



**Submission Form
To
The Lebanon Recovery Fund Steering Committee**

To be completed by the Recovery and Reconstruction Cell (RRC)	
Meeting No:	Date of Meeting:
Item No:	Programme/project

*(To be completed by the Participating UN Organisation
and endorsed by Working Group Chair)*

To:	Date of Submission
Lebanon Recovery Trust Fund Steering Committee	25 September 2008
From:	
United Nations Development Programme	
Through: Working Group	Contact: Telephone number, email
<input type="checkbox"/> Endorsement <input type="checkbox"/> Comments	marta.ruedas@undp.org 01 985932
Proposed submission, if approved would result in:	Proposed submission resulted from:
<input type="checkbox"/> Continuation of existing programme/project <input checked="" type="checkbox"/> New programme/project <input type="checkbox"/> Other (explain)	<input checked="" type="checkbox"/> National Authorities initiative within national priorities <input type="checkbox"/> UN Agency initiative within national priorities <input type="checkbox"/> Other:
Programme/project title: "Hydro Agricultural Development for Marjeyoun Area"	
Amount of funds requested for proposed programme/project: 2,000,000 USD	
Estimated number of beneficiaries: 1,250 households	
Request against specific earmarking or unearmarked:	
Amount of indirect costs requested: 7%: 130,841 USD	

1. Background

During the seventies, the Litani River Authority executed the planning and design of the “Hydro Agricultural Development Project of South Lebanon” in collaboration with UNDP and FAO. An output of this project was “Canal 800” which was designed to provide water for irrigation from “Karoon” Dam in West Bekaa to an area of about 15000 ha South of Litani River in South Lebanon (Quelia and Marjeyoun areas). The length of the canal is 52 km starting from “Markaba” Plant in West Bekaa and dragging water in the amount of 90 million cubic meters per year to twenty main reservoirs distributed in 12 irrigation perimeters South of Litani River.

In 2002, after a reviewed and updated design and feasibility study of Canal 800 project, the Lebanese Government decided the execution of the main Canal. A loan agreement was signed with the Arab fund and Kuwait Fund for Development. The needed legislation was approved by the Lebanese Parliament in 2002. The execution of the main canal is expected to start shortly and to be completed within three years period (end of 2011).

2. Purpose of Proposed Programme/Project

The objective of this proposed pilot project is to prepare the infrastructure and to facilitate the implementation of the irrigation distribution network in the “Marjeyoun” North Perimeter through a participatory approach involving the farmers to ensure proper management of water use.

3. Evaluation of Proposal

<i>General principles and selection criteria</i>		
(a)	Must be explicitly based on Lebanon’s national priorities and needs, as noted in the public domain.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(b)	Must fall with the UN’s mandate, and must address the Millennium Development Goals, directly or indirectly through a human rights-based approach.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(c)	Must promote and ensure national ownership.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(d)	Must be at an acceptable level of risk, within UN parameters.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(e)	Must fall within the areas of UN’s comparative advantage.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(f)	The UN must be an appropriate system to deliver the intervention.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(g)	The UN response must be properly designed for and within the Sector setting, must be effective, coherent, context-sensitive, and cost-efficient and the outcomes, sustainable.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(h)	Must avoid duplication of and significant overlap with the activities of other actors.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(i)	Must build on existing capacities, strengths and experience.	Yes <input type="checkbox"/> No <input type="checkbox"/>
(j)	Must promote consultation, participation and partnerships.	Yes <input type="checkbox"/> No <input type="checkbox"/>
If one or more of the above criteria is not met, please explain:		

Implementability

	2008	2009
<i>Estimated commitments (USDmill)</i>	_____	_____
<i>Estimated disbursements (USDmill)</i>	_____	_____

Does the project correspond to national priorities? Yes No

Original Project (valued: \$2,134,809) approved by Line Ministry: Ministry of Energy and Water H.E. Minister of Energy and Water Mr. Alain Tabourian (see enclosed copy)

Reduced Project value (\$ 2,000,000) approved by Director General of Litani River Authority

Check on Programme/Project Proposal Format Contents

- | | | |
|--|------------------------------|-----------------------------|
| <input type="checkbox"/> Cover sheet (first page) | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input type="checkbox"/> Logical Framework | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input type="checkbox"/> Programme/Project Justification | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input type="checkbox"/> Programme/Project Management Arrangements | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input type="checkbox"/> Risks and Assumptions | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input type="checkbox"/> Budget | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input type="checkbox"/> Support Cost | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

*Overall review of programme submission
Recommendations*

5. Decision of the LRF Steering Committee

- Approved for a total budget of \$...2,000,000
- Approved with modification/condition
- Deferred

Reason/Comments

May 29, 2009
Date

6. Follow-up action taken by the Administrative Agent

- Project consistent with provisions of the Letter of Agreement with donors (if applicable)

.....
Signature

.....
Date



**LEBANON RECOVERY FUND
PROJECT DOCUMENT COVER SHEET**

Participating UN Organisation: United Nations Development Programme (UNDP)	Sector: Energy and Environment
Programme/Project Manager Name: Edgard Chehab Address: UNDP Lebanon Telephone: +961 (0)3 240034 E-mail: edgard.chehab@undp.org	Working Group Chair Name: Address: Telephone: E-mail:
Programme/Project Title: " Hydro Agricultural Development for Marjeyoun Area"	Programme/Project Location: South Lebanon
Programme/Project Description: The project will assist local communities in Marjeyoun area to benefit from a main canal supplying water to South Lebanon from West Bekaa. The project will show the advantages and efficiency of modern irrigation techniques, will propose the new cropping patterns in the region, and will support the establishment of a very much needed Water User Association. The project will have a direct impact on the livelihood of at least 1,250 households within 5 communities affected by the July 2006 conflict through extending the areas suitable for agriculture, and will provide direct assistance to the farmers in the area.	Total Programme/Project Cost: LRF: 2,000,000 USD Government Input: 200,000 (in-kind) Other: Total: 2,200,000 USD
	Programme/Project Duration: 2008 - 2010
Development Goal: Supporting Lebanon's recovery, reconstruction and reform activities through enabling infrastructure and reform for hydro agricultural development in South Lebanon. Immediate Objectives: Developing hydro agricultural infrastructure for 5 communities South of Litani River	
Outputs and Key Activities: The project will support the establishment of Water Users Association for proper management of water use, will produce topo-cadastral maps which are the bases for designing the irrigation distribution networks, will establish a land classification database as a prerequisite for the development of the hydrant implementation plans, and will execute land reclamation for an area of 522 ha setting up the infrastructure for the water distribution network.	
Working Group Review Date: _____ RRC Review Date _____ Steering Committee/Project Approval Group Approval Date: _____	

On behalf of:	Signature	Date	Name/Title
Chair, LRF SC			Minister of Economy & Trade
UNDP Lebanon			

2. Logical Framework

Objectives	Measurable indicators	Means of verification	Important assumptions
Development Objective <i>Supporting Lebanon's recovery, reconstruction and reform activities through enabling infrastructure and reform for hydro agricultural development in South Lebanon</i>	Increase irrigated area in South Lebanon for use in Agriculture	Field survey Project Reports	Continued government commitment to the execution of Canal 800
Immediate Objectives: <i>Developing hydro agricultural infrastructure work for 5 communities South of Litani River</i>	522 ha ready for irrigated agriculture in 5 communities South of Litani River	Survey of beneficiaries Project Reports	(Immediate Objective to Development Objective) - Farmers strong collaboration with the project - Timely execution of Canal 800
OUTPUTS: <i>1. Water User Association (WUA) established</i> <i>2. Topo-cadastral maps produced</i> <i>3. Detailed land classification database produced</i> <i>4. Land reclamation work executed</i> <i>5. Hydrant plans designed</i>	WAU established with more than 500 members Topo-cadastral maps produced for at least 1000 plots within the 5 communities Database ready for use for the Hydrant Plans designs Land reclamation executed covering an area of 522 ha Hydrant plans ready for use in the design and execution of the distribution network	Project Reports Legislation approved Project Reports Project Reports Field survey Project Reports	(Outputs to immediate objective) - Farmers collaboration with the project - Stable political situation Availability of relevant good quality images for the area Presence of cluster bombs in some areas might affect field work - Presence of cluster bombs in some areas might affect field work - Stable political situation - Farmers collaboration with the project
ACTIVITIES:	INPUTS:		(Activity to output)
<i>1.1. Conduct a national workshop to discuss the concept</i> <i>1.2. Draft the required legislation</i> <i>1.3. Lobby with policy makers to pass the required legislation</i>	80,000 USD (by international and local experts)	Project Reports Legislation approved	Farmers collaboration with the project Unstable political situation
<i>2.1. Process maps based on stereoscopy proceeding in case of good quality aerial photos availability</i> <i>2.2. Use scanned maps for adjustments based on available</i>	75,000 USD (by local sub-contracts)	Project Reports	Availability of good quality and recent images for the area (either aerial or satellite)

<i>topographic map, using GIS tool whenever good quality aerial photos are not available</i>			
2.3. <i>Use of satellite images with field work for verification whenever above info are lacking</i>			
3.1 <i>Conduct physical laboratory analysis for the soil every 4 ha</i> 3.2 <i>Conduct chemical parameters analysis for the soil every 40 ha</i> 3.3 <i>Conduct in field measurements of infiltration rate using double ring technique every 4 ha</i> 3.4 <i>Obtain data on the geology, slopes, percentage and nature of rocks, stones and gravel on surface, and current land use for the project area</i>	200,701 USD <i>(by local sub-contracts)</i>	Project Reports	Presence of cluster bombs in some areas might affect field work
4.1 <i>Propose guideline basis for land reclamation works</i> 4.2 <i>Based on parcels description, prepare land reclamation designs for uniform geographical region</i> 4.3 <i>Execution of the base work by the project.</i> 4.4 <i>Support complementary works (Terraces walls, stone and gravel removal) to be done by farmers</i> 4.5 <i>Provide the farmers with wheat seeds (other field crops will be considered as well) for cultivating their land, awaiting the execution of the irrigation network</i>	1,279,558 USD <i>(by local sub-contracts)</i>	Field survey	- Presence of cluster bombs in some areas might affect field work - Unstable political situation - Farmers collaboration with the project
5.1 <i>Determine cropping pattern based on data collected by the land classification</i> 5.2 <i>Determine water need based on the cropping pattern, water needs can be estimated at the on-farm level</i> 5.3 <i>Finalise the hydrant plan design taking into consideration the necessity to assure an easy access for users</i>	110,700 USD <i>(by local sub-contracts and international experts)</i>	Project Reports	
7. <i>Project Management</i>	123,200 USD		
8. <i>Project Overhead</i>	130,841 USD		

3. Programme/Project Justification

This project will be a model for the other areas which will benefit from Canal 800. It will set the infrastructure for the distribution network, will show the advantages and efficiency of modern irrigation techniques, will propose the new cropping patterns in the region with their socio-economic impact, and will support the establishment of a very much needed Water User Association. The project will have a direct impact on the livelihood of the local communities affected by the July 2006 conflict through extending the areas suitable for agriculture and will provide direct assistance to the farmers through providing them with wheat seeds to be cultivated on their lands for two consecutive years (other field crops will be considered as well), awaiting the supply of irrigation water from the main canal.

This pilot project will cover the "Marjeyoun" North Perimeter with an area of implementation covering 522 ha benefiting around 1250 farmers within the following 5 communities: "Burghos", "Blat", "Dibbine", "Ibl Essaki", and "Jdaydit Marjeyoun".

The project National partner will be the Litani River Authority (LRA), an autonomous governmental agency which amongst its responsibilities is the implementation of irrigation schemes in South Bekaa and South Lebanon (law 221 - Water Authorities Law).

UNDP is working in various sectors within the early recovery programme through its wide network of offices and projects distributed throughout Lebanon. Furthermore, this project will be part of the UNDP Sustainable Land Management Programme for Livelihood Development (within the UNDP Energy and Environment Programme) which was launched in October 2007 to assist the Lebanese Government in identifying the specific problems and obstacles encountered in the long-term process of achieving sustainable land management to improve rural livelihood. The aim of the programme is to provide support in the formulation and implementation of national projects devised to enhance this development process. The strategy of the programme focuses on integrating sustainable natural resources management with better alternatives in agricultural production. This integration will enhance project's coordination and proper linkages between all programme partners.

4. Management Arrangements

Implementation arrangements

The following implementation arrangements will be undertaken:

The Project will be executed under the UNDP Direct Execution modality (DEX), whereby UNDP will act as both the implementing and the executing agency.

For the day-to-day management of the project, the UNDP CO will set-up a Project Management Unit (PMU) within the Litani River Authority (in-kind contribution from LRA). The PMU will work under the direct supervision of the Environment and Energy Programme of the UNDP CO, and in close collaboration with the Litani River Authority. Furthermore, the PMU will also work in close collaboration with the donor, the Lebanese Government particularly the Ministry of Agriculture, Green Plan and CDR, the local beneficiaries, as well as with the national and international team of experts recruited for this project. The PMU will be responsible for the overall execution of the project and will be led by a full time national Project Manager and supported by the required local professional and administrative staff. A National Coordinator will be assigned by the Litani River Authority and will act as the focal point of the project with the Authority.

The UNDP CO will monitor the progress towards intended results, and will ensure high-quality managerial and financial implementation of the project, and will be responsible for monitoring and ensuring proper use of administrated funds to the assigned activities, timely reporting of implementation progress as well as undertaking of mandatory and non-mandatory evaluations.

Furthermore, the procurement of goods and services and the recruitment of personnel shall be provided in accordance with UNDP guidelines, procedures and regulations.

Abdel Aal Association, a major and active NGO in the field of water use and irrigation will be a technical partner in the implementation of output 1 (see below).

In order to ensure optimum involvement of the project partners a Project Board will be established. It will include senior representations of the Litani River Authority, CDR and UNDP. The board will be responsible for the overall progress monitoring and guidance of the project as well as the approval of the annual workplan.

Project Timeframe

The implementation of the proposed programme is 2 years.

Project Implementation Partners

Litany River Authority

Project Components

Output 1: Water User Association (WUA) established

WUA is a necessity for a good management and implementation of irrigation projects. The implementation of WUA is a main target of this project. The establishment of this association requires many coordination and legislative actions. Local and international experts will collaborate to prepare the needed draft laws and decrees. The mandate of the WUA is to be able to find solution for shifting expropriation problem at parcel level for access right and water future management. Lobbying efforts have to be undertaken to disseminate the concept and pass the concerned laws. Collaboration with civil society and local authorities is needed for the success of the process. Association of friends of Ibrahim Abdelaal (AFIAL), very well known Lebanese NGO in Water matter, can play an important role in this regards.

Output 2: Topo-cadastral maps produced

The topo-cadastral maps are the bases for designing the irrigation distribution networks. There are regions in South Lebanon Region with no cadastral delineation, others with temporary delineation and few with final delineation. These plans must be produced for the target area on a unified scale of 1/2,000 in coordination with the Directorate of Geographic Affairs of the Lebanese Army.

The total concerned area is about 745 ha.

Output 3: Detailed land classification database produced

Land classification is important for the development of the hydrant plan. Classification parameters are: Geology, terrain slope, soil description, in-depth percentage of stones and gravel, percentage and nature of rocks, surface percentage of stones and gravels, and the actual current land use. Inspection pits are required every 0.4 ha to describe briefly soil profile. From soil description parameters, a soil series classification has to be done. This Series classification must be supported by:

- Physical laboratory analysis, every 4 ha (Coarse sand, fine sand, silt and clay)
- Chemical parameters analysis, every 40 ha (Nitrogen, potassium, phosphate, total and active calcareous, magnesium, iron, bore and manganese)
- In field measure of infiltration rate by double ring technique, every 4 ha.

The total area of the land classification database is about 745 ha.

Output 4: Land reclamation work executed

This area was deeply affected by the war of July 2006. Assistance to the farmers is necessary to avoid socio economical problems. Since South Lebanon region is hilly and need land reclamation works, land reclamation will not only set the infrastructure to benefit from the execution of the main canal of the

Canal 800 project, but will also provide the farmers with land readily available for field crops cultivation. Along the execution of the land reclamation work, the project will provide the farmers with wheat seeds (and other field crops will be considered) to be cultivated on their lands for two consecutive years awaiting the execution of the tertiary irrigation network.

The implementation of land reclamation will require base works (deep plowing, rocks removal and terraces construction) and complementary works (terraces walls construction, stone and pebble removal). The base works are expensive to be charged on the land owners. It needs engineering concept and heavy machinery and will be fully supported by the project.

Land reclamation area is estimated at 522 ha.

Output 5: Hydrant plan designed

The major step in distribution network is the Hydrant Implementation Plan (HIP). This plan must be done in full collaboration with farmers. Parcel tenure in South Lebanon is very small (average is less than 0.3 ha) and pressure on water demand is very high. Traditional concepts of large distribution networks have encountered some problems which are mainly related to misusing of the network by the farmers (overdose, uneven distribution, etc.).

The pre programming hydrants (such as "Aquacard"), is a new generation of Hydrants which can resolve management problems related to traditional hydrants including the problem of water shortage during dry years. Also it resolves the problem through fees which will be collected by pre-paid card used for programming irrigation schedule and quantities.

Steps to elaborate the design of Hydrants plan are:

- Cropping pattern: Based on data collected through output 3, which give the properties of soils series and actual land use, a future cropping pattern can be developed.
- Water needs: Based on the cropping pattern, water needs can be estimated at the on-farm level. Taking into account the efficiency on-farm and in the network, the global needs can be calculated. Based on water needs, designer can establish the hydrant plan norms regarding relationship between area and flow.
- Hydrants plan design: Designed in office, the plan must take into consideration the necessity to assure an easy access for every user. This plan must be verified at farms level in close collaboration with farmers and WUA to solve the problem of accessibility.

The study covers an approximate area of 745 ha.

5. Analysis of risks and assumptions

#	Description	Date Identified	Type	Impact & Probability (1=low, 5=high)	Countermeasures / Mngt response
1	The political situation and the unstable security situation in Lebanon may affect implementation of the project activities	Project preparation	Political	This might substantially delay implementation of project activities P=2 I=5	This risk is beyond the control of the proposed project. The project, however, will rely mainly on national available expertise which minimizes the risk associated with cancellation of missions by international consultants in case of deterioration of the political situation.
2	Community members not interested in stepping into a new economic activity	Project preparation	Operational	P=1 I=5	As long as they expect economic benefits, this is not likely to occur. The project will provide the essential costs for the first two years of cultivation, awaiting for the irrigation water to be supplied by the main canal, which will improve the livelihood of local communities through planting wheat for the short term and future high cash crops once water is available.
3	Presence of cluster bombs in some areas might affect field work	Project preparation	Operational	P=2 I=3	The project will coordinate closely with UNMAC to identify the spots where cluster bombs are present in the target area. In case some plots were found to be contaminated, the project will make sure to coordinate with the UNMAC and the Lebanese Center for Mine Action ahead of time to be able to clean them before field work.

6. Programme/Project Budget

The budget would utilise the Standard Format agreed by UNDG Financial Policies Working Group.

CATEGORY	ITEM	UNIT COST	NUMBER OF UNITS	TOTAL COST (USD)
1. Personnel Incl. staff and consultants	Project Manager	72,000	1	232,200
	Administrative assistant	19,200	1	
	Driver	12,000	1	
	Site Engineer	40,000	1	
	Irrigation Expert	15,000	1	
	GIS Expert	24,000	1	
	Irrigation expert (international)	50,000	1	
2. Contracts Incl. companies, professional services, grants	Water User Association Legal and technical studies	60,000		1,416,959
	Production of topo-cadastral maps	75,000		
	Design of hydrant plans	20,700		
	Land classification database	81,701		
	Execution of land reclamation (522 ha)	1,179,558		
3. Training/Workshops				30,000
4. Transport (local)				15,000
5. Supplies and commodities	Wheat seeds (other field crops will be considered as well) for cultivation of 522 ha (2 consecutive years)			100,000
6. Equipment (including installation)	Project car	20,000	2	40,000
7. Travel				15,000
8. Miscellaneous				20,000
9. Agency Management Support* (7%)				130,841
TOTAL				2,000,000

* The rate will be within the UNDG agreed range of 5% to 9%, with overall expected average of 7%, of the total of categories 1-8. To the maximum extent possible such costs should be integrated into categories 1-7 if appropriately determined as "direct costs attributable to the programme/project" thereby reducing the overall indirect cost rates.