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### INTERIM PROGRESS REPORT

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| **Reporting UN Organization** | **:** | United Nations Development Programme |
| **Country** | **:** | Lebanon |
| **Project No.** | : | 00069789 |
| **Project Title** | : | Flood Risk Management and Water Harvesting for Livelihood Recovery in Baalback-El Hermel, Phase II |
| **RF Signature date** | : | 10 October 2007 |
| **Project Start date** | : | Phase II: 20 February 2009 |
| **Project Timeframe** | : | Phase II: 28 February 2013 |
| **Reporting Period** | **:** | October – December 2012 |

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| I. PURPOSE |

**Project Summary & Objectives**

The project aims at assisting the Government of Lebanon in its recovery and reform efforts in the conflict-affected and high-poverty region of Baalback-El Hermel through better land management practices, namely flood risk reduction and improved access to irrigation water and networks to achieve crop diversification and improve productivity. This will be achieved through the construction of stone walls, check dams and water collection reservoirs to prevent runoff water from reaching villages and farms and through the restoration of land cover to reduce soil erosion. The objectives related to water management will be achieved through installation of water-use efficient irrigation networks and systems that will be used by local farmers to improve their crop diversity and productivity. The project is financed by the Government of Spain through the Lebanon Recovery Fund, a Lebanese Government led programme, established on the occasion of the Stockholm Conference, and is in line with the UNDP’s development goal of alleviating poverty in rural dry lands of the conflict-affected Baalback-El Hermel area.

**Project Phases and Expected Outputs**

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| **FRM II**  3.8 million USD | * Establishment and implementation of a flood risk management plan over an area of 250 km2 in upper Aarsal and Ras Baalback. * Improved land cover in Ras Baalback and upper Aarsal mountains. * Improved soil conservation in Ras Baalback and Aarsal. * Improved public awareness on flood risks management and training of the target municipality on maintenance of flood management structures. |

**Project Linkages to National Priorities and Recovery**

The National Action Programme to Combat Desertification (NAP), which was developed in 2003 by the Ministry of Agriculture and in collaboration with the UNDP and the German Society for International Cooperation (GIZ), classified the project’s target area (Baalback-El Hermel) as one of the areas prone to high risks of desertification. This is mainly due to the lack of proper land and water management practices, bad rainfall distribution, overgrazing, steep mountains with shallow soil and poor vegetative cover. Moreover, summer droughts and uneven rain distribution are the main reasons for poor agricultural productivity in that area.

The effect of the July 2006 conflict on North Bekaa, particularly Baalback-El Hermel area was not to be underestimated. Large scale destructions in infrastructure, biodiversity and agriculture were reported. These led to harder living conditions, more poverty and increased soil erosion threats.

The expected outcomes from the current project particularly those related to water harvesting, increased vegetation cover and higher productivity will serve very well the national efforts and plans aiming at combating desertification and alleviating poverty in North Bekaa. They will also serve the recovery efforts made by the Lebanese government in normalizing the living conditions of rural communities and in restoring the basic needs and infrastructure for practicing sound and profitable agriculture in the affected area.

**Project Implementation Partners**

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| **Type of partner** | **Partner** | **Role** |
| International Partners | Spanish Agency for International Cooperation | Provision of funds to project through the LRF. |
| German Society for International Cooperation (GIZ) | The GIZ had executed a pilot project on Flood over a pilot area of 18 km2. GIZ is the intellectual partner of UNDP for phase one. UNDP benefitted from the same experts and lessons learned from the GIZ project. |
| National Partners | Ministry of Agriculture (MoA) | Current host of the project. Provides support and follow-up on project activities. |
| Bekaa Water Establishment | Provides ad-hoc support when needed and is a link to the Ministry of Energy & Water (MoEW). |
| Local municipalities and communities | They are the direct beneficiaries of the project. They provide advice, follow-up, local contacts, facilitation, administrative documents, etc. |

Based on the result of the evaluation requested by the LRF, the phase II of the project has been extended till the end of February 2013

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| **II. RESOURCES** |

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|  | **Amount (USD)** |
|  | **Phase II** |
| **Total budget approved** | $3,800,000.00 |
| **Total disbursements as for December 2012** | $3,145,457.00 |
| **Commitments for next quarter** | $654,543.00 |
| **Available Balance** | $654,543.00 |

**Budget and Expenditure Breakdown per LRF Category:**

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| **CATEGORY** | **Total Budget (USD)** | **Exp. to date (USD)** |
| **1. Personnel** (Incl. staff and consultants) | 600,000.00 | 595,299.72 |
| **2. Contracts**  (Incl. companies, professional services) | 250,000.00 | 304,393.00[[1]](#footnote-1) |
| **3. Training** (incl. AV printing / production) | 50,000.00 | 5,975.00 |
| **4. Transport** (local) | 30,000.00 | 30,103.77 |
| **5. Supplies and Commodities**  (Incl. IT equipment and rental & maintenance) | 340,000.00 | 285,617.45 |
| **6. Equipment (including installation)** | 2,191,402.00 | 1,687,722.25 |
| **7. Travel** | 40,000.00 | 3,351.00 |
| **8. Miscellaneous** | 50,000.00 | 27,217.90 |
| **9. Agency Management Support (7%)** | 248,598.00 | 205,777.61 |
| **TOTAL (USD)** | **3,800,000.00** | **3,145,457.70** |

**III. Results: Progress per Activity**

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| **Project Outputs** | **Activities** | **Progress to date** | **Targets 2012** |
| **1.Project management** | * 1. Technical, financial and operational management.   2. Promote synergies with relevant on-going projects in target area.   3. Exchange of information and coordination meetings. | * Ongoing meetings with stakeholders, the municipalities of Ras Baalback and Aarsal, line ministries and contractors. * Improved coordination with the Ministry of Energy and Water and the Ministry of Environment on the management of the flood risk activities and its execution. The MoEW authorized the use of flood plains for the construction of the detention reservoirs. * The irrigation network was installed linking the reservoir outlet of Deir El Ahmar to the farmers’ fields thanks to a cash contribution from UNDP/DDC (**D**ryland **D**esertification **C**entre). | * Strengthened coordination with project stakeholders |
| * Coordination with Municipality of Ras Baalback for phase II implementation |
| * Design of flood risk management structures |
| * Procurement of sub-contractors for the implementation of Phase II |
| * Submission of quarterly progress reports |
| **2. Flood Risk Management and Reduction** | * 1. Data collection and identification of target area.   2. Modeling of target area and generation of maps.   3. Construction for flood control and prevention.   4. Monitoring, evaluation and impacts assessment. | * Meetings held with the Contractor in the presence of the Consultant to follow up on the execution progress of the work and to discuss the procedure of work for each reservoir, the communication strategy among the different partners. * Completion of the excavation of reservoirs RR3, RR5, RR10, RR13, RR9 and RR15 respectively. * Field visits carried out by the assigned topographer to assess all the sections of the reservoirs RR3, RR5, RR10, RR13, RR9 and RR15. Excavation works have been found satisfactory. * The 105 wall structures completed and related contract closed. | * Initiation of excavations of flood water collection reservoirs * Initiation of construction of FRM structures |
| * Development of a flood management plan for Ras Baalback |
| * Determine the number and locations of stone walls |
| * Construct walls |
| **3. Land Cover Improvement** | * 1. Identification of erosion-sensitive areas.   2. Establishment of nurseries for seedling production.   3. Crop diversification and increased productivity.   4. Forestation cultivation. | * The reforestation component is complete. * Continuous irrigation and maintenance of the planted site in Ras Baalback. Around 20% of the seedlings died and were replaced by new ones during the month of November. This is due to natural causes in weather and rate of seedling survival. The seedlings were replaced at no additional cost to the project by the contractor given that this requirement was included initially in the contract. * Extension of the irrigation system in the artificial lake of Deir El Ahmar is complete. An additional irrigation network was connected to the main pipes already existing in the lake of Deir El Ahmar in order to supply irrigation water to around 200ha of the agricultural surface area, benefiting up to 500 vineyard growers. | * Forestation in Ras Baalback with forest trees |
| * Development of plan to increase green cover in Ras Baalback. The aim of the green cover plan is to recreate the forest ecosystem with not just trees but also lower strata in order to reduce the soil erosion and flood hazards. |
| * Development of the irrigation plan in Deir El Ahmar to cover 200ha and highest number of beneficiaries. |
| **4. Sustainability, capacity building and awareness raising** | * 1. Empowerment of target beneficiaries.   2. Awareness-raising on flood and water management.   3. Capacity building through training.   4. Alternative livelihoods. | * Materials needed for the workshop titled “Role of local authorities in the maintenance and management of flood risks” are prepared. Date was fixed in close coordination with the Ministry of Agriculture on the second of February 2013. * Capacity building for MoA and UNDP staff on "project management" is being conducted. | * Building the capacity of Ras Baalback Municipality in flood management and train vineyard growers of Deir El Ahmar on Viticulture & Irrigation management. * Building the capacity of the MoA staff on project management. |

**Overall Project Impact**

The project will contribute to the reduction of risks and damages, direct and indirect, of floods in the region of Baalback-El Hermel. It will also improve livelihoods through increased availability of water for multiple uses through direct harvesting such as through the water collection reservoir of Deir El Ahmar or through infiltration of the water collected in the flood reservoirs to the water table further to a flood event. The project will also contribute to the increase in green cover in both Aarsal and Ras Baalback. Currently, the Higher Relief Council incurs 2.5M USD as damage compensation further to a flood event; “the Flood Risk Management Project” will contribute to the reduction of these compensation payments. Finally the project will contribute to the creation of a national flood risk map and of knowledge and expertise in flood risk management.

1. **Project Management**

Project management took place on a full time basis by the Project Management Unit (PMU). This involved project administration, field visits with the potential bidders for the walls to Ras Baalback, and meetings between subcontractors and stakeholders. Several meetings took place with the project’s team, ELARD and the contractor-Bureau Hamid Kairouz (BHK) to discuss and resolve any emerging issues.

Moreover, the PMU met with the Ministry of Energy and Water (MoEW) and the Ministry of Environment (MoE) to cooperate and coordinate related flood risks and management activities.

1. **Flood Risks Management**

A consultant for topographic survey was hired on a retainer basis to support the excavation works component on needs basis. Site visits were carried out to Ras Baalback in order to approve the delivered excavation works for each of the completed reservoirs.

The Contractor, Bureau Hamid Kairouz (BHK), completed the excavation of reservoirs RR3, RR5, RR10, RR13, RR9 and RR15 respectively.

The re-location, number and the design of the stone walls were prepared by the project team. A total number of 105 work sites were delivered to the contractor, Bureau Hamid Kairouz. The construction of walls is complete; some of the flood walls were validated by the site engineer, and some could not be validated due to their location near the Syrian - Lebanese borders which is an unsecure zone.

1. **Land Cover Improvement**

The reforestation activity is complete. The project team prepared the ToRs, selected the contractors and supervised the execution of the activities. Seedlings and seeds were granted to expand the green cover. Within this activity, two types of solid water were used to be able to assess the difference between plants irrigated through solid water and the traditional irrigation. The municipality received from the project a water cistern to facilitate the maintenance, irrigation and protection of the forested site. Irrigation is carried out every fifteen days: 12 liters of water for one seedling and 6 liters for the sewed hole.

1. **Sustainability, Capacity Building, and Awareness Raising**

An awareness and training workshop will be conducted during the beginning of the coming quarter addressing the flood risks and hazards threatening the project area namely Aarsal, Ras Baalback and the neighboring villages. The workshop will explain the risks of flood and the mitigation measures to be adopted by the local authorities through the structures constructed by the project.

1. **Implementation Constraints**

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| **Political and Security Situation in the Project Area:** Due to the escalation in the security situation along the Lebanese-Syrian border, especially in the project area, some of the project activities were adversely affected: certain reservoirs as well as wall structures are very close to the border and visible in a way to form an easy military target; thus, the project, while carrying on with the reservoirs excavation and walls construction works in the non-exposed border locations, resorted to other alternative. These changes were implemented before the project deadline in other identified locations away from the danger zone, and which maintained the efficiency of the flood risk reduction system as a whole.  Plan B was not a complete change in approach in the project design or timeframe. The reservoir designs are still the same. Although the security situation resulted in some delays in execution but did not have any effect on the overall timeframe of the works. Despite the delays and constraints encountered throughout, the project managed to achieve its main target and complete the construction of the flood risks reduction system in a safe and successful manner. |

1. **Key Partnerships & Collaboration**

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| A good partnership is established between UNDP, MoA, and the Municipalities of Ras Baalback. The project’s working group is meeting whenever needed to discuss all major implementation steps and ensure lessons learnt from the initial pilot project implemented by UNDP and MoA in Aarsal are transferred. The municipalities have become fully involved in the flood works. In Aarsal, the municipality is undertaking routine checks on the reservoirs and perform needed maintenance works. The municipality is undertaking the maintenance of the seedlings planted by ARDA. In Ras Baalback the municipality has supported the project in land selection for the location of the reservoirs, the land for reforestation and all matters related to logistics with the consulting firm doing the design of the flood structures and the contractors bidding for the excavation. As regards the MoA, the ministry has extended all the support required by the project in terms of logistics, administration and technical support.  Strong partnerships were developed with the Ministry of Energy and Water and the Ministry of Environment. The MoEW personnel are currently aware of all the activities undertaken by the project and have been providing all the required support and advice needed for its execution.  A strong partnership has been created with the UNDP disaster risk management project where the flood project will work on the development of a flood risk map for Lebanon. The project has been involved in the development of the Standard Operating Procedures for the early response by the army, civil defence and the Red Cross teams in case of a flood event. Finally the project will be involved in developing the national flood risk map for Lebanon. |

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| IV. Work plan per activity for the 1st quarter in 2013 (January – February 2013) |

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| **Key Milestones**  **Wks** | **January** | | | | **February** | | | |
| **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** |
| **1. Project Management and Coordination** |
| 1.1 Technical, Financial and operational management. |  |  |  |  |  |  |  |  |
| 1.2 Promotion of synergies with other projects. |  |  |  |  |  |  |  |  |
| 1.3 Information exchange and coordination. |  |  |  |  |  |  |  |  |
| **2. Flood Risks Management and Reduction** |  | | | |  | | | |
| 2.1 Finalization the civil works contract |  |  |  |  |  |  |  |  |
| 2.2 Monitoring, evaluation & impact assessment. |  |  |  |  |  |  |  |  |
| **3. Land Cover Improvement** |
| 3.1 Maintenance and irrigation operations. |  |  |  |  |  |  |  |  |
| **4.Sustainability, Capacity Building & Awareness Raising** |
| 4.1 Empowerment of target beneficiaries. Topic will cover the role of local authorities in Flood management. |  |  |  |  |  |  |  |  |
| 4.2 Awareness raising on flood and water management. |  |  |  |  |  |  |  |  |

**ANNEX I**

**PHOTOS OF PROJECT ACTIVITIES**

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| **FLOOD RISK MANAGEMENT** |
| |  | | --- | |  | | Reservoir RR3 includes 7 sections | |  | | Reservoir RR9 contains 4 sections | |  | | Reservoir RR13 contains 7 sections | |  | | Reservoir RR15 contains 9 sections | |  | | Reservoir RR6 contains 15 sections (L=1,300m) | |  | | Reservoir RR5 contains 4 sections | |  | |

1. It should be noted that discrepancy in budget is resulted from a re-deployment between budget lines (especially for Personnel, contracts, supplies and commodities, and Miscellaneous) was done to cover additional expenses incurred after the extension of the project. [↑](#footnote-ref-1)