

Strategic Business Plan

2008-2013



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By 2030, the International Energy Agency estimates that 1.4 billion people will still lack access to electricity, while 2.7 billion will remain dependent on biomass fuel.

# **Message from the Program Manager**

The international donor community agrees that the primary goal of governments in energy sector management is to provide clean, reliable, and affordable energy services to as many people as possible. The overriding global challenge for us all is how to promote environmentally sustainable energy solutions for poverty reduction and economic growth. Given the complexity of this global challenge, closing the energy access gap in low- and middle-income countries presents a formidable task.

Since its inception over 25 years ago, ESMAP's primary mission has remained steady: to assist its client countries to increase know-how and build institutional capacity for energy sector management. This Strategic Business Plan reinforces ESMAP's commitment to its client countries on energy security and energy poverty, including a heightened focus on social dimensions. It also introduces a new focal area for ESMAP initiatives that extends engagement with client countries to encompass the energy security, energy access, and climate change nexus. Moreover, ESMAP's transition from a three- to a five-year business planning cycle better enables ESMAP management to cultivate more meaningful, longer term strategic partnerships necessary to achieve "win-win-win" energy solutions for poverty reduction and sustainable economic growth.

ESMAP's management is grateful to all those from its client countries, existing and prospective partners, and the Consultative Group who have contributed to the conceptualization of this results-oriented Strategic Business Plan.

Amarquaye Armar Program Manager

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# **Executive Summary**

The Energy Sector Management Assistance Program (ESMAP)—a global knowledge and technical assistance partnership administered by the World Bank and sponsored by official bilateral donors—assists low- and middle-income countries, ESMAP's clients, to increase know-how and institutional capacity to achieve environmentally sustainable energy solutions for poverty reduction and economic growth. Since its inception over 25 years ago, ESMAP has achieved a comparative advantage as a client-centered partner that serves the global energy practice and as an honest broker that addresses issues in a balanced way.

In the context of ESMAP's client countries, fulfilling the primary role of energy sector management—promoting and securing access to energy for poverty reduction and economic growth—presents a formidable task. The overriding challenge is ensuring secure energy supplies amid uncertain and volatile commodity markets and global financial turmoil, while achieving the Millennium Development Goals and mitigating and adapting to climate change.

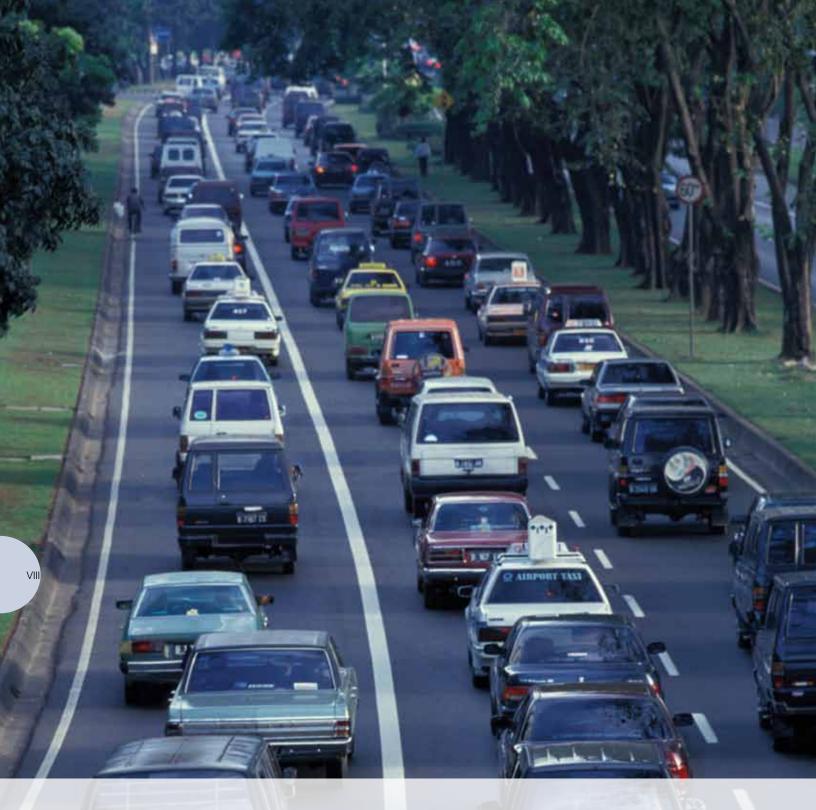
In response to the global thematic challenges embodied herein, this strategic business plan introduces a new focal area for ESMAP initiatives that expands the engagement with client countries to the energy security and climate change nexus. To promote greater coherence of effort with development partners and major stakeholders, ESMAP will implement a systematic and selective framework to establish and bolster multi-year partnerships with a select group of internal and external organizations.

To tackle this multidimensional issue effectively over the medium term, members of the Consultative Group (CG) for the Energy Trust Funded Program reached a consensus that the ESMAP 2008–13 Strategic Business Plan aligns with three interlinked, global thematic challenges: energy security, poverty reduction, and climate change. To meet these challenges, ESMAP works in three core ways. As a think tank, ESMAP sponsors a broad range of analytical and advisory (AA) activities

aimed at delivering high quality advice to influence policy making by its client countries and broaden knowledge horizons about cutting-edge energy solutions for global thematic challenges. Drawing extensively on knowledge generated from its think tank function, ESMAP's knowledge clearinghouse sponsors knowledge exchange activities and training events to share best practices, tools, and lessons of experience, thus, enhancing client capacity to plan, manage, and regulate energy sector strategies and programs. In terms of operational leveraging, ESMAP provides client countries with "justin-time" technical assistance (TA) for pre-investment activities necessary to resolve program design issues and offer additional options, helping to achieve results on the ground. ESMAP's core functions provide the essential links that client countries need to translate high quality advice received into intended outcomes.

To ensure more effective delivery of client outcomes over the 2008-13 Strategic Business Plan cycle, ESMAP will strengthen its portfolio development in two major ways. Under the Portfolio Management Method, it will better align its operational leveraging activities with the World Bank fiscal year cycle for executing AA and TA activities and expand coverage of the Annual Block Grants (ABGs) process across all core functions. It will also put in place a Portfolio Monitoring and Evaluation (M&E) system to assess the effectiveness of the core functions in enabling timely and sustainable delivery of client outcomes. The M&E system will strengthen the focus on outcomes and results at the beneficiary level while ensuring relevance to ESMAP's mission and implementation strategy. To maximize responsiveness to data collection, efforts will be made to choose a few meaningful and measurable indicators, strengthen tools, and elaborate on ways to collect data.

ESMAP will also hone its operations framework and increase partnerships to strengthen implementation effectiveness. A Lead Energy Economist will strengthen oversight of the quality enhancement review processes for all ESMAP supported energy assessment and strategy work. The Lead Energy Economist will be supported by a



Specific attention is required to mainstream energy efficiency and climate change considerations into operation in the transport sector and in cities.





"SWAT" team of World Bank specialists and consultants with expertise in cross-cutting, energy assessment and sector management issues (including gender, environment, and sector governance). Two Thematic Coordinators will be designated: The Energy and Poverty Thematic Coordinator will focus on pro-poor energy access programs, while the Energy and Climate Change Thematic Coordinator will focus on low carbon growth country strategies. The Thematic Coordinators will be supported by a Virtual Panel of experts drawn from academic, bilateral, private-sector, and nongovernmental organizations worldwide. Finally, a Global Practice Group will strengthen ESMAP leadership and expertise to address cross-cutting initiatives.

The total budget for the ESMAP 2008–13 Strategic Business Plan is estimated at US\$55 million. ESMAP projects the equivalent of US\$5.0 million in ABGs will be allocated each year to the World Bank Anchor and Regional Energy Units for the execution of energy assessments and strategy activities in support of lowincome and oil-importing client countries: (i) US\$3.0 million, for AA activities primarily addressing the "energy security" thematic challenge, and (ii) US\$3.0 million for TA activities addressing the "poverty reduction" thematic challenge. ESMAP proposes to increase the annual funding envelope for its two new, crosscutting initiatives-Energy Efficient Cities Initiative and Renewable Energy Market Transformation Initiative—to US\$3.5 million per year; this increase will allow ESMAP to fully address all three thematic challenges, including differentiated targets for energy security and climate change. The annual funding envelope is stabilized at US\$1.5 million for program administration.

For operational flexibility in accommodating the multiyear funding requirements of all core programs and the two initiatives, ESMAP and the CG have agreed to establish and maintain a new, single multi-donor programmatic trust fund—the ESMAP Programmatic Multi-Donor Trust Fund. This will accommodate untied funding to support program administration and the core set of multi-year programs and cross-cutting initiatives endorsed by the CG, without specific restrictions. The existing ESMAP Core Multi-Donor Trust Fund and the thematically earmarked Energy Efficiency and Renewable Energy Trust Funds will be phased out during FY10/FY11. As of July 1, 2008, ESMAP had received about US\$29.0 million; the funding gap of US\$26.0 million is expected following donor pledges made at the 2009 CG Meeting.



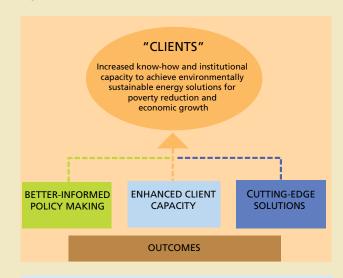
#### **ESMAP Overview**

The Energy Sector Management Assistance Program (ESMAP) is a global knowledge and technical assistance partnership administered by the World Bank. Established in 1983, ESMAP assists low- and middle-income countries—its clients—to increase know-how and institutional capacity to achieve environmentally sustainable energy solutions for poverty reduction and economic growth. ESMAP's mission is driven by a Results Framework endorsed by the governing Consultative Group (CG) for the Energy Trust Funded Programs (ETFPs) (Figure 1).1

Based on their energy and development priorities, CG members reach consensus on the global thematic challenges that underpin funding priorities for each ESMAP business plan cycle.<sup>2</sup> These global thematic challenges, in turn, inform the choice of energy practice areas in which ESMAP works during each business plan cycle.

To implement the CG's mandate, ESMAP focuses "upstream" with its three core functions—think tank, knowledge clearinghouse, and operational leveraging to help its client countries make better-informed policy decisions and translate those decisions into resultsoriented strategies and programs. As a think tank, ESMAP sponsors a broad range of analytical and advisory (AA) activities aimed at delivering high quality advice to influence policy making by its client countries and broaden knowledge horizons about cutting-edge energy solutions for global thematic challenges. extensively on knowledge generated from its think tank function, ESMAP's knowledge clearinghouse sponsors knowledge exchange activities and training events to share best practices, tools, and lessons of experience, thus, enhancing client capacity to plan, manage, and regulate energy sector strategies and programs. In terms of operational leveraging, ESMAP provides client countries with "just-in-time" technical assistance (TA) for pre-investment activities necessary to resolve program design issues and offer additional options, helping to achieve results on the ground. ESMAP's core functions

Figure 1. ESMAP Results Framework







<sup>1</sup> The CG for the ETFPs comprises official bilateral donors (representing Australia, Austria, Denmark, Finland, France, Germany, Iceland, the Netherlands, Norway, Sweden, and the United Kingdom) and multilateral institutions (the World Bank Group).

<sup>&</sup>lt;sup>2</sup> CG funding is in the form of grants used to support client-centered, TA activities at no cost to clients.



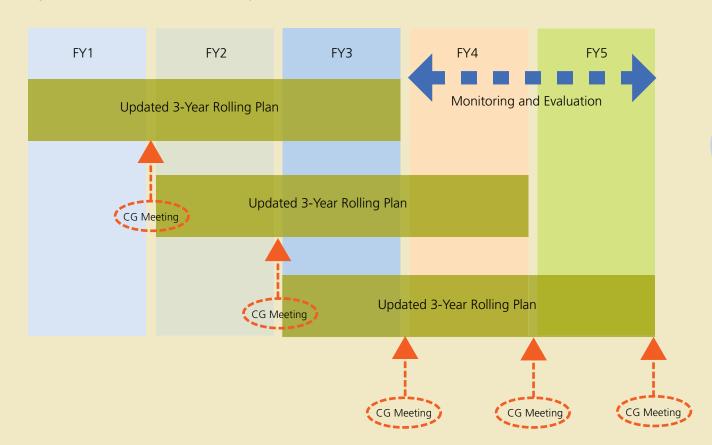
The five-year plan incorporates three-year rolling plans that are updated and reviewed annually at CG meetings, followed by a comprehensive evaluation process during the final two years.



provide the essential links that client countries need to translate high quality advice received into intended outcomes.

To strengthen client countries' focus on outcomes and results, ESMAP is establishing a comprehensive Portfolio Monitoring and Evaluation (M&E) system. Beginning with this ESMAP business plan cycle, the CG has reached consensus on a five-year framework (Figure 2). It incorporates three-year rolling plans that are updated and reviewed annually at CG meetings, followed by a comprehensive evaluation process during the final two years. This ensures ESMAP's efforts remain on target and relevant to global issues.

Figure 2. ESMAP 5-Year Business Plan Cycle





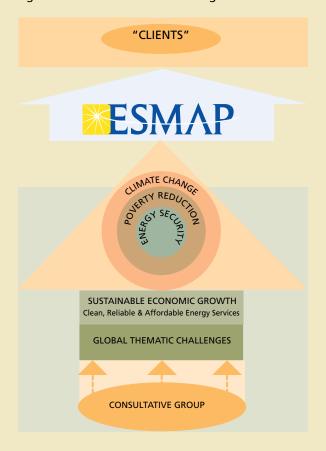
This Strategic Business Plan is organized around three interlinked, global thematic challenges: energy security, poverty reduction, and climate change.

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# **ESMAP Strategic Priorities**

The Consultative Group (CG) has reached consensus that this Strategic Business Plan is best organized around three interlinked, global thematic challenges: energy security, poverty reduction, and climate change (Figure 3).

Figure 3. Global Thematic Challenges



# **Global Energy Challenges**

#### **ENERGY SECURITY:**

For the first time in 35 years, the world faces sustained increases in fossil fuel prices, resulting in substantial income redistribution. Although prices have eased in recent months as a result of slowing growth, they are expected to remain at historically high levels for some time to come because of their sensitivity to perceptions about

global supply and demand trends. Countries with large net oil imports relative to income are especially vulnerable to the macroeconomic effects of oil price shocks. In some developing countries, higher oil prices may reverse years of progress made in reducing poverty. Many ESMAP client countries face difficulties securing reliable and affordable energy supplies for sustainable economic development. Faced with escalating equipment and services costs, they are unable to expand energy infrastructure. To increase resilience to supply disruptions, many such countries are choosing to pool their resources via regional energy integration and power trading mechanisms. Sufficient international experience has been gained in this area to warrant a global assessment of the major obstacles faced by new initiatives.<sup>3</sup>

Moreover, the recent downturn in global credit markets has created uncertainty regarding the availability and cost of medium to long term financing to meet energy sector investment targets. Some energy sector projects have witnessed a withdrawal of potential financiers while others have seen an increase in funding costs to unsustainable levels. Still others are finding more stringent project approval thresholds as required by potential lenders in a credit constrained environment. Financiers are seeing a withdrawal of commercial lenders from potential energy project loan syndications due to capital constraints while others are preserving their capital base to remain sufficiently liquid and meet reserve requirements. The inability of ESMAP client countries to meet their energy sector investment targets will have an adverse impact on economic growth, employment, and access to essential infrastructure services by the poor while also delaying the achievement of Millennium Development Goals (MDGs).

#### **POVERTY REDUCTION:**

Progress toward meeting the MDG targets is falling short of expectations. The World Bank Group (WBG) now estimates that as many as 100 million people are at risk of falling into poverty because of higher food prices.<sup>4</sup> Without access to reliable energy supplies—that is,

<sup>&</sup>lt;sup>3</sup> Although global trade has grown exponentially over the past four decades—from less than US\$1 trillion in the late 1960s to nearly \$10 trillion in 2007—the recent increase in the number of world energy activities experiencing major cost overruns (30–50 percent compared to original cost estimates at appraisal) is an early indication of the negative challenges posed by this trend.

posed by this trend.

4 See "Statement on Behalf of the World Bank Group," International Monetary and Financial Committee (October 11, 2008).



The needs of low-income groups and gender equity considerations are highly relevant to achieving ESMAP's mission.

without meeting the basic energy needs of all people environmentally sustainable energy development will be difficult, and without attention to environmental sustainability, meeting basic needs of the future generations will be difficult. By 2030, the International Energy Agency (IEA) estimates that, under businessas-usual projections and given expected population growth rates, 1.4 billion people will still lack access to electricity, while 2.7 billion will still rely on traditional biomass fuels. 5 Despite the increasing commitment of international resources, providing quality energy services is expensive.<sup>6</sup> Poor people often cannot afford the upfront investment required to ensure access to quality supply. The cost of basic expenditures is especially prohibitive in remote and dispersed rural areas, where low-density demand raises service costs and reduces profitability for potential providers. Poor consumers in rapidly growing urban slums and peri-urban areas face similar constraints, even though urban growth allows for higher distribution efficiencies. Moreover, programs that aim to close the energy access gap often involve crosssector interventions that require robust and collaborative institutional frameworks to ensure success.7

#### **CLIMATE CHANGE:**

Consensus has been reached on the need for global scale, immediate, multilateral actions to limit greenhouse gas (GHG) emissions along the energy production chain and in its end use while, simultaneously, promoting sustainable economic growth and poverty reduction in developing countries. Stabilizing concentrations at manageable levels requires limiting global emissions via multilateral actions that offer policy incentives, removing barriers, and building capacity to acquire, adapt, and diffuse on a global scale a portfolio of low carbon energy technologies (mature, pre-commercial, and yet to be developed). Specific attention is required to mainstream energy efficiency and climate change considerations into operations in the transport sector and in cities—where more than half of the world's people now live and significant growth is projected—that account for three guarters of global energy sector GHG emissions. In developing countries, rapidly growing urban centers are expected to accelerate the demand for energy and increase GHG emissions.8 Implementing such a strategy can curb emissions growth in developing countries and address the significant gap in developing country science,

# **Millennium Development Goals**

- 1 Eradicate extreme poverty and hunger
- 2 Achieve universal primary education
- 3 Promote gender equality and empower women
- 4 Reduce child mortality
- 5 Improve maternal health
- 6 Combat HIV/AIDS, malaria, and other diseases
- 7 Ensure environmental sustainability
- 8 Develop a global partnership for development

technology, and innovation capacity. In parallel, countries will see an increase in the frequency and intensity of natural disasters, as well as changes in endemic conditions (e.g., persistent drought). Technological capacity and incentives for proactive adaption to address energy sector vulnerabilities is imperative to reduce burdens on national growth and related social challenges.

# **ESMAP Strategy**

Since its inception, promoting and securing access to energy for poverty reduction and economic growth has remained the primary objective of ESMAP. This strategic business plan reinforces ESMAP's engagement with its client countries on energy security and poverty reduction issues, including a heightened focus on social dimensions. Particularly, the needs of low-income groups and gender equity considerations are highly relevant to achieving ESMAP's mission. Also in response to the global thematic challenges embodied herein, this strategic business plan introduces a new focal area for ESMAP initiatives that expands the engagement with client countries to the energy security and climate change nexus. Recognizing these interlinkages, the CG has reiterated the need for ESMAP to address all three global thematic challenges together to achieve "win-win" solutions while maintaining adequate focus on the particular needs of its low-income client countries.

<sup>&</sup>lt;sup>5</sup> See *World Energy Outlook 2006,* IEA (2007).

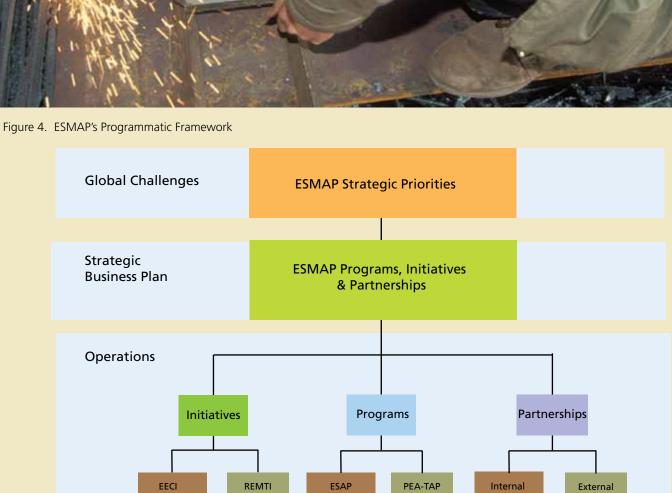
<sup>&</sup>lt;sup>6</sup> To cope with overall electricity demand growth, the WBG estimates required investments at US\$165 billion per year until 2010, rising to US\$185 billion annually during 2011–20. The present level of achieved investment reaches just 50 percent of the annual amount required, given the escalating costs of fuels, equipment, and materials required to expand energy access: enhance energy security: and diversify to cleaner, renewable energy sources.

access; enhance energy security; and diversify to cleaner, renewable energy sources.

<sup>7</sup> For example, programs to improve productivity by securing access to quality energy services require availability of credit and development of markets for goods and services. Such challenges are the focus of recent efforts by development partners to expand energy access in client countries, especially in Sub-Saharan Africa.

See State of the World Population 2007: Unleashing the Potential of Urban Growth (www.unfpa.org).









# ESMAP Programs, Initiatives, and Partnerships

This Strategic Business Plan presents the core set of programs through which ESMAP will continue supporting client countries to better address the energy security and poverty reduction nexus. It also outlines newly identified ESMAP initiatives that are being developed to address all three thematic challenges while leveraging all three core ESMAP functions. Collectively, these programs and multi-year initiatives should strengthen ESMAP's comparative advantage as a knowledge clearinghouse. ESMAP is, thus, well positioned to exploit synergies across the WBG, leverage comprehensive expertise of the global energy practice, and engage stakeholders and energy "champions" from client countries to share knowledge on the "full menu" of energy options (Figure 4).

# **Continuing and Proposed Programs**

ESMAP will expand its core set of programs, which are comprised of demand-driven analytical and advisory (AA) and technical assistance (TA) activities. These programs help client countries acquire the relevant know-how, skill, and institutional capabilities to develop policies, strategies, and programs to address global thematic challenges. To enhance the effectiveness of each of these programs, ESMAP will deploy state-of-the-art tools for (i) conducting energy assessments; (ii) developing strategies and investment programs; and (iii) designing frameworks to track, monitor, and evaluate intervention costs and benefits. Furthermore, ESMAP will form strategic partnerships with other trust-funded programs within the WBG and external organizations to build client-oriented platforms for each program. Knowledgesharing events, such as "practitioners' forums," will constitute a key part of each program to better engage the global energy practice in supporting client country efforts to meet global energy challenges.

The programmatic priorities for the ESMAP 2008–13 Strategic Business Plan are as follows:

# COUNTRY ENERGY SECTOR VULNERABILITY ASSESSMENTS:

In response to demand from client countries, ESMAP will increase support for country-specific energy assessments. These assessments will help build institutional capacity and know-how to develop and implement policy reform measures and robust strategies to mitigate short, medium, and long term vulnerabilities in their national energy systems, emanating from (i) global financial and credit markets crises, (ii) high and volatile prices on global energy markets, and/or (iii) emerging patterns of climate variability.

In response to the financial and credit crises, ESMAP will support client countries that need to carefully reassess and prioritize their use of public resources, protect existing energy sector assets, and maintain long term investments in strategic energy infrastructure. Such AA activities will inform the development and implementation of revised policies, strategies, and investment programs to increase resilience of client countries to the uncertainty and volatility of global energy and financial markets. All activities intended to help client countries cope with high and volatile energy prices will emphasize results that improve supply- and demand-side energy efficiency, and diversify supply sources with renewable energy options to further withstand the uncertainty of global energy markets.

In parallel, ESMAP will distill and share lessons from an ongoing pilot study, Assessing Climate Change Vulnerability of Energy Infrastructure. This study assesses country-specific energy system adaptation options that consider the inherent risks of current climate variability and projected climate changes over the period 2030–50. Specifically, ESMAP will develop a toolkit to help client countries understand the vulnerabilities of their energy sectors—from potential disruptions in oil and gas production to the compromised integrity of transmission pipelines and power distribution—and develop flexible adaptation strategies so that current and planned infrastructure are resilient enough<sup>9</sup> to continue providing basic services to households and industrial/commercial establishments.

<sup>9</sup> Considerations with regard to system capacity and demand management and conservation must drive robust policies and strategies that ensure security of supply.

#### **REGIONAL ENERGY INTEGRATION STRATEGIES:**

Currently, ESMAP provides a broad range of demandresponsive AA and TA activities to several bodies mandated to promote regional energy integration, including the Greater Mekong Sub-region of East Asia, Central America, Middle East and North Africa (Maghreb, Mashreq), South East Europe (Energy Community), and Sub-Sahara Africa (Southern Africa Power Pool, West Africa Power Pool). Ongoing regional energy integration activities cover electricity and gas, as well as renewable energy (North Africa) and energy efficiency (Western Balkans). Looking ahead, ESMAP's support will emphasize knowledge exchange between practitioners of the different subregional entities.

#### LOW CARBON GROWTH COUNTRY STRATEGIES:

ESMAP will distill and share lessons learned and tools drawn from ongoing G+5 pilot studies designed to chart low carbon energy development pathways to 2030. To achieve this goal, ESMAP will develop and disseminate a series of policy and guidance notes that can inform country-specific, energy sector investment programming efforts of client countries, especially those seeking access to the Clean Technology Fund (CTF), the Scaling-up Renewable Energy Program (SREP) of the Strategic Climate Fund, and Carbon Asset Development Fund (CADF). In addition, interactive toolkits and web-based audio-visual presentations will be developed to share techniques for improved energy policy, planning, and outreach with the global energy practice.

#### **ENERGY SME DEVELOPMENT STRATEGIES:**

The ESMAP Energy Small and Medium Enterprises (SMEs) Pilot Program will be revamped and transformed into a full-fledged program. As a complement to the Africa Energy Access Scale-up Program (AFREAS), the revamped ESMAP program will target its client countries in Asia Pacific, Central America and Caribbean, and South Asia with support to formulate and implement policy reform measures and strategies to enhance SMEs productivity as both providers and users of modern energy services. Through this program, ESMAP will partner with the Cities Alliance to launch a complementary knowledge dissemination series, Energy Access for the Urban Poor, which will focus on best practices in empowering SMEs to help promote productive uses of energy by urban slum dwellers.

#### **RURAL ELECTRIFICATION STRATEGIES:**

ESMAP will broaden the scope of its partnership with the World Bank's Development Economics Research Group (DEC) to develop and field test robust monitoring and evaluation systems to ascertain the poverty impacts of national and rural electrification programs. Through this innovative "learning by doing" partnership, ESMAP will measure energy access programs' contribution to household welfare and physical progress in reaching regional- and country-level goals set by the international community. Projected outputs include enhanced data collection methods and analysis techniques for application by international financial institutions (IFIs), more effective use of survey tools and analysis techniques, and a number of methodological working papers.

#### GENDER AND ENERGY DEVELOPMENT STRATEGIES:

ESMAP recognizes the critical importance of integrating the gender dimension into all of its energy assessments and strategy programs. Mainstreaming gender equity considerations into the policies, strategies, and programs of client countries requires ESMAP to broaden the scope of its AA activities (under each of the aforementioned programs) to address obstacles and formulate appropriate incentives. Gender equity is especially vital for household energy interventions, programs involving SMEs that deliver modern energy services, and similar activities. ESMAP will bolster its support for "on-the-job" TA activities aimed at building client countries' capacity and know-how to deploy policies, strategies, and programs that integrate gender-sensitive approaches into energy sector development.

# **Cross-Cutting Initiatives**

#### **ENERGY EFFICIENT CITIES:**

For the majority of ESMAPs client countries, cities are an increasingly important engine for economic growth and socioeconomic development. Rapid urbanization in recent decades has led to ever-expanding cities, creating an escalating demand of energy use for basic urban services—buildings, city lighting, housing, power/heating, transport, and water/wastewater. City managers and mayors in those client countries, often operating under constrained budgets and limited technical expertise, typically put a high priority on expanding access to these

basic services but achieving results on-the-ground has been elusive.

Following a stocktaking exercise of representatives from 10 cities and 8 (internal and external) partner organizations<sup>10</sup> ESMAP launched a multi-year programmatic initiative the Energy Efficient Cities Initiative (EECI). EECI supports client countries in building institutional capacity at the city level to explore and deploy innovative, energy efficient solutions for the delivery of basic urban services and to reduce the costs and environmental impacts of related energy use. It is a flexible, cross-cutting, demanddriven, and comprehensive program that will provide city managers and planners with upstream, operational, and evaluation support while disseminating tools, experiences, and results to client countries and other interested organizations.

This ESMAP initiative also builds upon existing planning efforts at the sub-sovereign level and leverages investment opportunities in sustainable energy options for cities, including carbon financing mechanisms. Through EECI, ESMAP is partnering with the WBG-administered Cities Alliance to better integrate energy efficiency and energy access measures into slum upgrading or city development strategy (CDS) activities. In turn, the partnership will leverage tools being developed under EECI.<sup>11</sup>

Overall, the expected outcomes of EECI are innovative and holistic approaches that enable city managers and mayors to identify, plan, and implement strategies that incorporate supply- and demand-side measures to achieve energy-efficient, cost-effective, and environmentally sustainable delivery of basic urban services.

#### RENEWABLE ENERGY MARKET TRANSFORMATION:

Under the previous ESMAP 2005–2007 Strategic Business Plan, ESMAP contributed to a forward-looking review of the challenges facing global efforts to accelerate commercialization of advanced energy technologies for developing countries-Accelerating Clean Energy Technology Research, Development, and Deployment. For the ESMAP 2008-2013 Strategic Business Plan cycle, ESMAP is developing a multi-year programmatic initiative, the Renewable Energy Market Transformation Initiative (REMTI), to better support client country efforts to build institutional capacity to develop, plan, and implement strategies to accelerate deployment of select renewable energy technologies. REMTI concentrates on solar power, geothermal and wind energy, and small hydropower technologies.

To achieve "win-win-win" solutions to interlinked challenges—enhanced energy security through supply diversification, increased energy access, and transition to low carbon paths to meet rising energy demands—REMTI is designed to assist client countries with significant and largely untapped renewable energy resources potential to scale up their grid-tied deployment of renewable energy technologies. REMTI will have a differentiated focus on technologies at various stages of maturity. For instance, technologies for harnessing small hydropower, onshore wind, and geothermal resources are relatively mature. These options face no major technical obstacles or operating challenges, with reliable operating histories when deployed at scale and with prices closer to other fossil fuel based energy options. For these options, pricing gaps can be addressed, at least in part, through existing financial support mechanisms, such as carbon finance. 12 In contrast, technologies for harnessing solar resources, such as concentrated solar power (CSP), have identified technical obstacles, limited operating history or challenges, and prices well above alternative conventional options.

REMTI also compliments several existing and developing multilateral initiatives, facilities, and funds within the World Bank Group and related to the IFIs. These multilateral facilities and/or funds include the Clean Technology Fund (CTF), Global Environment Facility (GEF), Carbon Partnership Facility (CPF), and Scalingup Renewable Energy Program (SREP). By leveraging these funding programs, REMTI fills a gap in the renewable energy development process. Specifically, REMTI concentrates on the preparatory work needed in the earlier stages of project development and provides technical assistance, knowledge sharing, and capacity building support to facilitate access to financing (Figure 5). While these early stages are not ignored by other initiatives, they are not the main focus of their activities and funding.

<sup>10</sup> The Practitioners' Roundtable was held on October 20-21, 2008, at the World Bank Washington, DC, offices with over 50 participants. The proceedings of the event, along with an article and video, are on ESMAP's website (www.esmap.org).

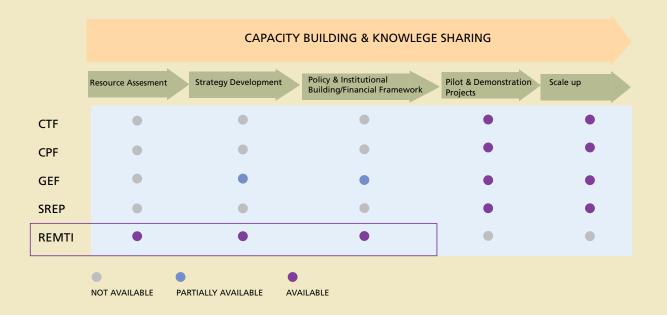
These include an ongoing review of public sector procurement practices for performance-based energy efficiency measures, an analytical toolkit for energy efficient transportation

options, a review of best practices for deploying energy efficient building codes, and a review of energy efficiency improvement options for municipal water utilities.

12 Note: a parallel support program is being developed by ESMAP in conjunction with the World Bank's Carbon Finance Unit to facilitate client country and project access to carbon markets, including emission reduction programs for renewable energy (RE).



Figure 5. Primary Focus Areas of REMTI





The overall benefits of REMTI are (i) an improved investment environment for renewable energy systems in target client countries, (ii) continued impetus for renewable energy systems investments despite the current adverse economic outlook, and (iii) increased access to available multilateral funding sources (e.g., IFI loans and credits, carbon finance, GEF, CTF, SREP). Other expected outcomes include diversification of client country energy supply portfolios, increased access to sustainable and affordable energy services, and improved global and local environmental conditions.

# **Redefined Partnerships**

To promote greater coherence of effort with its development partners and major stakeholders, <sup>13</sup> ESMAP is implementing a systematic and selective framework to establish and augment its multi-year partnerships with internal and external organizations. The key criteria used to ensure that cross-cutting energy practice areas are more meaningfully addressed are as follows: <sup>14</sup>

- Extent of consensus on need for action
  - Is there an emerging consensus on the need for collective action?
  - Who are the drivers of the consensus (client countries and/or development partners)?
  - Is the consensus demand driven by both client countries and development partners or simply driven by strong pressure from a narrow base of development partners?
- Clear evidence of partnership gaps in responding to the energy practice area
  - Can the energy practice area be addressed via ESMAP's existing knowledge clearinghouse function in isolation?
  - Would engaging with other partners help ESMAP address the energy practice area more effectively?
- Consistency with ESMAP's mandate and strengths

- Are the issues and needed actions consistent with ESMAP's mandate, functions, and strengths?
- Are the mandates, functions, strengths, and roles of prospective partners consistent with those of ESMAP?
- What are the potential synergies and functional linkages between ESMAP and the prospective partners?
- Availability of ESMAP's capability and resources for partnership support
  - Can ESMAP offer the partnership relevant operational experience and functional support?
  - Can ESMAP mobilize and sustain the financial and nonfinancial resources needed to support the partnership?

During the 2008–13 Strategic Business Plan cycle, ESMAP will strengthen the ongoing knowledge partnership with the **Public Private Infrastructure Facility** (**PPIAF**). <sup>15</sup>Currently, ESMAP and PPIAF jointly sponsor AA activities, with World Bank Anchor and Regional Energy Units, which address issues on energy market reform and sector governance. Looking ahead, ESMAP and PPIAF will increase collaboration on knowledge generation and dissemination associated with the energy assessments and strategy programs. <sup>16</sup>

To draw on competencies for client-executed TA, ESMAP will develop new partnerships with other WBG-administered global programs: the Cities Alliance (CA), the Information for Development Program (infoDev), the International Benchmarking Network for Water and Sanitation Utilities (IBNET), and the Global Partnership on Output-Based Aid (GPOBA).

First, ESMAP and CA<sup>17</sup> have joined forces to foster improved access to knowledge, policies, and technologies centered on providing modern energy services and

<sup>&</sup>lt;sup>13</sup> Paris Declaration on Aid Effectiveness, issued March 2, 2005.

<sup>&</sup>lt;sup>14</sup> Consistent with the World Bank's partnership engagement criteria.

<sup>&</sup>lt;sup>15</sup> Launched in July 1999 as a joint initiative of the governments of Japan and the United Kingdom, PPIAF is a multi-donor, technical assistance facility that aims to help governments in developing countries to improve infrastructure quality through partnerships with the private sector. Managed by the World Bank, PPIAF uses grants through which it helps governments explore public-private partnerships in the financing, ownership, operation, rehabilitation, maintenance, and management of eligible infrastructure services, including the transmission and distribution of electricity and gas. Arrangements are explored for improving services delivery through policy, legal, and regulatory support; PPIAF supports capacity building and training for policymakers, regulators, and civil society groups.

<sup>16</sup> An example is the ongoing study, Revisiting Standard Policy Recommendations in the Power Sector: The "Optimal" Market Structure, which involves the development of detailed case studies on reform, illustrating the links between vertical and horizontal unbundling of power supply functions and better power sector performance in developing countries.
17 Established in 1999 by UN-Habitat and the World Bank, CA was created to scale up successful approaches to urban poverty reduction and promote the positive impacts of urbanization. CA's client-executed support, usually provided through its members, focuses on citywide and nationwide slum-upgrading policies, strategies, and programs and city development strategies. CA has grown into a coalition of 26 members, including 7 developing countries.



ESMAP's comparative advantage: being well positioned to exploit synergies across the World Bank Group, leverage expertise of the global energy practice, and engage stakeholders and energy champions from client countries.

increased energy efficiency in cities. Specifically, the partnership will leverage tools being developed under the ongoing ESMAP Energy Efficient Cities Initiative, such as appropriate analytical tools, policy and regulatory frameworks, lifecycle costing principles, energy efficient codes, and financing schemes. These tools would (i) enable cities to undertake a comprehensive review of their energy consumption and future needs to make it as energy efficient as possible; (ii) provide just-in-time pre-investment policy support as part of a CDS; and (iii) facilitate field testing of new and innovative energy efficient measures.

Second, ESMAP is exploring avenues to leverage the expertise of infoDev<sup>18</sup> on SME development, business incubation, and support networks to conduct an assessment of the following aspects of ESMAP's SME Pilot Project: (i) the institutional frameworks and business enabling environments for energy SMEs in each pilot country; (ii) the implementation strengths and weaknesses of the program in the pilot countries, the financial and technical assistance needs of the energy SMEs, and any gaps in the provision of this assistance; and (iii) whether further incubation of the SMEs could ensure their longer term sustainability and an initial assessment of the business incubation environment in the targeted countries. Based on the results of the infoDev assessment, lessons gleaned from infoDev's Business Incubation Toolkit and IFC's widely used SME Toolkit, a joint infoDev-ESMAP team will develop recommendations for an Action Plan for a longer term partnership framework between ESMAP and infoDev on the energy and SME development nexus.

Third, the proposed ESMAP and IBNET<sup>19</sup> partnership will upgrade the IBNET toolkit by adding a comprehensive energy module. The energy module would enable water utilities to systematically collect and collate the required

energy consumption information to set up the baseline for energy audits and facilitate performance monitoring of energy efficiency improvements. After about a year of implementation of the energy module, a joint ESMAP-IBNET team will evaluate achievements, focusing on (i) energy efficiency progress and (ii) the incentive structure's effectiveness. Where necessary, adjustments will be made. Another evaluation will be made after the third year of implementation to determine the sustainability of energy improvements. In addition, IBNET will post the data collected by the utilities on its website at www. ib-net.org, including the energy module with data and indicators to track energy efficiency improvements by participating utilities.

Fourth, ESMAP will explore a partnership with GPOBA to further develop ESMAP's pro-poor energy access programs.<sup>20</sup>

In addition to these WBG internal partnerships, ESMAP will explore avenues to establish full-fledged strategic partnerships with a broad range of external entities, including the following multistakeholder agencies:

- World Energy Council (WEC)
- European Union Energy Initiative's Partnership Dialogue Facility (EUEI-PDF)
- Global Forum for Sustainable Energy (GFSE)
- International Renewable Energy Agency (IRENA)

<sup>&</sup>lt;sup>18</sup> Approved by a board of bilateral and multilateral donors in June 2005, *inf*oDev is a multi-donor global development financing program managed by the World Bank. *inf*oDev has developed expertise in business incubation as a tool for creating a competitive SME sector. *inf*oDev has developed and runs a global network of over 150 business incubators in more than 70 developing countries, with a reach of over 105,000 individual entrepreneurs and 9,000 SMEs either currently in incubation or having graduated from an *inf*oDev incubator. These incubators provide SME start-ups with access to ICT services, business services, financial and, technical assistance, training and business mentoring. The *inf*oDev incubator network has enabled SMEs to develop and commercialize innovative technology solutions, such as water purification systems and hospital administration information systems.

enabled SMEs to develop and commercialize innovative technology solutions, such as water purification systems and hospital administration information systems.

19 The International Benchmarking Network for Water and Sanitation Utilities (IBNET) is a program under the umbrella of the Water and Sanitation Programme that is sponsored by DfID. The objective of IBNET is to support access to comparative information that will help to promote best practice among water supply and sanitation providers worldwide and eventually provide consumers with access to efficient, high quality, and affordable water supply and sanitation services. IBNET encourages water and sanitation utilities to compile and share core cost and performance indicators to meet various stakeholder needs. It sets forth a common set of data definitions, a minimum set of core indicators, and provides software to allow easy data collection and calculation of the indicators, while it also provides resources to analyze data and present results. Sharing of results is critical to successful performance comparisons (benchmarking).

<sup>&</sup>lt;sup>20</sup> GPOBA's mandate is to fund, design, demonstrate, and document output-based aid approaches to improve delivery of basic infrastructure and social services to the poor in developing countries. A partnership of donors and international organizations, GPOBA's endeavors for developing country governments, international financial institutions, bilateral donors, and private foundations to consistently incorporate output-based aid approaches in project design.



ESMAP will put a Monitoring and Evaluation system in place to assess the effectiveness of the core functions in enabling timely and sustainable delivery of client outcomes.

4

# **ESMAP Portfolio Development**

ESMAP will ensure more effective delivery of client outcomes in two major ways. Under the Portfolio Management Method, it will better align its operational leveraging activities with the World Bank fiscal year cycle for analytical and advisory (AA) and technical advisory (TA) activities and will expand coverage of the Annual Block Grants (ABGs) process across all core functions. In addition, it will put a Monitoring and Evaluation (M&E) system in place to assess the effectiveness of the core functions in enabling timely and sustainable delivery of client outcomes.

# Portfolio Management Method

Introduced during the 2005–07 Business Plan cycle, the ESMAP Portfolio Management Method has proven to be an effective way to exercise key responsibilities for overall coordination of fiduciary and quality control of the operational leveraging function. During the 2008–13 Strategic Business Plan cycle, ESMAP will refine its use for operational leveraging activities and expand coverage to include the think tank and knowledge clearinghouse functions.

#### STREAMLINED IMPLEMENTATION:

The Portfolio Management Method applies within the framework of three-year indicative rolling plans agreed upon with the World Bank Anchor and Regional Energy Units, which align ESMAP support on global thematic challenges. Devolving implementation responsibility has proved successful as demonstrated by more strategic selection and efficient implementation of activities, faster disbursement of funds, and better alignment of AA and TA activities with the World Bank energy portfolio. The indicative plan for the Africa Regional Energy Unit (under revision) emphasizes activities pursued under a multi-year initiative, known as the Africa Energy Access Scale-up Program (AFREAS), to build client country capacity via TA, capacity building, and pre-investment activities. By contrast, indicative plans for other Regional Energy Units assign greater weight to country-specific and subregional AA activities; these include energy assessment and strategy work to inform client decision-making and pre-investment activities.

During the 2008–13 Strategic Business Plan cycle, ESMAP will introduce measures to clarify application of the ABGs to better differentiate between client countries' needs with regard to the multilateral instruments.<sup>21</sup> For AA and TA activities, ESMAP will continue to organize a single call for proposals at the beginning of each fiscal year (May) followed by midyear and end-of-year reviews (December and June, respectively) to track deliverables against agreed-on objectives and functional performance indicators (Figure 6). Each Regional Energy Unit will submit proposals for Bank-executed AA activities that explicitly address thematic priorities on energy security, energy and poverty reduction, and/or energy and climate change.

#### **EXPANDED USE OF ANNUAL BLOCK GRANTS:**

The Portfolio Management Method will be expanded to cover think tank and knowledge clearinghouse functions via ABGs, as follows:

- Under the think tank function, ESMAP will draft Concept Notes for new initiatives, which will be reviewed internally by the Virtual Panel. Final drafts will be deliberated on at the annual Consultative Group (CG) meeting.
- Under the knowledge clearinghouse function, ESMAP will prepare annual action plans to guide programming of knowledge exchange events. The plans will draw extensively on knowledge generated from ongoing and completed activities under the other core functions. The action plans will be shared with the TAG and deliberated on at the Energy and Mining Sector Board's annual retreat. Implementation will culminate in an ESMAP knowledge exchange forum preceding the annual CG meeting (Figure 6).

<sup>&</sup>lt;sup>21</sup> The ABGs have not worked well for pre-investment activities, especially those conducted in conjunction with the Africa Energy Access Scale-up Action Plan (see Strengthening the Development Partnership and Financing for Achieving the MDGs: An Africa Action Plan; September 16, 2005 [DC2005-0021]). In parallel, ESMAP will support the Africa Renergy Access Scale-up Program (AFREAS), an initiative of the Africa Regional Energy Unit, to assume direct responsibility for planning and administering all pre-investment, TA activities conducted in support of the Africa Energy Access Scale-up Action Plan, which require the use of client-executed grants structured in line with World Bank guidelines and procedures. AFREAS will eventually function along similar lines as the Asia Sustainable and Alternative Energy Program (ASTAE) of the East Asia and Pacific Regional Energy Unit.



Figure 6. ESMAP Annual Block Grant Process

First
Quarter
uly-Sept

Second Quarter Oct-Dec

Third Quarter Jan-Mar

Fourth Quarter Apr-Jun

#### THINK TANK

ESMAP prepares draft Concept Notes for new initiatives.

Virtual Panel deliberates and refines all ESMAP draft Concept Notes at its annual meeting.

ESMAP submits final set of draft Concept Notes to CG and TAG.

ESMAP CG Meeting discusses and approves Concept Notes.

#### KNOWLEDGE CLEARINGHOUSE

In consultation with Regional and Anchor Energy Units, ESMAP develops and updates annual action plan.

ESMAP organizes, in partnership with Global Forum for Sustainable Energy, an annual, two-day knowledge exchange event in Vienna to showcase ESMAP activities.

ESMAP organizes two-day, knowledge-exchange event In Washington, DC, to showcase ESMAP activities (annual event precedes the ESMAP CG meeting alongside World Bank Energy Week).

#### **OPERATIONAL LEVERAGING**

ESMAP releases 25% of annual requested funds for new activities & 100% of annual requested funds for continuing activites.

ESMAP undertakes a mid-year review; releases remaining funds to new activites with approved Concept Notes; and claws back funds of activities without approved Concept Notes for redistribution to other activities. Activity Implementation Teams submit Country Director/ Sector Manager approved Concept Notes for activites to ESMAP.

ESMAP conducts end-of-year review, freezing all unused ESMAP funds for redistribution in coming year's block grant.

ESMAP issues call for proposals based on a predetermined resource envelope.

Activity Implementation Teams furnish a report on implementation of all ESMAP activities.

Activity Implementation Teams respond to call for proposals.

# Portfolio Monitoring and Evaluation

ESMAP will put a Portfolio Monitoring and Evaluation (M&E) system in place to assess the effectiveness of its three core functions in the timely and sustainable delivery of client outcomes. The M&E system will strengthen the focus on outcomes and results at the level of beneficiaries while ensuring relevance to ESMAP's mission and implementation strategy. It will also strengthen staff capacity to undertake M&E and institute mechanisms to incorporate feedback. Specific evaluation paths will be followed to assess performance under each of the core functions against predetermined outputs and intermediate outcomes identified in the five-year business planning cycle. Specific indicators will be identified to: (i) provide an objective basis to assess ESMAP's results performance in delivering results at the level of beneficiaries, (ii) assist donors and World Bank management in making ESMAP-related decisions, and (iii) facilitate accountability and learning vis-à-vis internal and external clients and stakeholders. These indicators will use logic models to trace the chain of causality between inputs, activities, outputs, outcomes, and impacts for the three core functions. To maximize responsiveness and ensure cost-effective data collection, a few selective and measurable indicators will be employed to ensure that the M&E effort focuses on strengthening tools and effective data collection. For example, indicators for the think tank function could measure the quality and use of knowledge products created by ESMAP.

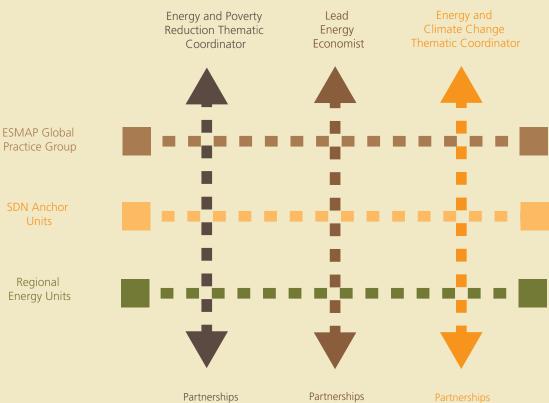
For each core function, activities will be identified and monitored, based initially on the three-year indicative plans to be agreed on with the WBG's Regional Energy Units and ESMAP partners that support programming related ABGs. The progress of all activities will be reviewed at midyear and end-of-year to inform discussions at the annual CG meeting. The aim will be to provide the TAG with a critical opportunity to evaluate progress of all current activities (grouped by function and theme) to allow indicative plans for the coming year to be adjusted as necessary. The CG meeting will also provide an opportunity to review global challenges and emerging trends in order to ascertain the relevance to,

and continuing alignment with, the ESMAP 2008-2013 Strategic Business Plan.

ESMAP recognizes that building an effective M&E system requires the full commitment and active participation of all staff and partners, combined with a willingness to acknowledge mistakes and learn from others. Given that many other global programs are currently undergoing similar processes of developing and refining their M&E systems, ESMAP will use this window of opportunity to learn from others.<sup>22</sup>

Figure 7. ESMAP Cross-Cutting Implementation Matrix

20



# 5

# **ESMAP Organization**

ESMAP has sharpened its program delivery framework to **strengthen implementation effectiveness** over the 2008–13 Strategic Business Plan cycle. Key changes include: (i) realignment of the ESMAP Core Team to improve delivery of program outputs; and (ii) implementation of a more systematic and selective framework for building internal and external partnerships to address the global challenge of energy sector management (Figure 7).

### Core Team Realignment

The ESMAP Program Manager supervises and administers resource management, portfolio M&E, publications, and communications<sup>23</sup> and also leads a WBG-embedded matrix organization (Figure 7), comprised of the ESMAP Core Team, the Sector Anchor Units of the WBG Sustainable Development Vice-Presidency (SDN Anchors), and the Regional Energy Units.<sup>24</sup> The ESMAP Core Team consists of the Lead Energy Economist, Thematic Coordinators, and the Global Practice Group. During the 2008–13 Strategic Business Plan period, ESMAP will improve its results orientation via key functional realignments of the Core Team.

#### **LEAD ENERGY ECONOMIST:**

During the 2008–13 Strategic Business Plan period, a Lead Energy Economist will be appointed to strengthen program oversight of the quality enhancement review processes for all ESMAP energy assessments and strategy programs. The Lead Energy Economist will be supported by Program Team Leaders who will be responsible for monitoring and evaluating ESMAP's constituent programs and a "SWAT" team of World Bank specialists and consultants with expertise in cross-cutting, energy assessment and sector management issues (including gender, environment, and sector governance).

#### THEMATIC COORDINATORS:

ESMAP Thematic Coordinators provide intellectual leadership on global thematic challenges, serving as focal points for the knowledge clearinghouse function, including engagement with external partners and the Virtual Panel. Two Thematic Coordinators will be designated. The Energy and Poverty Reduction Thematic Coordinator will build on the ongoing knowledge exchange partnership between ESMAP and the World Bank's Development Economics Research Group (DEC) to develop methodology and provide "just-in-time" support to client countries for designing and implementing energy access programs, especially electrification. The Energy and Climate Change Thematic Coordinator will focus on the proposed knowledge exchange partnership with the World Bank Institute (WBI) to develop and disseminate toolkits, guidance notes, and transferrable lessons derived from ongoing pilot studies on low carbon growth.<sup>25</sup>

#### **GLOBAL PRACTICE GROUP:**

The ESMAP Global Practice Group (GPG) will strengthen ESMAP's leadership and expertise to apply multidisciplinary approaches to promote the role of energy efficiency and renewable energy systems in achieving sustainable solutions to global thematic challenges. The GPG comprises ESMAP energy efficiency and energy technology specialists<sup>26</sup>, complemented by a "SWAT Team" of external consultants. The GPG will lead the implementation of the Energy Efficient Cities Initiative (EECI) and provide expert technical support to regional energy units for implementation of the Renewable Energy Market Transformation Initiative (REMTI).

<sup>&</sup>lt;sup>23</sup> In line with the ESMAP-Water and Sanitation Program (WSP) Efficiency Review and Action Plan (December 2005), the ESMAP Core Team is supported by joint ESMAP-WSP teams that cover resource management, portfolio M&E, and communications.

<sup>&</sup>lt;sup>24</sup> Regional Energy Units appoint ESMAP Regional Coordinators who facilitate implementation of devolved activities under the operational leveraging function by monitoring and interfacing with the Technical Advisory Group (TAG) and reporting on the regional perspective in ESMAP annual reports.

<sup>&</sup>lt;sup>25</sup> The special joint ESMAP - Department of International Development (DfID) funded pilot project for G+5 countries (Brazil, China, India, Mexico, and South Africa) has been extended to include Indonesia.

<sup>&</sup>lt;sup>26</sup> Specialists in hydropower, biomass, wind energy, and geothermal systems are seconded under the World Bank Staff Exchange Program.



#### **Virtual Panel**

To support the thematic Coordinators, ESMAP will convene a Virtual Panel of 5-10 experts drawn from academic, bilateral, private-sector, and nongovernmental organizations worldwide. The Virtual Panel will provide guidance on new and emerging challenges for energy sector planning and operations; share current or emerging best practices; identify knowledge gaps, technical assistance, or capacity needs; and foster knowledge exchange with energy policy makers and practitioners in low-income developing countries.

Beginning October 2009, the Virtual Panel will convene for its first annual meeting to examine the interfaces and interactions between climate change, energy access, and energy security for low-income developing countries. This first panel of experts will generate new thinking and offer independent insight on already identified questions, such as:

- What are the impacts on energy supply and energy poverty for low-income developing countries?
- How big is the issue?
- What policies, financial instruments or other tools are required to manage potential risks?
- Are there additional actions to mitigate unforeseen consequences?

New panel participants will be invited each year to contribute their knowledge and leadership to key topics and emerging global issues identified following the yearly Consultative Group Meeting.

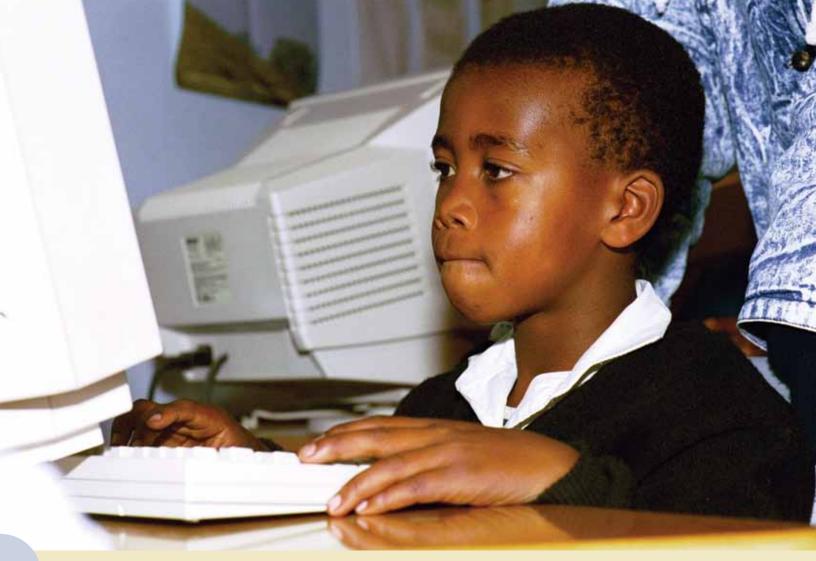
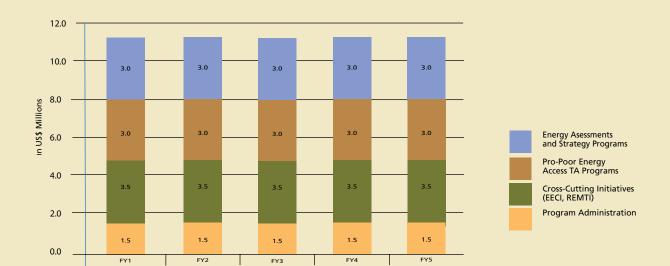


Figure 8. ESMAP Projected Budget, 2008-13





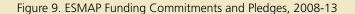
# ESMAP Budget, Commitment, and **Pledges**

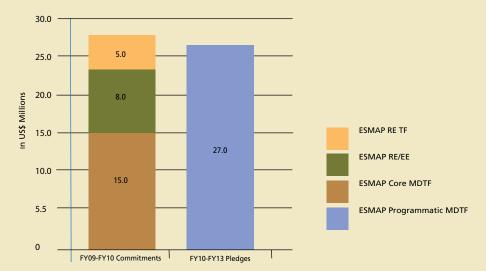
The total budget for the ESMAP 2008-13 Strategic Business Plan is estimated at US\$55 million.<sup>27</sup> ESMAP projects the equivalent of US\$5.0 million in Annual Block Grants (ABGs) will be allocated each year to the World Bank Anchor and Regional Energy Units for the execution of energy assessments and strategy activities in support of low-income and oil-importing client countries: (i) US\$3.0 million, for analytical and advisory (AA) activities primarily addressing the "energy security" thematic challenge and (ii) US\$3.0 million for technical assistance (TA) activities addressing the "poverty reduction" thematic challenge. As Figure 8 shows, ESMAP proposes to increase the annual funding envelope for its two new, cross-cutting initiatives—EECI and REMTI—to US\$3.5 million per year; this increase will allow ESMAP to fully address all three thematic challenges, including differentiated targets for energy security and climate change.<sup>28</sup> For program administration, the annual funding envelope is stabilized at US\$1.5 million, the same level applied in 2005-07 business plan cycle.

In transitioning from a three- to a five-year business plan, the main challenge is to match the various cycles

of donor funding with ESMAP's need to provide its clients with longer term support. To be meaningful to ESMAP, partnership arrangements may also require longer term commitments. For operational flexibility in accommodating the multi-year funding requirements of all core programs and the two initiatives, ESMAP and the CG have agreed to establish and maintain a new, single multi-donor programmatic trust fund—the ESMAP Programmatic Multi-Donor Trust Fund (ESMAP Programmatic MDTF). The ESMAP Programmatic MDTF will accommodate untied funding to support program administration and the core set of multi-year programs and cross-cutting initiatives endorsed by the CG, without specific restrictions.<sup>29</sup> The existing ESMAP Core MDTF and the thematically earmarked Energy Efficiency and Renewable Energy Trust Funds (ESMAP RE and RE/EE TFs) will be phased out during FY10/FY11 (Figure 9).

As of July 1, 2008, ESMAP had received about US\$29.0 million in donor contributions and commitments.30 The funding gap of US\$26.0 million for the ESMAP Programmatic MDTF is expected following donor pledges made at the 2009 CG Meeting.



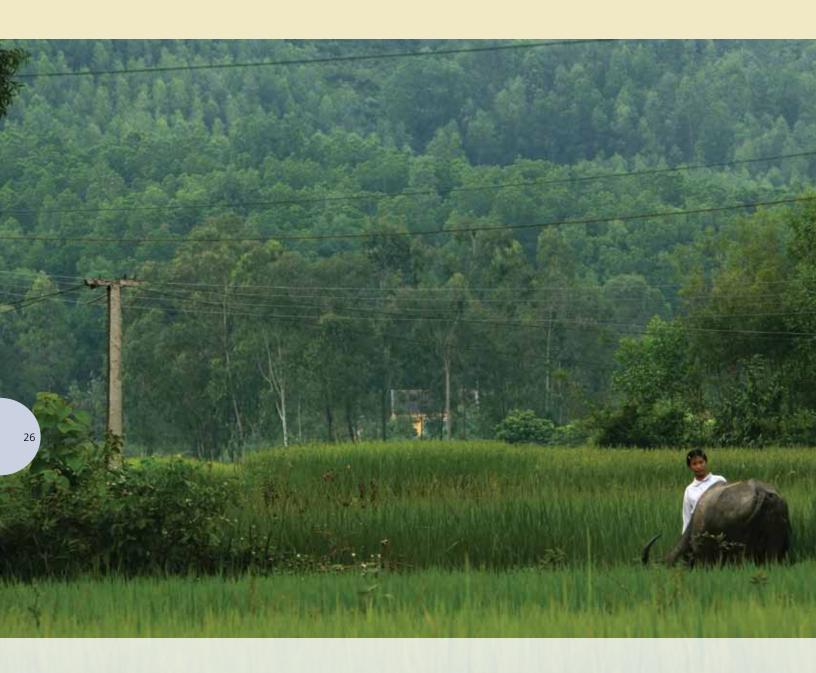


<sup>&</sup>lt;sup>27</sup> This amount excludes The Netherlands' contribution of US\$28.75 million, which is earmarked specifically for the renewable energy access component of AFREAS and channeled to the Africa Regional Energy Unit through the ESMAP CEIF MDTF.

<sup>28</sup> AA and TA activities in support of the Clean Technology Fund (CTF) and Carbon Asset Development Fund (CADF) reflect this differentiation.

<sup>29</sup> The ESMAP Programmatic MDFT will provide a more stable framework for allocating ABGs to the WB Anchor and Regional Energy Units, and establishing more meaningful internal

and external partnerships.  $^{\rm 30}$  These commitments underpin existing trust fund agreements between the World Bank and donors.



ESMAP has developed a new results framework that brings together key aspects of its constituent programs and initiatives in a systematic, concise, and coherent manner.

# Annex

# **ESMAP Results Framework**

This Annex introduces a new results framework that supports application of a clear, logical approach to developing appropriate and effective programmatic intervention strategies for the ESMAP Strategic Business Plan 2008-2013.

#### **BACKGROUND:**

ESMAP has consulted widely, including with various World Bank units, the Bank's Independent Evaluation Group (IEG), as well as donors, to glean best practices in monitoring and evaluation (M&E). As a result, ESMAP has developed a new results framework that brings together key aspects of its constituent programs and initiatives in a systematic, concise, and coherent manner; and provides a framework for monitoring and evaluation where planned and actual results can be compared. The next critical steps in putting this new results framework into practice include (i) analyzing the operating context of each ESMAP program and initiative; (ii) taking into account the experience and opinions of all stakeholders; (iii) adopting a harmonized approach with partners and donors; and (iv) identifying and reviewing risks and assumptions to develop robust mitigating actions.

#### **NEXT STEPS:**

During the first half of FY10, ESMAP will prepare detailed results frameworks for each of its constituent programs and initiatives, and develop an umbrella M&E system. The overarching M&E system will serve the following purposes: (i) to promote accountability for the achievement of ESMAP's program-level objectives through the systematic assessment of outcomes and the effectiveness of stakeholders who are implementing and benefiting from ESMAP activities; (ii) to enhance the use of performancebased criteria as a basis for decision-making on ESMAP policies, strategies, program management, and activities; and (iii) to facilitate feedback and learning by sharing knowledge and lessons learned for better and wider recognition of ESMAP results and achievements. This work entails developing detailed indicators and related targets for each of ESMAP's programs and confirming with internal partners and clients, as well as establishing data collection arrangements. ESMAP will report on the progress of implementing its new M&E system during the second half of FY10.

#### **OVERALL ESMAP PERFORMANCE INDEX:**

In parallel, ESMAP will explore partnering with the World Energy Council (WEC) on its comprehensive multi-year Assessment of Energy and Policy Practices Index, which will examine a country's overall capability to develop and implement energy policies and practices in terms of institutions, economy, social capacity and equity, and environment. The resulting index would provide an independent means of verifying the impact of ESMAP's contributions in building institutional capacity and transferring cutting-edge know-how for the delivery of clean, reliable, and affordable energy services to client country stakeholders and the global energy community.

# **Our Clients**

All active borrowers of the World Bank Group are eligible for ESMAP assistance, however, priority is given to countries and territories currently classified as "least developed," "low income," and "lower middle income" on the Development Assistance Committee list of Official Development Assistance recipients.

# ESMAP Strategic Business Plan 2008-2013: Results Framework

#### **NARRATIVE SUMMARY**

#### ESMAP Overall Goal:

To increase know-how and institutional capacity of ESMAP client countries to plan, manage, and regulate the implementation of policies, strategies, and programs that deliver clean, reliable, and affordable energy services required by their citizens for poverty reduction and environmentally sustainable economic growth

# ESMAP Strategic Business Plan Objective:

Increase client country know-how and institutional capacity to address global energy challenges:

- (1) Reducing energy sector vulnerability to global crises (energy security)
- (2) Closing the energy access gap for the poor (energy poverty)
- (3) Mitigating climate change impacts of energy production, supply, and end-use (clean energy)

#### **OUTCOME INDICATORS**

- Capability of client countries to formulate, implement, monitor, and evaluate impacts of policies strategies and programs to address global energy challenges
- Number of client policy reform measures, strategies, and programs that have been influenced by ESMAP
- Level of client satisfaction with outputs of ESMAP analytical and advisory (AA) activities (for all ESMAP initiatives)
- Number of people in client countries and the global energy practice making use of know-how disseminated by ESMAP

#### **INTERMEDIATE OUTCOMES**

#### **OUTCOME INDICATORS**

Component 1: Energy Assessments and Strategy Programs (EASP)

Subcomponent 1A: Country Energy Sector Vulnerability Assessments Program (CESVAP)

Key Objective: To assist ESMAP client countries reduce energy sector vulnerability to interlinked global crises (energy security)

- ESMAP client countries have capacity and know-how
  to develop and implement policy reform measures and
  robust strategies to mitigate short, medium, and long
  term vulnerabilities in their national energy systems,
  emanating from (i) crises on the global financial and credit
  markets; (ii) high and volatile prices on global energy
  markets; and/or (iii) emerging patterns of climate
  variability
- Number of client policy reform measures, strategies, programs, and awareness raising activities to enhance energy security by reducing vulnerability to global crises (e.g., financial-credit crunch, volatile energy markets, climate variability) that have been influenced by ESMAP

# Subcomponent 1B: Regional Energy Integration Strategies Program (REISP)

Key Objective: To assist ESMAP client countries diversify energy supply (energy security)

- ESMAP client countries have capacity and knowhow to collectively develop and implement robust regional strategies to expand cross-border energy infrastructure development and trade as a means to diversify energy supply
- Number of client strategies and programs to diversify energy supply based on cross-border energy infrastructure development and trade that have been influenced by ESMAP

## Subcomponent 1C: Low Carbon Growth Country Strategies Program (LCGCSP)

Key Objective: To assist ESMAP client countries achieve low carbon growth (clean energy)

- ESMAP client countries have capacity and know-how to develop and implement energy strategies and programs that contribute to low carbon growth and secure access to programmatic financing through carbon markets
- Number of client energy strategies and programs that contribute to low carbon growth and secure access to programmatic financing through carbon markets

#### **MEANS OF VERIFICATION**

- Energy Policy and Practices Index conducted by the World
- Energy Council (multi-year assessment) <sup>1</sup>
- ESMAP Annual Reports
- ESMAP M&E System
- Independent TAG client country surveys

#### **USE OF OUTCOME INFORMATION**

- Provide an objective basis for the CG to assess the
  effectiveness of ESMAP in building institutional capacity
  and transferring cutting-edge know-how for the
  delivery of clean, reliable, and affordable energy services
  to stakeholders in client countries and the global energy
  practice
- Provide an objective basis for the CG to assess the implementation effectiveness of the ESMAP 2008-13 Strategic Business Plan

#### **MEANS OF VERIFICATION**

#### **USE OF OUTCOME INFORMATION**

- ESMAP M&E System
- Annual Reports of ESMAP Partners (e.g., PPIAF, INFRA)
- Provide an objective basis for the CG to assess the effectiveness of ESMAP and its partners in transferring know-how and innovative cutting-edge solutions on reducing energy sector vulnerability to crises to stakeholders in client countries and the global energy practice

- ESMAP M&E System
- Annual Reports of ESMAP Partners (e.g., PPIAF)
- Provide an objective basis for the CG to assess the
  effectiveness of ESMAP and its partners in transferring
  know-how and innovative cutting-edge solutions for
  expanding cross-border energy infrastructure
  development and trade to stakeholders in client countries
  and the global energy practice

- ESMAP M&E System
- Annual reports of EMSAP Partners (e.g., WBI, WB Carbon Finance Unit)
- Provide an objective basis for the CG to assess the effectiveness of ESMAP and its partners in building capacity and transferring cutting-edge know-how on developing and implementing strategies and programs that contribute to low carbon growth to stakeholders in client countries and the global energy practice

<sup>&</sup>lt;sup>1</sup> The World Energy Council will prepare its first comprehensive, 60-country Energy Practice and Policy Index (EPPI) in December 2009. ESMAP intends to partner with this organization and utilize its ongoing assessment which will provide an objective means of gauging and measuring ESMAP's impact in key areas, such as institutions and regulations, energy security, social equity, and climate change.

# ESMAP Strategic Business Plan, 2008-2 013: Results Framework (CONTINUED)

# **IMMEDIATE OUTCOMES**

#### **OUTCOME INDICATORS**

Component 2: Pro-poor Energy Access-TA Programs (PEA-TAP)

Subcomponent2A: Energy SME Development Strategies-TA Program (ESMEDS-TAP)

Key Objective: To assist ESMAP client countries close the energy access gap for the poor (energy poverty)

- ESMAP client countries have capacity and know-how to design and deploy robust strategies incorporating comprehensive policy reform measures and strategies to enhance SMEs productivity as both providers and users of modern energy services
- Number of client policy reform measures, strategies and programs to enhance SME effectiveness in delivering clean, reliable, and affordable energy services that have been influenced by ESMAP

## Subcomponent 2B: Rural Electrification Strategies-TA Program (RES-TAP)

Key Objective: To assist ESMAP client countries enhance poverty reduction impacts of national/rural electrification programs

- ESMAP client countries have capacity and know-how to design and deploy robust monitoring and evaluation systems to ascertain the poverty impacts for national/rural electrification
- Number of client countries with enhanced poverty impact M&E systems for national/rural electrification programs that have been influenced by ESMAP

# Subcomponent 2C: Gender and Energy Development Strategies-TA Program (GEDS-TAP)

Key Objective: To assist ESMAP client countries achieve gender sensitive energy sector development

- Cities in ESMAP client countries have capacity and know-how to deploy policies, strategies, and programs that integrate gender sensitivity approaches into energy sector development
- Number of client programs with gender sensitive energy sector development influenced by ESMAP

## Component 3: Energy Efficient Cities Initiative (EECI):

Key Objective: To assist cities in ESMAP client countries enhance energy efficiency in the delivery of city services

- ESMAP client countries have capacity and know-how to develop and implement innovative strategies and plans to implement energy efficient, cost effective, and environmentally sustainable delivery of city services
- Number of client city energy strategies and plans promoting energy efficient delivery of city services (e.g., buildings, city lighting, housing, power/heating, transport, water/wastewater) influenced by ESMAP

#### Component 4: Renewable Energy Market Transformation Initiative (REMTI):

Key Objective: To assist ESMAP client countries diversify their energy supply mix and scale up deployment of renewable energy technology

- ESMAP client countries have capacity and know-how to develop and implement transformational policies, programs, and strategies (short, medium, and long term) to scale up grid-tied deployment of renewable energy technologies (i.e., hydropower, geothermal, CSP, wind)
- Number of client strategies, policies, legislation, and investment plans to advance grid-tied deployment of RE technology (i.e., wind, CSP, geothermal, hydropower) that have been influenced by ESMAP

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- ESMAP M&E System
- Annual Reports of ESMAP Partners (e.g., Cities Alliance, infoDev, UNEnergy)
- Provide an objective basis for the CG to assess the
  effectiveness of ESMAP and its partners in building
  capacity and transferring cutting-edge know-how on
  closing the energy access gap for the poor to stakeholders
  in client countries and the global energy practice

## (energy poverty)

- ESMAP M&E System
- Annual reports of ESMAP Partners (e.g., DEC-DIME, UNEnergy)
- Provide an objective basis for the CG to assess the effectiveness of ESMAP and its partners in building capacity and transferring cutting-edge know-how on enhancing national/rural electrification M&E systems to stakeholders in client countries and the global energy practice

## (energy security, energy poverty, clean energy)

- ESMAP M&E System
- Annual reports of ESMAP Partners (e.g., GAP unit)
- Provide an objective basis for the CG to assess the effectiveness of ESMAP and its partners in building capacity and transferring cutting-edge know-how on gender sensitive energy sector development to stakeholders in client countries and the global energy practice

## (energy security, energy poverty, clean energy)

- ESMAP M&E System
- Annual Reports of ESMAP Partners (e.g., Cities Alliance, Clinton Foundation, ICLEI, UN Habitat, IBNET, WBI)
- Provide an objective basis for the CG to assess the
  effectiveness of ESMAP and its partners in building
  capacity and transferring cutting-edge know-how on
  enhancing energy efficiency in the delivery of city services
  to stakeholders in client countries and the global energy
  practice

#### (energy security, clean energy)

- ESMAP M&E System
- Annual Reports of ESMAP Partners (e.g., REN21, WBI CTF, SREP, CPF, IRENA, ect.)
- Provide an objective basis for the CG to assess the
  effectiveness of ESMAP and its partners in building
  capacity and transferring cutting-edge know-how on
  diversifying energy supply mix and scaling up deployment
  of renewable energy technology to stakeholders in client
  countries and the global energy practice



Without access to reliable energy supplies, environmentally sustainable energy development will be difficult, and without attention to environmental sustainability, meeting basic needs of future generations will be diffcult.

#### ABBREVIATIONS AND ACRONYMS

AA Analytical and Advisory (Activity)

ABG Annual Block Grant

AFREAS Africa Energy Access Scale-Up Program

ASTAE Asia Sustainable and Alternative Energy Program

CA Cities Alliance

CADF Carbon Asset Development Fund CDS City Development Strategy

CEIF Clean Energy Investment Framework

CG Consultative Group
CPF Carbon Partnership Facility
CSP Concentrated Solar Power
CTF Clean Technology Fund

DEC Development Economics Research Group (WB unit)
DflD Department for International Development, UK
DIME The Development impact Evaluation Initiative

EAS-TAP Energy Assessment & Strategy Technical Assistance Programs

EE&RE TF Energy Efficiency and Renewable Energy Trust Fund

EECI Energy Efficient Cities Initiative
EFPI Energy for the Poor Initiative
ETFP Energy Trust Funded Program

EUEI-PDF European's Union Energy Initiative's Partnership Dialogue Facility

GAP Gender Action Plan
GEA Global Energy Assessment
GEF Global Environment Facility

GFSE Global Forum for Sustainable Energy

GHG Greenhouse Gases
GPG Global Practice Group

GPOBA Global Partnership for Output-Based Aid

IBNET International Benchmarking Network for Water and Sanitation Utilities

ICLEI International Council for Local Environmental Leaders

ICT Information and Communications Technology

IEA International Energy Agency
IEG Independent Evaluation Group
IFC International Finance Corporation
IFI International Financial Institution
infoDev Information for Development Program
IRENA International Renewable Energy Agency

M&E Monitoring and Evaluation
MDG Millennium Development Goal
MDTF Multi-Donor Trust Fund

PEA-TAP Pro-Poor Access-Technical Assistance Program
PPIAF Public Private Infrastructure Advisory Facility

RE Renewable Energy

REMTI Renewable Energy Market Transformation Initiative
RENZI Renewable Energy Policy Network for the 21st Century

SDN Sustainable Development Network SME Small and Medium Enterprise

SREP Scaling-up Renewable Energy Program TA Technical Assistance

TAG Technical Assistance
TAG Technical Advisory Group
WBG World Bank Group
WBI World Bank Institute
WEC World Energy Council

WSP Water and Sanitation Program



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