



UNDP AND ENERGY ACCESS FOR THE POOR: ENERGIZING THE MILLENNIUM DEVELOPMENT GOALS

United Nations Development Programme

ENVIRONMENT & ENERGY

Our mission: Reaching the poor with energy services for daily and productive needs

Clean, reliable and affordable energy services are indispensable for global prosperity and the achievement of the Millennium Development Goals (MDGs). Energy makes a profound impact on multiple aspects of human development, from poverty to gender equality, health, food security and climate change. It is directly linked with most, if not all, of the global challenges targeted by the MDGs. Yet 1.4 billion people have no access to electricity while 3 billion people continue to rely on solid fuels (traditional biomass and coal) for cooking and heating – at tremendous cost to productivity and health.

Access to modern energy services for the poor is about energizing human development. It is a priority for the United Nations Development Programme (UNDP) and necessary to ending poverty, empowering women and generating opportunities.

UNDP helps developing countries to address their energy access challenges through activities consistent with its Strategic Plan 2008-2013, focused on three areas:

- Strengthening national policy and institutional frameworks;
- Mobilizing and expanding financing options; and
- Developing effective approaches for scaling up energy service delivery at the local level.








The aim is to reach the poor with modern energy services that boost productive and income-generating activities and protect human health and the environment. The challenge is to make it happen at scale and at speed to accelerate achievement of the MDGs by 2015. To meet this challenge, UNDP draws on the expertise of United Nations Country Teams on the ground and works with a network of United Nations agencies and partners in governments, the private sector and civil society organizations as well as the Global Environmental Facility (GEF) and GEF Small Grants Programme.

“Expanding access to affordable, clean energy is critical for realizing the MDGs and enabling sustainable development across much of the globe.”

Ban Ki-moon, Secretary-General of the United Nations

ENERGY AND THE MILLENNIUM DEVELOPMENT GOALS

Increasing access to modern energy services produces enormous multiplier effects:

| | |
|--|---|
|  | <p>Reducing poverty and creating jobs, largely for poor households and local entrepreneurs by sparking income-generation, reducing hunger, and increasing agricultural productivity and entrepreneurial opportunities.</p> |
|   | <p>Empowering women by liberating women and girls from time-consuming tasks, allowing time to be re-invested in education and income-producing activities.</p> |
|   | <p>Improving health conditions by decreasing drudgery for women and children and by eliminating 'kitchen smoke' that is associated with 2 million premature deaths annually.</p> |
|  | <p>Promoting clean energy solutions that can contribute to a low-carbon growth and climate resilient future.</p> |
|  | <p>Fostering global partnerships to promote universal access to modern energy services as a vehicle for achieving the Millennium Development Goals.</p> |

Energy services to meet the development needs of the poor

Energy for the poor is not just about kilowatt hours. It means that lights are on at school, health clinics function properly, pumps bring clean water, women gain time and earn income, girls continue their education, mechanical power helps to grow and process more food and spur more commerce, and cooking family meals no longer fills homes with deadly smoke.

Access to modern energy services delivers multiple benefits to the least-served populations of remote rural areas and urban slums, where a little can go a long way. Even a basic level of electricity access or modern fuels that replaces other traditional sources of fuel for energy needs such as lighting or motive power and allows for communication, healthcare and education can provide substantial benefits to a community or household, including cost savings. This basic level could be as little as 100 kWh of electricity and 100 kgoe (equivalent to roughly 1200 kWh) of modern fuels per person per year.¹

Many of the world's poorest will never be reached, in their life time, through centralized national energy systems alone if the 'business as usual' approach to energy planning continues. But off-grid decentralized energy solutions that meet poor people's energy needs are already tried and tested on the ground. So too are working business models that are delivering affordable, cleaner and more efficient fuels to the poor.

Governments are recognizing that modern energy services must reach beyond the wealthy in cities to the poor in remote rural areas and urban slums. Progress in health, education and economic growth depend on it. In seeking to meet this need, nations not only fulfil their commitments to the poorest but benefit from their newfound productivity.

1. These estimates of kilowatt hours (kWh) and kilogrammes of oil equivalent (kgoe) are from the International Energy Agency (IEA) as per the Summary Report and Recommendations of the UN Secretary General's Advisory Group on Energy and Climate Change (2010).

ENSURE UNIVERSAL ACCESS TO MODERN ENERGY SERVICES BY 2030

UNDP is responding to the call for universal energy access. A new global goal to ensure universal access to modern energy services by 2030 is advocated by the United Nations Secretary-General's Advisory Group on Energy and Climate Change (AGECC). Achieving universal access to modern energy services is ambitious but doable. There are no fundamental technical barriers, it is within reach financially, and experience shows that rapid progress in energy access is indeed possible. To meet the target of achieving universal access to modern energy services by 2030, additional investment of \$756 billion is required, or \$36 billion per year. This is less than 3 percent of the projected global energy investment. The resulting increase in CO2 emissions of 0.8 percent would be modest. Meeting the goal will require dramatically stepped-up efforts by all sectors of society: governments, the private sector, local communities and civil society, international organizations and the world of academia and research.

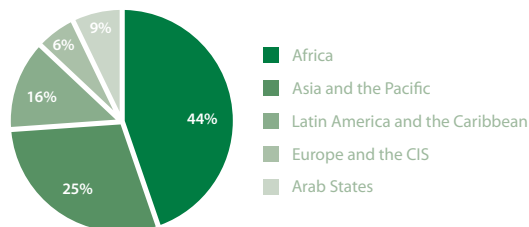
Source: IEA, UNIDO, UNDP (2010) Energy Poverty: How to make modern energy access universal. IEA, Paris.

Making a difference for one million beneficiaries a year

The overall portfolio of UNDP energy-related projects and programmes has more than doubled in a decade to some \$2.5 billion, including funds from its own regular resources, governments, the Global Environmental Facility, GEF Small Grants Programme, bilateral donors and other partners in the private sector and civil society.

Programmes that focus on off-grid energy solutions for poor people occupy a central part of the UNDP energy portfolio. More than 1,500 off-grid decentralized energy initiatives in over 100 developing countries have reached at least one million beneficiaries a year. Between 2001 and 2007, some 7 million people benefitted directly through UNDP support for expanding access to modern energy services for the poor. The potential to scale up is built into each initiative, as is the flexibility to apply the most appropriate approach for each situation.

OFF-GRID DECENTRALIZED ENERGY PROJECTS
REGIONAL DISTRIBUTION PER PROGRAMMED FUNDING
UNDP, 2001-2007



Investment corresponds to demand, with most funds directed to Africa and Asia, as this chart shows. In rural areas, especially in the least developed countries and sub-Saharan Africa, the challenge is to provide modern energy services for the poor that help to create new income-producing activities.

Coordinating UN system activities on-the-ground in 166 countries

Energy-related programmes are carried out through an extensive global network. UNDP is on the ground in 166 programme countries with annual turn-over of \$5 billion and has country offices in 136 countries in all regions of the world. It hosts the Resident Coordinator system that embodies the idea of 'One UN' and encompasses all organizations of the United Nations dealing with operational activities for development, regardless of their formal presence in a country. Coordination happens at three levels.

Country Level

Resident Coordinators lead United Nations Country Teams and work closely with national governments to improve the efficiency and effectiveness of development activities at the country level, including energy activities.

UNDP and the United Nations Country Teams identify energy-related programme areas through the United Nations Development Assistance Frameworks (UNDAF), a common programming

instrument and tool that facilitates country-level coherence and improves alignment of United Nations energy-related action with national development priorities and planning processes. Other programming tools include the common country assessment, joint programming and multi-donor Trust funds.

The team also provides support for country-level programming, implementation of activities, and strengthening national capacities to develop enabling policies and strategies, and to mobilize and expand financing options. They support local-level activities focused on establishing and/or strengthening capacities of local governments/public authorities, private entrepreneurs and civil society.

Regional level

UNDP energy activities at the country level are supported by a wide network of regional policy and technical advisors posted in six Regional Service Centres in Bangkok (also serving the Pacific

Islands from Fiji), Bratislava, Cairo, Dakar, Johannesburg and Panama (also serving the Caribbean Islands from Port of Spain). They are supported by a team in the Headquarters in New York. These centres provide support to national and regional energy policy development and formulation, capacity development, programme design, and technical assistance to United Nations Country Teams. Coherency of policy and programming support is ensured through UNDP Regional Programmes.

Global level

UNDP promotes a coherent approach to energy policy, providing guidance through the global programme framework. UNDP also supports research on global energy policy; monitors and evaluates the impact and results of energy activities; and carries out global advocacy and knowledge management on energy issues to support United Nations Country Teams.

Photo Credit: UNDP Burkina Faso



UNDP REGIONAL PROGRAMMES ON ENERGY ACCESS: REGIONAL APPROACHES FOR SCALING UP

UNDP's work on energy access for the poor has dramatically increased and expanded over the last decade, particularly in sub-Saharan Africa and the least developed countries, but also in other regions. The driving forces behind the growth have been the UNDP Regional Programmes, especially in Africa, Asia and the Pacific and Latin America, where substantial resources have been allocated for the work to expand access to modern energy services to the poor. These programmes, which are operated out of respective Regional Service Centres under the leadership of regional bureaux, have proven tremendously effective in directly supporting regional and sub-regional entities in policy and strategy development (e.g. ECOWAS); directly assisting countries in their energy access policy and programme designs, implementation and monitoring; and acting as magnets for partnership development with regional entrepreneurs to implement a variety of modern and clean technology options, and also for partnership with bilateral donors, multilateral development banks and major social funders such as The Bill & Melinda Gates Foundation.

Accelerating action to expand energy access at country level

To meet the energy access challenges of the poor, UNDP supports developing countries in enhancing their capacity in three areas: strengthening national policy and institutional frameworks, mobilizing and expanding financing options, and developing effective approaches to scale up energy service delivery at the local level.

1. STRENGTHENING NATIONAL POLICY AND INSTITUTIONAL FRAMEWORKS

UNDP works closely with governments to integrate energy access within national development strategies, poverty reduction strategies, low carbon development plans, and policy formulation – promoting the participation of people at the local, national and regional level in defining their own development priorities. Knowledge-based advisory and technical services support processes that bring together diverse stakeholders from ministries, planning agencies, businesses and consumer groups to consider sustainable solutions to national energy challenges, as in these selected examples:



Photo Credit: UN Photo/Martine Perret

- A regional energy policy created by the 15 countries of the Economic Community of West African States (ECOWAS) with UNDP support featured national plans with specific energy targets to achieve the Millennium Development Goals. The aim is access to modern energy services for 36 million more households by 2015. The regional strategy developed by the East African Community (EAC) with UNDP support is one of three pillars to promote poverty reduction and equitable development in the region. It applies a variety of business models to scale up modern energy services, including construction and commercial sales of improved cooking stoves, supply of liquefied petroleum gas, NGO engagement and off-grid systems as small and medium enterprises.
- In Chile, efforts to remove the existing barriers to the use of non-conventional renewable energies within the framework of the National Rural Electrification Program have received UNDP-GEF support. Such efforts are carried out by developing a set of activities that will allow for a decrease in the greenhouse gas emissions produced by energy sources in rural areas and will improve the living conditions of rural communities. By means of co-funding, more than 10,000 households will be supplied with electricity.
- UNDP has provided assistance to develop and strengthen national energy policy frameworks in the Pacific Island Countries of the Marshall Islands, Samoa and the Solomon Islands, and Republic of the Marshall Islands to support the development of plans and policies for rural electrification.

2. MOBILIZING AND EXPANDING FINANCING OPTIONS

National governments are developing the capacity to mobilize financial resources for energy access programmes through UNDP support in national budgetary processes, donor coordination, attracting private investment, public-private partnerships, micro-finance and other approaches. Even a small investment in modern energy services can be a catalyst for higher incomes and better living conditions, which is why UNDP supports access to financing for poor men and women. Small-scale financing complements large-scale financing of projects in many countries.

UNDP funds energy access activities through its regular resources and from the Global Environmental Facility, GEF Small Grants Programme, governments, private sector, Foundations and civil society partners. Also, the UNDP MDG Carbon Facility captures resources from the carbon markets for low-emission energy access technologies. Harmonization and alignment with the Paris Agenda on aid effectiveness is an ongoing priority. A variety of funding mechanisms are employed:

- A \$19 million grant awarded to a UNDP-supported project catalyzed additional resources when Burkina Faso leveraged its funds to raise support from the World Bank and added funds from the Heavily Indebted Poor Countries (HIPC) initiative. The Bill & Melinda Gates Foundation awarded the grant to establish 600 new sustainable, rural agro-enterprises in Burkina Faso, Mali and Senegal based on the multifunctional platform.
- In China, efforts to commercialize renewable energy technologies took a consumer-friendly, market-based approach to attract finance and investment through demonstration projects, guidebooks and business development activities. The project, supported by UNDP-GEF, influenced national policy and contributed to a new law on renewable energy for its scale up across China, especially in poor areas.
- South Africa, with UNDP support, demonstrated one way to target investments and subsidies to the poor when it introduced a 'poverty tariff' that required utility companies to provide 20-50 kWh per month of electricity free of charge to poor households, where income increased along with more lighting and use of appliances.

3. DEVELOPING EFFECTIVE APPROACHES FOR SCALING UP ENERGY SERVICE DELIVERY AT THE LOCAL LEVEL

UNDP helps to strengthen institutional capacity to deliver modern energy services at the local level. Successful local energy projects are documented and then can be scaled up and replicated elsewhere – a process encouraged through regional exchange of 'good practices'. These examples reflect a commitment to mobilizing knowledge globally and applying it locally.

- More than 1,600 multifunctional platforms have been installed in Burkina Faso, Ghana, Guinea, Mali, Niger, Senegal and Uganda, benefitting some 2.4 million people with access to mechanical power for agro-processing from simple diesel or biodiesel engines. The introduction of MFPs, with UNDP support, saved women two to four hours a day on domestic drudgery such as collecting water and fuel and grinding and milling staple foods. On average, each woman's annual income increased by \$45.
- In Nepal, a micro hydro power programme supplied electricity to 250,000 people in off-grid rural communities. The cost of developing national and local capacities to manage the rural decentralized energy system added up to more than half the total programme cost, yet created conditions crucial for scaling up.
- Fuel-efficient smokeless stoves in 55 poor villages on the edge of a forest reserve in Pakistan reduced tree-cutting and improved indoor air quality in a project that has constructed nearly 12,000 stoves, in a project with initial support from GEF Small Grants Programme and scaled up by UNDP-GEF and other partners. Families now buy 50 percent less wood than before, resulting in saved income and reduced health risks.

Galvanizing action for results

Universal energy access by 2030 requires strong political and financial commitments and strategic partnerships at all levels. UNDP has been galvanizing global action to strengthen country level support through the following ways:

Global Advocacy

The aim of global advocacy is to ensure that efforts to support energy access initiatives in developing countries receive the necessary global, regional and national attention and support. UNDP engages and participates in global advocacy activities including international conferences related to multilateral environmental agreements and related forums.

Efforts are made to enhance synergies with United Nations agencies, governments and other development partners working on energy issues. The aim is to ensure coherence and a harmonized global approach to addressing the energy poverty challenge. Through global advocacy, UNDP and other United Nations agencies are working together in selected themes such as energy access, renewables and energy efficiency through a variety of avenues. For example, UNDP is a leader in the area of energy access within UN-Energy, the global inter-agency coordination mechanism in the area of energy. UNDP and UNDESA, with support from the World Bank, are taking a lead on energy access theme within their respective mandates.

Analysis and knowledge management

Knowledge management is an essential component of galvanizing support to strengthen country level action on energy. UNDP analyses global and regional experiences from country-level activities, codifies information and produces it in the form of knowledge products. The products are disseminated through

various knowledge networks and are used for expert advice to support advisory services to country-level energy activities. The publications and other materials by UNDP in the area of energy are accessible at: www.undp.org/energy.

Learning from experience is key to scaling up, and UNDP has established knowledge networks to tailor solutions to local conditions, based on lessons learned across the globe. UNDP's Environment and Energy Network connects development practitioners online and is complemented by the new Teamwork platform for knowledge sharing. To support this work, UNDP produces practical tools such as a guidance notes to support scaling up access to energy at country level.

Partnerships

Ultimately, progress in energy access is a result of a robust engagement in partnerships and coordination. UNDP works in partnership with other United Nations agencies, government departments and ministries, multilateral development banks, civil society, the private sector, foundations, community groups, and development partners at the global, regional and national levels. The partnerships ensure synergy in support to country level activities, promote South-South and South-North collaboration, and ensure that effective efforts are put in place to expand energy access.

Like these partnerships, made of people sharing a vision of a better life for the poor, access to energy is ultimately about people – not a solar panel or metal turbine, but the men and women who use it, run it, maintain it and power positive change in their communities.



United Nations Development Programme
One United Nations Plaza
New York, NY, 10017 USA

October 2010

For more information visit: www.undp.org/energy

Email: energy@undp.org

UNITED NATIONS ENERGY ACCESS FACILITY

The United Nations Energy Access Facility (UN-EAF) is a new collaborative programme of UNDP, UNEP and UNIDO in collaboration with governments and private sectors partners aimed at supporting developing countries in dramatically expanding access to modern and clean energy services for the poor to help achieve the Millennium Development Goals (MDGs). It is a joint response to the recommendations of the Secretary General's Advisory Group on Energy and Climate Change (AGECC) calling for universal access to modern energy services by 2030.

The UN-EAF, UN Multi-Donor Trust Fund, brings together the respective strengths of different UN organisations to provide wide-ranging technical assistance and capacity building services for developing countries. It is intended to fully complement other relevant initiatives, particularly those of the World Bank, Regional Development Banks, GEF, bilateral development agencies and private investors.