“The Integrated Rural Development project in Hebron and Bethlehem Districts” - 2008-2010

Evaluation Report

May – July 2010

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“This report has been produced and financed at the request of the Italian Cooperation Office. The comments contained herein reflect the opinions of the consultant only”.

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Executive Summary

The present evaluation was carried out by Stefano Baldini, expert on agriculture and rural development, between May and July 2010 and refers to the analysis of the impact of the 2 years project "Integrated Rural Development Project in Hebron District" (January 2008 - June 2010) funded by the Italian Government and implemented by UNDP.

Purpose and methodology

This evaluation report aims at providing a clear and solid assessment of the overall project performance and achievements as measured against established project objectives and performance indicators contained in the original log frame. Moreover, conclusions and recommendation given will be useful to improve design, implementation procedures and monitoring parameters of new projects in this sector.

The mission was divided in 4 main phases:

1) **Data collection from official documents:** Meetings with the main actors UNDP, Italian Cooperation, MoA and Local NGOs coordinators to systematize the evaluation, to collect project documents and to collect information to have a general overview of constraints, achievements and any other relevant data.
2) **Analysis of the existing official documents and planning the evaluation:** analysis of all documents, reports and information collected and set up of a plan to proceed with field visits and a beneficiary survey.
3) **Data collection from the field and the beneficiaries:** Field visits, meetings with beneficiaries and local stakeholders, beneficiary survey implementation.
4) **Analysis of the data from the field and reporting:** analysis of the data collected from the field visits and the beneficiary survey and elaboration of the draft of the final evaluation report, discussion of the draft of the final evaluation report with UNDP and Italian Cooperation coordinators and Delivery of the Final Evaluation Report.

Main conclusions

For many aspects (and results) project can be ideally divided in 2 main components: a first dedicated to a strategic (socio-economic priorities) and technical (agro-environmental impacts) analysis of the Land Reclamation requirements and opportunities in the oPts aiming at improving efficiency and impact of Land Reclamation interventions; a second representing an immediate and direct action in the field to support Palestinian farmers and workers living in particularly vulnerable areas through land reclamation interventions.

The first component was developed through the elaboration of i) the "Land Suitability Map for Land Reclamation(LSMLR)" scale 1:25.000, covering the whole un-cultivated areas of the oPts (excluded the Gaza Strip and the Jordan valley) and ii) a Technical Manual for Land Reclamation.

This component has been evaluated during the present mission with scores between "good" and "problems" (medium result), which can be considered a sufficient result at this

stage, taking in consideration the level of difficulties for this task. Good results were achieved for training while for the strategic component (the LSMLR and the Technical Manual) were evaluated some difficulties and weaknesses that still need to be strengthened in order to have the foreseen impact. These weaknesses are related to: i) quality of map design for the presence of many "un-natural limits" between polygons (straight lines and square-edge shapes) ; ii) lack of data about the political situation[1] (a layer with area A,B,C military areas, buffer zones and others) to be taken in consideration in the suitability analysis (risks of confiscation or difficulties in movement of people or goods could be very sensitive in certain areas) and iii) the undetermined (at the time of the evaluation) future destination of this map in term of ownership, management and utilization, all essential aspects to be clarify to ensure that this tool for planning will be utilized by other users, upgraded and updated throughout its practical utilization in any future land reclamation program to keep its efficiency during the years. Hypothesis in this regard has been already discussed and developed during the evaluation mission with UNDP coordinators, LRC and MoA and it will be necessary to settle an official final destination.

Concerning the Technical Manual few weaknesses has been evaluated for some missing technical information. Lack of indications in this regard was probably due to the fact that the foreseen expert mission planned to improve some technical aspects was not implemented.

The executive phase (the second component) was developed through land reclamation activities involving a final number of 1499 direct beneficiaries (3 times more than the expected) providing them with complete land reclamation interventions (for 323 beneficiaries), 128 water cisterns, 183 seedling distributions, road construction (for 865 beneficiaries) and work opportunities for 3676 labourers. All the indicators for this phase were reached and the high impact in the field was clearly evidenced also by the beneficiaries' survey.

Finally the project as a whole had a strong capacity to answer to the general objective as all given verifiable and measurable indicators have been more than widely achieved. In particular cistern construction reached the strongest impact in the field. It has been proved that having water available in such conditions can really positively improve the environment as well as the socio-economic situation of a target beneficiary more than any other kind of foreseeable field intervention.

Coordination and complementarities between the involved institutional actors (UNDP and Italian Cooperation, MoA through the established PMU, Local NGOs and Municipalities) were efficient and produced a visible huge impact in the field.

Monitoring procedures and all aspect related to work direction and coordination as implemented by UNDP staff and supervised by the Italian Cooperation staff shown good levels of efficiency and accuracy.

The Local NGOs involved proved high capacity to be efficient and effective in their field work and in their interaction with local councils, CBOs and beneficiaries (all except for one (ACAD) that was replaced in the second phase mainly due to lack of geographic comparative advantage in project locations).

[1] This aspect was not foreseen in the final document signed between the Donor and the Implementing Agency, so it was not foreseen also in the agreement between UNDP and LRC.

Beneficiary's level of satisfaction for the support received was high as reported from the interviewed and visited beneficiaries (all except for the group of beneficiaries served by ACAD with activity of seedling distribution, a limited percentage of the total beneficiaries).

Recommendations and lessons learnt

- Due to the proved strong impact of the LR it is highly recommended to ensure that LR interventions in this area will be able to continue to be a priority also in the future.
- Because of this reason the LSMRC and the Technical Manual for Land Reclamation represent basic tools to facilitate the **development of a wider strategy for LR at national level**. It's therefore recommended to continue improving the quality of the map and the efficiency of the applied techniques to enhance the efficiency and impact of future interventions. This can be achieved ensuring the utilization of the information produced, disseminating data acquired and allowing an easy consultation for users, upgrading and updating the LSMRC throughout its utilization. A first essential step should be the definition of clear ownership and sustainable management for the LSMRC.
- Due to the extreme drought conditions any future land reclamation activities should **ensure water availability**. Interventions like cistern construction were considered by beneficiaries as the most effective. In calculating the water harvesting surface it will be important to account only the water rainfall average of the last 3-5 drought years.
- Lack of flexibility in the selection of the beneficiaries regarding to beneficiary contribution and in the project design: In various cases the difficulty to contribute in cash by some of the poorest beneficiaries determines their exclusion or a drastic limitation of the intervention in favour of them. For future programs **more flexibility should be applied** so that different options might be found in order to enlarge the capacity of potential poor beneficiaries to apply without renouncing to various forms of beneficiary contribution. Also the definition of predetermined and compulsory sizes and schemes to be applied as standard for the land reclamation interventions (like minimum wideness for the terraces or for the cistern water capacity) could to be reviewed. More flexibility should be applied for each individual case to better adapt the intervention to each specific case. It is recommended for future LR intervention to improve the planning phase as a pre-requisite to start the action defining for each individual intervention purposes of the LR, dimension and location of terraces and retaining walls, dimension and localization of the cistern and water catchment area, land works, seedling varieties, cost analysis and options for beneficiary contribution.
- A strong impact in term of land protection against risks of confiscation and abandonment was achieved addressing sites in "C area" as also evidenced by the beneficiary survey. It's recommended to insist on **targeting "C" areas** foreseeing for more isolated areas cultivation requiring less cure and more tolerant to water/nutrients shortage. It's also recommended to keep more attention on the characteristic of varieties and the quality of the seedlings, defining standard compulsory criteria for seedling quality to be accomplished before their purchase.

1.) Project Methodology

Project implementation foreseen 2 main phases:

1) Training and study phase to enhance the "power of planning" in the LR sector and to strengthen the capacity of the involved stakeholders in developing LR activities.
2) Executive phase to have an immediate impact in the field developing LR activities involving the MoA, local institutions and organizations with the effort to alleviate poverty in some of the most vulnerable areas of the oPts.

For the evaluation the mission was divided in 4 main phases:

1) Data collection from official documents: Meetings with the main actors UNDP, Italian Cooperation, MoA and Local NGOs coordinators to systematize the evaluation, to collect project documents and to collect information to have a general overview of constraints, achievements and any other relevant data.
2) Analysis of the existing official documents and planning the evaluation: analysis of all documents, reports and information collected and set up of a plan to proceed with field visits and a beneficiary survey.
3) Data collection from the field and the beneficiaries: Field visits, meetings with beneficiaries and local stakeholders, beneficiary survey implementation.
4) Analysis of the data from the field and reporting: analysis of the data collected from the field visits and the beneficiary survey and elaboration of the draft of the final evaluation report, discussion of the draft of the final evaluation report with UNDP and Italian Cooperation coordinators and Delivery of the Final Evaluation Report.

First rounds of meetings were attended with the participation of the UNDP local coordinator (Amin Alhaj) and Italian Cooperation Office responsible of the program (Ibrahim Matar) to organize the evaluation and to start collecting the available project documents.
A week was spent by the evaluator in cooperation with the local project coordinator to collect and to analyze all documents and reports provided and to set up a schedule of requirements in order to proceed with the evaluation.

Based on data available it was decided to organize:

a) A general meeting with the local NGOs and the MoA staff involved in the program, asking them to brief about their activities and achievements in the project;

b) Field visits to directly evaluate the efficiency of different land reclamation interventions implemented;

c) A survey among beneficiaries through the preparation of a questionnaire (ANNEX 1: Land Reclamation Questionnaire) to be completed during meetings with farmer communities involved in the project aiming at collecting information about the social, economical and technical impact of the project and to have a direct feedback about what was working and what can be improved.

d) A specific session was dedicated to analyze the Land Suitability Map and the Manual of procedure for Land reclamation. In this regards meetings were organized with UNDP responsible of the program and with the local NGO LRC.

e) Final session of the present evaluation mission was dedicated to the analysis of the data collected with the meetings, field visits and the Farmer's Survey (ANNEX 2: Results of the Beneficiaries' Survey). The indicators of the objectives and expected results, as defined in the project document, were measured and scored as shown in the table below:

EVALUATION GRADING LEGENDA	description
very good	project results achieved: the evaluated results are extensively more than the indicators
good	project results achieved: the evaluated results are almost as the indicators
problems	project results not completely achieved: the evaluated results are less than the indicators but there are margins to improve
serious deficiencies	project results not completely achieved or not achieved: the evaluated results are extensively less than the indicators or there is no result

Results of this evaluation have been illustrated in the present report and in ANNEX 3: evaluation of the LF indicators.

1) Implementation context and background

The reconstruction of the Palestinian rural communities requires an integrated approach that targets the provision of basic services and infrastructure, the generation of employment, the promotion and development of the agricultural sector, and the removal of non-tariff barriers for economic investment. Aim of the project was to give an immediate answer to the deprived life condition of most of the Palestinian population leaving in rural areas and to create conditions for a further development in the long term.
Some of the project's activities implemented made use of labor– intensive technologies to the maximum extent possible for the purpose of generating employment.

This project falls under the program of land development jointly implemented by the Ministry of Agriculture and UNDP with the support of local NGOs, aiming at reducing poverty and improving the living conditions of residents of the area through increasing the arable land area and providing employment opportunities to residents in the rural and marginal areas of the Hebron, Dura and Bethlehem Districts. The program had the following components:

- Strengthening of the local communities and the promotion of their active participation in the planning and implementation of the project's activities;

- Provision of extension and other related agricultural services to the local communities participating in the project;

- Preparation of land development strategy for the West Bank;

- Reclamation and development of agricultural land to expand the arable areas and thus increase the local food supply;

- Employment generation through the adoption of labor intensive technologies to develop agricultural lands, water harvesting techniques and any other construction work.

UNDP/PAPP served as Executing Agency for the program in partnership with the Ministry of Agriculture. Seven Palestinian NGOs and the local farmers and rural communities were actively involved in all the work to be undertaken.
Project evaluation was carried out at different level of monitor and analysis. A basic document for the evaluation was the draft of the final report issued by UNDP staff for the reporting of the Action to the Italian Cooperation.
The information in the report were compared with the UNDP Data Base and with the official reports submitted by the 7 local NGOs involved in the Actions.
In the same time, a general meeting was attending with the local NGOs and the PMU staff of the MoA. In this occasion a presentation of the work done by them anticipated the organization of field visits and meetings with beneficiaries.
During the field campaign all the work implemented by the 7 local NGOs was monitored. 14 sites of intervention were visited in the 3 Districts (Hebron, Dura and Bethlehem) and 74 farmer beneficiaries and representatives of local councils and institution were met. During these occasions interviews were developed aiming at collecting direct information on activities done, constraints, level of satisfaction, immediate impact, financial situation after the intervention, priorities and others comment (ANNEX 2 Results of the Beneficiary's Survey).
A specific evaluation was carried out for the LSMLR. Meetings with UNDP and Italian Cooperation coordinators, PMU, and LRC staff were implemented to analyse the research done. On-site verifications were done in the field during the visits to LR interventions.
A last meeting in LRC office focused on the future utilization of the Map, its ownership and management, the costs for the maintenance, updating and upgrading.

2) Evaluation of Project objectives and expected outputs

The evaluation of project objectives and expected outputs was carried out at different level of monitor and analysis as described in the previous chapter. A detailed comparison between Objectively Verifiable Indicators and Surveyed Achievement is hereunder evidenced. The evaluation has been completed classifying the achievement according to a pre-defined evaluation grade.

3.1) General objective

Amelioration of the living conditions for the poor communities of the rural areas of the District of Hebron.

Objectively verifiable indicators: given indicators for the general objective refer to the economical impact of the project to the beneficiaries and to the workers involved in the action. In this regard project achievements were widely more than the expected. Hereunder an extract from the LF analysis showing the specific indicators have given for the evaluation of the general objective.

Objectively verifiable indicators	Final report	Project Evaluation Grading			
		very good	good	problems	serious deficiencies
1000 families of beneficiary laborers in 2 years	**3676 families** benefited from the work opportunities given by the project activities	☒			
200 months/man of activities of technicians assigned in the 2 years of intervention	**A total of 235 months/man** of technical work implemented by local technicians 187 months/man of work of NGO technicians; 48 months/man of work of UNDP coordination staff		☒		
400 families direct beneficiaries of intervention in land reclamation in 2 years	a total of **1499 direct beneficiaries**: 323 from complete land reclamation intervention 128 from cisterns 183 from seedling distribution 865 from road construction	☒			

3.2) Specific objectives

3.2.1) Definition of an operative plan in land Reclamation for the whole Hebron Governorate

Objectively verifiable indicators: the project document foreseen a quantitative indicator (area covered by the study) which is not measuring the quality aspects and the efficiency of the research; the Land suitability Map for Land Reclamation has covered the uncultivated slope areas while the cultivated areas were excluded by the research due to the following reasons:

a) At the stage of signing the agreement between LRC and UNDP it was not available the original version of the proposed study[2].
b) The final cost for the areal-photos raised extensively if compared with the one estimated in 2002.
c) It was decided to spend part of the foreseen budget to publish the study. During the meeting in LRC office a draft of the final publication was evaluated.

Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
		very good	good	problems	serious deficiencies
5400 sq. kms covered by the study in scale 1:25.000 in the first year	**2,573 sq. kms** covered by the study in scale 1:25.000 in the first year		?	?	

The quality of the LSMLR in terms of accuracy and resolution has been evaluated as "medium" (scores between "good" and "problems") which can be considered a sufficient result at this stage.
During some of the field visits done in this evaluation mission the map shows some deficiencies in the accuracy of limits between different classes.
More in general the design of the different polygons appears as the result of a huge office work where the interaction of the different themes (land form, DTM, land use, soil aspects, climate and others) comes from aerial photo interpretation and GIS elaborations more than from a deep field work (according to LRC staff the field on site verifications were 200 while at least 5% of the polygons had to be checked in the field). This aspect is also more evident by the Map because it is missing the correction of the un-natural limits (straight lines and square-edges for many polygons) which is a typical result of a first automatic intersection of different themes. This correction it had to be done after the field control phase, together with the calibration of the differences in the limits between polygons as surveyed during the field check.
A layer where make evidence of priorities due to political reasons (priority for certain areas where risks of confiscation or difficulties in movement of people or goods are

[2] The original document was prepared and approved in 2002 while project implementation started only on 2008

sensitive) is also missing. This factor influenced many times during the project the success and the level of satisfaction of beneficiaries regarding the LR intervention. In many cases areas whit a lower suitability class could be prioritized because of this kind of constraints.
In the future it's essential to ensure that the Map will be upgraded throughout its practical utilization in any land reclamation program might be developed in the area. Moreover a constant updating it is also required to keep its efficiency during the years.
In this regard nowadays is still not defined the final destination of this Map in terms of ownership and administration and there are no indications in this regard in the contract signed between UNDP/MoA and LRC.
During meetings with UNDP and LRC staff different scenarios were analyzed. The Map was supposed to be under ownership and management of the MoA through the new established LR Unit. Many doubts persist about the convenience of this decision. It appeared more efficient to ensure the future utilization and up-grading of the map to keep it under the administration of LRC and to sign a MoU where the terms for the administration and the use will be well defined to ensure the maximum utilization and dissemination by all the potential users and the MoA. Meetings will be recommended involving all the main actors, UNDP, Italian Cooperation, MoA, LRC.
A suggestion is to promote the use of this Map among the main donors (nowadays several donors are close to fund or are funding new LR programs and to foreseen in each LR project to be implemented a quota for the utilization of the Map, that will include the duty of LRC to supply the required maps and information, to update and to upgrade the map during its utilization.
To raise the visibility and disseminate the utilization of the LSMLR among stakeholders and users during the last meeting LRC ensured its commitment on preparing and making available on its Web Site downloadable Maps at district level with different formats.

3.2.2) Strengthening of the operative capacity of the Palestinian Ministry of Agriculture and the sector involved in the land reclamation activity

Objectively verifiable indicators: more than the foreseen staffs have been trained. During project implementation 6 local NGOs involved shown high capacity of running land reclamation actions, including road and cistern construction.
The quality of the Technical Manual for LR has been positively evaluated for all the essential and practical indications given about procurements procedures and formats to manage the direction of the LR activities.
Some weaknesses have been evaluated for some technical aspects. In particular they were not well detailed information about specific technical criteria for the designing of terraces along the slopes, and as a consequence the dimension of the retaining walls. Lack of indications in this regard was probably due to the fact that the foreseen expert mission specifically planned to improve this technical aspects was not implemented.
It was often observed in the field (the same observations were done years ago during the elaboration of the project proposal) the trend of taking advantage by the presence of heavy machineries to create too wide terraces along slopes, often cutting contour lines building big retaining walls. This kind of intervention shows different negative consequences: the future maintenance of big retaining walls it will be more difficult for farmers that will be not able to repair collapse of big walls unless they will not be able to pay for the

intervention of heavy machineries, with negative economical and environmental impacts. The impact of such interventions on the landscape is negative. The need of such wide terraces often utilized for self consumption cultivations and/or land protection has also not economic justifications.
Further important aspects carried out practically during the field activity but not well defined in the manual were information on how to conduct the planning phase for each individual LR intervention (a design of the intervention including terraces and retaining walls schemes, cistern and related water harvesting area location and dimensions, land use and varieties selection should be done before starting the field work to ensure a better plan and to improve the sustainability of the intervention).

Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
		very good	good	problems	serious deficiencies
1 operating unit at the MoA at the 2nd year	The head of the unit is based in the MoA in Ramallah and 5 technicians are available in the Departments of Dura, Hebron (1 technical and 1 financial and administrative staff), Bethlehem and Al Rrroub station. Each department had the needed equipment purchased by the project (computer, GPS system, filing system). There is no availability of centralized data (owned by UNDP and under use by MoA) and access to the LR suitability map. Both documents are not linked together				
20 technicians trained (1st year)	44 technicians trained: 33 on GIS (14 in Ramallah and 19 in Hebron) 11 on land management on dry land				
4 accounts of the project trained	This activity was replaced increasing the number of technical staff trained				
3 operative units of	A total number of 7 NGOs				

NGO strengthened (1st year)	units involved in the training				
6 technicians and 2 accountants at the minimum for 2 NGO not directly involved in the project trained	6 technicians from 3 NGO trained		?		
Elaboration of technical regulation for L.R.	A manual for land reclamation produced and printed only in Arabic language (no information on how planning the retaining wall and in general the plan for land reclamation)		?		

3.2.3) Rapid increase in the capacity of production of basic food elements

Objectively verifiable indicators: The potential total productivity of the reclaimed land is in line with the defined indicator nevertheless production yields appear in many cases less than the foreseen averages for each given kind of cultivation (more than the foreseen hectares where reclaimed). Lower averages are the consequence of 2 main factors: increase in the drought conditions in the last 3-5 years cause of water scarcity and remoteness of many reclaimed land cause. The productivity for lands in area "C" often was considered a secondary priority if compared with the protection of the land against risk of confiscation, as was reported in many cases by farmer beneficiaries during the field visits.

Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
		very good	good	problems	serious deficiencies
1200 ton/year of new products expected in complete production	1,667.3 ton/year of new products expected in complete production		?		

3.2.4) Increase in the productivity and place in cultivation of new land and reduction of the process of land degradation

Objectively verifiable indicators: given indicator refers to the new land reclaimed and cultivated. This specific objective has been widely achieved (2998 dunums out of the 2000 foreseen).

Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
		very good	good	problems	serious deficiencies
200 hectares (2000 dunums) of versants systemized and put into cultivation	299.8 hectares systemized and put into cultivation	☐			

3.2.5) Creation in medium term new sources of income for the agricultural sector in the District of Hebron

Objectively verifiable indicators: project activities ended few months ago and information regarding this indicator can be only estimations (22.1%) to have a general idea about the impact of the intervention in terms of income opportunities.
The field visits and the beneficiaries' interviews show medium/low average in the yield due to the following factors: i) reduced water availability to balance the water deficit due to the current intensification of drought conditions; ii) low technical capacity in the management of agriculture activities for fruits production; iii) isolation of many land reclaimed and difficulties to reach the main markets; iv) main interest for land protection than for production.

Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
		very good	good	problems	serious deficiencies
15% increase in the income for the new agricultural production from the beginning of the production of the beneficiary families	22.1% increase in the income for the new agricultural production from the beginning of the production of the beneficiary families		☐		

3.2.6) Increase in the short term in the level of employment of the Palestinian labourers

Objectively verifiable indicators: This specific objective was clearly widely achieved. The working days offered to beneficiaries have been more than the expected (81,478 out of 70000 working days).

Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
		very good	good	problems	serious deficiencies
70000 working days by the second year of intervention in land reclamation	81,478 working days have been generated under all project activities with a total amount of 1,589,570 euro	?			

3.2.7) Increase in the availability of water resources

Objectively verifiable indicators: in terms of potential cubic meters of harvested water project result was largely more than the expected (20693 cubic meters out of the 10000 mc foreseen). Similarly also the number of cistern was more than the planned (250 cisterns out of the 100 foreseen). Given the current drought conditions these can be considered the more positive result obtained with the project.
Concerning the calculation of the water harvesting area it is recommended to keep in consideration the current trend of precipitation instead than the traditional average rainfall.

Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
		very good	good	problems	serious deficiencies
10000 cubic meters of collection capacity of run-off surface water and the construction of 100 underground cisterns by the 2nd year	250 cisterns constructed with a total capacity of 20693 m3 122 cisterns under complete land reclamation activities with 9806 m3 of capacity 128 cisterns for supplementary irrigation and livestock with a total capacity of 10887 m3	?			

3.3) Expected outputs

Expected results have been classified in two phases, a first “Training and study phase” and a second “Executive phase”.

The table below shows expected results, indicators, final results and the given evaluation for the "Training and study phase of the project":

Expected results	Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
			very good	good	problems	serious deficiencies
1.1 Technical nucleus of project (technicians MoA, UNDP,NGOs) formed	20 Palestinian technicians and 4 accountants trained during the first year	44 Palestinian technicians trained during the 2 years				
1.2 Planning of the intervention of land reclamation in the West Bank excluding the Jordan Valley	5400 sq. kms of area surveyed by the land reclamation study in scale 1:25.000 in the first year. Utilization of Land Suitability Map on the part of the Donors	Map done (2573 in scale 1:25.000). Limited utilization of the map. Ownership and management of the Map should be defined				
1.3 Technical regulation for the implementation of the intervention of land reclamation published	500 copies in Arabic and 500 copies in English by the first year	1000 copies in Arabic; no copies in English language. Weakness in the technical specification for some of the LR aspects				

Training has been evaluated as good in its entire components. Studies (Map and the Technical Manual) confirm the weakness points as illustrated in the analysis of the specific objectives.

The table below shows expected results, indicators, final results and the given evaluation for the "Executive phase of the project":

Expected results	Objectively verifiable indicators	Final report and evaluation mission	Project Evaluation Grading			
			very good	good	problems	serious deficiencies
2.1 Interventions of land reclamation (terracing, stone removal, leveling, underground cisterns, planting cultivations) in the District of Hebron realized	Approximately 2000 dunums of land slopes systematized and cultivated in 2 years	2998.37 dunums of land slopes have been reclaimed and cultivated in the 2 years: 2174.8 dunums reclaimed and cultivated 823.6 planted with different varieties of seedlings	☐			
	At least 120000 sq. meters of retaining walls realized in the 2 years	127000 sq. meters: 84599 sq m for land reclamation 42401 for agricultural road construction		☐		
	At least 50 kilometers of agricultural roads realized in the 2 years	53,46 kilometers of agricultural roads have been realized in the 2 years		☐		
	At least 100 underground cisterns realized in the 2 years	250 cisterns constructed with a total capacity of 20693 m3 122 cisterns under complete land reclamation activities with 9806 m3 of capacity 128 cisterns for supplementary irrigation and livestock with a total capacity of 10887 m3	☐			

	At least 120000 fruit trees planted in the 2 years	114033 fruit trees planted (they replaced 30420 fruits trees) 507 dunums used for field crops and vegetables				
2.2 New technical Unit of the MoA in the district of Hebron operational	At least 6 technicians trained and 1 office of the district by the first year furnished	7 technicians trained (6+1 administration); 3 offices in the districts of Hebron, Dura and Bethlehem furnished and equipped and central unit in Al Arroub Station established				
2.3 Technical Unit of the NGOs committed to the project strengthened	At least 12 technicians trained and in charge of at least 9 areas to be systemized and cultivated assigned	7 NGOs involved in land reclamation activities, 79 areas assigned to them for LR: 58 for complete land reclamation 21 for road construction				
2.4 Work opportunities in the short and long terms created	70000 working days in 2 years	81,478 working days have been generated under all project activities with a total amount of 1,589,570 euro				
	200 month/man of work in 2 years for the project technicians	A total of 235 months/man				
	400 beneficiary families with more independent income (15-20 higher)	a total of 1499 direct beneficiaries and an average of about 21% of more independent income				

The evaluation of the whole “executive phase” in terms of outcomes clearly shows high score and gave a strong impact as confirmed in the analysis of the general and specific objectives.

3) Assessment of items listed under point 4 of the ToRs

4.1) Project Effectiveness

To what extent has the project objective been achieved?

As shown with details in the previous chapter the comparison between achievements and indicators demonstrate the high level of achievement for the General Objective (evaluation grade "very good").
For the given 7 Specific Objectives the level of achievement has been evaluated from high to medium (evaluation grade from "*good*" to "*good/problems*") for the first 2 Specific Objectives, related to the *Training and Study Phase* and from high to very high (evaluation grade from "*good*" to "*very good*") for the Specific Objectives from 3 to7 directly related to the *Executive Phase* of the LR project.

What factors and processes have affected the objective's achievement?

Some information from the original project document concerning the details for the implementation of the LSMLR where not completely reported in the signed documents and were lost in occasion of the MoA between UNDP and LRC. In particular:

- The foreseen details about how to carry out the field survey for the design of the map.
- The foreseen area to be surveyed that included all the slopes in the West Bank and not only the un-cultivated areas (see in this respect the differences between the expected whole area to be surveyed and the surface investigated).
- The foreseen information concerning final ownership and administration of the Map.

Extreme drought conditions in the area during the period of implementation; this critical aspect hampered all agriculture activities in the Palestinian Territories. The main effect in the project was found in the seedlings intervention done without cistern construction. It was recorded a high % of death seedlings while in case of intervention with cistern availability the death seedlings were sensitively less.

Lesson learns 1: in land reclamation activities a successful practice will be to ensure in the long term water availability. This result could be achieved foreseeing cistern availability or any other water harvesting system in any LR intervention. Also more attention should be putted in the calculation of the surface of the water catching area. It has to refer to the last 3-5 years water rainfall average instead than to the total average.

Lack of flexibility in the selection of the beneficiaries regarding the cash contribution: In some cases the incapacity or difficulty to contribute in cash by some of the poorest beneficiaries determines their exclusion or limitation in the intervention done in their favour.

Lesson learns 2: for future implementation different option should be applicable in order to enlarge the capacity of potential poor beneficiaries to apply.

Lack of flexibility for some technical aspects related to land reclamation interventions: field visits and beneficiaries interviews evidenced in some cases the difficulty to follow predetermined schemes, given by the project as compulsory. This aspect is referred in particularly on the requested wideness of the terraces and on the storage capacity of the cisterns. As a consequence of the excessive wideness for the terraces too high retaining walls were built with problem in term of impact on the landscape and difficulty of the farmers to maintain and repair them. The consequence of the defined fixed level of minimum capacity for the cistern was the difficulty of poor farmers to proportionally contribute with cash in this work that in some cases cost the exclusion from the intervention.

Lesson learns 3: indications concerning technical aspects of the land reclamation should be considered a good practice and a general guide for planning. Nevertheless could be relevant to utilize these indications not as compulsory criteria. In the field each project design should be planned with more flexibility and according to the specific condition of each case.

In the future each land reclamation intervention should be start with a planning phase (purposes of the land reclamation, dimension and location of the retaining walls, dimension and localization of the cistern and water catchment area, land works, seedling varieties, balance and contribution possibilities). This plan should be carried out by the technical staff involved in coordination with the beneficiary and should be a pre-requisite to start the action.

Seasonal seedling shortage, in term of quantities and quality: during the plantation season in different cases a shortage in the quality and in the availability of the selected seedlings (grape, apricot, stone fruit mainly, almond and olive) was reported. In various cases farmers withdrew from the project because of the shortage and/or the low quality of the seedlings or they had reduced the land covered by the intervention. Moreover each beneficiary went to purchase individually the needed materials and this fact decreased the capacity to monitor the quality.

Lesson learns 4: it is recommended to verify on time seedlings potential availability in the local market (local nurseries available) to avoid shortage of good material. A possible solution could be to strengthen the productivity of existing nurseries (in the south exist a governmental nursery in Al Arroub station) or to pre-announce on time the foreseen amounts required. Standard criteria for seedling quality (varieties and vegetative status of the seedlings) should be specified in a preliminary contract agreement with the suppliers and a quality control system should be adopted before purchasing the seedlings by the contracting authority without leaving the responsibility to each individual beneficiary.

What direct and immediate benefits have the target group and other beneficiaries obtained through the use of the project outputs?

From the analysis of data collected indirectly by the project documents and directly by beneficiary interviews and field visits 6 main results were achieved in terms of immediate benefits for the beneficiaries:

- Land protection against risk of confiscation;
- Increased water availability in dry rural areas. These first two aspects given the strongest impact as underlined by the most of the interviewed
- Improved mobility of persons and goods and access to isolated land (in case of road constructions)
- Increase in the value of the land
- Increase in land available for agriculture production
- Intercropping production (vegetables and forage)

What negative and/or unforeseen effects did the project have?

- Project contribution requirement in some cases determines the exclusion of very poor potential beneficiaries or the reduction of the intervention.
- Lack of cistern construction in some areas causes high losses of seedlings due to drought escalation. In such areas supplementary irrigation become necessary in after the last 2- 3 years of drought.

Who received support and why? Information should be broken down by social categories such as socioeconomic grouping, gender, age ... etc.

Target beneficiaries for the present intervention can be diversified per different kind of intervention.
Complete LR or rehabilitation, cistern construction and seedlings involved farmers (for cistern construction also some cases of herders) leaving in areas were poverty and/or risks of confiscation might be relevant.
Road construction involved a wider category of beneficiaries. Most of them were farmers but a certain percentage was also covered by persons having other works but owner of pieces of land in the rural area interested by the road. In different cases the road construction targeted also small Bedouin communities.

What proportion of those in need (as a %) were covered by the intervention?

Identification of beneficiaries during the project was carried out advertising in public places of the targeted villages and in the agriculture departments. Local NGOs involved and the project staff reviewed the received applications with field visits making up a first pre-screening. Each applicant was ranked according to the social and economic situation. A further phase of selection was done by a committee consists of the assistant project manager, the district coordinator and the implementing organization representative. The technical committee went in the field visits to the selected applicants to inspect the given sites. Each farmer was asked to provide the implementing organization with his land property certificate.

The project involved a very high number of Beneficiaries if compared with the foreseen. For this reason the proportion of the needed persons covered by the project should be considered more than 100%.
Nevertheless some of the compulsory requirements to be beneficiary of the project have restricted the capacity of the project to target all the poorest in the area of the intervention. To be land owner, and to have to contribute with cash money to the cost of the intervention as a *"conditio sine qua non"* to receive fund, reduce the capacity of poorest families to be covered by the intervention. Furthermore also the rigidity in the application of some criteria in the planning of the LR interventions (minimum storage capacity for the cisterns) excluded in some cases the possibility to construct water storage cisterns reducing the benefits of the intervention.

Project effectiveness in promoting economic empowerment and in reducing poverty of targeted groups.

From an economical point of view the LR activities will start to show their full impact after about 3-4 years, when planted fruit trees will reach the stage of production. The beneficiary survey shown a first level of production, coming from inter-copping practices, vegetable or forage production and animal production (water harvested utilized as beverage for livestock). As an average it was accounted an amount of about 306 euro per intervention as yearly income generated in the first phase after having delivered the intervention (beneficiary's survey).
More consistent it was the immediate impact achieved running the project activities, paying local workers (in many cases the same beneficiaries). In this regard 81,478 working days have been generated with a total amount of 1,589,570 euro.

4.2) Project Efficiency

Was the project inputs sufficient for obtaining the outputs planned?

Despite project budget was planned several years before the implementation, inputs provided by the program were sufficient not only to assure the foreseen outputs but also to increase them sensitively. In this regard the analysis of the given indicators can provide a clear view of the results obtained through the project.

Have the inputs been obtained at a reasonable cost?

Procurement procedures applied by the project have been considered well designed in order to ensure the best market condition for most of the inputs acquired during project implementation. Some doubts could be raised concerning the purchasing of the seedlings because for this activity the purchase was done under the responsibility of each individual farmer.

Were the activities carried out in a timely manner?

Matter of timely implementation has to refer to the starting of the action. Some delay were evaluated for the implementation of the research to produce the LSMLR that according to the original action plan had to be completed at the end of the first year while it was delivered few months before the end of the second year. The handover of this essential document is still not finalized.

Did outputs have the necessary quality?

In general all activities were performed reaching good standard in terms of quality. Some constraints were reported for:
Seedlings: due to seasonal shortage in seedlings availability part of the material purchased had not enough good quality.
An excessive use of heavy machines was adopted in some cases to create too wide terraces. This causes the realization of too high retaining walls.
In some cases water harvesting area planned for the cistern construction where too small according to the current trend of drought conditions.

Could the outputs have been obtained in a more efficient way?

For the seedlings supply it could be organized a system of collective purchase to avoid that each farmer goes individually to buy from nurseries.
Water harvesting areas: calculation had to be done according to the last 3 years of rainfall and not more, in order to consider the current trend of increase in the aridity.
Retaining walls: avoiding the requested wideness and following the natural contour lines the retaining walls had to be less tall than what it was constructed in some cases.

Have the project's management system and execution processes worked well?

Project's management and implementation was well conducted at all the different levels during the whole execution as proved by the positive project achievements. UNDP and Italian Cooperation coordinators ensured proper management and monitoring of the Action, local NGOs duly implemented planning and implementation of the field activities, ensuring a well combined interaction among beneficiaries, local institution and donor.

4.3) Project Relevance

Do the objectives and outputs still respond to the needs of the beneficiaries?

The beneficiary's survey carried out during the present mission and the various field visits and meetings with local authorities and local CBOs evidenced the high level of appreciation for the activities and many stakeholders made request for a further intervention to complete and complement the action in favour of other beneficiaries. In particular cisterns and road construction appeared as the most required intervention received.
The table shows the impact for interviewed farmer beneficiaries distinguished for each kind of intervention carried out by the different local NGOs.

Local NGO	Kind and location of the intervention	Impact according to the beneficiaries	Relevance of the action	Impact
YMCA	Road construction in Kreisah village	Land protection against confiscation	It was considered and is confirmed as the first priority	high
		Connection to Kreisah village (school, services, clinic) for 70 isolated Bedouins Families		
		Increase in the value of the land (almost double value)		
		Improved access to the land and more chance to protect it		
		Starting of land reclamation activities by the householders		
		Improved access during closure time for the whole area		
ACAD	Seedling distribution in Halhool village	Land protection against confiscation	Is not considered as a priority, the intervention missed of main components as: water, infrastructure for grapes, fertilizers.	low
PARC	Road construction in Beit Fajar village	Land protection against confiscation	It was considered and is confirmed as the first priority	high
		Alternative road to avoid risk by military area and settlement expansion		
		Increase in the value of the land (almost double value)		
		Many farmers started land reclamation to work in their own land		
		Job opportunities during the implementation for many persons		
		Improved access during closure time for the whole area		
MAAN	Land reclamation, cisterns and seedlings in	Land protection against confiscation	Confirmed a good impact for the beneficiaries	high
		Production and income opportunity		
LRC	Land reclamation	Land protection against confiscation	Confirmed a good impact for the beneficiaries	high
		Production and income opportunity		

Do the objectives relate to local and international policies in the occupied Palestinian territory as well as those of the implementing organisation?

LR sector represents nowadays one of the main priorities for the Palestinian Authority. The "Green Palestine" program recently launched by the PA and new LR programs funded in this last period or almost ready to be funded by different International Agencies for Cooperation prove the importance of this sector.

Do the objectives respond to the policies/strategies of the donor agency as well as of the implementing organisation?

Since many years agriculture represents one of the priorities among the Italian Government and UNDP Strategies to support Palestinian People, addressing in particular population leaving in rural and often marginalized areas. Many programs were developed by the Italian Cooperation in the whole oPts focusing on LR interventions, livestock, crop and olive production in cooperation with the main international agencies like UNDP and FAO and Italian NGOs.

4.4) Project Sustainability

Will the beneficiaries have the capacity to maintain or extend the benefits obtained with the project? (In the case of productive initiatives).

Despite production impact from LR interventions will start to be effective almost 3 years after having ultimate the intervention the evaluation survey shown as a lot of beneficiaries started to get up products from their reclaimed sites.
Most of the benefits produced with the program will have a long term effect on the socio-economic situation of the supported families.
LR of a certain area, especially when located in "C" zone, has a continuous and durable effect on protecting the land against risks of confiscation, as reported by all the interviewed farmers.
Increased water availability in dry rural areas: water availability in remote and dry areas is the main encouragement for land owners to continue/start cropping their own land. Farmers will continue to cultivate their land if water will be available as underlined by all of them during beneficiary's interviews.
The assured access to isolated land through the construction of agriculture roads will also encourage farmers to improve their field works. Facilitating their capacity to access on the land (more easy to transport inputs and products to and from the field) they started to intensify the cultivation to produce more along the whole season.
One of the immediate and long lasting benefits achieved by the beneficiaries was the increase of the value of their land when it was reclaimed. This effect was particularly intense in case of reduction of the isolation of the land thanks to intervention of road constructions.
Moreover it was already evident during the field visits that many of the beneficiaries (and their neighbourhood) amplified the intervention by themselves, expanding the reclaimed

area, planting new more seedlings or replacing the deaths, enlarging the irrigation network. In the case of road constructions, the improved access was an immediate cause of starting working in the field for many land owners. In this respect many of them ask for cistern construction to have water to be able to cultivate.

What factors affect sustainability (political, economic, etc)?

In different cases the remoteness of reclaimed land keeps the intervention at a low profile (less crop intensification, less cures, less interest/opportunities to have enough benefits from the land). In most of these circumstances the matter of land protection prevailed in the site and beneficiary selection.
Shortage of water availability was surveyed in many cases where for different reasons water harvesting systems were not applied. This happened as an example in certain areas where before drought intensification the average rainfall was sufficient for cropping given varieties. In Halhool area (northern Hebron) many seedlings from fruits typically cropped in the area after being planted in LR sites died because of aridity.
For the same reason in many cases water harvesting surfaces of the cistern, calculated on the total average rainfall and not on the average of the last arid years, were not sufficient to fill them. This last inconvenient can be easily solved increasing the harvesting surface as most of the beneficiaries done after the last rainy season.
Finally some of the LR interventions were not completed because of the violent reaction of Israeli settlers as recorded in some areas near Israeli settlements.

4.5) Implementation processes (work, learning and synergy)

Has the project's organization (set up) been adequate for its implementation?

Project implementation was duly assured thanks to a proper organization of competences and duties among the different actors involved. UNDP coordinates work direction and monitoring of selection procedures, activities, procurement, implementation and visibility. The Italian Cooperation followed through its coordinator all the main phases of the project implementation assuring continues monitoring of field and office activities. 7 local NGOs ensured a great field work impact thanks to their traditional deep involvement, commitment and experience in the rural areas. The MoA staff involved in each of the 3 District Agriculture Departments worked also properly ensuring their institutional presence, the links with local authorities and CBOs. The work was coordinated through the establishments of a PMU that followed all the aspects of the program for the whole duration. Especially for those interventions like road construction targeting many beneficiaries together it was generally shown a deep level of participation of the whole community involved.

Has the project's monitoring system been adequate for generating the information necessary for its management?

The only week point evaluated for the whole program was the lack of some important information contained in the original project document and not reported in the agreement finally signed between the Donor and the Implementing Agency. The missed information was related to the details of technical specification in order to implement the LSMLR survey and the Technical Manual. Due to these constraints some difficulties occurred in the initial step of planning the study phase. Also the final area of investigation was not the one planned in the original project document.
Despite these first difficulties, ones project started different and appropriate levels of monitoring were applied to assure proper management from Italian Cooperation (regular field visits and staff meetings by the coordinator), the UNDP staff (as per their monitoring system), the local NGOs and the MoA. All data collected have been duly reported. The UNDP data base the final reports from UNDP and all the 7 local NGOs where duly and timely produced.

What are considered to be the project's main lessons for the management of future similar projects?

- More flexibility should be applied in the criteria for selection. For future program different option should be applicable to enlarge the capacity of potential poor beneficiaries to apply without renouncing to various forms of beneficiary contribution.
- More flexibility should be applied for some pre-defined technical aspects to avoid predetermined compulsory schemes, as given by the project (wideness of the surface of terraces and minimum water storage capacity required for the cisterns). Pre-determined indications about technical aspects for the land reclamation should be considered as a general guide and not as compulsory criteria.
- It is recommended for future land reclamation intervention to improve the phase of planning, taking more attention on defining purposes of the land reclamation, dimension and location of the retaining walls, dimension and localization of the cistern and water catchment area, land works, seedling varieties, balance and contribution possibilities.
- To follow the priorities as given by the LSMLR, ensuring the possibility to update and update its information.
- To continue to address "C area" for LR intervention. This fact determines a strong impact in term of land protection against risks of confiscation and abandonment. For the most isolated areas should be planned the utilization of kind of crops and varieties adequate to such remoteness areas (requiring less cure, more resistant to water and nutrients shortage).
- To avoid individual seedling purchase by the farmers. To ensure good quality of the seedlings standard criteria should be specified an defined in a preliminary contract agreement with one or more suppliers and a quality control system should be adopted before the purchase
- To avoid seasonal seedling shortage, verifying on time seedlings potential availability in the local market (local nurseries available). An interesting solution could be to plan the strengthening of local existing nurseries or to announce with enough time in advance the foreseen amounts required.

Have opportunities to relate with other organizations, projects or programmes been utilized synergistically?

Few other LR interventions were implemented in the same period of the present project. Not all the time it was possible to create synergies between the different programs. It's highly recommended to enhance the utilization of the LSMLR by other LR programs as a way to give priorities and also to be able to improve the quality of the map through its upgrade and update.

4.6) Effects on the environment

Main positive effects on the environment for a well conducted LR program are the protection against desertification and soil erosion, causes of lost of potential land productivity and land abandonment.
In some isolated cases the LR intervention was excessive for the over use of heavy machineries to realize too wide terraces and too high retaining walls along the slopes. In such cases other than a bad impact on the landscape, problems might arise with the difficulties to ensure the maintenance of the retaining walls that will require the use of heavy machineries.

4.7) Linking activities and Development

The present LR intervention should be considered a development program because of other than aiming at ensuring an immediate support to the poorest population it was also designed to build agriculture infrastructures (cisterns, roads, new agriculture land), improve skills and develop studies for the strengthening of the agriculture sector.
Through its achievements the project gives the opportunity to utilize the LRMLS and the acquired knowledge to select priorities and to carry out productive interventions in the ambit of future LR programs.
This is one of the most relevant tasks project staff has been called to achieve in order to ensure a deep and fruitful link with ongoing and new interventions.

4.8) Gender

Women role in agriculture is so much stronger than what could apparently show a field study. During farmers' survey most of the interviewed beneficiaries were men while a large women presence it was recorded during the field visits.
Women activity in the field is essential to ensure the utilization of the reclaimed land, the harvesting of products and their self-use or commercialization.

5.) Recommendations and follow up action under each objective

- Project impact was significantly high as the level of satisfaction among interviewed beneficiaries. This proves the importance of this kind of intervention especially due to the particular situation of the oPts. In this regard it is recommended to ensure that LR interventions in this area will continue to be a priority also in the future.

- Also for the above mentioned prospective the ~~LSMRC~~ LSMLR and the Technical Manual for Land Reclamation were implemented with the aim of building a basic tool to develop a wider strategy for LR based on the capacity to define priorities at national level. Ensuring continuity to this first product, paying further attentions and precautions at improving the quality of the data and the efficiency of the applied techniques this research should become a bench mark for future interventions in the sector. This can be achieved making sure the utilization of the information produced, disseminating data acquired and allowing an easy consultation. It means also to guarantee a constant upgrade and update of the LSMRC. In this regard the first essential step should be the definition of clear ownership, management role, duties and related costs for the LSMRC.

- Extreme drought conditions in the area during the 2 years of implementation; this critical aspect hampered all agriculture activities in the Palestinian Territories. Moreover water intervention related to water (cistern construction) were considered by beneficiaries as the most effective (annex 2 results of the beneficiary survey). As an example without cistern construction it was recorded a % of death seedlings of about 45% (against 2% in case of cistern availability). In any land reclamation activities a successful practice will be to ensure water availability. This result could be achieved foreseeing cistern or other water harvesting system in any LR intervention. More attention should be putted also for the calculation of the surface of the water harvesting surface that should take into account only the water rainfall average of the last 3-5 drought years.

- Lack of flexibility in the selection of the beneficiaries regarding to beneficiary contribution and in the project design: In various cases the difficulty to contribute in cash by some of the poorest beneficiaries determines their exclusion or a drastic limitation of the intervention. For future program different option should be applicable in order to enlarge the capacity of potential poor beneficiaries to apply without renouncing to various forms of beneficiary contribution.

- Lack of flexibility in the land reclamation interventions for predetermined and compulsory sizes and schemes to be applied as standard for most of the land reclamation interventions: field visits and beneficiaries interviews evidenced in some cases the difficulty to follow predetermined schemes, as given by the project. This aspect influenced in particularly certain excessive wideness of the surface of terraces and the minimum capacities required for the cisterns. The consequence of an excessive wideness was the construction of high retaining walls (problem in term of impact on

the landscape and difficulty for the farmers to maintain and repair them). The consequence of the too high minimum capacity for the cistern was the difficulty of poor farmers to contribute with cash in this work. The establishment of indications concerning technical aspects for the land reclamation should be considered a good practice. Nevertheless could be relevant to utilize these indications as a general guide and not as compulsory criteria. In the field the project design should have more flexibility to better adapt the intervention to each specific case. It is recommended for future the future land reclamation intervention to start improving the planning phase (defining purposes of the land reclamation, dimension and location of the retaining walls, dimension and localization of the cistern and water catchment area, land works, seedling varieties, balance and contribution possibilities). This plan should be carried out by the technical staff involved in coordination with the beneficiaries and should be a pre-requisite to start the action.

- The project addressed many sites in "C area". This fact determines a strong impact in term of land protection against risks of confiscation and abandonment as evidenced by the beneficiary survey. On the other side, the implementation of land reclamation in C areas might have determined some reduction on the economical impact until the political constraints in such areas will persist. It's recommended to insist on targeting "C areas" foreseeing in isolated areas kind of crops and varieties requiring less cure and more resistant to any eventuality of water / nutrients shortage.

- Seasonal seedling shortage, in term of quantities and quality. During the plantation season in many cases a shortage in the quality and in the availability of the selected seedlings (grape, apricot, stone fruit mainly, almond and olive) was reported. In some cases farmers withdrew from the project because of the shortage and/or the low quality of the seedlings or they had reduced the land covered by the intervention. Moreover each beneficiary was called to purchase seedling individually and this fact decreased the capacity to ask for a better quality. Due to the limited time for the planting season it is recommended to verify seedlings potential availability in the local market (local nurseries available). An interesting solution could be to strengthen the potential productivity of existing nurseries (in the south it is based as an example a nursery in the Al Arroub governmental station) or to announce with enough time the foreseen amounts required. For the quality (varieties and vegetative status of the seedlings), standard criteria for the seedling should be specified in a preliminary contract agreement with one or more suppliers and a quality control system should be adopted before purchasing the seedlings.

- **Annexes**

  - Abbreviations

  ANNEX 1: Land Reclamation Questionnaire
  ANNEX 2: Results of the Beneficiaries' Survey
  ANNEX 3: List of persons interviewed and sites visited.

  - Pictures (CD)