

UNDP Lebanon

**Lebanon:
Evaluation of the Energy & Environment Programme**

An Outcome Evaluation

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Table of Contents

- Acronyms 4
- Executive Summary** 5
- 1. Introduction** 9
- 2. Methodological Approach** 10
 - Definitions 11
 - Acknowledgements 11
- 3. Findings and Conclusions** 13
 - 3.1 Portfolio Analysis 13
 - 3.2 Status of the Outcome 14
 - 3.2.1 The Expected Outcome of the UNDP Energy & Environment Programme 14
 - 3.2.2 Factors affecting the outcome 17
 - 3.3 UNDP’s Contribution to the Outcome Through Outputs 18
 - 3.3.1 Relevance 18
 - 3.3.2 Effectiveness 22
 - 3.3.3 Efficiency 24
 - 3.3.4 Impact 27
 - 3.3.5 Sustainability 28
 - 3.4 UNDP’s Resource Mobilisation and Partnership Strategy 30
 - 3.4.1 Partnerships at the Donor Level 30
 - 3.4.2 Partnerships at the Level of National Project Partners 31
 - 3.4.3 Partnerships at the Level of Local Target Groups 31
- 4. Discussion, Conclusions and Recommendations** 32
- References** 36

- Annex**
- Annex 1: Terms of References 38
- Annex 2: Itinerary of the Evaluation Mission 42
- Annex 3: List of Persons Interviewed 44
- Annex 4: Evaluation Questions 46
- Annex 5: The Three Pillars of the UNDP Energy & Environment Programme 47
- Annex 6: Project Profiles 48

Acronyms

Many projects assessed in this evaluation also use acronyms as short titles. These are given in Table 1.

APR	Annual Progress Report
AUB	American University of Beirut
CBD	Convention on Biological Diversity
CCF	Country Cooperation Framework
CDR	Council for Development and Reconstruction
CFC	Chlorofluorocarbon
CIDA	Canadian International Development Agency
CO	Country Office (UNDP)
DAC	Development Assistance Committee of OECD
DEX	Direct Execution (UNDP)
EE	Energy Efficiency
ESCO	Energy Service Company
EU	European Union
GEF	Global Environment Facility
GHG	Greenhouse Gas
GoL	Government of Lebanon
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
LARI	Lebanese Agricultural Research Institute
LRF	Lebanese Recovery Fund
MAP	Medicinal and Aromatic Plant
MDG	Millennium Development Goal(s)
MLF	Multilateral Fund for the Implementation of the Montreal Protocol
MoA	Ministry of Agriculture, GoL
MoE	Ministry of Environment, GoL
MoEW	Ministry of Energy and Water, GoL
MoF	Ministry of Finance, GoL
MoJ	Ministry of Justice, GoL
MoU	Memorandum of Understanding
MSP	Medium-sized Project (GEF)
MYFF	Multi-year Funding Framework
NAP	National Action Programme (for UNCCD)
NEX	National Execution (UNDP)
ODA	Official Development Assistance
ODS	Ozone Depleting Substance(s)
OECD	Organisation for Economic Cooperation and Development
POP	Persistent Organic Pollutant
PM	Project Manager
RAF	Resource Allocation Framework
ROAR	Result Oriented Annual Report
SIDA	Swedish International Development Cooperation Agency
SLM	Sustainable Land Management
SNC	Second National Communication (to UNFCCC)
SRF	Strategic Results Framework
SWH	Solar Water Heater
TOR	Terms of References
TPR	Tripartite Review
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Assistance Framework
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNDP-CO	UNDP-Country Office
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank

Executive Summary

UNDP's Energy & Environment Programme in Lebanon comprises 29 projects, two of which were completed recently and six are under preparation. The overall project value is approximately US\$ 33.2m. The value of ongoing operations adds up to US\$ 20.2m. Over half of the projects (52 percent) are under the regular programme, while 48 percent are regarded as recovery projects committed by various donors in the aftermath of the July 2006 War.

The projects in the Energy & Environment Programme are clustered in three groups: energy, rural livelihood and environment. Most projects are in the field of energy (45 percent), followed by environment (35 percent) and rural livelihood (20 percent). Programme formation with complementary projects serving a common goal is most advanced in the energy sector, and is an ongoing process in the rural livelihood and environment pillars. In the rural livelihood cluster, not all projects show a clear focus on environmental concerns, but aspects such as poverty alleviation dominate in some projects. The environmental project cluster comprises operations mainly in the field of environmental conventions (UNFCCC, Montreal Protocol, CBD) and help the GoL fulfil their international obligations.

The outcome of the Energy & Environment Programme is not yet clearly defined for a number of reasons, including the way of treatment of environmental objectives in the UN Development Assistance Framework (UNDAF) and the Country Cooperation Framework (CCF), which do not sufficiently reflect national and international demands. To address methodological shortcomings, the Outcome of the Energy & Environment Programme was interpreted according to the scope and objectives of UNDP Strategic Planning Framework Service Lines and the actual composition of the project portfolio.

The energy pillar, which deals with Energy Efficiency (EE) and Renewable Energy evolved recently and has become in the meantime the strongest cluster of projects in the programme. Herewith, UNDP is in line with the growing international attention climate change receives.

For the Rural Livelihood project cluster, water plays a crucial role. The status of the region's water resources has significantly worsened over the last two decades and water deficits have been predicted to be the cause of major armed conflicts in the Middle East. Lebanon is a water-rich country, while some regions suffer from frequent droughts. Some interventions of the Energy & Environment Programme deal with water, but these efforts are not comprehensive, and the water sector would surely deserve more attention. Also the threats imposed to rural Lebanon by climate change are so far not reflected in the rural livelihood project cluster. Adaptation to climate change is seen as a major global challenge which might affect Lebanon seriously.

In order to increase impact and better mainstream environmental concerns into sectoral policies and programmes, the Energy & Environment Programme relies on several partner ministries including the Ministry of Environment, the Ministry of Agriculture, the Ministry of Energy and Water, and the Ministry of Justice. The Ministry of Environment was almost the sole beneficiary until 2004, but it turned out that it is very much dependent on international funding and has limited capacity to convert the results of international projects into structural long-term effects which affect institutions beyond the own ministry. As the ministry has limited capacities to coordinate environmental affairs on an inter-ministerial level and to mainstream environmental concerns into other ministries' work, UNDP's decision to diversify the circle of beneficiaries was unequivocally an appropriate response.

Roughly two thirds of all 29 projects in the Energy & Environment Programme have a funding volume less than one million US\$. The smallest project in terms of funding comprises some US\$ 40,000, the biggest almost US\$ 4,000,000. The relatively high number of small projects imposes a high administrative and managerial burden to the programme team. Especially in those cases in which the small projects target the community level, no structural changes for development can be expected. Although most of these interventions show a high effectiveness, their overall impact is low.

Empowerment of women as a cross-cutting issue which should be pursued by all UNDP operations is especially relevant for those projects related to rural livelihood. UNDP took gender-sensitive approaches towards these issues. On an in-house-level, staffing on programme and project management level is more or less gender-balanced.

The Energy & Environment Programme is now less dependent on GEF compared with the situation a few years ago. Whereas it was by far the single most important donor until a few years ago, now only 49 percent of all projects of the regular programme are GEF funded. With the introduction of the Resource Allocation Framework (RAF) under GEF-4 for biodiversity and climate change projects, GEF-funded projects are likely to decrease further in UNDP's portfolio over the next years.

The aftermath of the July 2006 conflict presented a big challenge for UNDP. The Energy & Environment Programme could launch a package of "Quick starting and high impact recovery projects" as soon as the war ended and to be initiated from UNDP's own resources until that time that additional resources could be mobilized from the international donor community. Four projects have been approved as part of this Early Recovery Package. Five more projects, which serve the long-term recovery of the country, were funded subsequently by the Lebanese Recovery Fund (LRF). All recovery projects fit into the three pillars of the Energy & Environment Programme, but not all of them complement other operations. The Oil Spill Clean-up and the Rubble Recycling, for example, are typical stand-alone projects, while CEDRO and the Swedish Solar Heaters are fully complementary to ongoing operations. As many recovery projects begin only 1.5 years after the end of the conflict, they cannot be classified under humanitarian and/or ecological relief setting immediately after the war, and they should follow the standards for development projects.

In some ongoing recovery projects (Oil Spill, Rubble Recycling), UNDP takes the role of a fund manager/contractor acting on behalf of international donors: The Energy & Environment Programme prepared the TORs, issued an international invitation for tender, evaluated the bids, and takes care of project monitoring. These operations are beyond UNDP's core tasks (capacity development, empowerment, etc.), whereas they show a high confidence of donors in UNDP. They make use of UNDP's local permanent presence and its well-established network in Lebanon as well as its professionalism to oversee operations.

Among all projects, the highest impact was noted for the ODS phase-out operations. These projects are successful, as several complementary projects with the same overall objective target both structural changes at the policy level and tangible achievements on the ground. The projects have got enough time to gain experience and to put these experiences into practical action. Multi-level intervention and sufficient project duration thus turn out to be key factors for success. The interventions in the field of the Sustainable Energy Strategy are likely to have similarly a high impact as well. However, more time is needed to confirm this prognosis. Most other projects show a high effectiveness, but their structural long-term impact on national level is not always given.

Whereas participation as a fundamental principle for development is fully materialised in all UNDP operations, it often takes the form of stakeholder consultations rather than giving the beneficiaries the full responsibility. Many project tasks are at present fulfilled by project staff, even though they could be fulfilled by the beneficiaries/target groups themselves. That would increase ownership and ultimately sustainability.

The Energy & Environment Programme is well-connected with Lebanese institutions and with the donor community and enjoys high reputation as an efficiently working organisation. Based on a solid foundation of this trusted partnership, UNDP is now in a good position to complete the strategic orientation in its Energy & Environment Programme, adapt its resource mobilization strategy to new challenges and accentuate its comparative advantages over many other development partners.

Recommendations

For strengthening the overall performance and impact of the Energy & Environment Programme, it is recommended to UNDP

- To influence changes to the UNDAF, and subsequently the Country Cooperation Framework (CCF), that will recognize the work that is necessary in Lebanon in the field of energy and environment. Carefully worded outcomes are needed to provide the foundation for environmental ini-

tiatives that reflect the Government's priorities and the country's needs. Each outcome should be supported by a cluster of indicators to assist monitoring of progress.

- To continue the process of forming a coherent programmatic approach with projects complementing each other for a common goal. Programme formation is already rather advanced in the field of energy, but needs to be further streamlined in the rural livelihood and environment clusters of projects.
- To re-shape the rural livelihood pillar of the Energy & Environment Programme in a sense that it puts a clear focus on environmental concerns. *Sustainable Dryland Management* would better describe the priorities in this field. Poverty alleviation should be regarded as an intended spin-off of environmental projects, not as a primary goal.
- To integrate adaptation to climate change and the water sector into the sustainable dryland management pillar. These topics rank high on the national and international agenda and new funding opportunities may arise from it.
- To increase impact through concentrating efforts on a smaller number of projects with longer intervention periods and higher budgets. At present, the Energy & Environment Programme consists of 29 projects, which require a high overall management input. Larger projects with multi-level interventions and longer intervention periods usually show higher impacts.
- To strengthen results-based monitoring & evaluation (M&E) and reporting as a powerful management tool that can be used to track progress and demonstrate the impact of a given project or programme which is being made towards the targeted outcome. The Energy & Environment Programme already has a strong M&E system, and this Outcome Evaluation is a good example for the efforts undertaken towards outcome monitoring, but further efforts are needed on project level.
- To follow the same objectives and standards for recovery projects as for regular development projects, unless they can be classified as humanitarian or ecological relief setting immediately after the armed conflict. Recovery projects should therefore contribute to the same outcome as development projects. This is in particular relevant, as many recovery projects began at a considerable timely distance after the end of the conflict.
- To convey, if possible and appropriate, recovery projects to development projects and to integrate them into the regular programme as complementary operations. In particular the energy projects as well as for the Flood Management and MAP Cultivation Projects have long-term development goals which are fully in line with the intended outcome of the Energy & Environment Programme and require long-term interventions beyond the immediate recovery purpose.

On operational level, it is recommended to UNDP

- To strengthen participation of the target groups in all operations and give them more responsibility. That would increase their project ownership and ultimately sustainability.
- To consider an increase of the financial and/or in-kind input by the target groups. Many projects provide goods and services for free, which is considered a weak stimulus for development processes. Higher contributions by the beneficiaries are likely to have a positive effect on their engagement and will thus strengthen project ownership.
- To concentrate more on the role of the projects as enablers, catalysts and facilitators for development. At present, still many tasks are executed by the projects themselves rather than enabling project partners to execute these tasks.
- To better document for each project the intervention logic of projects, including problem analysis and the way how outcomes and outputs have been derived from it. In the projects analysed, some outputs, for example, do apparently not directly contribute towards the expected project objective.
- To continue efforts in the field of renewable energy to put a stronger focus on the removal of market barriers and the creation of competitive markets for equipment and services, rather than further

increasing the number of pilot measures (provision of equipment for demonstration purposes, etc.).

- To stronger select the beneficiaries of pilot measures in the energy sector according to their potential for the dissemination of new SWH technologies. Private households may have a higher catalytic effect for the dissemination of SWHs compared with public institutions. Restrictions imposed by donors should be re-considered together with them.

1. Introduction

UNDP's support to the environment sector in Lebanon started in 1994, one year after the establishment of the Ministry of Environment. The first project was "Capacity 21", and was followed by a series of projects and measures that assisted the institutional strengthening, building the capacities of national actors and providing necessary technical support to comply with the international environmental conventions signed by the Lebanese Government.

In addition to the direct projects intervention, UNDP's strategy has been to enhance policy advice to the main actors in the environment and energy sector and ensure more mainstreaming into other development sectors, while simultaneously addressing environmental issues from a socio-economic/poverty alleviation dimension. This has materialized in the establishment of synergies with on-going socio-economic development initiatives by UNDP and others and the design and initiation of new projects implemented together with ministries and institutions such as the Ministry of Agriculture, the Lebanese Agricultural Research Institute, the Ministry of Energy and Water, Électricité du Liban and the Directorate General for Urban Planning, Ministry of Justice, etc. Many of these environment projects result from a progressive development in the different thematic areas. It corresponds to a chain of projects that build on previous achievements.

In the process of portfolio expansion and mainstreaming, a wide range of new partnerships have been established including:

- Practitioners in the field at the national, regional and global levels;
- National institutions and local actors including NGOs and the private sector;
- Donor agencies such as the European Commission.

In addition, and after the July 2006 war on Lebanon, immediate support was also provided for Early Recovery Programmes in the energy and environment sector that was initiated and based on a 12 sub-sectors assessment entitled "Lebanon Rapid Environmental Assessment Greening Recovery Reconstruction and Reform 2006".

The aim of this evaluation was to assess the effectiveness and continuous relevance of the UNDP Lebanon Energy & Environment Programme to meeting UNDP's mandate and the priorities of the Government of Lebanon in the field of energy and environment; in addition, recommendations have been elaborated for the improvement of the programme objectives, targets, efficiency and effectiveness.

The main objectives of this evaluation were:

- Assessment of the programme effectiveness in mainstreaming environment in the country;
- Analysis of the attainment of the programme objectives, outcomes and impacts, including country ownership and sustainability, based on the set UNDP global and national targets and indicators and according to MDG targets;
- Assessment of the indirect effects of the programme on the improvement of national environmental conditions;
- Assessment of the programme implementation approach (operational procedures, structure, monitoring, control and evaluation procedures, financial and technical planning, project modality/structures) and their influence on the programme effectiveness;
- Assessment of the programme's adaptive management processes, particularly in relation to the unstable political situation in Lebanon during the last three years;
- Assessment and description of key factors that require attention in order to improve prospects for sustainability;
- Review of the programme's monitoring and evaluation systems, strategies and plans towards the outcomes and provide recommendations on their improvement;
- Provision of recommendations for increased programme effectiveness including strategic planning, operational and structural approaches.

The evaluation involved, in addition to programme and project staff, key programme partners at national and local level, and programme direct beneficiaries, participating in the programme.

The evaluation covered the programme implementation period 2004 to 2007. The evaluation assessed the continuous relevance of programme with regard to the needs of the target groups at the national and regional level, in addition to whether any changes have taken place and consequently whether the programme should be updated to reflect them.

2. Methodological Approach

This is an outcome evaluation and according to the Evaluation Policy of UNDP (May 2006), outcome evaluations address the short-term, medium-term and long-term results of a programme or cluster of related UNDP projects. They include an assessment of the effectiveness, efficiency, sustainability and relevance of the programme against their own objectives, their combined contribution, and the contribution of external factors and actors. Outcome evaluations also examine non-intended effects of the programme or projects. Outcome evaluations thus move away from the approach of assessing project results against project objectives towards an assessment of how these results contribute, together with the assistance of partners, to a change in development conditions. Outcome evaluations work backwards from the outcome. They take the outcome as their starting point and then assess a number of variables.

The evaluation was focused on the outcomes of the UNDP Energy & Environment Programme, rather than on inputs and outputs. Outcomes are the changes in development conditions that UNDP aims to achieve through this programme, and they incorporate the production of outputs and the contributions of partners. To conduct effective outcome evaluation, baseline data and outcome indicators of performance would be required. As UNDP's energy and environment projects and activities in Lebanon are still in the process of getting clustered under a programmatic approach, this information was not yet available. These constraints had to be taken into account during the evaluation process.

The evaluation was carried out as a combined approach of desk review, interviews with stakeholders and field visits.

For the preparation of the mission, the Multi-Year Funding Framework (MYFF), the Strategic Resources Framework (SRF), the United Nations Development Assistance Framework (UNDAF), and the Energy and Environment Strategy and Work Plan were reviewed. Documents on the recent political situation and its impact on development assistance included the reports of the GoL to the Stockholm Conference for Lebanon's Early Recovery (August 2006) and to the "International Conference for Support to Lebanon" (Paris III, January 2007). Further key documents were the UNDP report on "UNDP's participation in Lebanon's recovery in the aftermath of the July 2006 war" and the "Rapid environmental assessment for greening recovery, reconstruction and reform" (2006).

Principally all ongoing projects of UNDP's Energy & Environment Programme were subject to the evaluation. Projects in the pipeline were included, if their approval is expected in the near future. Completed projects were considered only in a few cases where the projects ended recently. Altogether, 29 projects with a financial volume of US\$ 33.2 million were evaluated (see Table 1).

On project level, the project documents and the most recent Annual Project Report (APR) were used as key documents. Additional reports, publications, brochures etc. were studied as appropriate.

As the purpose of the evaluation was to review the effectiveness, strength and weakness of the UNDP Energy & Environment Programme, the individual projects were not assessed on an operational level, but the focus was put onto the conceptual approaches and the overall design of the projects. Following this concept of portfolio evaluation, recommendations were elaborated for the overall portfolio, not for specific projects.

The interviews with stakeholders included both project staff and beneficiaries. Several field visits were carried out including to the fishery cooperative of Dbaye, to the Municipality of Ghobeiry, to Nabatieh and Soultanieh in the South and to the LARI headquarters in Zahle, Beka'a. Additionally, a Tripartite Project Review (TPR) of the "Rural Dryland Development Project" was attended.

Definitions

Outcome: Actual or intended change in development conditions that UNDP interventions are seeking to support. It describes a change in development conditions between the completion of outputs and the achievement of impact. In the context of this programme evaluation, the outcome is identical with the objective of the Energy & Environment Programme.

Outputs: Tangible products (including services) of a programme or project that are necessary to achieve the objectives of a programme or project. In the context of this programme evaluation, outputs are mostly identical with the results of projects.

Recovery / Early recovery: Recovery focuses on restoring the capacity of national institutions and communities after a crisis. Early Recovery is recovery that begins in a humanitarian relief setting immediately following a natural disaster or armed conflict. In the context of this report, Early Recovery was applied for those projects and interventions which were pledged in the Stockholm Conference in August 2006. Recovery projects in the sense of this report are projects funded through the Lebanese Recovery Fund (LRF).

Acknowledgements

I would like to acknowledge the tremendous assistance received from many individuals and organisations in carrying out the evaluation. First, I would like to thank the UNDP country team for their kind and patient support throughout the evaluation and invaluable contributions to the entire process. The evaluation could not have been done without the full assistance of UNDP staff, and by the willingness of project staff to speak at length and frankly about their work. Special thanks are due to the UNDP Energy & Environment Team for sharing their time and views with me, for making appointments, supplying documents, providing logistic support, and for a throughout highly efficient assistance during the mission.

I am also very grateful to all project personnel, counterparts and beneficiaries who met with me, sometimes more than once, and who patiently shared their experiences with the projects with me.

While I take full responsibility for the views expressed in this report, I gratefully acknowledge the contribution of all these people to the contents of this evaluation.

Table 1. List of projects under the UNDP Energy & Environment Programme in Lebanon. Funding volume in million US\$. Expenditure = approximate expenditure as of October/November 2007 (rough estimation). Source of Funds: only main funding sources are given here. ER = Early Recovery; LRF = Lebanese Recovery Fund.

	Project title	Short title	Source of Funds	Recovery	Period	Duration	Fund. Volume	Expend.
Sustainable Energy	Sustainable Energy Strategy	SES	UNDP, MoF	-	2007-09	2.5 y	0.60	0%
	Lebanon cross-sectoral energy efficiency and removal of barriers to ESCO operation	LCECP	GEF	-	2002-08	7.0 y	3.92	45%
	Capacity building or the adoption and application of thermal standards for buildings	EEB	GEF	-	2002-05	3.0 y	0.49	100%
	Community energy efficiency and renewable energy demonstration project for the recovery of Lebanon (South, Bekaa and Akkar)	CEDRO I	Spain	LRF	2007-09	1.5 y	2.73	<5%
	Country energy efficiency and renewable energy demonstration project for the recovery of Lebanon	CEDRO II	Spain	LRF	2009-11	2.0 y	3.50	0%
	Swedish Solar Thermal Water Heaters Donation	SIDA Solar heaters	Sweden	ER	2007-08	1.5 y	0.50	60%/?
	Towards Energy Efficient Reconstruction	Greek Solar heaters	Greece	LRF	2007-08	1.5 y	0.20	0%
	Chinese Solar Thermal Water Heaters Donation I	Chinese Heaters I	China	-	2005-06	1.0 y	0.62	100%
	Chinese Solar Thermal Water Heaters Donation II	Chinese Heaters II	China	-	2008ff.	1.0 y	0.65	0%
Global Solar Water Heating Market Transformation and Strengthening Initiative	SWH	GEF	-	2008-13	5.0 y	1.00	0%	
Rural Livelihood	Flood management	Flood	Spain	LRF	2007-09	1.5 y	2.83	0%
	Sustainable rural livelihood development programme for Lebanon	Industrial Hemp	MoA	-	2007-09	2.0 y	0.20	<5%
	Rural development through UNCCD	Desertification	Finland, MoA, UNDP	-	2000-06	6.0 y	0.31	100%
	Rural dryland development through innovative market approaches, financing strategies and local initiatives for UNCCD implementation	Desertification	Finland, GM, UNDP, MoA	-	2006-07	2.0 y	0.25	102%
	Promoting cultivation of medicinal and aromatic plants for livelihood recovery in South Lebanon	MAP Cultivation	Australia, UNDP	LRF	2007-08	1.5 y	0.20	20%
	Restoring Lives & Livelihoods of Fishermen	Fishermen	CIDA	ER	2006-08	1.5 y	0.92	75%/?
	Safeguarding and Restoring Lebanon's Woodland Resources	Reforestation	GEF	-	2008-13	5.0 y	0.98	0%
	Mainstreaming biodiversity management considerations into medicinal and aromatic plants production processes	GEF MAPs	GEF	-	2008-12	4.0 y	1.00	0%
Environment	Post-conflict oil spill clean-up project	Oil Spill	CIDA (Can.), Japan	ER	2006-07	1.5 y	2.41	44%
	An integrated waste management plan for mixed demolition waste in South Lebanon	Rubble	SIDA (Swed.)	ER	2006-08	2.0 y	1.43	<5%
	Integrated waste management for the olive oil pressing industries in Lebanon, Syria & Jordan	Olive Oil	EU	-	2005-08	3.0 y	1.73	17%
	National capacity self-assessment for global environmental management	NCSA	GEF	-	2005-07	2.5 y	0.20	70%
	Enabling Activities for the preparation of the Second National Communication (SNC) to the United Nations Framework Convention on Climate Change	SNC-UNFCCC	GEF	-	2007-09	2.0 y	0.40	<5%
	Methyl bromide phase-out project	MeBr	Montreal Prot.	-	2002-08	7.0 y	2.51	86%
	Institutional strengthening project for the implementation of Montreal Protocol in Lebanon (phase IV)	ISP Ozone	MLF	-	2005-07	2.0 y	0.15	100%
	National phase out management plan for CFCs in Lebanon	NPMP	MP	-	2005-09	4.0 y	2.09	33%
	Supporting the judiciary system in the enforcement of environmental legislation	SEEL	World Bank	-	2007-10	3.0 y	0.40	10%
	Institutional Support to the Directorate General of Environment	ISDGoE	MoE	-	2005-07	2.0 y	0.04	<5%
Mainstreaming conservation of migratory soaring birds into key productive sectors along the Rift Valley/Red Sea flyway	Soaring Birds	MoE	-	2008-17	9.0 y	0.57	0%	

3. Findings and Conclusions

3.1 Portfolio Analysis

The Energy & Environment Programme comprises 29 projects, two of which were completed recently and six are under preparation. The overall project value is approximately US\$ 33.2 million. The project value of ongoing projects adds up to US\$ 20.2m. Most projects are in the field of energy (45 percent), followed by environment (35 percent) and rural livelihood (20 percent) (see Fig. 1). Over half of the projects (52 percent) are under the regular programme. 16 percent are regarded as Early Recovery Projects committed by various donors in the Stockholm Conference in August 2006, and based on a proposal elaborated by the UNDP Energy & Environment Programme under the motto “Quick Delivery - High Impact”. Recovery projects comprise 32 percent of the projects and are funded through the Lebanon Recovery Fund (LRF) established by various donors in December 2006 following the July 2006 war.

Over half of the budget (52 percent) is under Direct Execution Modus (DEX) of UNDP, which are those under the Early Recovery and Recovery efforts. Forty eight percent of the budget is managed under the National Execution Modus (NEX), which refers to those projects in the regular programme.

Roughly two thirds (67 percent) of all projects have a funding volume less than one million US\$; 39 percent less than half a million US\$ (see Fig. 2). The smallest project in terms of funding comprises some US\$ 40,000, the biggest almost US\$ 4,000,000.

Almost half of the projects of the regular programme (49 percent) are funded by the Global Environment Facility (GEF).

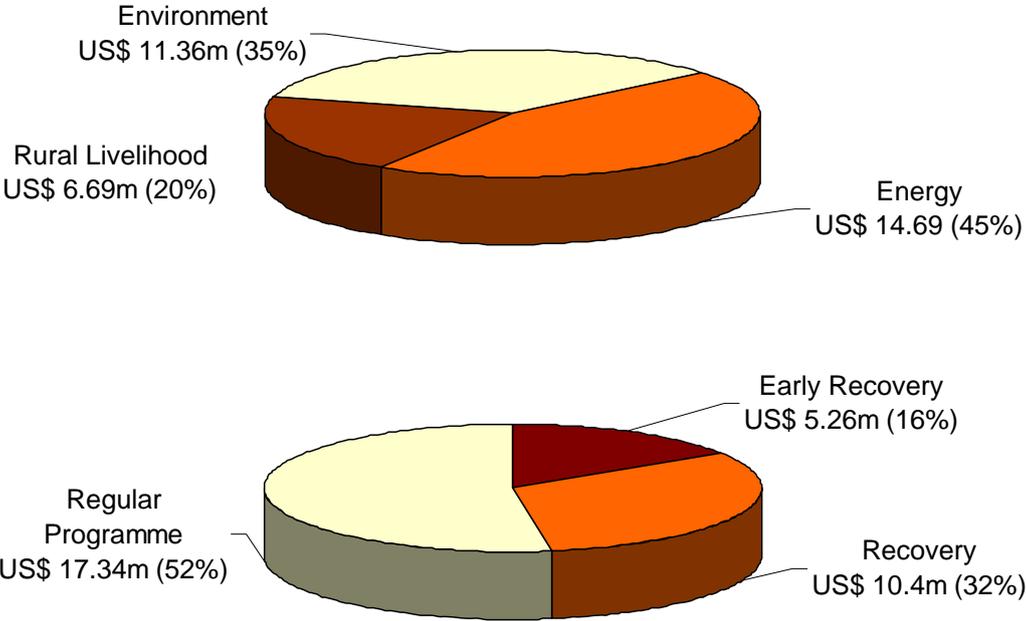


Fig. 1: Breakdown of the budget of the UNDP Energy & Environment Programme. The upper graph shows the distribution over the three pillars energy, rural livelihood and environment. The lower one shows the three intervention types regular programme, early recovery and recovery.

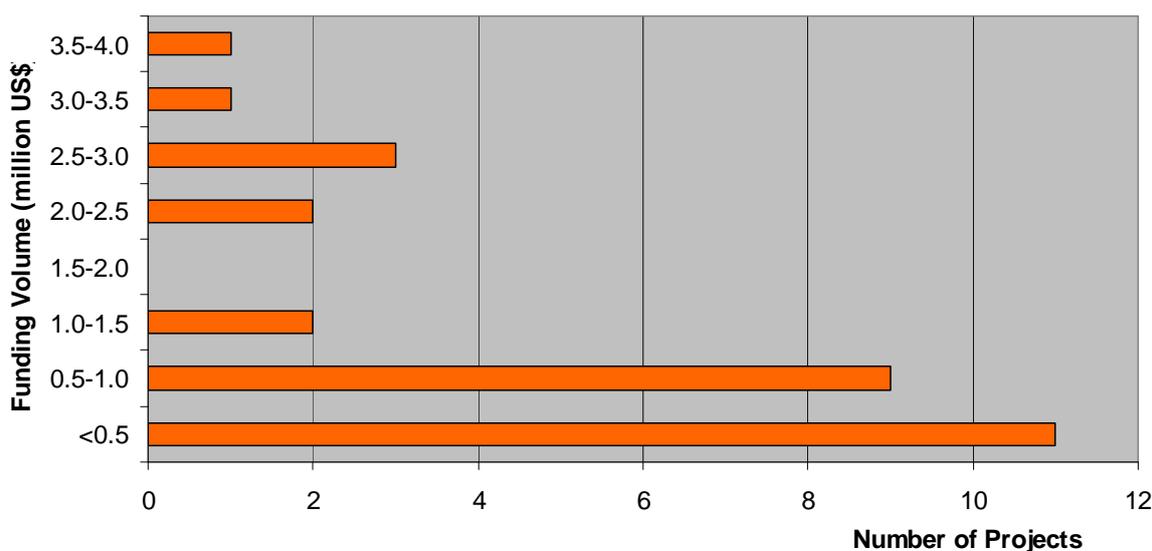


Fig. 2: Funding volume of the projects of the UNDP Energy & Environment Programme.

Whereas the Ministry of Environment was the beneficiary of almost all projects until 2004, this is now the case for only 8 projects. Five are with the Ministry of Energy and Water (MoEW) and one each with the Ministry of Agriculture (MoA), the Lebanese Agricultural Institute (LARI) and the Ministry of Justice (MoJ).

3.2 Status of the Outcome

3.2.1 The Expected Outcome of the Energy & Environment Programme

UNDP, in partnership with the Government of Lebanon, is helping create the conditions and build the momentum for achieving the nationally-defined, Lebanon-specific targets of the *Millennium Development Goals* (MDG) through three fields of intervention: governance, pro-poor development and energy & environment. The projects of the UNDP Energy & Environment Programme serve MDG-7 “Ensure Environmental Sustainability” as an overarching goal. All projects are fully in line with target 9 which reads as “integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources”.

The *United Nations Development Assistance Framework* (UNDAF) has been developed as a framework for UN development assistance to the development programmes of the Government of Lebanon for the period 2002-2006. It is intended to increase the effectiveness and efficiency of UN operations in the country by bringing about greater synergy of action through improved focus and results orientation. UNDAF’s first goal aims to achieve enhanced national decision-making capacity for human development; the second goal is to achieve the implementation of a rights-based approach to development. Energy and environment are not specifically mentioned in UNDAF 2002-2006. Whereas this document, whose preparation dates back to the year 2000-2001, is clearly outdated, a new version for the subsequent period has not yet become available.

The second *Country Cooperation Framework* (CCF) for Lebanon (2002-2006) builds heavily on the thorough UNDAF process. The priority focus areas of the CCF are drawn from the UNDAF analysis and constitute a consolidation of the Country Office Strategic Result Framework (SRF) and Result Oriented Annual Report (ROAR). It consists of two principal objectives (institution building support to policy and decision-making; empowerment at the local level). Environmental and natural resource management is regarded as a cross-cutting issue, which remains “a key element of both the policy

advisory interventions as well as an increasingly integrated component of the area development approach.”

The *multi-year funding framework* (MYFF) identifies priorities and sets a time-frame for the work of UNDP. It describes the strategic goals and service lines to be pursued, and details the organisational strategies that will be followed over the MYFF period. The second MYFF that is valid for a three-year period (2004-2007) defines five core goals of UNDP’s work, which include the achievement of the MDGs and the reduction of human poverty as well as the management of energy and environment for sustainable development.

The conceptual foundations and strategic goals of the MYFF 2004-2007 are expressed under the corporate *Strategic Results Framework* (SRF) as a series of specific service lines. MYFF 2004-2007 comprises altogether 30 service lines within five goals. These service lines represent specific areas in which UNDP will contribute to development results at the country level. These are areas that present an established or emerging demand for UNDP services, and in which UNDP is considered to have comparative advantages through particular institutional strengths and competencies.

The *Strategic Planning Framework* for Lebanon 2006 (for the year 2007) describes the aims of the interventions as follows:

Outcome1: Government compliance with international conventions promoted and supported
Goal 3: Energy and environment for sustainable development
Service Line 3.1: Frameworks and strategies for sustainable development
Target for 2007: Identify constraints and challenges facing government compliance with the various international conventions and establish actions needed to overcome them including optimizing the allocation and use of existing financial resources and the identification of additional sources of funding

Outcome1: National capacities and policy formulations supported and strengthened to reach sustainable development
Goal 3: Energy and environment for sustainable development
Service Line 3.1: Frameworks and strategies for sustainable development
Target for 2007: Mainstreaming environmental legislations and best available technologies through technical support and institutional strengthening and ensuring coherence of post conflict recovery strategies in environmental interventions.

The attribution of all interventions and activities in the energy and environment field to Service Line 3.1 is inadequate, as this service line only deals with frameworks and strategies, whereas other service lines address many other specific issues in the field of energy and environment. Actually, the goal “Energy and environment for sustainable development” (goal #3) comprises six service lines:

- 3.1 Frameworks and strategies for sustainable development;
- 3.2 Effective water governance;
- 3.3 Access to sustainable energy services;
- 3.4 Sustainable land management to combat desertification and land degradation;
- 3.5 Conservation and sustainable use of biodiversity;
- 3.6 National/sectoral policy and planning to control emissions of ozone-depleting substances and persistent organic pollutants.

An analysis of the 29 projects implemented under the Energy & Environment Programme shows that all six service lines are actually covered. Only “effective water governance” is represented only by a single project which has a weak relationship to this service line. The biodiversity service line comprises two projects, both of which are under preparation. Other projects in this field have been completed. Four projects which are implemented under “recovery” cannot be clearly attributed to one of the energy & environment service lines. One project (industrial hemp production and sustainable rural livelihood development programme) is much more linked to poverty alleviation (goal #1) than to the “energy & environment” goal #3. Although this project contributes to increased land cover with vegetation and thus to decreasing soil erosion and desertification, this aim alone could be better achieved with more direct and more rapid approaches such as restoration of natural vegetation cover or cultivation with traditional crops.

Table 2. List of projects implemented by the UNDP Energy & Environment Programme and their contribution to the service lines of goal #3 (energy and environment) of the Strategic Results Framework and the classification of the projects as “early recovery” and “recovery” (if any). Weak relationships are indicated by “X”.

Project	Service lines of the SRF under goal #3						Recovery (4.2.)	Others
	3.1.	3.2.	3.3.	3.4.	3.5.	3.6.		
SES	•		•					
LCECP	•		•					
EEB	•		•					
CEDRO I			•				•	
CEDRO II	•		•				•	
SIDA Solar heaters			•				•	
Greek Solar heaters			•				•	
Chinese Heaters I/II			•					
SWH	•		•					
Flood Management				•			•	
Industrial Hemp				X				•
Desertification I/II				•				
MAP Cultivation							•	•
Fishermen							•	•
Reforestation				•				
GEF MAPs					•			
Oil Spill							•	•
Rubble							•	•
Olive Oil		X						•
NCSA	•							
SNC-UNFCCC	•							
MeBr						•		
ISP Ozone						•		
NPMP						•		
SEEL	X							
ISDGoE	•							
Soaring birds					•			

UNDP’s interventions in the field of energy and environment are thus based on the MDGs and, more specifically, the *Strategic Results Framework* (SRF) as part of the MYFF and the *Strategic Planning Framework*. There is no valid UNDAF to build on, neither a valid *Country Cooperation Framework* (CCF) (as per 2007). While CCF stresses the importance of environment and natural resource management as cross-cutting issues, it does not specifically mention the energy sector.

A presentation of UNDP’s work in Lebanon¹ describes the aim in the Energy & Environment “Focus Area” in the following way: “Help Lebanon to achieve compliance with international conventions and treaties for environmental sustainability, and support the development of national action plans that promote effective management of Lebanon’s natural resources, including through community participation and appropriate legislation, regulatory frameworks and judicial enforcement, as well as promote renewable energy sources and biodiversity.”

The evaluation therefore assessed progress towards the following two development outcomes, described in *Strategic Planning Framework*: “Government compliance with International Conventions promoted and supported” and “National capacities and policy formulations supported and strengthened to reach sustainable development”. All UNDP projects in the field of energy and environment carried out in Lebanon should therefore be allocatable to international conventions, capacity building and/or policy formulation. Recovery projects should be allocatable to the outcome “Conflict prevention and peace-building approaches informed/factored into national/local development frameworks, and integrated programmes designed and implemented at national and local level”.

¹ <http://www.undp.org.lb/programme/focusareas.shtml>

Actually the formulation of the first two outcomes is input-oriented (“...is supported”) and not results-based. Furthermore, these two outcomes, together with their goals and service lines, do not completely reflect the complex structure of aims pursued by UNDP Lebanon and described in some of the strategies mentioned above. Particularly it does not fully take into account the cross-cutting approach of environmental issues taken by CCF. These shortcomings in the outcome formulation were taken into account during the evaluation.

3.2.2 Factors Affecting the Outcome

When the civil war ended in 1990, parts of Lebanon were left in ruins. Immediately following the end of the war, there were extensive efforts to revive the economy and rebuild national infrastructure. By early 2005, a considerable degree of stability had been achieved throughout much of the country, excepting the south which remained under Israeli occupation until the year 2000. Beirut’s reconstruction was almost complete, and an increasing number of foreign tourists were pouring into Lebanon’s resorts.

In February 2005 former Prime Minister Rafik Hariri was assassinated in a car bomb explosion in Beirut, which marks the start of a period of political instability in the country. The months following the assassination, large demonstrations were held in Beirut which finally led to the withdrawal of Syria’s troops from Lebanon. The Hariri assassination also marks the beginning of a series of assassinations and assassination attempts that led to the loss of many prominent Lebanese figures. The latest case was a senior general, who was killed by a bomb in December 2007.

The 2006 Lebanon War, known in Lebanon as the July War, began on 12 July 2006 and killed more than 1000 people and destroyed or severely damaged many of Lebanon’s social and economic assets. Major damage has been inflicted in terms of infrastructure, livelihoods, housing, delivery capacities, public administration, and environment. In just one month the conflict has significantly set back 15 years of reconstruction and rehabilitation work in the country, according to Government assessments. About 15,000 homes and businesses and one-fourth of the nation’s bridges and interchanges have been destroyed, according to the Lebanese Government. A naval blockade and cratered airport runways hindered the delivery of supplies, and shattered water and sewage systems and electrical outages raised the risk of disease.

During the war, the UN House in Beirut was stormed by angry protestors who briefly occupied it. After the war, UNDP moved to new premises. The working conditions in the new offices are insufficient; the situation is regarded temporary and new office facilities are under preparation.

A major political crisis evolved in post-war (2006) Lebanon as the legitimacy of the Lebanese government has been eroded. The crisis is aggravated by the resignation of several ministers, including the Minister of Agriculture, the Minister of Energy and Water and the Minister of Environment, partners of the UNDP Energy & Environment Programme. Although their resignation has not been accepted, it led to political deadlock. The decision-making process was affected and government commitments for transferring funds to the projects were delayed.

Additionally, Lebanon’s recovery from the July 2006 War suffered a lot from the events at the Palestinian Refugee Camp Nahr El-Bared, which became in May 2007 the arena of a 4-month battle between the Lebanese Army and an extremist group. During this time over 400 people were killed and 40,000 refugees were displaced.

The political crisis and instability since 2005, the July 2006 war and severe security problems had a great impact on the progress and performance of UNDP’s energy and environment projects.

- Despite often difficult circumstances and changing priorities, all projects of the Energy & Environment Programme successfully managed to survive. None of the projects was dropped or cancelled.
- Practically all projects experienced a delay which is not project-borne, but due to the political and security situation. Reasons for the delay include the absence of some ministers for issuance of de-

crees, forwarding draft bills and action plans to the Council of Ministers, difficulties in travelling within Lebanon (UN security clearance not always granted), loss of an entire season in the case of seasonal activities (e.g. olive oil), unavailability of stakeholders, difficulties in assigning international consultants, decreased coordination among ministries and institutions, etc. The average delay is estimated approximately one year.

- UNDP Lebanon participates in the efforts for Lebanon's post-war recovery. UNDP's Energy & Environment Programme developed after the end of the war proposals for recovery on very short notice, took part in donor coordination and started to implement early recovery projects. The Energy & Environment Programme developed and is responsible for four projects under Early Recovery and five projects funded through the LRF as a contribution to Lebanon's post-war recovery. This additional burden is taken practically without additional staff.

The UNDP Energy & Environment Programme thus could successfully proceed with its projects in the regular programme despite the July 2006 war and the political crisis since 2005. Furthermore, it could assume additional tasks arising from the need for recovery, including the initiation and implementation of new projects.

3.3 UNDP's Contribution to the Outcome Through Outputs

3.3.1 Relevance

As already shown above, the Energy & Environment Programme has not yet formulated unequivocal outcomes and an intervention strategy. Assessing the relevance of the programme against the available outcomes would therefore be misleading. It was therefore examined here whether the outputs are consistent with the policies and priorities of UNDP and the Government of Lebanon, and how the individual outputs contribute to a common development goal ("outcome").

The pillars of the Energy & Environment Programme

The Energy & Environment Programme is built on a set of three pillars: energy, rural livelihood and environment. All three pillars have high priorities in Lebanon. The *energy sector* has a real top priority, as the country is not in a position to fulfil the energy demand. At present, frequent power cuts remain the norm in Lebanon. The country's generating capacity has fallen behind demand levels; EDL's current output is around 1,250 megawatt, while peak demand often hits 1,800 megawatt.² Energy saving and the development of additional sources of energy in the form of renewable energy ranks therefore high on the political agenda. There is furthermore a common understanding in Lebanon that action to overcome regional disparities is urgently needed. Disparities in economic and social development across the regions and intra-regional disparities among different segments of the society have been recognised as major issues to be tackled for achieving social stability. Improving *rural livelihood* is therefore highly relevant for the development of the country. The projects under the *environment* pillar mainly deal with international environmental treaties such as CBD, UNCCD, UNFCCC and the Montreal Protocol. Lebanon as a member of these conventions is at present not in a position to fulfil its obligations under these conventions without external assistance. These projects are thus highly relevant both in national and international terms.

These three pillars cover important aspects of both globally and nationally important environmental problems. *Climate change* is tackled through the energy pillar. Energy efficiency and the promotion of renewable energy will reduce carbon dioxide emissions and are thus important elements to mitigate climate change. No outputs (projects) of the Energy & Environment Programme so far deal with adaptation to climate change, which is seen as a major global challenge which might affect Lebanon seriously. It might be considered to integrate this subject into future interventions. *Water* is regarded as another crucial element for the development of the Lebanon. The status of the region's water resources

² http://news.monstersandcritics.com/middleeast/news/article_1379952.php/Lebanese_Hezbollah_supporters_protest_electricity_outage

has significantly worsened over the last two decades and water deficits have been predicted to be the cause of major armed conflicts in the Middle East. Lebanon is a water-rich country, while some regions suffer from frequent droughts. Some interventions of the Energy & Environment Programme deal with water, but these efforts are not very comprehensive. The water sector would surely deserve more attention.

The pillar rural livelihood is not *a priori* an environmental one, but its first goal is alleviation of rural poverty. Whereas poverty and environmental degradation is closely interlinked and both aspects cannot be separated from each other, it should be considered to put a sharper focus on environmental aspects. “Sustainable Dryland Management” would be an alternative to be considered to replace the pillar “rural livelihood”, as there is a strong correlation in Lebanon between rural poverty and the occurrence of dry areas. Measures for the adaptation to climate change and in the water sector would perfectly fit into such a pillar, without neglecting poverty alleviation. As there are already service lines on water and on land management available in the *Strategic Results Framework* (SRF), such an approach would fit UNDP’s strategic overall approach.

Consistency of the Outputs with the Intended Effects

Energy: Under this cluster, UNDP’s support comprises ten projects, five of which are under preparation, another one is in its very early stage and yet another one was completed recently. The core operation is the project “Cross-sectoral energy efficiency and removal of barriers to ESCO operation” (LCECP), which aims at curbing GHG emissions resulting from inefficient end-use energy consumption in all sectors of the economy. This is going to be achieved through the removal of barriers to the wide scale introduction of energy efficiency and energy conservation measures in all sectors of the Lebanese society. The project thus focuses on institutional, technical marketing and policy level (including financial) at a national scale. The Sustainable Energy Strategy (SES) project will form the framework for the energy projects, once the LCECP is completed. Other projects are directly linked to LCECP and contribute mainly in the form of pilots, i.e. through the provision of solar water heaters, energy audits, the introduction of energy efficiency lamps, the provision of solar thermal testing facilities, etc. The experiences gained through the pilot measures can herewith directly be fed into the policy level to create an enabling environment. The energy projects thus form a set of complementary operations, each with a specific goal, and all of them contributing to the overall goal of reducing GHG emissions. Also, the energy projects enhance the living conditions through income savings opportunities for the beneficiaries on both short and long term basis.

The tasks of the Chinese Solar Heaters Projects, the Swedish Solar Heater Project, CEDRO I/II and the Greek Solar Water Heater Project are very similar, by providing solar heaters and other equipment. Taking further into account that other organisations³ establish similar pilots as well, the number of solar heaters furnished may exceed the demand for pilot measures – as the technical, economic and social feasibility could be shown with a smaller number of heaters. Pilot projects are not ends in themselves, but means to an end. On the other hand, the provision of this equipment through a vsingle project instead of several ones would be more cost-effective, as each project follows its own project cycle and execution modus. Spreading this acquisitions over several individual projects is beyond the responsibility of UNDP, but can be explained by the fact that each project is funded by a different donor, with none of these apparently being willing to provide cash funds to ongoing operations (e.g. as a toping-up to LCECP), but insisting on its own mode of delivery (donor-driven approach).

³ e.g. NGOs like Greenline or AFDC.

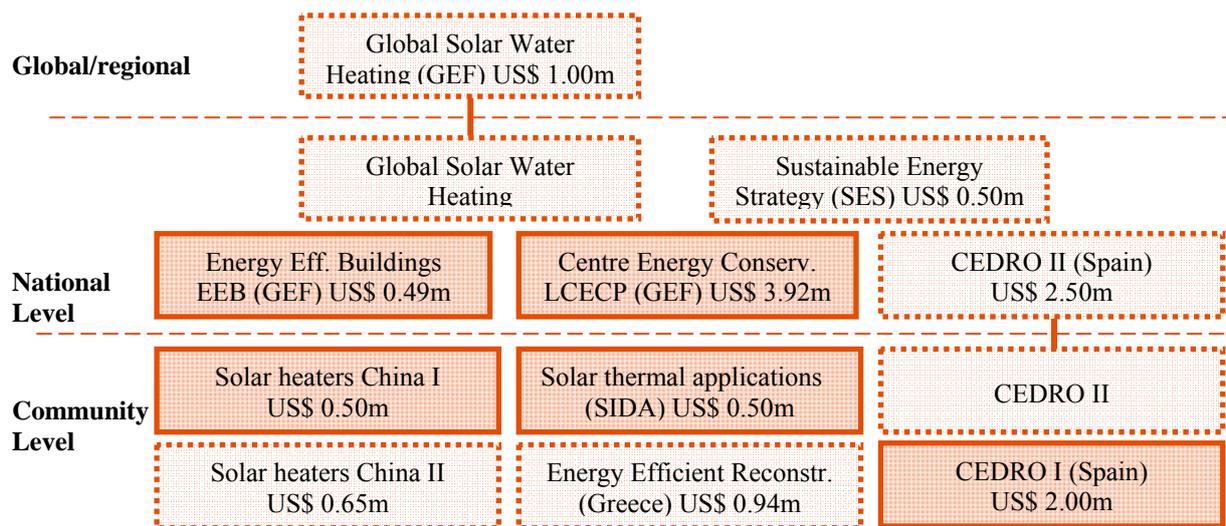


Fig. 3: Interventions and intervention levels of UNDP in the energy sector of Lebanon. Projects in the pipeline are shown in boxes with broken lines.

Rural Livelihood: Under this cluster, UNDP’s support comprises seven projects, including two ongoing operations, two in an early stage, and three in the pipeline. The Dryland Development Project and the Reforestation Development Projects can clearly be attributed to UNCCD implementation, the GEF MAP Project to CBD implementation. Flood Management Project is closely related to UNCCD implementation, representing an upscaling of measures developed under a GTZ-CCD Project plus the installation of a modern water harvesting and irrigation network. While these projects directly contribute to the Programme’s Outcome, the Fishermen Project and the MAP Cultivation Project are executed under recovery and lack a clear environmental focus. Environmental impacts appear as side effects. For MAP Cultivation, income generation is the primary goal, while the project impact will go beyond that goal through reducing the human pressure on wild stocks of MAPs (biodiversity conservation). A similar situation is valid for the Industrial Hemp Project, which aims at promoting industrial hemp as an alternative to the high THC cannabis plant for improving the livelihood of rural communities, but at the same time, as intended side effects, contributes to increased land cover with vegetation and thus to decreasing soil erosion and desertification, and also to reduced use of herbicides and pesticides.

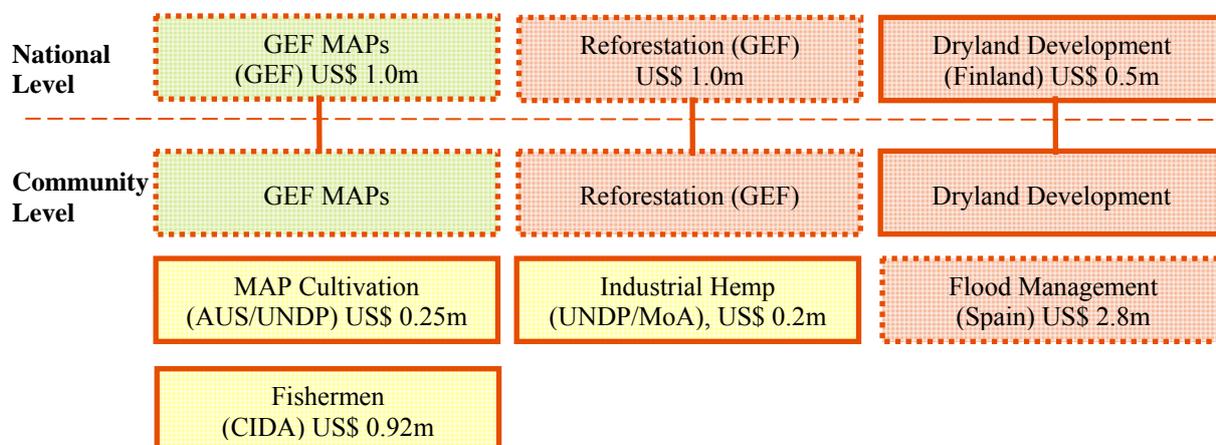


Fig. 4: Interventions and intervention levels of UNDP in the field of rural livelihoods in Lebanon. Red = projects in the field of desertification; Green = projects in the field of biodiversity. Yellow = others. Projects in the pipeline are shown in boxes with broken lines.

The Industrial Hemp Project is designed as an open project with the potential to tackle other issues in the field of rural development and to evolve into a rural livelihood programme.

The GEF-MAP Project, the Reforestation Project and the Dryland Development Project work both on national scale and on community level. On the national level, they aim at establishing an enabling environment necessary for achieving impact on the ground. On community level, these three projects implement pilot measures for testing innovative approaches.

Environment: Under this cluster, UNDP’s support comprises eleven projects, including one which is still under preparation. Six projects directly address the tasks of international environmental conventions, namely the Montreal Protocol, UNFCCC, UNCCD and CBD. These projects directly contribute to the Programme’s Outcome. The projects on oil spill clean-up and on rubble recycling tackle urgent environmental concerns, but are not directly related to one of these conventions. These projects are executed as early recovery measures after the July 2006 War. Although the project on environmental legislation is not connected to one of the international conventions either, it has through the enforcement of environmental legislation a cross-cutting effect and helps enhance implementation of the conventions in Lebanon. The Olive Oil Waste Management Project also has no direct link to one of the conventions. It is not complementary to the other measures in the environment project cluster.

The Soaring Birds and the Olive Oil Projects are implemented as regional efforts. Strengthening regional cooperation is only a minor issue in the project design and most results can even be achieved without regional cooperation. They can therefore also be regarded as national components of more comprehensive efforts.

The projects concerning the Montreal Protocol work on both national and local level, with clear impacts both on the enabling environment and on the ground. While Capacity Self Assessment and SNC-UNFCCC projects aim at building capacities at the national level and do not intend direct impact on the ground, the Oil Spill Clean-up and the Rubble Recycling projects only aim at a direct impact on the local level.

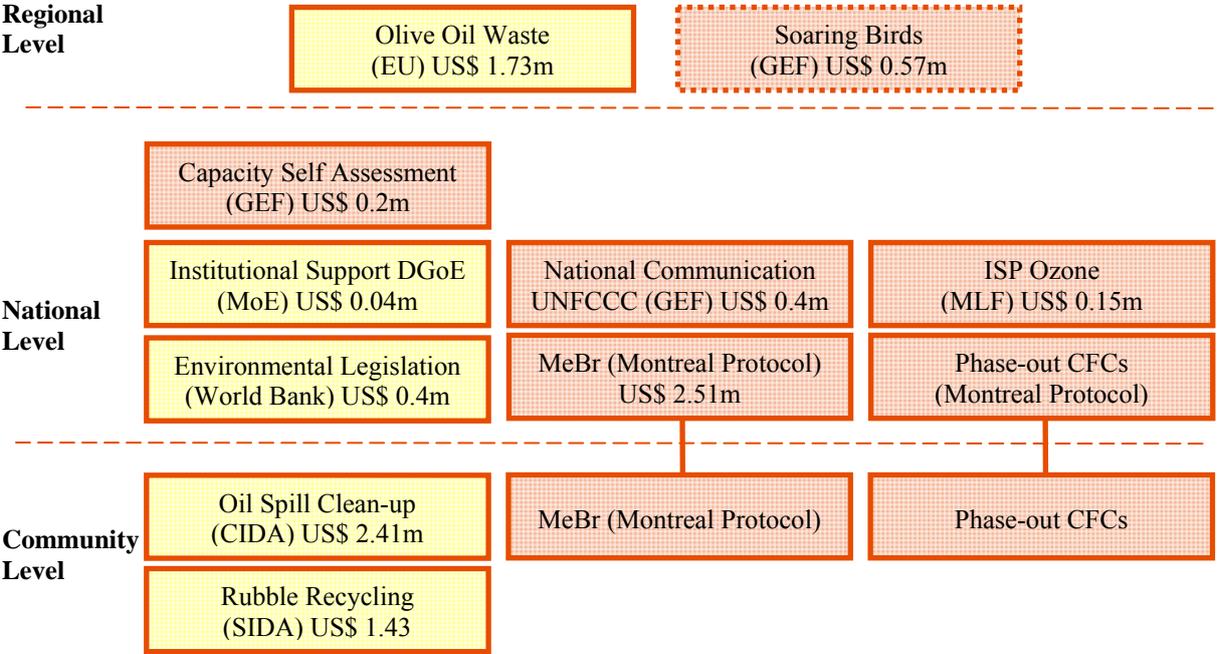


Fig. 5: Interventions and intervention levels of UNDP in the environment sector of Lebanon. Red = projects in the field of international environmental conventions. Yellow = others.

3.3.2 Effectiveness

In this chapter, it was examined to what extent the outcome was achieved or is likely to be achieved. The outcome was examined in three areas, namely international conventions, capacity building and policy formulation.

International Conventions

Eighty percent of the projects of the Energy & Environment Programme (23 out of 29 projects) directly serve the aim of implementing international environmental conventions.⁴ These are UNCCD, CBD, UNFCCC and the Montreal Protocol. These are thus explicitly and fully in line with the Programme Outcome. The Industrial Hemp and MAP Cultivation Projects are to some degree related to UNCCD, but their main focus is the replacement of an unwanted crop and the generation of income for the rural population. The Olive Oil Project targets the prevention of industrial pollution and is herewith outside the references of the abovementioned conventions. Pollution from oil mills may in one way or the other have a negative effect on biodiversity and the project is thus somehow related to CBD, but this relationship is at least not stressed by the project. The projects on Fishermen Livelihoods, Oil Spill Clean-up and Rubble Recycling are not closely linked to one of the environmental conventions and are implemented as emergency actions under early recovery.

Without the projects in the Energy & Environment Programme, the GoL would not be able to fulfil its international obligations in the same way, as it does. UNDP's Energy & Environment Programme creates awareness for the conventions among decision-makers and the public, and enables the GoL to put the obligations into practice.

Capacity Building

Capacity building is a core task of many projects. In the energy sector, LCECP aims at establishing a "Lebanese Centre for Energy Conservation and Planning" and makes the necessary preparations towards this end, including training of human resources. As this project takes the central role in the field of energy, all related projects already now benefit from these capacities. In the field of rural livelihoods, the Desertification, GEF-MAP and Reforestation Projects have a clear capacity building focus, whereas this is not the case for the MAP Cultivation Project.

For the ODS phase-out operations, an "Institutional Strengthening Project" takes care of preparing the institutional ground for implementing the Montreal Protocol. As the responsible MoE seconded only one staff to the ODS phase-out team, the project became the main actor, rather than an enabler or facilitator for the ministry. UNDP staff sometimes takes over work which normally should be done by the beneficiaries and ministries themselves. This is to compliment their work and to enhance the quality of end products. UNDP staff in these cases bridges gaps within the institutional capacities, rather than building the capacities of these institutions to perform these tasks.

The "National capacity self-assessment for global environmental management" contributed to knowledge management and awareness-building in the field on environmental conventions, but had little impact on the capacities of the beneficiary, the MoE.

The recovery projects have only weak or no function in capacity-building of target groups and/or intermediaries such as ministries.

Policy Formulation

A number of projects have significantly contributed to policy and programme formulation. These include the EEB Project, which set e.g. thermal standards for buildings, the LCECP (including SES and CEDRO), which helps mainstream energy saving and the use of renewable energy into government policies, and the ODS operations, which help put the obligations of the Montreal Protocol into governmental policy and action. Also the Reforestation Project works in the same direction: it aims at mainstreaming SLM principles into national policies and frameworks by using one sector as a vehicle

⁴ This number includes the SEEL Project, which does not explicitly target environmental conventions, but which promotes through its cross-cutting nature the implementation of the conventions.

which is forestry and *National Reforestation Programme* (NRP). The GEF MAPs project envisages setting environmental standards for sustainable use of MAPs and to support the establishment of an enabling environment for protecting biodiversity through making economic use.

Project Performance

The projects in the energy cluster are highly successful, as they significantly contribute to the fact that renewable energy and energy efficiency gains ground in Lebanon. There is now considerable, yet growing awareness among decision-makers and the public. The demand for energy efficient buildings and energy saving is increasing. UNDP operations could successfully launch its activities in the energy sector at a time, when energy shortage became noticeable to everybody in the country, with regular electricity outages and rising energy prices. Another indicator for the high effectiveness of the energy projects is the fact that UNDP could successfully acquire new projects and donations from various donors. LCECP will in its lifespan most probably not succeed in establishing a Centre for Energy Conservation in Lebanon, as foreseen by the project. To this end, an agreement was concluded between UNDP and the Ministry of Energy and Water in June 2007, with the commitment of both sides to establish such a centre and support it during the first three years of its life.

It is too early to give a prognosis on the overall effectiveness of the projects in the Rural Livelihood cluster, as most of them have not yet started or are in the very early stage. The interventions for the Fishermen Livelihood were successful, as fishermen could, through the project, be compensated, at least to some degree, for the economic losses they had through the war. The Dryland Development Project successfully identified agricultural products suitable for marketing in the “fair trade” sector. Efforts are underway for promoting and marketing these products in Finland.

Among the projects in the Environment cluster, those dealing with the implementation of the Montreal Protocol were very successful as well. An independent evaluation of the National CFC Phase-out Management Plan⁵ showed that Lebanon has met the agreed CFC consumption targets for 2005 and 2006 as stipulated in the Agreement with the Multilateral Fund of the Montreal Protocol. Furthermore, on the occasion of the 20th Anniversary of the Montreal Protocol, the Montreal Protocol Implementers Award was conferred on the Ministry of Environment for Lebanon’s National Ozone Office and the Exemplary Project Award for the Alternatives to Methyl Bromide Project. Also the other projects in the Environment cluster are likely to achieve their targets.

Quality of Project Planning

The overall quality of the project planning documents is satisfying, although clear differences among the documents were noted. In particular some projects which were prepared for early recovery and recovery lack a comprehensive documentation of the considerations and deliberations which lead to the proposed interventions. The intervention logic as a systematic and reasoned description of the causal links between the identified problems, and the expected outcomes, outputs and activities is not always well reflected in the planning documents. Indicators of achievement are not available for all projects on the level of immediate objectives.

A few examples are given here:

- The relatively high investment costs necessary for the installation of solar thermal systems have been identified as a major barrier for wide dissemination of this technology, but the project apparently did not focus on options to decrease prices e.g. through market diversification. These aspects are planned to be tackled by the upcoming SES project.⁶
- While solar heaters are installed on private houses for demonstration purposes under the Chinese and Greek SWH projects, the installation of SWHs on public buildings still takes an important share. The aim is to promote SWHs in the market. The intervention logic is not yet fully convincing such as how to attain a catalytic effect, and how this technology can be spread from public to private buildings.

⁵ The evaluation was conducted by TÜV Hellas in May 2007 on behalf of the Ministry of Environment.

⁶ The GEF Proposal on Global Solar Water Heaters, for example, takes an average installed price of US\$ 300 per m² solar panel, which is considerably below the prices in Lebanon.

- Fishermen were severely affected not only through direct damage to their equipment caused in the July 2006 War, but apparently even much more through the loss of their ability to sell fish after the oil spill (nobody was willing to eat fish during these days). The project document does not consider alternatives to the provision of fishing equipment such as nets and hooks, for example by increasing the marketing capacities of the fishery cooperatives (marketing infrastructure, institutional strengthening). As the project is still ongoing 18 months after the end of the war and is as such no longer an early recovery measure *per se*, it would have been worthwhile to consider such development options.

Project Monitoring and Evaluation

Project Monitoring takes place on several levels: First, all project managers work in close contact with the UNDP Energy & Environment Programme Manager and his team and exchange result and experiences on a regular basis. Second, there is a rigid reporting system: in addition to the mandatory Annual Progress Reports (APRs), there are interim progress reports on a monthly, quarterly or 6-months basis, depending on the individual project. Third, there is Tripartite Reviews (TPR), in which in addition to UNDP and project staff the relevant sectoral line ministry and CDR participates. Taking the APRs as a basis, the TPRs discuss the achievements and problems of the projects, and take decisions regarding the extension of the projects. These meetings are often conducted on a high level, and may include the participation of the relevant minister. The minutes of the TPR are signed by high-level representatives of all three parties. The TPR Reports are thus important documents for the further work of a project. Whereas TPR meetings principally take place once every year, some TPRs were delayed in 2006/2007 due to the war and the instable political situation in the country.

Final evaluations are conducted as external evaluations. The project “Capacity Building for the Adoption and Application of Thermal Standards for Buildings” was evaluated after completion by an international consulting firm⁷. An external review of the achievements of the National CFC Phase-out Management Plan was also conducted by an international firm⁸ on behalf of UNDP and MoE.

Reporting in the APRs and other monitoring instruments is mostly against outputs, for which indicators of achievement are fixed if not in the project document, then in the Annual Work Plans. Project achievements are rarely monitored against the project objective (project outcome) and never against the outcome of the Energy & Environment Programme. Reporting against the outcome would require more attention in the future, last not least as an instrument for adaptive management and results-based management. Results-based M&E differs from traditional implementation-focused M&E in that it moves beyond an emphasis on inputs and outputs to a greater focus on outcomes and impacts.

3.3.3 Efficiency

Efficiency measures the outputs in relation to the inputs. This has to be done on project level and was herewith beyond the scope of this Outcome Evaluation. However, a few observations on efficiency were made and are communicated here.

Programme Efficiency

The Energy & Environment Programme is managed by a UNDP team, which comprises a Programme Manager, a Programme Associate and a Programme Assistant. Taking into account that the programme comprises almost 30 projects and operations, provides in addition to that soft assistance to project partners and beneficiaries, and that the overall performance of the individual projects is highly satisfying, it can be concluded that this small, dedicated team works highly efficient. In particular the recovery projects represent an additional challenge and burden to the programme team in difficult times of security and instability, but are smoothly and successfully shouldered practically without additional staff.

⁷ Klinckenberg Consulting.

⁸ TÜV Hellas.

Project Efficiency

A few observations on project efficiency were made:

- In the field of combating desertification, MoA is supported both by Germany (through GTZ) and Finland (through UNDP). Both projects have separate project offices within the MoA, with separate staff and office equipment. Co-funding of a joint project with only one management team would be an option to be considered from a financial perspective.
- Several projects deal with solar thermal applications and provide solar heating systems and other solar applications to Lebanon. All these projects supported by China, Greece, Spain and Sweden are similar in nature, but each of them has its own project cycle, including fact finding missions, planning, reporting, monitoring, etc. The provision of funds e.g. to LCECP or SES, instead of establishing new projects, would be an option to be considered by donors for increasing overall project efficiency.

Basket funding for increasing aid efficiency would be an option to be considered, and this would be in line with the Paris Declaration on Aid Effectiveness (2005). UNDP through UNDG as well as most donors are adhered to the Paris Declaration, albeit not the Government of Lebanon.

Timing of Project Implementation

The timely delivery is an important element of efficiency, as project development and project approval are always time-consuming processes. Some examples may illustrate this:

- The preparation of the Project on Reforestation started in January 2005 and the proposal was submitted to GEF in October the same year. Approval is expected for 2008, three years after the onset of drafting the proposal.
- For the GEF-MAP project, a first PDF-B request was submitted in May 2005 and project preparation could start in November 2005; it ended in September 2006 with the full project proposal for a regional intervention together with the Palestinian Territories. The PDF-B was not accepted during the late stage of project formulation for political reasons (Palestinian component) and consequently the project was re-designed and re-submitted as a national Lebanese project. The project is still not approved, and can start earliest in mid-2008, i.e. three years after submission of the PDF-B request.
- For the Global Solar Water Heater Project, the full project proposal was submitted to GEF in March 2006. Implementation in Lebanon may start earliest in 2008, two years after submission of the full proposal.
- For the Soaring Birds Project, a regional effort, a full project proposal was – after having completed the PDF-B phase – submitted to GEF in September 2005. The project is still awaiting GEF endorsement.

These long periods necessary for getting GEF projects approved are well-known and well-documented.⁹ The average period from project idea (PDF-A approval) to approval to effectiveness was in GEF-3 over five years. The main reasons are the complexity of the GEF project cycle, and are thus beyond the responsibility of UNDP, at least beyond the responsibility of UNDP CO.

Projects under the sole responsibility of UNDP are much quicker approved. Examples are the Industrial Hemp Project and the Institutional Support DGoE. Figures are not available, but approval took months, not years as is the case with GEF.

As the time elapsed between project idea and implementation is crucial in particular for recovery projects, a separate analysis was carried out for these projects: UNDP could identify priorities needs for early recovery on very short notice after the July 2006 War. Only two weeks after the end of hostilities, a package of projects could be submitted to the donor community for funding. This shows UNDP's high commitment and flexibility to react on urgent needs on very short notice.

⁹ see GEF (2006).

The time, when Early Recovery projects began varies greatly (see Fig. 6). Measures to improve the livelihood of fishermen started approximately three month after the end of the war and were still continuing at the time of the evaluation mission (December 2007). For the clean-up of the oil spill, an international invitation for tender was issued shortly after the end of the war and implementation could begin four months later. A project on solar heaters donated by SIDA (Sweden) could start in March 2007, with the first installations occurring a few months later. Studies for the recycling of rubble started in May 2007 and an invitation for tender for the purchase of mobile machinery for rubble recycling was issued later the year; the necessary equipment was purchased late 2007 and it is expected that actual recycling work will begin some when in early 2008, about 20 months after the end of the war.

Four months after the end of the war, the Lebanese Recovery Fund (LRF) was established, but it became operative only with the first Steering Committee Meeting in August 2007, when the first decisions on project funding were taken. At the time of the evaluation mission in December 2007, some preparatory activities were done for the project on cultivation of aromatic and medicinal plants (MAPs) and for the renewable energy project CEDRO I, both of which are funded through LRF. However, actual implementation of these and other projects are expected to begin in 2008. Most recovery projects will thus commence 1.5-2.0 years after the end of the war.

A bundle of factors are responsible for the relatively late onset of these recovery projects, many of them being beyond the responsibility of UNDP. They include the timely provision of committed funds, administrative procedures (e.g. tendering), decision-taking by the beneficiaries (specification of exact needs, identification of the modus for distribution among all beneficiaries), etc.

Surprisingly, there was not much complaint about the long time spans needed for project approval, neither by the beneficiaries nor by intermediaries; priority was always that assistance will come, with the time of delivery having a lower priority. A few stakeholders compared UNDP’s assistance with bilateral assistance; there was evidence that bilateral assistance is more “straight forward” and decision-making takes less time.

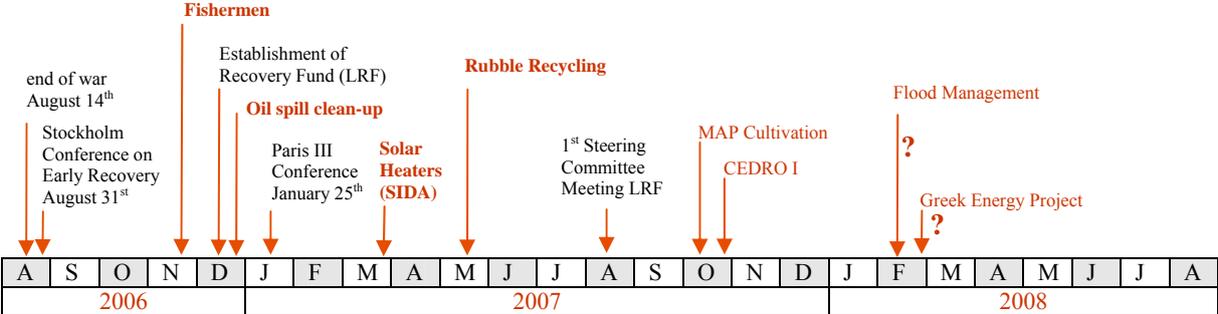


Fig. 6: Time of beginning of recovery and reconstruction measures by UNDP in relation to the end of the July 2006 war and some important donor events. Early Recovery projects are in bold letters. The arrows show the approximate beginning of project activities.

Mode of Delivery

All projects in the regular Energy & Environment Programme are executed in the NEX modus, all recovery projects in the DEX modus. In the DEX modus, UNDP itself takes on role of an executing agent and ensures effective programme and project delivery. Overall responsibility for formulation and management of project is with UNDP CO. DEX modus is limited to countries in “Special development situations”.

It was found that UNDP coordinated well with all relevant partners even in the DEX. Some partners were thus not even aware of the difference between DEX and NEX. The selection of the DEX execution modus for the recovery projects in post-war Lebanon was thus appropriate and effective.

3.3.4 Impact

In this chapter, the changes produced by the Energy & Environment Programme are examined. It is described how environment has benefited from the projects and how many people have been affected (see also Table 3).

Ecological impacts: Through the installation of roughly 1,600 solar heating units, the greenhouse gas emissions are being reduced. 400 ha of land will be afforested, one watershed will be rehabilitated, the consumption of ozone depleting substances (ODS) was reduced from 923 tons to 224 tons, and 274 metric tons of MeBr out of a total of 310 tons were successfully phased out.

The ecological impact of the Olive Oil waste project is so far restricted, despite its high effectiveness. The project supports feasibility studies, conducts pilot measures and makes other preparations for a wide-scale application. However, it is unlikely that the waste from the olive oil industry will decrease as a consequence of the project (except for a few pilot cases), as interventions on this level are not foreseen.

Socio-economic impacts: Through the projects in the energy sector, over 200 public buildings consume less energy, with significantly reduced energy bills. Furthermore, EE & RE pilot projects especially the SWH, will reduce the energy bill of the beneficiaries and have money to be spent on other important living items. The comfort level will also be increased especially during electricity cuts whereby the beneficiaries will have hot water available during the day. 25-30,000 villagers will be protected against casual floods, 25 households will earn additional income through MAP cultivation. The Rural Dryland Development Project will help the rural population produce and market products in the Fair Trade Segment, thus generating additional income for poor family households. Through the phasing out of ODS, local manufacturers get better access to the European and other markets and rise their export chances. Hundreds of fishermen can earn better income after getting nets, hooks and other equipment, and were thus to some degree compensated for their loss aroused by the war and the oil spill.

Structural, indirect impacts: The Energy & Environment Programme aims at changing the enabling environment for sustainable development, which is one of the critical success factors for development. Capacity building is the main element, together with institution building and changes in the legal and policy context.

The projects related to the Montreal Protocol are particularly successful in this respect, as they succeeded in combining local action (working with industries on phasing-out of ODS) with the formation of framework conditions on national level. These projects successfully created public awareness, provided technical assistance to local manufacturers and deal with international reporting and other obligations. While all this is carried out by the project team, there are only limited capacities within the MoE to tackle with these issues (one staff only). Provided that external support will continue to exist until the complete phasing out of ODS, all tasks can be fulfilled by the external project team.

In the energy sector, LCECP aims at establishing a multi-purpose Lebanese Centre for Energy Conservation and Planning as an independent semi-public corporation. The project works on the creation of the institutional set-up, develops financing strategies, supports energy audits and assesses market issues.

Structural changes in the form of capacity building and the preparation of an enabling environment are also foreseen in the frame of the Reforestation Project and the GEF-MAP Project. Both projects include capacity-building on various levels of stakeholders.

The structural impact of the National Capacity Self Assessment for the Global Environmental Management turned out to be very limited. Except of a few aspects related to knowledge management (creating and updating web site, etc.), it was not seen how the implementation of the Rio Conventions – which were in the focus of the project – will be improved as a consequence of the project.

The interventions of several projects, mainly those related to recovery, target exclusively the local, community level, without aiming changes on policy level. These include the Oil Spill Clean-up, Rub-

ble Recycling, Fishermen Livelihood, and MAP Cultivation. Structural changes are not intended and can therefore not be expected.

Summarising the results, one can conclude that so far only the interventions in the field of phasing-out ODS have a wide-scale, national impact. The interventions in the field of energy saving and the introduction of renewable energy have not yet had a really significant impact on national level, but the forecast is encouraging, if the projects succeed in removing some still existing market barriers. For most of the other projects, the impacts are locally confined, and cannot be classified as projects with a broad development impact. Many of the interventions have the potential for upscaling, but time and budget constraints set limits to such approaches.

Table 3. Examples of the size of environmental and socio-economic impact of some projects of the Energy & Environment Programme.

Project	Direct Results (envisaged or completed)
CEDRO I	50-80 public energy-friendly buildings 3 energy-friendly main district centres
CEDRO II	60-80 public energy-friendly buildings 3 energy-friendly main district centres
Greek Solar Heaters	350 solar water heater units 90,000 energy efficient lamps
Chinese Heaters	1,100 solar units (200 l each)
Swedish Heaters	12 collective solar water heater systems 93 individual units
Flood Management	2-3 flood-affected villages with 25-30,000 inhabitants (one watershed)
Reforestation	400 ha afforested land
MAP Cultivation	Income for at least 25 collectors' households in 5 communities
NPMP	Reduction of ODS consumption from 923 tons in 1993 to 224 tons in 2006
MeBr	Phasing out of 274 metric tons of MeBr out of 310 tons

3.3.5 Sustainability

The projects related to the phasing-out of ODS are sustainable, as most ODS will be phased out at the end of the project.¹⁰ The energy projects are likely to be sustainable, as they help energy consumers reduce their energy costs and consumers are likely to continue their efforts beyond the end of the project. This provides a strong incentive to maintain the equipment and the install new one. The project on Environmental Legislation is sustainable as well, as it will introduce an environmental course at the Institute of Judicial Training at the Ministry of Justice, which will be continued beyond the end of the project without external assistance.

The Dryland Development Project promotes marketing of agricultural products in the Fair Trade sector. If successful, the trade will be managed by the private sector without a need for interventions from project side. The same is true for the GEF-MAP project, which aims at building private sector structures for the sustainable use of biodiversity. The Reforestation Project builds on the *National Reforestation Programme* (NRP), a significant long-term commitment by the GoL, and will complement this baseline by addressing gaps related to capacity development, inter-agency coordination, conceptual

¹⁰ Assuming an intervention period until 2015.

development, mainstreaming of SLM, and development of sustainable financial mechanisms for implementation of SLM practices.

The project on Waste Management of the Olive Oil Industry would require significant follow-up, and an intensive discussion with the GoL and the donor is necessary about options how to turn the encouraging results into wide-scale application. The National Self Assessment for Environmental Management is not sustainable, as it ranks low in the political agenda of the MoE and no follow-up is provided.

The interventions regarding Oil Spill Clean-up and Rubble Recycling (and to some degree also the interventions for the fishermen) do not need follow-up, as the project tasks will be accomplished within the project period.

3.4 UNDP' Resource Mobilisation and Partnership Strategy

3.4.1 Partnerships at the Donor Level

Lebanon was classified until 2006 as "Upper Middle Income Country".¹¹ This status makes it difficult to raise international funds for development programmes. However, the June 2006 War changed the picture completely. Donor conferences were held in August 2006 and January 2007. Total pledges for relief, reconstruction and recovery since the beginning of the war have reached over US\$ 2,000 million. Over \$200 million worth of pledges are expected to be channelled through the various United Nations agencies and NGOs.¹²

Today, early recovery and recovery projects comprise 48 percent of all projects under the roof of the Energy & Environment Programme. Before the July war, only Finland and the EU were funding projects implemented by UNDP; nowadays, the donor community comprises Australia, Canada, China, Finland, Greece, Spain, and Sweden as well as the European Union (EU).

In Lebanon, CDR assumes for development projects the role of coordinating the various donor activities to make sure that there is no overlap between projects and no duplication of efforts. For recovery projects, donors are interlinked through the Stockholm and Paris III conferences. The priorities are defined by the respective sectoral line ministries. UNDP is well linked with practically all donors and executing agencies in Lebanon. The small size of the country helps establishing personal contacts with all relevant actors.

The clean-up activities after the oil spill in July 2006 were coordinated by the Ministry of Environment. Many donors and national and international organisations were involved in these activities and UNDP supported the ministry's coordination efforts through the secondment of experts.

Regarding the implementation of the National Action Programme (NAP) of UNCCD, the Ministry of Agriculture receives assistance from both Finland (for the trade component of the project, through UNDP) and Germany (through the GTZ). Both sides have failed to coordinate their interventions before they started.¹³ Today, the activities of both sides are tuned on a case-to-case basis, with some activities implemented jointly (e.g. NAP preparation or some pilot measures), while others are complementary. Nevertheless, cost-effectiveness of this approach needs to be questioned and both sides have to pay the price for non-coordination from the scratch.

The GEF was playing until 2006 a very dominant role in the Energy & Environment Programme's resource mobilisation strategy. Altogether, 20 GEF projects have been implemented in Lebanon, with a part of it being the participation in regional efforts. This dominant role was partly due to the limited, diminishing role of other traditional donors. Until late 2007, the share of GEF projects has decreased to 49 percent of all projects in the regular programme (i.e. programme without recovery). In the future, the proportion of GEF projects is likely to become smaller, mainly as a consequence of the Resource Allocation Framework (RAF) introduced by GEF in the field of biodiversity. Lebanon will mainly get either Medium-sized Projects (MSPs) or will participate in regional projects. The chances for new full-size projects are small.

Altogether, this partnership has thus been highly effective at the donor level. The projects are well-coordinated with other donors (with certain restrictions for the desertification project). The UNDP Energy & Environment Programme has been successful in establishing links to many donors, and could furthermore present a set of proposals for recovery projects to the donor community on very short notice after the war. Donors trust UNDP as an organisation for the supervision and monitoring of financial transactions which were made towards the recovery of the country after the July 2006 War (oil spill, rubble recycling).

¹¹ according to DAC List of ODA recipients, effective from 2006 for reporting on 2005, 2006 and 2007.

¹² Republic of Lebanon, Ministry of Finance: Donor Coordination and External Assistance. Briefing Note for the Core Group Meeting Paris - January 25, 2007.

¹³ see also mid-term review of the UNDP project and the global evaluation of the desertification projects supported by the German Government (BMZ 2007).

3.4.2 Partnerships at the Level of National Project Partners

Until 2004, the Ministry of Environment was almost the sole beneficiary of the Energy & Environment Programme. However, as coordination among the different ministries has always been difficult and the MoE could not fulfil its role to coordinate other ministries and to mainstream environmental issues into other ministries' policies and programmes, UNDP began to diversify its partnerships. Nowadays, project partners comprise in addition to the MoE the Ministry of Agriculture, the Ministry of Energy and Water, and the Ministry of Justice. It is expected to gain through this diversification higher impact and a better integration of environmental concerns into sectoral policies and programmes.

All projects are based in their respective sectoral ministry. However, all of them have relatively weak counterparts. In many cases, the projects do not facilitate the work of counterparts, but they often execute project tasks themselves. It is clear that in the future the projects will have to confine their roles to that of enablers and facilitators, if such partnerships shall remain sustainable.

At the national level UNDP has brought in different partners through Project Steering Committees and otherwise according to the needs of the different projects.

3.4.3 Partnerships at the Level of Local Target Groups

All projects examined are based on thorough partnerships with relevant stakeholders. Without such partnerships the projects would not have been able to produce their outputs.

'Ownership' and 'sustainability' are the ultimate products of participation. Participation is the process through which stakeholders influence and share control over priority setting, policy-making, resource allocations and access to public goods and services. Participation in the projects of the Energy & Environment Programme range from participation in the sense of consultation (e.g. participation in a planning workshop during the design process of a project) to participation in decision-making (basic participation versus enhanced participation).¹⁴ Whereas the need for full stakeholder participation is fully recognised by all projects, and all projects have applied (or will apply) participatory planning methods in their preparation phases, it is not evident how far the projects will push the participatory processes forward. These aspects gain importance when it comes to decisions for allocating resources to certain activities, selecting individuals to participate in education or training programs, or determining amounts of counterpart funding. Even the Stakeholder Involvement Plan prepared for the Reforestation Project does not give clear guidance about which decisions should be driven through a participatory process, and which decisions have to be taken nationally or donor-driven.

Generally, it was found that the economic input by the target-groups was modest to nil. This is not only valid for recovery projects such as Fishermen's Livelihood and MAP Cultivation, but also the phase-out of ODS and the various projects on renewable energy. A higher financial and/or in-kind contribution by the target-groups would increase their ownership and thus the sustainability of the measures.

¹⁴ see Lutz & Linder (2002).

4 Discussion, Conclusions and Recommendations

Within the Energy & Environment Programme, the highest impact was noted for the ODS phase-out operations. The projects in this field are successful, as several complementary projects with the same overall objective target both structural changes at the policy level and tangible achievements on the ground. The projects have got enough time to gain experience and to put these experiences into practical action. Multi-level intervention and sufficient project duration thus turn out to be key factors to success. The interventions in the field of Sustainable Energy Strategy are likely to have similarly a high impact as well. However, more time is needed to confirm this prognosis. Most other projects show a high effectiveness, but their structural long-term impact on national level is not always given.

Roughly two thirds of all 29 projects in the Energy & Environment Programme have a funding volume less than one million US\$. The smallest project in terms of funding comprises some US\$ 40,000, the biggest almost US\$ 4,000,000. The relatively high number of small projects imposes a high administrative and managerial burden to the programme team. Especially in those cases in which the small projects target the community level, no structural changes for development can be expected. Although most of these interventions show a high effectiveness, the overall (structural) impact is low.

The Energy & Environment Programme has since 2004 undergone through significant changes. The most important points are:

- Clustering the various projects under the three pillars energy, rural livelihood and environment, thus building a programmatic approach.
- Diversification of beneficiary ministries. Whereas the Ministry of Environment was almost the sole beneficiary until 2004, project partners nowadays comprise in addition to the MoE the Ministry of Agriculture, the Ministry of Energy and Water, and the Ministry of Justice. It is expected to gain through this diversification higher impact and a better integration of environmental concerns into sectoral policies and programmes.
- The Energy & Environment Programme is now less dependent on GEF compared with the situation a few years ago. Whereas it was by far the single most important donor until a few years ago, now only 49 percent of all projects of the regular programme are GEF funded.
- A new pillar of the programme, the energy pillar, evolved and became the strongest cluster of projects in the programme. Herewith, UNDP stays abreast with the growing international attention climate change receives.
- The Energy & Environment Programme participates in the efforts for Lebanon's post-war recovery. Nine new projects are executed for the recovery after the July War. This represents almost half of all projects.

Programme formation is most advanced in the energy sector, and is an ongoing process in the Rural Livelihood (Sustainable Dryland Management) and Environment pillars. In the rural livelihood cluster, not all projects show a clear focus on environmental concerns. As poverty alleviation sometimes prevails, the profile of this cluster of projects should be sharpened. Drylands form a large part of Lebanon and are very sensitive to environmental changes. They will suffer more than other regions from climate change. There is also a strong correlation between the occurrence of drylands and human development. These are good reasons for UNDP to deal further with these issues and to tackle problems of water management and adaptation to climate change. The environment cluster of projects comprises operations mainly in the field of environmental conventions (UNFCCC, Montreal Protocol, CBD) and help the GoL fulfil their international obligations.

Experiences in the 1990's and early 2000's showed that the Ministry of Environment is very much dependent on international funding, and has limited capacity to convert the results of international projects into structural long-term effects which affect institutions beyond the own ministry. Coordination among different institutions in Lebanon has always been difficult. The efforts of the Ministry of Environment for the coordination of environmental affairs on an inter-ministerial level and for mainstreaming environmental concerns into other ministries' work have had limited success. This has much to do with the Ministry's weak overall position within the government (as is the situation with many

environmental ministries throughout the world) and traditional disputes about competencies among ministries. UNDP's decision to diversify the circle of beneficiaries was unequivocally an appropriate response.

In September 2005, the GEF Council adopted the so called *Resource Allocation Framework* (RAF), which is a new system to allocate GEF resources to recipient countries based on global environmental priorities and country-level performance. Initial implementation is limited to biodiversity and climate change projects. GEF resources for international waters, land degradation, persistent organic pollutants, and ozone depletion will continue to be allocated using the existing systems. Lebanon is listed, both for the biodiversity and the climate change focal area, among those countries with group allocations up to threshold amount between US\$2.5 and US\$3.5 million.¹⁵ For Lebanon, which has so far implemented approximately 20 projects with GEF support, RAF will considerably limit the chances to get new projects approved in the biodiversity and climate change focal areas. At the moment, the GEF-MAP project, as a MSP, is in the pipeline, and Lebanon will participate in the global SWH project. It is unlikely that Lebanon will get additional projects under GEF-4.

Empowerment of women is a cross-cutting issue which should be pursued by all UNDP operations. For the UNDP operations in the field of energy and environment, especially those related to rural livelihood are gender-sensitive. For the GEF-MAP Project, where traditional gender roles play an eminent role, a gender analysis was carried out during project preparation and gender issues will be taken into account during implementation. In the frame of the Drylands Development Project, special relationships were created between the project and women cooperatives, thus reflecting gender-sensitive programming. On an in-house-level, staffing on programme and project management level is more or less gender-balanced.

Several ministries provided funds to UNDP as part of their commitment towards project implementation. Cash contributions include US\$ 500,000 from MoF towards SES implementation and US\$ 100,000 from MoA for the Industrial Hemp Project.

There are precedents for UNDP helping manage government funds in middle income countries elsewhere in the world, most notably in Latin America where some national UNDP programmes manage large national funds. The incentives that UNDP can offer the government include:

- UNDP can help them increase their capacity to fully disburse their budgets;
- The UN system can lend their good reputation in the country and can boost the image of partner ministries through their collaboration;
- UNDP can help to “de-politicize” government funds, reducing political favouritism and increasing objectivity in their allocation;
- UNDP can provide specialised technical assistance and capacity building across different thematic areas;
- UNDP can mobilise large donor funded programmes.

Managing government funds could be an option for the future work of UNDP in Lebanon. Decreasing GEF funds and the transition from recovery to regular development will, in the medium- and long-term, most probably result in a shortage of donor commitments. On the other side, there is a general public mistrust in governmental structures in Lebanon. It is a common believe that there is a high rate of misuse of governmental funds and a high rate of corruption. Actually, Lebanon ranks high in the Corruption Perception Index (CPI) issued by Transparency International.¹⁶ In the 2007 Index, it ranks on place 99 within a list of 179 countries, listed in the order of increasing corruption. UNDP can therefore play a positive role in the adequate use of funds.

UNDP helps developing countries attract and use aid effectively.¹⁷ In some ongoing recovery projects (Oil Spill, Rubble Recycling), UNDP takes the role of a fund manager acting on behalf of international donors: UNDP prepared the TORs, issued an international invitation for tender, evaluated the bids, and takes care of project monitoring. These operations can best be described as financial cooperation, like

¹⁵ GEF Council Meeting, GEF/C.27/5/Rev.1 (October 6, 2005).

¹⁶ http://www.transparency.org/policy_research/surveys_indices/cpi/2007

¹⁷ <http://www.undp.org/about>.

the typical tasks of banks and other financial institutions, rather than technical cooperation, the core task of UNDP. These interventions show nevertheless a high confidence of donors in UNDP. They make use of UNDP's local permanent presence and well-established network in Lebanon as well as its ability to oversee operations professionally.

The aftermath of the July 2006 conflict was a great challenge for UNDP. UNDP could launch a package of "Quick starting and high impact recovery projects" as soon as the war ended and to be initiated from UNDP's own resources until that time that additional resources could be mobilized from the international donor community. Four projects have been approved as part of this Early Recovery Package (Support to Municipalities for Removal of Rubble and Debris; Initial Oil Spill Clean-up from Surface Water; Swedish Solar Thermal Water Heaters Donation; Restoring Fishermen's Livelihoods). With a certain exception of the Solar Water Heaters, these interventions have high priority as early recovery measures: The oil spill was regarded as a national disaster that required immediate action, the fishermen were among the most affected groups in the society, and large quantities of demolition debris wait for removal and recycling. The relevance of these operations is thus high. The Solar Heater operation is more development-oriented, as it is not directly linked to humanitarian/ecological relief setting. Recovery projects funded subsequently by the LRF include MAP Cultivation, Flood Management and two operations in the field of sustainable energy. These operations serve the long-term recovery of the country.

All recovery projects thus fit into one of the three pillars of the Energy & Environment Programme, but not all of them complement other operations. The Oil Spill Clean-up and the Rubble Recycling, for example, are typical stand-alone projects, while CEDRO and the Swedish Solar Heaters are fully complementary to ongoing operations.

Participation as a fundamental principle for development is as such fully materialised in all UNDP operations, but it often takes the form of stakeholder consultations rather than giving the beneficiaries the full responsibility. Many project tasks are at present fulfilled by project staff, often tasks that could be fulfilled by the target groups themselves. That would increase ownership and ultimately sustainability.

Recommendations

For strengthening the overall performance and impact of the Energy & Environment Programme, it is recommended to UNDP

- To influence changes to the UNDAF, and subsequently the Country Cooperation Framework (CCF), that will recognize the work that is necessary in Lebanon in the field of energy and environment. Carefully worded outcomes are needed to provide the foundation for environmental initiatives that reflect the Government's priorities and the country's needs. Each outcome should be supported by a cluster of indicators to assist monitoring of progress.
- To continue the process of forming a coherent programmatic approach with projects complementing each other for a common goal. Programme formation is already rather advanced in the field of energy, but needs to be further streamlined in the rural livelihood and environment clusters of projects.
- To re-shape the rural livelihood pillar of the Energy & Environment Programme in a sense that it puts a clear focus on environmental concerns. *Sustainable Dryland Management* would better describe the priorities in this field. Poverty alleviation should be regarded as an intended spin-off of environmental projects, not as a primary goal.
- To integrate adaptation to climate change and the water sector into the sustainable dryland management pillar. These topics rank high on the national and international agenda and new funding opportunities may arise from it.
- To increase impact through concentrating efforts on a smaller number of projects with longer intervention periods and higher budgets. At present, the Energy & Environment Programme consists

of 29 projects, which requires a high management input. Larger projects with multi-level interventions and longer intervention periods show higher impacts.

- To strengthen results-based monitoring & evaluation (M&E) and reporting as a powerful management tool that can be used to track progress and demonstrate the impact of a given project or program which is being made towards the targeted outcome. The Energy & Environment Programme already has a strong M&E system, and this Outcome Evaluation is already a good example for the efforts undertaken towards outcome monitoring, but further efforts are needed on project level.
- To follow the same objectives and standards for recovery projects as for regular development projects, unless they can be classified as humanitarian or ecological relief setting immediately after the armed conflict. Recovery projects should therefore contribute to the same outcome as development projects. This is in particular relevant, as many recovery projects begin at a considerable timely distance after the end of the conflict.
- To convey, if possible and appropriate, recovery projects to development projects and to integrate them into the regular programme as complementary operations. In particular the energy projects as well as for the Flood Management and MAP Cultivation Projects have long-term development goals which are fully in line with the intended outcome of the Energy & Environment Programme and require long-term interventions beyond the immediate recovery purpose.

On operational level, it is recommended to UNDP

- To strengthen participation of the target groups in all operations and give them more responsibility. That would increase their project ownership and ultimately sustainability.
- To consider an increase of the financial and/or in-kind input by the target groups. Many projects make goods and services available for free, which is considered a weak stimulus for development processes. Higher contributions by the beneficiaries are likely to have a positive effect on their engagement and will thus strengthen project ownership.
- To concentrate more on the role of the projects as enablers, catalysts and facilitators for development. At present, still many tasks are executed by the projects themselves rather than enabling project partners to execute these tasks.
- To better document for each project the intervention logic of projects, including problem analysis and the way how outcomes and outputs have been derived from it. In the projects analysed, some outputs, for example, do apparently not directly contribute towards the expected project objective.
- To continue efforts in the field of renewable energy to put a stronger focus on the removal of market barriers and the creation of competitive markets for equipment and services, rather than further increasing the number of pilot measures (provision of equipment for demonstration purposes, etc.).
- To stronger select the beneficiaries of pilot measures in the energy sector according to their potential for the dissemination of new SWH technologies. Private households may have a higher catalytic effect for the dissemination of SWHs compared with public institutions. Restrictions imposed by donors should be re-considered together with them.

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Annexes

Annex 1: Terms of References

Annex 2: Itinerary of the Evaluation Mission

Annex 3: List of Persons Interviewed

Annex 4: Evaluation Questions

Annex 5: The Three Pillars of the UNDP Energy & Environment Programme

Annex 6: Project Profiles

Annex 1

Terms of Reference



**TERMS OF REFERENCE – ENERGY & ENVIRONMENT PROGRAMME
EVALUATION EXPERT
INTERNATIONAL SPECIAL SERVICE AGREEMENT (SSA)**

I. General Information

Title of the Contractor: Evaluation Expert for Energy and Environment Programme
 Duty Station: Lebanon
 Section/Unit: Energy & Environment Programme
 Reports to: Programme Manager
 Reports: End of mission

Project reference:
 Pay Level: To be determined
 Source of Funding:
 Duration of Employment: 6 weeks

II. Background

UNDP's support to the environment sector started in 1994, one year after the establishment of the Ministry of Environment ('93), soon after the conclusion of the Earth Summit held in Rio. The first phase of the Capacity 21 project started in '94, to assist MoE in addressing the national environmental priorities within the framework of the global agenda 21. This was followed later by a series of projects and activities that assisted in institutional strengthening, building the capacities of national actors and providing necessary technical support to comply with the international conventions signed and ratified by the Lebanese Government.

In addition to the direct projects intervention, UNDP's strategy has been to enhance policy advice to the main actors in the environment and energy sector and ensure more mainstreaming into other development sectors, while simultaneously addressing environmental issues from a socio-economic/poverty alleviation dimension. This has materialized in the establishment of synergies with on-going socio-economic development initiatives (UNDP and others) and the design and initiation of new projects operating in new Ministries and institutions such as the Ministry of Agriculture, the Lebanese Agricultural Research Institute, the Ministry of Energy and Water, Électricité du Liban and the Directorate General for Urban Planning, Ministry of Justice, etc..

It is to note that a lot of the environment projects result from a progressive development in the different thematic areas. It corresponds to a chain of projects that build on previous achievements.

In the process of portfolio expansion and mainstreaming, a wide range of new partnerships have been established including:

- Practitioners in the field at the national, regional and global levels;
- National institutions and local actors including NGOs and the private sector;
- Donor agencies such as the European Commission.

In addition, and after the July 06 war on Lebanon, immediate support was also provided for Early Recovery Programmes in the energy and environment sector that was initiated and based on a 12 sub-sectors assessment entitled "Lebanon Rapid Environmental Assessment Greening Recovery Reconstruction and Reform 2006".

II. Objective & Scope of Work

The aim of this evaluation is to assess the effectiveness and continuous relevance of the UNDP Lebanon Energy and Environment Programme to meeting UNDP's mandate and the Energy and Environment priorities of the Government of Lebanon; in addition, provide recommendations for the improvement of the programme objectives, targets, efficiency and effectiveness.

The main objectives of this evaluation are as follows:

- Assess the programme effectiveness in mainstreaming environment in the country;
- Analyse the attainment of the programme objectives, outcomes and impacts, including country ownership and sustainability, based on the set UNDP global and national targets and indicators and according to MDG targets;
- Assess the indirect effects of the programme on the improvement of national environmental conditions;
- Assess the programme implementation approach (operational procedures, structure, monitoring, control and evaluation procedures, financial and technical planning, project modality/structures) and their influence on the programme effectiveness;
- Assess the programme's adaptive management processes, particularly in relation to the unstable political situation in Lebanon during the last 3 years
- Assess & describe key factors that require attention in order to improve prospects for sustainability
- Review the programme's monitoring and evaluation systems, strategies and plans towards the outcomes and provide recommendations on their improvement;
- Provide recommendations for increased programme effectiveness including strategic planning, operational and structural approaches.

The evaluation should involve, in addition to programme & project staff, key programme partners at national and local level, and programme direct beneficiaries, participating in the programme. Main stakeholders are as follows:

- Ministry of Environment;
- Ministry of Agriculture;
- Ministry of Energy and Water;
- Ministry of Justice;
- Lebanese Agriculture Research Institute;
- Programme donors;
- Various projects staff;
- Other UNDP Programmes;

The evaluation should cover the programme implementation period 2004-mid 2007. The evaluation should assess the continuous relevance of programme with regard to the needs of the target groups at the national and regional level, in addition to whether any changes have taken place and consequently whether the programme should be updated to reflect them.

III. Tasks & Expected Output

Below is the expected breakdown of the tasks/stages of the evaluation process:

a. Preparatory Stage (10 working days):

- Desk review of all relevant documents provided by UNDP Lebanon, including the Multi-Year Funding Framework (MYFF), Strategic Resources Framework (SRF), United Nations Development Assistance Framework (UNDAF), Energy and Evaluation Strategy and Work plan, Energy and Environment Project Documents, etc.
- Preliminary contact with key stakeholders to determine key issues to be addressed/discussed during mission to Lebanon
- Prepare work plan for self and seek feedback and clearance from UNDP management (in-

cluding additional list of documentation to review);

b. Data Collection/Field Mission (10 working days):

- Hold interviews and meeting with UNDP management, project management and staff, concerned stakeholders;
- Collect all needed data;
- Review all documentation and outputs from the Energy and Environment projects;

c. Report Writing (10 days):

- Prepare a draft report outlining major findings and recommendations;
- Submit the first draft and circulate for comments and feedback;
- Incorporate comments;
- Prepare the final evaluation report

Output:

The expected output of the evaluation is a comprehensive report which includes recommendations and suggestion for programme improvement. The outline of the report should be in line with UNDP Evaluation Guidelines and include (but not be limited) to the following:

- Executive summary
- Introduction/background
- Programme objectives and its development context
- Findings and conclusions
 1. Programme effectiveness and impacts
 2. Indirect impacts
 3. Attainment of programme objectives and outcomes
 4. Implementation approach
 5. Monitoring and evaluation systems
 6. Strategies and plans towards outcomes
 7. Ratings on relevance of outcome
- Recommendations
- Lessons learned
- Annexes

Provide a soft copy of the final report along with three hard copies. In addition, a brief power point presentation of the main finding should be prepared and presented.

Deadline for submission of the draft report is 31 December 2007; deadline for submission of the final report is 15 January 2008.

IV. Purchases & Inputs

UNDP Lebanon Country Offices will provide the Consultant with all the required documents and will assist the Consultant in setting up meetings with concerned stakeholders.

Travel: International travel to Lebanon should be arranged by the Consultant. UNDP Country Office will cover expenses related to air travel, terminal expenses and daily subsistence allowance during mission days.

V. Competencies

Consultant must have work experience with development and environmental projects with UN or international organisations/NGOs. Willingness to travel to Lebanon is a requirement.

VI. Recruitment Qualifications	
Education:	- Advanced university degree in Environment, Management or Organizational Studies;
Experience:	- The Consultant should have a minimum of 10 years of professional experience; - Good knowledge of UNDP procedures and proven track record in evaluation; - Knowledge of the national situation and context.
Language Requirements:	The consultant should have excellent verbal and written knowledge of English. French and Arabic are a plus.

Annex 2

Itinerary of the Evaluation Mission

- 02.12.2007 (Sun.) Travel from Germany to Beirut. Arrival in the morning of 3.12.07.
- 03.12.2007 (Mo.) Meetings in UNDP Office, Energy & Environment Programme
- Edgard Chehab, Programme Manager
 - Jihan Seoud, Programme Associate
- Introduction to the Evaluation Mission including the delivery of documents. Brief start-up meetings with Matilda El-Khoury (Project Manager CEDRO) and Anwar Nour Ali (Project Manager ESCO). Clarification of contractual issues with Ibtissam Samra (HR - Operations).
- 04.12.2007 (Tue.) Field visit to Dbaye Fishery Cooperative in the morning. At noon meeting with AFDC in Beirut; travel to LARI HQ in the Beka'a in the afternoon.
- Fishery Cooperative in Dbaye: Joseph Matta (head of the cooperative) plus several persons from the management board of the cooperative
 - Association for Forest Development and Conservation (AFDC): Sawsan Bou Fakhreddin (General Director)
 - Raghed Assi (UNDP Project Manager)
 - Lebanese Agricultural Research Institute (LARI): Michel Fren (General Director)
 - Feedback with UNDP E&E Programme
- 05.12.2007 (Wed.) Meetings at the Ministry of Agriculture. Participation in the Tripartite Project Review (TPR) of the Rural Dryland Development Project at the Minister's Office. Participants included HE Minister of Agriculture, representatives from CDR, MA, GM, UNDP and the project itself.
- Joseph Torbey, Ministry of Agriculture, Director General for Cooperatives
 - Hussein Nasrallah, Ministry of Agriculture, Focal Point of UNCCD and for UNDP
 - Hassan Machlab, UNDP Project Manager for Rural Dryland Development Project (based at Ministry of Agriculture)
 - Antonio Youssef, Rural Dryland Development Project
 - Liliane El-Khoury, Rural Dryland Development Project
- 06.12.2007 (Thur.) Morning meeting at the Ministry of Justice, then at the American University of Beirut (AUB) for hemp project and oil spill. Afternoon meeting with CDR (Council for Development and Reconstruction).
- Omar Natour, Ministry of Justice, Director General
 - Dr. Mohamad Farran, AUB, Biology Department, Advisor to Minister of Agriculture
 - Dr Michel Bariche (AUB, Biology Department)
 - Dr. Riyad Sadek, AUB, Biology Department
 - Wafa Sharafeldine, CDR, Financing Department
- 07.12.2007 (Fri.)
- Anwar Ali, UNDP Project Manager and other members of his team
 - Mohammad Dbouk, Spinneys
 - Ronald Diab, EEG (Energy Efficiency Group)
 - Rabih Khairallah, Order of Engineers, Member of Council
- Field visit to Nabatieh (solar heating system at hospital) and Soultanieh (solar heating system at orphanage). Visit to Spinneys supermarket (energy audit).
- Ricardo Khoury, ELARD
- 08.12.2007 (Sat.)
- Dr. Wolfgang Hager, Senior Policy Advisor, Prime Minister's Office

- Report Preparation.
- 09.12.2007 (Sun.) Report Preparation.
- 10.12.2007 (Mo.)
- Abdul Salam El-Khalil, Municipality of Ghobeiry, Deputy Head of Municipal Council
 - Matilda El-Khoury, UNDP, Project Manager CEDRO
 - Zena Ali Ahmad, UNDP Programme Manager
 - Hassan Krayem, UNDP Programme Manager
- Field visit to the Municipality of Ghobeiry in the Southern Suburbs of Beirut.
- 11.12.2007 (Tue.) Meeting with the National Coordinator of LCECP and the Management Team of UNDP.
- Dr. Adel Mourtada, National Coordinator & Focal Point, Ministry of Energy and Water, LECECP
 - Marta Ruedas, UN Resident Coordinator, UNDP Resident Representative
 - Nick Hartmann, UNDP Deputy Resident Representative
 - Seifeldin Abbato, UNDP Country Director.
- 12.12.2007 (Wed.) Meetings with various project managers and project staff in the Ministry of Environment and with the UNDP Dryland Development Centre.
- Manal Moussallem, Project Manager Oil Spill, Ministry of Environment
 - Samar Khalil, National Project Manager, Olive Oil Project, Ministry of Environment
 - Dr. Reine Youssef, Project Manager, NSCA, Ministry of Environment
 - Layal Neaimeh, Project Assistant, NSCA, Ministry of Environment
 - Nabil Assaf, Afforestation, Ministry of Environment
 - Elie Khodzie, UNDP Dryland Development Centre
- 13.12.2007 (Thur.) Meeting with one of the manufacturers of solar equipment, then with a NGO and other “donor” agencies (Environmental Fund Project based at CDR, Gesellschaft für Österreichisch-Arabische Beziehungen).
- Hanna Akar, Kypros Company, General Manager (Solar heating systems)
 - Lamia Mansour, Environmental Fund, GTZ & GfA [CDR], and former UNDP staff
 - Dr. Ali Darwish, Greenline (NGO) and consultant to the GTZ
 - Fritz Edlinger, Gesellschaft für Österreichisch-Arabische Beziehungen, General Secretary
- 14.12.2007 (Fri.) Meeting with projects related to the Montreal Protocol with the Ministry of Environment (M. Hussein and staff). Debriefing meeting with UNDP E & E Programme.
- Mazen Hussein, UNDP Institutional Strengthening of the Implementation of Montreal Protocol / Ozone Office (Project Manager)
 - Edgar Chehab & Jihan Seoud, UNDP Energy and Environment Programme
- 15.12.2007 (Sat.) Return to Germany.

Annex 3

List of Persons Interviewed

Seifeldin Abbato	UNDP Country Director
Hanna Akar	Kypros Company, General Manager (Solar heating systems)
Zena Ali Ahmad	UNDP Programme Manager
Anwar Ali	UNDP, Project Manager LCECP Project
Nabil Assaf	Afforestation, Ministry of Environment
Raghd Assi	UNDP Project Manager (MAP Cultivat., Wild MAPs, Industrial Hemp)
Dr. Michel Bariche	AUB, Biology Department (marine sciences)
Sawsan Bou Fakhreddin	AFDC (NGO), Director General
Edgard Chehab	UNDP, Energy & Environment Programme, Programme Manager
Dr. Ali Darwish	Greenline (NGO) and consultant to the GTZ
Mohammad Dbouk	Spinneys (supermarket chain)
Ronald Diab	EEG (Energy Efficiency Group)
Fritz Edlinger	Gesellschaft f. Österreichisch-Arabische Beziehungen, Gen. Secretary
Dr. Mohamad Farran	AUB, Biology Department, Advisor to Minister of Agriculture
Abdul Salam El-Khalil	Municipality of Ghobeiry, Deputy Head of Municipal Council
Liliane El-Khoury	UNDP, Rural Dryland Development Project
Matilda El-Khoury	UNDP, Project Manager CEDRO
Michel Frem	Lebanese Agricultural Research Institute (LARI), General Director
Dr. Wolfgang Hager	Prime Minister's Office, Senior Policy Advisor
Mazen Hussein	UNDP ISP Ozone (Project Manager)
Rabih Khairallah	Order of Engineers, Member of Council
Ricardo Khoury	ELARD
Matilda El-Khoury	UNDP CEDRO Project, Project Manager
Nick Hartmann	UNDP Deputy Resident Representative
Samar Khalil	National Project Manager, Olive Oil Project, Ministry of Environment
Elie Khodzie	UNDP Dryland Development Centre
Hassan Krayem	UNDP Programme Manager
Hassan Machlab	UNDP Project Manager for Rural Dryland Development Project
Lamia Mansour	Environmental Fund, GTZ & GfA [CDR]
Joseph Matta	Fishermen Cooperative Dbayé, head
Dr. Adel Mourtada	LECECP Focal Point, Ministry of Energy and Water
Manal Moussallem	Project Manager Oil Spill, Ministry of Environment
Hussein Nasrallah	Ministry of Agriculture, Focal Point of UNCCD and for UNDP
Omar Ntour	Ministry of Justice, Director General
Layal Neimeh	Project Assistant, NSCA, Ministry of Environment
Tony Neimeh	Fishermen Cooperative Dbayé, member of the board
Marta Ruedas	UN Resident Coordinator, UNDP Resident Representative

Dr. Riyad Sadek	AUB, Biology Department
Joelle Salame	UNDP, Energy & Environment Programme, Programme Assistant
Jihan Seoud	UNDP, Energy & Environment Programme, Programme Associate
Wafa Sharafeldine	CDR, Financing Department
Joseph Torbey	Ministry of Agriculture, Director General for Cooperatives
Antonio Youssef	UNDP, Rural Dryland Development Project
Dr. Reine Youssef	Project Manager, NSCA, Ministry of Environment

Annex 4: Evaluation Questions

For the purpose of this evaluation, a questionnaire was developed and used in the interviews with the stakeholders. This questionnaire was used as guidance for the interviews. Not necessarily all questions were asked to all stakeholders. Many of the questions are in accordance with the DAC Criteria for Evaluating Development Assistance.

Criterion	Evaluation Question
Relevance	To what extent are the objectives of the project still valid?
	Are the activities and outputs of the project consistent with the overall goal and the attainment of its objectives?
	Are the activities and outputs of the project consistent with the intended impacts and effects?
Effectiveness	To what extent were the objectives achieved / are likely to be achieved?
	What were the major factors influencing the achievement or non-achievement of the objectives?
Efficiency	Were the activities cost-effective?
	Were the objectives achieved in time?
	Was the project implemented in the most effective way compared to alternatives?
Impact	What has happened as a result of the project?
	What real difference has the activity made to the beneficiaries?
	How many people have been affected?
Sustainability	To what extent did the benefits of the projects continue after the donor funding ceased?
	What were the major factors which influenced the achievement or non-achievement of sustainability of the project?
Donor Coordination	To what extent did the projects contribute to a common overall goal of development assistance?
	Is there a duplication of efforts by different donors?
	How is coordination between different donors materialised?
Internal Coordination	Are the projects in line with the overall strategy for assistance to Lebanon (MYFF, UNDAF, etc.)?

Annex 5: The Three Pillars of the UNDP Energy & Environment Programme

Overview over UNDP's Energy & Environment Programme in Lebanon with the three pillars Sustainable Energy Strategy, Sustainable Rural Development and Environment Programme. Modification of a draft by UNDP Lebanon. Dots = projects under the Early Recovery and Recovery portfolio. Broken lines = Projects under preparation.

Sustainable Energy Strategy	Sustainable Rural Development	Environment Programme
LCECP (Center for Energy Conservation)	Industrial Hemp (MoA)	Oil Spill Clean-up (CIDA & Japan) ●
CEDRO I (LRF) ●	NAP to Combat Desertification & Trade (DDC)	Rubble Recovery (SIDA) ●
CEDRO II (LRF) ●	MAP Cultivation (Australia) ●	Regional Olive Oil (EU)
Restoring Lives & Livelihoods (SWH SIDA) ●	Restoring Lives & Livelihoods of Fishermen (CIDA) ●	NCSA (GEF)
Towards Energy Efficient Reconstruction (Greece) ●	Flood Management (LRF) ●	SNC to UNFCCC (GEF)
Solar Water Heaters I & II (China)	Reforestation (GEF)	Methyl Bromide (MPU)
Capacity Building Thermal Standards (GEF)	Wild MAP Collection (GEF)	Ozone Office (MPU)
Global Solar Water Heaters (GEF)		NPMP (MPU)
		Environmental Legislation (WB)
		Institutional Strengthening DGoE
		Soaring Birds (GEF)

Annex 6: Project Profiles

The following tables give a short overview of the design of the projects and operations considered by the evaluation and some of the key findings on project level.

1. Sustainable Energy Programme

Sustainable Energy Strategy			
Short Title:	SES	Source of Funding	UNDP, MoF
Project Period:	2007-2009 (2.5 years)	Funding Volume:	US\$ 600,000
Executing Agency:	Ministry of Finance		
Project Objective:	To develop, promote and adopt a sustainable energy strategy (SES) for Lebanon.		
Project Outputs:	<p>The programme will work on two levels:</p> <ul style="list-style-type: none"> • The first involves the implementation of sustainable energy applications, energy efficiency measures (EEM) and solar thermal applications (STA) in all public buildings to establish a demonstrative model that would encourage the private sector and the general public to take up similar initiatives; • The second involves creating an enabling environment in terms of financial mechanisms and legislative reforms that would encourage a market transformation towards sustainable energy use. 		
Issues:	Reduction of green house gases; energy efficiency; preservation of national energy security; policy advise; implementation of pilot measures for energy saving and solar heating.		
Project Status:	Project document signed, implementation of the overall programme not yet started, but individual components contributed by other projects already under implementation.		
Good Practice:	Programme tackles an issue which has become a national priority due to increasing petrol prices (good use of this opportunity); brings together the various operations in the field of sustainable energy under a common roof and a joint management; ensures that various operations in the energy sector serve the same overall objective; makes sure that some isolated operations become embedded into a wider context with enhanced impact; operation both of policy level (enabling environment) and on-the-ground investments.		
Reviewer's Remarks:	Solar thermal interventions confined to public buildings, which take a relatively small share of energy consumption; only modest financial contributions by the beneficiaries; it should be considered to intensify efforts to increase the use of solar heaters by private houses and industry; awareness building and encouragement of the private sector alone may not be enough, but may need active support through financial mechanisms; cost-effectiveness of solar heaters need more attention (e.g. imported technologies versus locally manufactured technologies).		

Lebanon cross-sectoral energy efficiency and removal of barriers to ESCO operation (LCECP)

Short Title:	LCECP	Source of Funding	GEF
Project Period:	2002-2008 (7.0 years)	Funding Volume:	US\$ 3,920,000
Executing Agency:	Ministry of Energy and Water		
Project Objective:	The overall objective is to assist Lebanon in curbing Green House Gas emissions resulting from inefficient end-use energy consumption in all sectors of the economy. This will be achieved through removal of barriers to the wide scale introduction of energy efficiency and energy conservation measures in all sectors of Lebanese society.		
Project Outputs:	<ul style="list-style-type: none"> • Establishing the Lebanese Centre for Energy Conservation and Planning; • Providing necessary engineering and energy marketing services pertaining to 		

	<p>energy conservation;</p> <ul style="list-style-type: none"> Assisting the GoL in strengthening its policy aspects and increasing public awareness pertaining to energy planning and conservation issues.
Issues:	Reduction of green house gases; energy efficiency; preservation of national energy security; policy advise; establishment of an enabling environment or energy efficiency and renewable energy; implementation of pilot measures for energy saving and solar heating.
Project Status:	Under implementation. After some delays in the first years of project implementation (project start in 2000, actual start in 2002), it gained momentum in 2004/2005. To be completed by the end of 2008.
Good Practice:	This project serves as the hub of UNDP's operations in the energy sector; project tasks will be assumed by the "Sustainable Energy Strategy" after completion of the project; professional PR work including very good cooperation with media; engaged and professional project team; good focus on a few important, outstanding subjects;
Reviewer's Remarks:	One of the main outputs, a functional Lebanese Centre for Energy Preservation, will likely not be achieved within the life span of the project. However, a MoU was signed in 06/2007 between UNDP and the Ministry of Energy and Water which documents the commitment of the parties towards this goal even beyond the end of the project. See also remarks under SES.

Capacity building or the adoption and application of thermal standards for buildings

Short Title:	EEB	Source of Funding	GEF
Project Period:	2002-2005 (3.0 years)	Funding Volume:	US\$ 490,000
Executing Agency	Directorate General of Urban Planning		
Project Objective:	<ul style="list-style-type: none"> Establishment and adoption of energy codes for buildings; Reduction of CO₂ emissions into the environment. 		
Project Outputs:	<p>Immediate objectives:</p> <ul style="list-style-type: none"> Building local capacity in the field of energy-saving modalities in buildings; Wide public adoption of cost-effective energy-saving modalities in buildings; Transformation of construction industry; Regional cooperation is established. 		
Issues:	Reduction of green house gases; energy efficiency; preservation of national energy security; policy advise; implementation of pilot measures for energy saving and solar heating.		
Project Status:	Project completed.		
Good Practice:	Project targeted a national need; adaptive management of the project (significant reshaping of the project tasks during early implementation);		
Reviewer's Remarks:	Final evaluation conducted, showing the following ratings: project formulation: good; implementation: excellent; results: good (satisfactory);		

Community energy efficiency and renewable energy demonstration project for the recovery of Lebanon (South, Beka'a and Akkar) (CEDRO I)

Short Title:	CEDRO I	Source of Funding	Spain
Project Period:	2007-2009 (1.5 years)	Funding Volume:	US\$ 2,730,000
Executing Agency	UNDP (DEX)		
Project Objective:	Ensure green recovery and reconstruction programmes that alleviate poverty.		
Project Outputs:	<ul style="list-style-type: none"> Income savings for communities in conflict damaged and poor rural areas of South Lebanon, Beka'a and Akkar. Reduce energy consumption and green house gases. Securing of electricity supply in rural areas for public buildings and institutions (hospitals, schools, public lighting, etc.) 		
Issues:	Reduction of green house gases; energy efficiency; recovery of Lebanon after the July 2006 conflict; implementation of measures for energy saving and solar heating.		
Project Status:	Ongoing project; project document signed in 10/2007.		

Good Practice:	Rapid start of implementation immediately after signing the project document; otherwise too early to assess achievements two months after the start of the project.
Reviewer's Remarks:	Very tight project timeframe (1.5 years!), but follow-up phase already designed; sustainability of project only possible through the envisaged CEDRO II project and the Sustainable Energy Strategy. In order to shift the project from a recovery project ("compensation measure") onto a development level, higher contributions of the beneficiaries (participation in project planning and implementation, [higher] financial contributions for implementation and maintenance) and more measures for capacity building may be considered.

Country energy efficiency and renewable energy demonstration project for the recovery of Lebanon (CEDRO II)

Short Title:	CEDRO II	Source of Funding	Spain
Project Period:	2009-2011 (2.0 years)	Funding Volume:	US\$ 3,000,000
Executing Agency	UNDP (DEX)		
Project Objective:	<p>The project aims at supporting Lebanon's recovery, reconstruction and reform activities through the implementation of an energy efficiency and renewable energy programme to help improve national patterns of energy consumption and costs.</p> <p>Immediate objectives:</p> <ul style="list-style-type: none"> • Reducing energy consumption and costs of public sector buildings and facilities • Setting an enabling environment for the implementation of a national sustainable energy strategy 		
Project Outputs:	<ul style="list-style-type: none"> • Installation of energy efficiency and renewable energy equipment • Availability of validated data on reduced energy consumption and costs • Increased knowledge and awareness on energy efficiency and renewable energy applications • Availability of policy measures and incentive measures for the activation of sustainable energy applications. 		
Issues:	Reduction of green house gases; energy efficiency; preservation of national energy security; policy advise; implementation of pilot measures for energy saving and solar heating.		
Project Status:	Project can be regarded as the phase II of CEDRO I, but with slightly different objectives; project document signed in 10/2007, although it will begin only in 2009 after completion of CEDRO I.		
Good Practice:	Project builds on the experiences of CEDRO I and shifts them from a local onto a national level; makes sure that the installation of equipment does not remain an isolated action; facilitates the transmission from recovery to sustainable development.		
Reviewer's Remarks:	<p>Project builds of CEDRO I and shifts the focus from a community level onto the national level; CEDRO I+II fit into the "Sustainable Energy Strategy" (SES), which sees CEDRO II as an integral part. Exact start of CEDRO II depends on the successful completion of CEDRO I; mode of integration into SES is not yet clear (separate management structures?).</p> <p>The overall strategy of the project is to install energy efficiency and renewable energy equipment at public buildings and facilities more or less for free, and to hope that this will trigger off an effect on private buildings and industries. However, the high investment costs remain a major barrier towards a wide-scale application of these techniques. Mechanisms to decrease the costs through higher competition among solar heater vendors or subsidizing the installation of energy efficiency and renewable energy facilities on a broad basis may be considered instead of focussing on public buildings.</p>		

Swedish Solar Thermal Water Heaters Donation

Short Title:	Swedish Solar Heaters	Source of Funding	SIDA (Sweden)
Project Period:	2007-2008 (1.5 years)	Funding Volume:	US\$ 500,000

Executing Agency	UNDP (DEX)
Project Objective:	To support the efforts of the GoL for an energy efficient reconstruction.
Project Outputs:	<ul style="list-style-type: none"> Installation of 93 individual units and 12 collective systems of solar heaters on public buildings.
Issues:	Reduction of green house gases; preservation of national energy security; implementation of pilot measures.
Project Status:	Ongoing. Installation started.
Good Practice:	Pilot measures. LCECP takes care of the installation of the equipment.
Reviewer's Remarks:	Project principally a provision (donation) of goods (equipment) which needs to be seen in context of the Sustainable Energy Strategy (SES). The time frame was assessed too optimistic at the beginning of the project ("delivery and installation is expected to take 3-4 months in total"). Installation took place at the time of the evaluation (December 2007).

Towards Energy Efficient Reconstruction (Greece)

Short Title:	Greek Energy Project	Source of Funding	Hellen. Aid, Greece
Project Period:	2007-2008 (1.5 years) [begin 2008?]	Funding Volume:	US\$ 941,000
Executing Agency	UNDP (DEX)		
Project Objective:	To reduce the building sector GHG emissions in Lebanon by introducing and demonstrating new energy and cost efficient approaches in the context of the reconstruction of the war affected zones in Lebanon.		
Project Outputs:	<ul style="list-style-type: none"> Installation of 350 individual solar units; Installation of 90,000 EE lamps; Provision of complete permanent solar testing facilities. 		
Issues:	Reduction of green house gases; preservation of national energy security; implementation of pilot measures.		
Project Status:	Negotiation on implementation procedures.		
Good Practice:	Pilot measures include testing facilities to monitor the outcome of the intervention. These testing facilities urgently needed also for other solar installations within UNDP's E & E Programme. Good cooperation with LCECP, which supports the project technically (in-kind contribution).		
Reviewer's Remarks:	Mainly the provision of goods (solar equipment) which needs to be seen and discussed in context of the Sustainable Energy Strategy (SES). Donation includes solar testing facilities. Efficiency and sustainability issues are to be examined in the context of LCECP and SES.		

Chinese Solar Thermal Water Heaters Donation

Short Title:	Chinese Heaters	Source of Funding	ETC, China
Project Period:	2005-2008 (3.0 years)	Funding Volume:	US\$ 1,270,000
Executing Agency	No official executing agency. Material was given to the GoL as a donation. CECP takes care for the installation of the equipment.		
Project Objective:	To support the GoL in their efforts to introduce the usage of renewable energy in the country.		
Project Outputs:	<ul style="list-style-type: none"> Installation of 1100 (500 in phase I, 600 in phase II) individual solar units Provision of a truck for awareness building (donation II). 		
Issues:	Reduction of green house gases; preservation of national energy security; policy advice; implementation of pilot measures.		
Project Status:	Donation I handed over and installed, but 200 solar units were damaged in the July 2006 war. Donation II confirmed by the Chinese Embassy, but equipment not yet delivered.		
Good Practice:	LCECP took care of the installation of the equipment. Provision of a mobile exhibition which is envisaged for phase II of the project is a big step forward from a pure delivery of goods towards a more comprehensive approach.		
Reviewer's Remarks:	Donation of solar equipment which needs to be seen and discussed in context of the activities of LCECP and the Sustainable Energy Strategy (SES). The first donation		

	comprised 500 solar units, of which 220 were destroyed during the July 2006 war. Vacuum (evacuated) tubes were delivered. This technology has apparently little chances on the Lebanese market due to its high price (market unit price up to approx. US\$ 1800 including installation); selection of equipment apparently not enough demand-driven.
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Global Solar Water Heating Market Transformation and Strengthening Initiative

Short Title:	SWH	Source of Funding	GEF
Project Period:	2008-2013 (5.0 years)	Funding Volume:	US\$ 1,000,000
Executing Agency	To be defined.		
Project Objective:	To accelerate commercialization and sustainable market transformation of solar water heating, thereby reducing the current use of electricity and fossil fuels for hot water preparation in residential, private service sector and public buildings and, when applicable, industrial applications.		
Project Outputs:	<p>The global project has two components/outputs:</p> <ul style="list-style-type: none"> • Global Knowledge Management and Networking: Effective initiation and coordination of the country specific support needs and improved access of national experts to state of the art information, technical backstopping, training and international experiences and lessons learnt. • Country Programs: The basic conditions for the development of a SWH market on both the supply and demand side established, conducive to the overall, global market transformation goals of the project. 		
Issues:	Reduction of green house gases; energy efficiency; preservation of national energy security; market-based approach.		
Project Status:	Global project approved 08/2006. National component still needs to be shaped. Project not yet started.		
Good Practice:	Market approach by removing barriers which avoid the market penetration of SWH; provision of fiscal incentives; development of regulatory and financial mechanisms.		
Reviewer's Remarks:	Start of implementation significantly delayed (beyond responsibility of UNDP CO). Work programme for the Lebanese component still needs to be defined. As some aspects may overlap with other ongoing projects and activities, close coordination necessary. The main benefits of taking a global approach with many stakeholders seem to be on operative level (one project proposal instead of many), as execution will be as discrete national component.		

2. Sustainable Rural Development

Flood management

Short Title:	Flood	Source of Funding	Spain
Project Period:	2007-2009 (1.5 years)	Funding Volume:	US\$ 2,830,000
Executing Agency	Ministry of Agriculture		
Project Objective:	<p>Improving land management and increasing agricultural productivity to support early recovery efforts and alleviate poverty in Baalbeck-Hermel.</p> <p>Immediate objectives:</p> <ul style="list-style-type: none"> • Restoration of livelihoods in conflict-affected poor rural areas in North Beka'a; • Improving land and water management to increase agricultural productivity and reduce agricultural and social damages resulting by frequent flash floods in the region. 		
Project Outputs:	<ul style="list-style-type: none"> • Construction of walls, dams and water-collection reservoirs to reduce the risk of flooding in Baalback-Hermel region; • Installation of water-saving irrigation networks and water-use efficient irrigation systems to improve water availability and increase crop production and diversity; 		

	<ul style="list-style-type: none"> Restoration of vegetation cover (including agricultural crops) and forestation trees that were destroyed by the July 2006 conflict in order to reduce soil erosion.
Issues:	Erosion control; desertification; flood management; rural development; management of natural resources.
Project Status:	Approved 10/2007. Implementation not yet started.
Good Practice:	Building on previous experience (pilot measure in a nearby area).
Reviewer's Remarks:	The project period may be sufficient for carrying out the construction work, but it is not realistic to assume that the rural development objectives stated in the project outputs and project logframe can be achieved (increase of crop production, diversification of crop pattern, organisation of grazing activities, etc.); also the establishment of water-saving irrigation systems and of nurseries may be too time-consuming. A timeframe of 1.5 years is too short for the ambitious goals of the project. Capacity building takes only a moderate part of the proposed activities.

Sustainable rural livelihood development programme for Lebanon

Short Title:	Industrial Hemp	Source of Funding	UNDP TRAC, MoA
Project Period:	2007-2009 (2.0 years)	Funding Volume:	US\$ 250,000
Executing Agency	Ministry of Agriculture (MoA)		
Project Objective:	<p>Specific problems and obstacles identified and alternatives and solutions adopted to improve environmental conditions, reduce land degradation and enhance proper market linkages for achieving sustainable livelihood development of rural communities.</p> <p>Alternatively used in the project document: National capacities and policy formulations supported and strengthened to reach Sustainable Development.</p>		
Project Outputs:	<ul style="list-style-type: none"> Sustainable Rural Livelihood Development Programme for Lebanon <p>Alternatively used in the project document:</p> <ul style="list-style-type: none"> Ministry of Agriculture assisted in identifying and adopting means to enhance sustainable rural livelihood development in Lebanon; Industrial hemp explored as a potential alternative to narcotic plants in the Beka'a for improving the livelihood of rural communities. 		
Issues:	Programme building; industrial hemp; rural development; agricultural products; product development; supply chain.		
Project Status:	Project approved in November 2007; first implementation activities started.		
Good Practice:	Formation of a programmatic approach for rural development; testing of innovative measures.		
Reviewer's Remarks:	The proposal combines the formation of a programmatic approach for rural development with very specific tasks for the development of a new agricultural crop for Lebanon. The role of other rural development projects in this programme remains unclear ("will be monitored" - will it become an additional external monitoring system?).		

Rural dryland development through UNCCD

This includes the project "Rural dryland development through innovative market approaches, financing strategies and local initiatives for UNCCD implementation"

Short Title:	Desertification	Source of Funding	Finland
Project Period:	2000-2009 (10.0 years)	Funding Volume:	US\$ 510,000
Executing Agency	Ministry of Agriculture MoA)		
Project Objective:	Rural/dryland development through mainstreaming the UNCCD approach into development initiatives.		
Project Outputs:	<p>Project outcomes:</p> <ul style="list-style-type: none"> UNCCD implementation mainstreamed with innovative trade and marketing initiatives for dryland product; 		

	<ul style="list-style-type: none"> • Development of a financing strategy for NAP implementation; • Implementation and coordination of sub-national and local-level NAP priority projects.
Issues:	UNCCD, rural development, desertification, marketing of agricultural products; international conventions;
Project Status:	Ongoing; to be completed by the end of 2008.
Good Practice:	Successful cooperation with Finland in the field of fair trade for agricultural products; certification revealed not to be realistic and useful in the current Lebanese context;
Reviewer's Remarks:	Broad thematic overlap with a project supported by the German Government for UNCCD implementation; successful coordination on a case-to-case basis, but the existence of two project teams including two offices may not be cost-effective; NAP still not endorsed by the GoL.

Promoting cultivation of medicinal and aromatic plants for livelihood recovery in South Lebanon

Short Title:	MAP Cultivation	Source of Funding:	Australia, UNDP
Project Period:	2007-2008 (1.5 years)	Funding Volume:	US\$ 200,000
Executing Agency:	UNDP (DEX)		
Project Objective:	Improve the livelihood of rural communities in devastated areas of South Lebanon and alleviate pressure on natural resources, through promoting cultivation of medicinal and aromatic plants		
Project Outputs:	<ul style="list-style-type: none"> • Capacity of local communities developed for proper MAPs cultivation and pre-processing; • Local communities empowered to undertake the process from cultivation till harvesting and pre-processing of MAPs; • Institutional coordination and partnerships strengthened; • Partnerships with private sector and market linkages established; • MAPs nursery established for production and distribution of seedlings; • Project Management. 		
Issues:	Biodiversity, early recovery, rural development, business development, supply chain, cultivation.		
Project Status:	Project began in later 2007.		
Good Practice:	Quick-start possible, as building on previous knowledge and experience; otherwise not much experiences so far, as project is at the very beginning.		
Reviewer's Remarks:	The brief project period (18 months) is a big challenge. Marketing not extensively covered by the project; beneficiaries normally not experienced in MAP cultivation; little participatory approaches.		

Restoring Lives & Livelihoods of Fishermen

Short Title:	Fishermen	Source of Funding:	CIDA (Canad.)
Project Period:	2006-2008 (1.5 years)	Funding Volume:	US\$ 922,300
Executing Agency:	UNDP (DEX)		
Project Objective:	To rapidly restore the capabilities of fishing communities by providing nets and accessories for fishermen through the cooperatives at the Lebanese ports.		
Project Outputs:	<ul style="list-style-type: none"> • Assessment of fishermen's needs • Procurement of fishermen's material and equipment 		
Issues:	Early recovery; rehabilitation; income generation; marine environment;		
Project Status:	Under implementation.		
Good Practice:	Needs assessment conducted prior to launching an international bid or the provision of equipment. Project works loosely with fishermen (high degree of participation).		
Reviewer's Remarks:	Provision of goods, mainly fishery equipment, as a one-time approach; little capacity building to strengthen marketing capabilities.		

Safeguarding and Restoring Lebanon's Woodland Resources

Short Title:	Reforestation	Source of Funding:	GEF
Project Period:	2008-2013 (5.0 years)	Funding Volume:	US\$ 980,000
Executing Agency:	Ministry of Environment		
Project Objective:	<p>Goal: to create an enabling environment and capacity for sustainable land management as a contribution to greater ecosystem stability, enhanced food security and improved rural livelihoods.</p> <p>Immediate objective: A strategy for safeguarding and restoring Lebanon's woodland resources developed and under implementation through capacity building and execution of appropriate SLM policies and practices.</p>		
Project Outputs:	<ul style="list-style-type: none"> • An appropriate management framework and management capacities for the safeguarding and restoration of degraded forest areas • A set of innovative technologies and instruments for the restoration of forests and woodlands, and their subsequent sustainable management, has been designed and validated in pilot areas. • Monitoring, learning, adaptive feedback and management. 		
Issues:	Reforestation, afforestation, natural resource management, UNCCD, land degradation, international conventions, forestry.		
Project Status:	Awaiting approval by the GEF.		
Good Practice:	Mainstreaming of innovative instruments and practices into an ongoing National Reforestation Programme.		
Reviewer's Remarks:	Considerable time elapsed between the preparation of the proposal and implementation. Proposal has to be adapted in particular in respect to the situation after the July 2006 war (National Reforestation Programme) and extensive forest fires which have occurred in late 2007 (new baseline, new priorities).		

Mainstreaming biodiversity management considerations into medicinal and aromatic plants production processes

Short Title:	Wild MAPs	Source of Funding:	GEF
Project Period:	2008-2013 (5.0 years)	Funding Volume:	US\$ 1,000,000
Executing Agency:	Lebanese Agricultural Research Institute (LARI)		
Project Objective:	<p>Goal: To secure in Lebanon globally significant Medicinal and Aromatic Plants (MAPs) that form a resource-base for medicine and human consumption.</p> <p>Objective of the project: To integrate conservation objectives into the gathering, processing and marketing of globally significant MAPs.</p>		
Project Outputs:	<ul style="list-style-type: none"> • Appropriate collection methods ensure a viable long-term supply of MAP raw materials. • Value-added processing and product improvement result in increased value of MAPs harvested in biodiversity-friendly manner. • Regulatory framework established for sustainable MAP collection and awareness promoted for conservation-friendly MAP products • Learning, evaluation, and adaptive management. 		
Issues:	Biodiversity, international conventions, rural development, business development, sustainable use, supply chain, certification.		
Project Status:	Project not yet endorsed by GEF.		
Good Practice:	Combination of poverty alleviation with biodiversity conservation; SME development for bioproducts; using market forces to leverage conservation efforts; sectoral rather than area-based approach.		
Reviewer's Remarks:	Risks of the project are described in the project document in detail; some of them may be difficult to manage.		

3. Environment Programme

Post-conflict oil spill clean-up project			
Short Title:	Oil Spill	Source of Funding	CIDA (Can.)
Project Period:	2006-2007 (1.5 years)	Funding Volume:	US\$ 2,410,000
Executing Agency	UNDP (DEX)		
Project Objective:	To clean the Mediterranean coast at three sites from oil that spilled on 13-15 July 2006		
Project Outputs:	<ul style="list-style-type: none"> • Assistance to the Ministry of Environment in coordinating oil spill management • Clean-up of the Dalieh Fishermen's Wharf & transport of waste to the temporary storage sites • Clean-up of three sites between Jadra and Ras Al Saadiyat & transport of waste to the temporary storage sites • Clean-up of three sites between Beirut and Jiyeh • Assessment & review of oil spill clean up waste and review of possible treatment options • Underwater survey of the near and littoral shore zone, covering the coast between Abdeh-Akkar to Jadra 		
Issues:	Oil spill, emergence action, early recovery, environmental degradation, marine pollution.		
Project Status:	Almost completed.		
Good Practice:	Close cooperation with renowned organisations (International Maritime Organisation (IMO)/Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea, REMPEC); ecological monitoring; close coordination with MoE, who was responsible for the overall-coordination of clean-up activities.		
Reviewer's Remarks:	Clean-up started only four months after the oil spill; scientific knowledge on the ecological effects of the oil spill and the impact of clean-up activities under Mediterranean circumstances still poor (what would happen under the "no clean-up scenario?").		

An integrated waste management plan for mixed demolition waste in South Lebanon			
Short Title:	Rubble	Source of Funding	SIDA (Sweden)
Project Period:	2006-2008 (2.0 years)	Funding Volume:	US\$ 1,430,000
Executing Agency	UNDP (DEX)		
Project Objective:	To provide the necessary infrastructure/equipment for processing demolition wastes and create the opportunity for processed materials recovery and re-use.		
Project Outputs:	<ul style="list-style-type: none"> • Supporting the government of Lebanon in handling the rubble issue through the provision of the necessary; • Infrastructure/equipment for processing demolition wastes; • Improving debris management systems leading to cost savings in implementation; • Reducing adverse environmental impacts; • Creating the opportunity for processed materials recovery and re-use. 		
Issues:	Recovery, environmental management, waste management, construction sector.		
Project Status:	Rubble survey performed; tender for the purchase of equipment announced, equipment ordered, implementation on the ground not yet started.		
Good Practice:	This project may be a good example for recycling of construction material; direct environmental benefits; cooperation with Rescue Services Agency (SRSA).		
Reviewer's Remarks:	Slow progress in implementation: crusher and screening unit not yet available (international invitation for tenders issued); agreement with municipalities yet to be finalised; also guidelines for the establishment of recycling sites to be finalised; no final decision on the re-use of the material (awaiting the results of laboratory tests and market surveys).		

Integrated waste management for the olive oil pressing industries in Lebanon, Syria & Jordan

Short Title:	Olive Oil - IMOOPW	Source of Funding	EU (SMAP)
Project Period:	2005-2008 (3.0 years)	Funding Volume:	US\$ 1,730,000
Executing Agency	Ministry of Environment		
Project Objective:	To introduce the elements of an integrated waste management system to the olive oil production sector in these countries.		
Project Outputs:	<p>The project is undertaken in seven “phases”:</p> <ul style="list-style-type: none"> • Establishing an industrial database of the oil processing sector in Lebanon, Syria and Jordan; • Introducing cleaner production options, prevention, control and treatment measures to the olive oil industry • Training and technical assistance for concerned stakeholders to maintain principles of “green” processing of olive oil; • Setting standards and limits relevant to the olive oil industry effluents in Lebanon, Syria and Jordan; • Setting of a monitoring strategy to be adopted by the Ministry of Environment to control/ regulate olive oil production and associated in-line industries; • Developing financial as well as technical incentives to promote the mandates of previously agreed Memorandums of Understanding (MOUs) relating to the proposed environmental quality standards and compliance strategy; • Undertaking awareness activities. 		
Issues:	Environmental pollution; waste management; cleaner production; private sector; environmental standards; capacity building.		
Project Status:	Under implementation.		
Good Practice:	Environmental auditing of six olive oil mills and one complementary industry; development of audit manuals; awareness-building about environmental impact of olive oil production; provision of incentives or cleaner production;		
Reviewer’s Remarks:	Despite the efforts towards upscaling the measure, the environmental situation of olive mills is now apparently the same as at the beginning of the project. The efforts to provide soft loans to mill owners through Kafalat seem promising, but still little impact seen on the ground. All remaining time & funds should be concentrated on upscaling, otherwise the risk would be high that the project has, despite its high efficiency, little impact and sustainability; regional steering committee in place, but otherwise restricted technical cooperation with partners in neighbouring countries.		

National capacity self-assessment for global environmental management

Short Title:	NCSA	Source of Funding	GEF
Project Period:	2005-2007 (2.5 years)	Funding Volume:	US\$ 200,000
Executing Agency	Ministry of Environment (MoE)		
Project Objective:	The NCSA aims at determining national priorities for capacity development in the area of global environmental management, namely under the three UN conventions: UNFCCC, UNCCD, CBD.		
Project Outputs:	<ul style="list-style-type: none"> • Identify & assess capacity constraints in implementing UN Global Environment Conventions; • Determine mechanisms to at institutional & functional levels to address constraints; • Prepare National Strategy & Action Plan; • Create linkages and synergies between conventions. 		
Issues:	International environmental conventions, international regimes, international obligations of the government, capacity building.		
Project Status:	Under implementation.		
Good Practice:	Significant contribution to knowledge management in the field of the Rio Conventions and beyond.		
Reviewer’s Remarks:	Little sustainability of the project. The project activities are on a very wide range, many of them deal with awareness building (originally not foreseen by the project).		

	Results of the projects not properly followed up by MoE (responsibilities and duties of ministry staff for follow-up not clear, no clear strategy to continue efforts beyond the end of the project), apparently due to low political commitment.
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Enabling Activities for the preparation of the Second National Communication (SNC) to the United Nations Framework Convention on Climate Change

Short Title:	SNC-UNFCCC	Source of Funding	GEF
Project Period:	2007-2009 (2.0 years)	Funding Volume:	US\$ 405,000
Executing Agency	Ministry of Environment		
Project Objective:	This project's objective is to prepare the country's SNC to the UNFCCC.		
Project Outputs:	Project components: <ul style="list-style-type: none"> • an inventory of greenhouse gases for the years 2000 and 2006 and time series 1994-2006; • an update of analysis of potential measures to mitigate the increase in greenhouse gas emissions in Lebanon; • an assessment of potential impacts of climate change in Lebanon and adaptation measures; • preparation of the Second National Communication of Lebanon and submission to the COP. 		
Issues:	International environmental conventions, international regimes, international obligations of the government, capacity building.		
Project Status:	Under implementation.		
Good Practice:	Participation in international meetings (UN Climate Change Conference in Bali, December 2007).		
Reviewer's Remarks:	The project is still in its early stage; the documentation does not clearly reflect how the project will manage to get the SNC (including the inventory of greenhouse gases, etc.) adopted by decision-makers as a policy and planning document.		

Methyl bromide phase-out project

Alternatively used full title: "Sector phase out of methyl bromide in vegetable, cut flower and tobacco production in Lebanon"

Short Title:	Methyl Bromide (MeBr)	Source of Funding	Montreal Protocol
Project Period:	2002-2008 (7.0 years)	Funding Volume:	US\$ 2,510,000
Executing Agency	Ministry of Environment		
Project Objective:	To phase out methyl bromide in vegetable, cut flower and tobacco production in Lebanon		
Project Outputs:	<ul style="list-style-type: none"> • To eliminate the use of 257.8 MT of methyl bromide in vegetable sector, 28.4 MT in the flowers production, and 24 MT in the tobacco sector. 		
Issues:	Montreal Protocol, environmental pollution, ozone, climate change.		
Project Status:	Ongoing.		
Good Practice:	Achievement so far: approx. 88% of MeBr phased out. A parallel project is implemented together with United Nations Industrial Development Organization (UNIDO) for the sector phase-out of methyl bromide in strawberry production in Lebanon. On the occasion of the 20th Anniversary of the Montreal Protocol, an award was conferred on the Ministry of Environment: the Exemplary Project Award for the Alternatives to Methyl Bromide Project.		
Reviewer's Remarks:	As the project objective is the almost complete phase-out of MeBr in Lebanon, there will be little need for follow-up; good prognosis of sustainability.		

Institutional strengthening project for the implementation of Montreal Protocol in Lebanon (phase IV)

Short Title:	ISP Ozone	Source of Funding:	Multilateral Fund (MLF)
Project Period:	2005-2007 (2.0 years)	Funding Volume:	US\$ 155,000
Executing Agency	Ministry of Environment		
Project Objective:	To extend institutional strengthening support to the GoL, namely the MoE, to continue the ongoing efforts to effectively and efficiently phase-out ODS		
Project Outputs:	<ul style="list-style-type: none"> • Strengthening institutional capacity; • ODS data collection and needs assessment; • Implementation of ODS phase-out activities; • Resource mobilization; • Awareness raising and training of key stakeholders; • Development of supportive legislation. 		
Issues:	Montreal Protocol, environmental pollution, ozone, capacity building.		
Project Status:	This is phase IV of a project which started in 1998. This phase was to be completed in 10/2007. Operations likely to be continued until 2015, when complete phase-out of CFC is expected.		
Good Practice:	Comprehensive approach towards the implementation of the Montreal Protocol; Project serves as a management project for other activities in the frame of the Montreal Protocol; many tangible outcomes; positive effects on export (local manufacturers were through this project assisted in meeting e.g. EU standards); performance verification of the annual implementation programmes for 005-2006 conducted by independent institute in May 2007. Result of the assessment: "it can be concluded that Lebanon has met the agreed CFC consumption targets for 2005 and 2006 as stipulated in the Agreement". Project was awarded at the occasion of the Ozone Day in Canada with the Montreal Protocol Implementers Award for its good performance and successful implementation.		
Reviewer's Remarks:	Good project management with little interventions required from UNDP side. Only little capacity building for MoE (only one staff dealing with the Montreal Protocol with the ministry - which is the focal point for this project).		

National phase-out management plan for CFCs in Lebanon

Alternative Project Title: "National Phase-out Management Plan for Annex-A Group-I substances (CFCs) in Lebanon"

Short Title:	NPMP	Source of Funding:	Montreal Protocol (MP)
Project Period:	2005-2009 (4.0 years)	Funding Volume:	US\$ 2,091,000
Executing Agency	Ministry of Environment		
Project Objective:	<p>The objectives of the project (all tranches) are:</p> <ul style="list-style-type: none"> • To achieve complete phase-out of CFCs in Lebanon by 31 December 2008. • To enable Lebanon to meet its obligations of phased ODS reductions in accordance with the control schedule of the Montreal Protocol. • To ensure timely, sustainable and cost-effective CFC phase-out in the Refrigeration (Manufacturing) Sector, through development and implementation of a combination of investment, technical support, training and institutional support components. 		
Project Outputs:	<p>The detailed outputs are specified according to the following categories:</p> <ul style="list-style-type: none"> • Investment Component; • Technical Support Component; • Training Component; • Institutional Support Component. 		
Issues:	Montreal Protocol, environmental pollution, CFCs, capacity building.		
Project Status:	Ongoing.		
Good Practice:	Clear achievements with tangible results; good indicators. One management team for the CFC Projects (see ISP Ozone Project).		
Reviewer's Remarks:	See ISP Ozone Project.		

Supporting the judiciary system in the enforcement of environmental legislation

Short Title:	SEEL	Source of Funding	World Bank (WB)
Project Period:	2007-2010 (3.0 years)	Funding Volume:	US\$ 400,000
Executing Agency	Ministry of Justice in cooperation with Ministry of Environment		
Project Objective:	To strengthen the capacities of the Ministry of Justice in enforcing environmental legislation.		
Project Outputs:	<ul style="list-style-type: none"> To review existing cases of jurisprudence per sector in Lebanon, compare them to international case studies and develop a reference guide for judges. To introduce an environmental course at the Institute of Judicial Training at the Ministry of Justice. To raise awareness and ensure wide dissemination of information. Project management. 		
Issues:	Environmental legislation, enforcement, education and training, curriculum development.		
Project Status:	Ongoing.		
Good Practice:	Innovative way to work directly with judges and to train them; cooperation with MoE in the field of awareness building.		
Reviewer's Remarks:	Ministry stresses the fact that the courses get more attention as they get international support.		

Institutional Strengthening of the Directorate General of Environment / NEAP

Short Title:	ISDGoE	Source of Funding	MoE
Project Period:	2006-2007 (2.0 years)	Funding Volume:	US\$ 41,000
Executing Agency	Ministry of Environment (MoE)		
Project Objective:	To strengthen the role of the directorate in planning and programming, resource mobilization and capacity building.		
Project Output:	<ul style="list-style-type: none"> Institutional support to the Directorate General of Environment of the Lebanese Ministry of Environment 		
Issues:	Capacity building; resource mobilization; planning & programming;		
Project Status:	Ongoing. Project period foreseen one year, but after experiencing some delay, extended for another year. It is likely to be further extended,		
Good Practice:	Coordination between internationally funded projects; development of project proposals ("seed funding").		
Reviewer's Remarks:	Project delayed, with no significant activities since almost two years. Project volume too tiny to achieve real impacts (project volume more in the order of a consultancy than in the order of a fully fledged project). Management costs of this project will be too high.		

Mainstreaming conservation of migratory soaring birds into key productive sectors along the Rift Valley/Red Sea flyway

Short Title:	Soaring Birds	Source of Funding	MoE
Project Period:	2008-2017 (10.0 years)	Funding Volume:	US\$ 570,000
Executing Agency	Ministry of Environment (MoE)		
Project Objective:	The overall project goal is to ensure that globally threatened and significant populations of soaring birds that migrate along the Rift Valley/Red Sea flyway are effectively maintained. The immediate objective is that conservation management objectives and actions for MSBs are mainstreamed effectively into the hunting, energy, agriculture, waste management and tourism sectors along the Rift Valley/Red Sea flyway, making this a safer route for soaring birds.		
Project Output:	<ul style="list-style-type: none"> Raised awareness of the flyway and altered social and cultural behaviours among target groups that threaten MSBs in the key sectors, decision-makers and the general public. Increased national and regional capacity to effect double mainstreaming and application of Flyway concept. Content and tools to enhance flyway friendly practice developed, delivered and 		

	<p>mainstreamed effectively into sector processes and programmes.</p> <ul style="list-style-type: none"> • Learning, evaluation and adaptive management increased. • Project Management.
Issues:	Capacity building; awareness building, mainstreaming, sectoral approaches, resource mobilization; planning & programming;
Project Status:	CEO approval expected in due course; implementation foreseen in two tranches with five years each.
Good Practice:	Wide range of countries along the eastern flyway included; comprehensive approach to address threats; coordination between internationally funded projects.
Reviewer's Remarks:	Prerequisite of the proposed "double-mainstreaming approach" is that other projects are willing to work with the project and are willing to mainstream the threats to soaring birds into their work; the project picks up a task which usually should be fulfilled by EIAs and SEAs.