



Global Staff Forum 2007

Administrator's Annual Awards

(Please email your responses to: <gsf.2007@undp.org>)

CO: UNDP – Lebanon
Unit: Energy & Environment
Team Members: Jihan Seoud – Programme Associate
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Greening Award Criteria: Substantive work

Title: Scaling Up Demonstration Project to National Strategy

Although there is no specific MDG relating to energy, there is an intimate link between how we extract, generate, and manage our energy resources, and how we ensure that our environment, which provides these important benefits, does not come at unacceptable cost. How we meet our energy needs is thus intimately related to how we ensure a sustainable environment and our targets under MDG 7.

For developed and many middle-income countries, it is important to not only improve both the quality and quantity of energy services, but also find alternative sources of energy. Access to energy services affects practically all aspects of sustainable development, including access to water, agricultural productivity, health care, education, and job creation, and climate change. Managing our energy and our environment is central to the achievement of all the Millennium Development Goals.

In its deliberations on how to find a win-win solution between energy generation and environmental sustainability, the Energy and Environment Programme in UNDP Lebanon assisted the Government of Lebanon in developing a pilot programme that was eventually to grow into a national policy priority.

The urgency of energy efficiency, and the implementation of renewable energy projects in Lebanon is underlined by the recent rise in the price of oil and the burden imposed on

both the Lebanese Government and on the public through the national electricity provider, *Electricite du Liban (EDL)*, a public establishment with an industrial and commercial vocation, responsible for the generation, transmission, and distribution of electrical energy in Lebanon.

EDL provides power to most of the country, but it is heavily indebted and cannot afford to purchase enough fuel to meet Lebanon's growing energy needs and power its post-conflict recovery and reconstruction. It is well-known in Lebanon that EDL constitutes the single-greatest drain on the Treasury, which in 2005 (the last year for which final figures are available) paid out some \$522 million to cover extensive losses.¹

To compound its woes, Lebanon was to witness again a series of strong political and security shocks in the last two years, from the July War in 2006 and the armed conflict in 2007 in the Palestinian camp of *Nahr-El-Bared*. These tragic events have further negatively affected the electrical system in Lebanon, and the poorest sectors of society have again been disproportionately hard-hit.

In response to this national strategic and developmental prerogative, UNDP and the Government of Lebanon embarked upon a path to find alternative sources of energy. UNDP had installed Solar Water Heaters (SWH) in 500 households in many of the poorest villages of South Lebanon (using equipment received from the Government of China), prior to the July 2006 War. Studies suggest that such SWH systems are able to significantly reduce the consumption of, and dependence on, traditional fuel. Preliminary results of the pilot indeed confirmed that a reduction of up to 30% in household energy costs has been achieved, and that beyond the obvious cost-savings, the installation and ease of maintenance also led to a high perception of benefit by the beneficiaries. The saved income, according to the beneficiaries, would be spent on increased spending on education, health and business.

Though approximately 50% of these particular SWH systems were destroyed during the July War, Lebanon had by this time become convinced of the merits of this alternative source of power, and officially decided to scale up the SWH programme and replicate it throughout Lebanon within the context of the UNDP early recovery programme. This

upscaling is expected to achieve significant national impact in terms of access to energy services, cost of energy, increased national independence, and eventually improved living standards.

Since the approach demonstrated both tangible short-term, and obvious long-term benefits, donor interest in this sector grew significantly and financial resources were committed to supporting activities which become part and parcel of a broader national plan to advance the country upon the path of sustainable energy use.

More specifically, the Spanish government chose to continue funding energy efficient approaches and renewable energy applications through a project on the installation of solar water heaters, energy efficient bulbs and photovoltaic solar panels in public buildings in selected affected areas in Bekaa, South & Akkar. The Greek Government, through its Hellenic Aid programme, confirmed additional funds to UNDP for additional renewable energy and energy efficient projects.

Based on this success, and on the facts that electricity, a very expensive commodity in Lebanon, was cut off from a number of the communities during the war, the Ministry of Finance, the Ministry of Energy and Water partnered with UNDP to upscale these pilot projects to a national-level programme within the energy sector. Accordingly, a “Sustainable Energy Strategy” was developed and adopted in order to supporting the Government of Lebanon demand-side energy management which would decrease its fiscal burden and shift the national market towards increased energy efficiency and small-scale renewable energy applications. The strategy defined a programme which works at two levels: implementation of demonstrative models of energy efficiency applications and solar thermal systems in all public buildings; and setting a fiscal and legislative environment that would encourage the private sector and the public at large to adopt similar sustainable energy approaches.

This approach will support the diversification of Lebanon’s energy, promote environmentally sustainable renewable energy alternatives, lower demand on Electricite du Liban, and ultimately provide cleaner and more affordable energy for the citizens of Lebanon (see attached Video Ad).

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ⁱ Lebanon's power problems date back to the 1975-1990 civil war, which devastated the country's electricity network. After the end of the civil war, succeeding governments made efforts on the rehabilitation or construction additional power plants and their accompanying grid. In the early 1990s, government officials boasted that the rehabilitation would boost EDL's capacity from 800-1,000 megawatts to over 2000 megawatts by the year 2000. A decade later, its capacity stands at around 1,400 megawatts, well short of the country's needs, estimated by experts to be around 1,800 megawatts.