to develop the policies, strategies and institutions necessary for sustainable solutions to energy challenges. Since its inception in 1983, ESMAP has supported more than 800 energy-sector activities that promote poverty reduction, economic growth and low carbon development in over 100 countries.

FOCUS AREAS

ESMAP's efforts focus on: **energy security, energy access, and climate change.**

Energy Security

To help ensure long-term energy security, countries are looking closely at renewable energy, efficiency practices and technologies, diversification of supply, and improved sector performance. ESMAP assists its clients to carry out energy assessments and develop strategies to enhance sector planning, regulation, and governance.

Energy Access

About 1.4 billion of the world's people still lack access to electricity, and poor households spend US\$20 billion a year on low-quality, fuel-based lighting. Respiratory diseases are widespread among the 2.7 billion people who still rely on biomass for cooking, with women and children hit the hardest. ESMAP supports initiatives to reduce energy poverty by expanding access to modern, safe, affordable and sustainable energy services. ESMAP's energy access work covers electrification and household energy needs in rural areas and for the urban poor.

Climate Change

Climate change will directly affect energy resource endowments, infrastructure, and transportation, as well as energy demand. ESMAP assists client countries to integrate climate change mitigation and adaptation options into energy sector planning. ESMAP also supports the scale-up of renewable energy through resource assessments, strategy development, and policy and institutional development.

OUR SERVICES

ESMAP fills three key roles in sustainable energy sector development:

Analytical Work | ESMAP produces high-quality research to inform policymakers of cutting-edge solutions to global energy challenges, while sponsoring a broad range of analytical and advisory services in its client countries.


Knowledge Clearinghouse | ESMAP shares tools, best practices, and lessons learned through training events and knowledge exchanges intended to enhance clients' capacity to design and implement energy sector strategies and programs.


Operational Leveraging | Through the World Bank's regional teams, ESMAP informs lending programs on energy and provides clients with just-in-time technical assistance to help them translate policies and programs into results on the ground.



KNOWLEDGE TOOLS


ESMAP's knowledge tools give planners the hands-on ability to create innovative assessments, customized based on national and city-level data, to guide decision-making.

 **EFFECT** Energy Forecasting Framework & Emissions Consensus Tool is a bottom-up, engineering-style model that analyzes greenhouse gas emissions growth for a range of development scenarios. By looking at both energy demand and supply, EFFECT develops 25-year emissions forecasts that help prioritize reduction interventions and investment plans.

 **HEAT** Hands-On Energy Adaptation Toolkit is designed to help countries carry out a risk assessment of climate vulnerabilities and identify adaptation options for the entire energy supply-use chain.



mac tool Marginal Abatement Cost Tool gives planners the ability to quickly compare the costs and benefits of mitigation options by measuring their marginal abatement cost—the cost per ton of carbon emissions avoided.

 **TRACE** Tool for Rapid Assessment of City Energy offers cities a quick and easy way to assess their energy efficiency and to identify appropriate interventions across six sectors: transport, buildings, water and waste water, public lighting, solid waste, and power and heat.



In the five fiscal years to 2010, ESMAP's technical assistance and analytical work helped shape projects and programs totaling US\$16 billion in World Bank Group financing.

RECENT ACHIEVEMENTS

- ▶ Provided analyses and recommendations for over 30 countries as they developed new national energy strategies, institutions, and regulations.
- ▶ Supported **Low Carbon Growth Country Studies** in Brazil, China, India, Indonesia, Mexico, Poland, and South Africa to identify greenhouse gas mitigation opportunities and the financial, technical and policy requirements needed for a transition to a low carbon development path.
- ▶ Supported **Lighting Africa** in building the market for off-grid lighting products and developing **sector-wide investment plans** in Kenya and Rwanda that mobilized US\$1 billion for energy access programs.
- ▶ Through the **Energy Efficient Cities Initiative**, developed public procurement guidelines for energy efficiency services and best practices on building codes to help city officials design and implement efficiency programs.
- ▶ Supported the **Africa Electrification Initiative** to create a body of practical knowledge and sustain a network of practitioners in the design and implementation of on-grid and off-grid electrification programs in Sub-Saharan Africa.
- ▶ Catalyzed scale-up programs for **concentrated solar power** in India, and in the Middle East and North Africa.
- ▶ Conducted rapid diagnostic assessments of the short- to medium-term effects of the global financial crisis on high-priority investments in the power sector in 18 developing and transitional countries. Several projects identified in the **vulnerability assessments** are being prepared for World Bank financing.
- ▶ Supported over 200 analytical and advisory activities, with US\$50 million in grants disbursed, since FY2009.



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