



Lebanon Recovery Fund

FAO

Evaluation
of

**Early Recovery Assistance for the Agriculture
Smallholder**

and

**Early Recovery Assistance to War-affected,
Resource-poor Livestock Keepers in Southern
Lebanon**

(OSRO/LEB/701/UNJ and OSRO/LEB/702/UNJ)

Final Report of the Evaluation Mission

December 2008

Preface

This report presents the views of the evaluation mission on the performance and achievements of two projects: Early Recovery Assistance for the Agriculture Smallholder and Assistance to War-affected, Resource-poor Livestock Keepers in Southern Lebanon (OSRO/LEB/701/UNJ and OSRO/LEB/702/UNJ).

The evaluation was initiated with a view to providing the Lebanon Recovery Fund, the Government of Lebanon and FAO with an independent and objective assessment of the performance of the projects. The evaluation took place in Lebanon from 17 November 2008 to 27 November 2008; project locations and stakeholders in Southern Lebanon were visited from 19 to 22 November¹. The mission gave a debriefing to the FAO Representation on 27 November and prepared an aide-memoire (in essence, this report's Executive Summary).

The mission's main views regarding the project are presented in the Executive Summary, followed by more specific Conclusions and Recommendations². The main body of the report gives additional information on the projects and assessments of their performance, while the annexes provide information on the mission background and data on the some features of the project.

The evaluation used the following methods: document analysis; group and individual meetings with beneficiaries, stakeholders and key informants; brainstorming sessions with stakeholders; and several telephone interviews with the project CTAs. A caveat applies: while the field visits were useful to give the mission a first-hand impression of project performance and of project beneficiaries' as well as of stakeholders' views regarding the project, their short duration did not allow for an in-depth assessment of the project³.

The evaluation mission is most appreciative of the support provided by the FAO Representative and his staff, the project staff, and the officials and key informants met in Beirut and South Lebanon. All people interviewed provided information and discussed issues in a frank and constructive manner. Last, but not least, thanks are due to the villagers who always provided the team with a warm welcome.

The Evaluation Mission

Bernd Bultemeier, Evaluation Officer, FAO, Rome (Team Leader)
Rym Ben Zid, Horticulture Expert
Ahmad Al-Majali, Livestock Expert

¹ The evaluation was initiated at short notice – the request was made in late October 2008 – and with a tight deadline: this accounted for a compressed mission schedule and a number of improvised meetings.

² The Conclusions and Recommendations and all following sections treat the projects as separate entities, in order to respect their distinct identities. The report displays three different levels (and exhibits some intentional repetitions): the Executive Summary presents the most condensed version of the report; will the Conclusions make more specific statements regarding various aspects of the project, which will be found again in the main body of the report, in an extended version.

³ More information on documents consulted, people met, etc can be found in the annexes.

List of Acronyms

CSO	-	Civil Society Organization
CTA	-	Chief Technical Adviser
FAO	-	Food and Agriculture Organization (of the UN)
GAP	-	Good Agriculture Practices
GDP	-	Gross Domestic Product
HH	-	Household(s)
LARI	-	Lebanese Agricultural Research Institute
Logframe	-	Logical Framework
LRF	-	Lebanon Recovery Fund
MoA	-	Ministry of Agriculture
MDTF	-	Multi-Donor Trust Fund
NGO	-	Non-Government Organization
PBEE	-	Evaluation Service (FAO)
SMART	-	Specific, Measurable, Achievable, Realistic and Timely (Indicators)
TCES	-	Special Emergency Programmes Service (FAO)
SWOT	-	Strengths, Weaknesses, Opportunities, Threats
UN	-	United Nations
UNDP	-	United Nations Development Programme

TABLE OF CONTENTS

PREFACE	II
LIST OF ACRONYMS	III
TABLE OF CONTENTS	IV
EXECUTIVE SUMMARY	6
THE WAY FORWARD	11
CONCLUSIONS AND RECOMMENDATIONS - OSRO/LEB/701/UNJ	13
Project design	13
Objectives and outputs	13
Beneficiaries	13
Work plans, assumptions and risks	13
Institutional arrangements	14
Support by government/national institutions	14
Technical and operational backstopping	14
Project management.....	15
Actual and expected project results	15
Output One – Small-scale farmers enabled to resume crop production activities, and technical improvement of the production systems.....	15
Output Two – Water- and fertilizer use efficiency improved through rational use of water using localized/adapted drip irrigation systems.....	16
Output Three – Capacity of farmers and stakeholders built on the needs and means to rehabilitate the horticulture sector.....	16
Output Four – Greenhouse design improved for higher yields	16
Specific topics and issues.....	18
Sustainability of project interventions	18
Cost-effectiveness	18
Gender equity in project implementation and results.....	18
Beneficiary selection process	18
Major factors affecting the project results.....	19
1. INTRODUCTION AND BACKGROUND	20
2. PROJECT OBJECTIVES AND DESIGN	20
2.1 Development and immediate objectives	20
2.2 Work plans, assumptions and risks.....	22
2.3 Institutional arrangements.....	22
2.4 Beneficiaries	23
3. PROJECT IMPLEMENTATION STATUS	23
3.1 Project budget and expenditure	23
3.2 Implementation status.....	24
4. SUPPORT BY GOVERNMENT, TECHNICAL AND OPERATIONAL BACKSTOPPING, PROJECT MANAGEMENT	26
4.1 Support by government/national institutions	26
4.2 Technical and operational backstopping.....	27
4.3 Project management.....	27
5. ACTUAL AND POTENTIAL RESULTS	28
Output One – Small-scale farmers enabled to resume crop production activities, and technical improvement of the production systems.....	28
Output Two – Water- and fertilizer use efficiency improved through rational use of water using localized/adapted drip irrigation systems.....	29
Output Three – Capacity of farmers and stakeholders built on the needs and means to rehabilitate the horticulture sector.....	29
Output Four – Greenhouse design improved for higher yields	29
Specific topics and issues.....	30
Sustainability of project interventions	30
Cost-effectiveness	30
Gender equity in project implementation and results.....	31
Beneficiary selection process	31

Major factors affecting the project results	31
CONCLUSIONS AND RECOMMENDATIONS - OSRO/LEB/702/UNJ.....	33
Project design	33
Objectives and outputs	33
Beneficiaries	33
Work plans, assumptions and risks	33
Institutional arrangements	34
Support by government/national institutions	34
Technical and operational backstopping	34
Project management.....	35
Actual and expected project results	35
Output One – War-affected livestock smallholdersd supported by restocking and distribution of animals (cattle, goats, draught animal power, and beehives).....	35
Output Two – Animal production improved through provision of supplementary livestock feed and improved healthcare.....	36
Output Three – Capacity of project beneficiaries (including rural youth and women, as well as extension staff from MoA, NGOs and other related entities) built and improved	36
Specific topics and issues.....	36
Sustainability of project interventions	36
Cost-effectiveness	37
Gender equity in project implementation and results.....	37
Beneficiary selection process	37
Major factors affecting the project results	37
1. INTRODUCTION AND BACKGROUND	39
2. PROJECT OBJECTIVES AND DESIGN	39
2.1 Development and immediate objectives	39
2.2 Work plans, assumptions and risks.....	40
2.3 Institutional arrangements.....	41
2.4 Beneficiaries	41
3. PROJECT IMPLEMENTATION STATUS.....	42
3.1 Project budget and expenditure	42
3.2 Implementation status.....	42
4. SUPPORT BY GOVERNMENT, TECHNICAL AND OPERATIONAL BACKSTOPPING, PROJECT MANAGEMENT	44
4.1 Support by government/national institutions	44
4.2 Technical and operational backstopping.....	44
4.3 Project management.....	45
5. ACTUAL AND POTENTIAL RESULTS.....	45
Output One – War-affected livestock smallholdersd supported by restocking and distribution of animals (cattle, goats, draught animal power, and beehives).....	45
Output Two – Animal production improved through provision of supplementary livestock feed and improved healthcare.....	46
Output Three – Capacity of project beneficiaries (including rural youth and women, as well as extension staff from MoA, NGOs and other related entities) built and improved	47
Specific topics and issues.....	47
Sustainability of project interventions	47
Cost-effectiveness	48
Gender equity in project implementation and results.....	48
Beneficiary selection process	48
Major factors affecting the project results	48
Annex One: Terms of Reference	50
Annex Two: Itinerary and List of People Met	53
Annex Three: Publications/Training Materials Produced	57
Annex Four: Timeline of Procurement Process	58
Annex Five: Documents consulted by the Mission.....	59

EXECUTIVE SUMMARY

The Lebanon Recovery Fund (LRF) is a Multi-Donor Trust Fund (MDTF) established at the request of the Government of Lebanon in the aftermath of the July 2006 hostilities between Lebanon and Israel. The LRF functions as a pooled funding facility to channel donor resources for the financing of priority recovery and reconstruction activities approved by the Government.

A damage assessment mission carried out by FAO at the request of the Ministry of Agriculture of Lebanon in 2006 established that the loss of crops and livestock from the hostilities had critically worsened the living conditions of the most vulnerable populations, many of whom were dependent on agriculture for their livelihoods.

Against this background, the LRF approved in August 2007 two projects proposed by FAO: OSRO/LEB/701/UNJ (Early Recovery Assistance for the Agriculture Small-holder) aimed at sustaining the early rehabilitation and recovery of small vegetable growers in South Lebanon and to ensure resumption of agricultural activity, and OSRO/LEB/702/UNJ (Early Recovery Assistance to War-affected, Resource-poor livestock Keepers in Southern Lebanon) intended to provide a basis for livestock keepers and farmers to resume production and income-generation activities after the war. Duration for both projects was from September 2007 to October 2008⁴.

Project Budget	
OSRO/LEB/701/UNJ	US\$ 1,370,670⁵
OSRO/LEB/702/UNJ	US\$ 1,900,000
Project Staff	
National Staff⁶:	Horticulture Programme Officer Horticulture Projects Assistant Admin Assistant/Training focal point Livestock consultant Logistics/Security/Transport Assistant Driver
International Staff:	Emergency Programme Officer⁷ International Horticulture Consultant⁸ International Livestock Consultant⁹

For OSRO/LEB/701/UNJ, the key objectives¹⁰ were described as follows:

“The development goal of the project is to improve horticulture practices in Lebanon by improving cultivars, planting densities, greenhouse structure, Good Agriculture Practices (GAP), water-use efficiency, rational use of fertilizers and low toxicity pesticides and production of organic vegetables.

⁴ Original time frame was 24 Aug 2007 - 15 Aug 2008: the end date was extended to account for some delays in implementation, and conduct training during the planting season for the horticulture project and calving season for the livestock project.

⁵ The original proposed budgets were much higher (livestock: US\$ 5,995,497, horticulture: US\$ 4,032,050) and reduced during the LRF project approval process.

⁶ Other positions (office clerk, programme assistant, horticulture technician) existed on a short-term basis in 2007; a veterinarian was hired on short-term contracts after 5/2008.

⁷ Left 5/2008.

⁸ Five missions: 11 November - 2 December 2007, 4-22 March 2008, 22 May - 8 June 2008, 26 June - 31 July 2008, 10 September - 17 October 2008.

⁹ Four missions: 14 November 2007 - 15 December 2007, 5 March 2008 - 4 May 2008, 1 June - 3 August 2008, 31 August - 19 October 2008.

¹⁰ The project documents followed the LRF project document template and not the FAO project document format and terminology.

The key immediate objective of the project is to provide support to the lives and livelihoods of 1,600 resource-poor and vulnerable horticulture farmers – with critical crop harvest losses – in south Lebanon”¹¹.

For OSRO/LEB/702/UNJ, the definition was: “The development goal of the project is to improve the food security, nutritional and economic status of low-income rural families by initiating comprehensive recovery measures to support the war-affected livestock smallholders, mainly by restocking and distribution of animals (cattle, goats, draft animal power and beehives). The immediate objectives are improvement of the lives and livelihoods of 715 war-affected livestock owners with special emphasis on women-headed households, through restocking of animals.”

Towards the attainment of these objectives, important results have been achieved, including:

OSRO/LEB/701/UNJ

- Installation of 50 greenhouses
- Upgrading of 40 greenhouses¹²
- Establishment of four plant nurseries¹³
- Procurement of 1,000 low tunnels for open field farming
- High quality vegetable seeds (cucumber, melon, squash, snake melon, okra and bean) distributed to 1,752 open field farmers in 77 villages¹⁴
- Distribution of over 50,000 grafted plantlets from high quality, high yielding vegetable seed (tomato – 20,000 and cucumber – 36,200)¹⁵
- Distribution of fertilizers, including organic fertilizer and peat to enrich the soil with nutrients for improved crop production, quality and increase yield¹⁶
- Procurement of low toxicity plant protection products
- Production of booklets/brochures/training manuals¹⁷
- Training to staff of the 4 nurseries established on plantlet production and nursery management as well as plant care
- Training to 90 greenhouse beneficiaries of the project, providing advice on planting density, the use of mulching, plant hooks and sticky traps¹⁸
- Holding of 5 training sessions for some 1,600 open-field farmers

In total, more than 1,800 farmers have been reached by the project.

OSRO/LEB/702/UNJ

- Provision of 202 pregnant imported heifers to one beneficiary each
- Distribution of 190 tons Alfalfa pellets for cattle beneficiaries
- Distribution of 200 tons feed concentrate for cattle beneficiaries¹⁹

¹¹ The wording differed between the cover sheet and the Logical Framework Matrix.

¹² For a total of 90 beneficiaries; these received training in September and early October.

¹³ Staff of the plant nurseries received training on plant grafting during the month of September and October in order to prepare the plantlets for fall cropping cycle.

¹⁴ Original target was 36 villages.

¹⁵ 700 cucumber plantlets per farmer to all 40 upgraded greenhouse of the project, 400 grafted tomato plantlets to all 50 constructed greenhouses by the project.

¹⁶ Vegetable seeds (tomato 50 packs of 1000 seeds, cucumber 90 packs of 500 seeds, melon 395 packs of 1000 seeds), fertilizer and peat – 289 tonnes

¹⁷ In Arabic: Greenhouse Design and Construction (19 pages), Good Agricultural Practices in Greenhouse Crops (45 pages), Irrigation and Fertigation Management of Greenhouse Crops (15 pages), Vegetable Production in Open Field (25 pages); one technical manual in English (352 pages).

¹⁸ In essence, this was a one-day workshop for some 200 greenhouse farmers, and (limited) on-farm advisory visits;

¹⁹ Feed was distributed during June/July 2008, coinciding with delivery of animals.

- Distribution of 99 imported Shami bucks for upgrading local Baladi goats (30 farmers received only Shami bucks and 69 farmers received Baladi goats and Shami bucks)
- Provision of 1,500 local Baladi goats with their kids (1,500 kids) distributed to 250 farmers (6 female Baladi goats and 6 kids/farmer)
- Training provided to participating farmers on appropriate husbandry techniques and related issues²⁰
- Production of five booklets (1000 copies each) and five posters (500 copies each) related to the most important topics faced by dairy farmers

In total, 482 farmers in 50 villages south of the Litani River have been reached by the project.

In both projects, more than 60% of the project expenditure was on inputs (animals, equipment and supplies) that benefited farmers directly – a good ratio for projects that also had a strong technical assistance component.

In addition to work directly related to the projects, the CTAs of both projects have developed proposals for follow-up projects that build on the experience acquired, and are intended to cover other agricultural sectors and expand to other regions of Lebanon:

- Horticulture Project Phase II: Recovery assistance for the horticulture (Fruit Trees) smallholder and land revitalization²¹
- Horticulture Project Nahr El Bared: Recovery assistance for the horticulture (Greenhouse and open field vegetable farmers) smallholder and land revitalization
- Recovery and Rehabilitation of Dairy Sector in Bekâa Valley and Hermel-Akkar Uplands
- Recovery of the Livestock and Animal Production Sector in South Lebanon

However, the mission also noted constraints in the project, which have affected its operations and could limit its effects for the future:

- The projects stipulated that the projects should not create a financial liability on the MoA. And while the MoA operated as government counterpart to the projects and provided general coordination (including approval of beneficiary lists), its role in the implementation of the projects was minimal due to its very limited presence in the field²². This has above all implications for the future sustainability of some project activities as there exist a need for continued backstopping and advisory services among some beneficiaries (mostly related to greenhouses, cattle and Shami bucks)
- Related to the above, the project design stressed the short-term character of the interventions while at the same time guiding the project towards paying particular attention to needy and distressed families. The projects thus displayed two

²⁰ Six training sessions for all project beneficiaries targeting both farmer beneficiaries for cow and goat farmers in March-April 2008 (prior to distribution of animals), covering: good practices to improve dairy cow husbandry (feeding, housing, hygiene and reproduction; good practices to improve dairy goat husbandry (Improvement of traditional management through feed supplementation, weaning techniques, vaccination and hygiene, upgrading of local Baladi goats with Shami bucks) - second training period was in October 2008

²¹ Strictly speaking, this project proposal is different in scope from the horticulture project; the expression Phase II is misleading for this proposal – it would be more appropriate for the livestock project.

²² However, in terms of coordination and communication with the project, regarding horticulture, the regional office of the Ministry of Agriculture in Nabatiyeh was clearly more involved in all implementation stages than its counterpart office in Saida. (On the other hand, the regional veterinarian in Saida was involved in the animal selection process.)

characteristics: on the one hand, it was truly an emergency intervention to replace lost assets or provide needed supplies (Baladi goats, seeds and fertilizer); on the other hand, it was intended to upgrade the productive assets of poor farmers (greenhouses, cattle and Shami bucks) – a task which implies that a significant amount of training and extension is required

- The project proposals were formulated following a damage and needs assessment, but it appears that investigations regarding the specific conditions of potential beneficiaries had to be done as part of the beneficiary selection process. Aspects of marketing, input supply, socio-economic conditions received relatively little attention
- Agricultural advisory services are weak in Southern Lebanon and will not likely be able to keep up the work initiated by the project²³
- At the same time, for both projects, the capacity building (training) activities appear limited: advice and instruction to the majority of farmers was mostly of a theoretical nature and lacking practical advice and on-farm follow-up²⁴
- A horticulture technician (who could have provided technical backstopping after the distribution of the packages – greenhouses, low tunnels, seeds, plantlets, fertilizers – to beneficiaries) left the project in December 2007 without replacement²⁵
- Due to administrative, technical and commercial complications, there were delays in procurement – seeds arrived too late for the spring planting, and the project missed an opportunity to provide practical advice to farmers during an entire growing season²⁶
- In the case of open-field vegetable production, the outcomes of the project are limited as only small quantities of seeds and fertilizers have been provided to farmers – the inputs provide some relief, but will not make a significant contribution to farmers' livelihoods²⁷
- In the case of greenhouses, price fluctuations and the competition from imported vegetables could reduce the positive effects of the project without proper market information and production diversification and marketing plans.
- Some horticulture farmers still do not follow recommended practices (mulching, pruning, use of double-door system), or do not implement them well (e.g. insect traps too high above the plants)
- At least two of the nurseries installed are not functional yet – staff have been trained in plant grafting and in plantlet production, but the production has not commenced and none of their parent organizations (Agro-processing Women's Association, Lebanese Association for the Handicapped) have established a business plan for next year. It is also not clear how they will build up a relationship with their potential farmer clients (many of whom are already regular clients of commercial suppliers). In addition, the technical training for nursery operators was relatively short – they may need follow-up training and advice once production starts

²³ During discussion with the MoA, it was indicated that the ministry plans to deploy 20 veterinarians in the near future.

²⁴ It was pointed out by project staff that some follow-up visits were done by national staff after delivery of inputs, and that training started late due to the initial need to concentrate on beneficiary identification.

²⁵ The actual staff composition of the Horticulture Project (International CTA/Consultant, National Horticulture Programme Officer, National Horticulture Projects Assistant, and a National Administrative Assistant/Training Focal Point) differed significantly from the one proposed in the project document: International CTA, National Project Coordinator, National Irrigation Consultant, and National Greenhouse Consultant.

²⁶ Also some suppliers (fertilizers, greenhouse equipment) retracted their orders due to international price increases, and the construction of greenhouses was behind schedule. However, once the delay was inevitable, project staff asked the suppliers to deliver them in October to gain a few months to gain a few months of lifetime for the plastic covers.

²⁷ Project explained that this was in order to maintain the targeted number of beneficiaries (1,600) even after the proposed budget had been cut drastically. Some open-field farmers on the coast could not plant yet because the season was over when the seeds and inputs arrived. (The seeds can be kept for the next season.) On the other hand, open-field farmers in the Governorate of Nabatiyeh, still had the opportunity to plant.

- The environment and the management standards of many visited livestock beneficiaries are poor, which might explain the low performance of heifers and Shami bucks. (A local veterinarian hired by the project estimated that about 30% of beneficiaries had poor animal husbandry standards.)

One remarkable aspect of the project is the enthusiasm it created among participating farmers, and the credibility it established during the beneficiary selection process. Both projects went through an elaborate process of beneficiary selection, in order to ensure that only eligible recipients (the project documents stipulated resource-poor and vulnerable farmers, and emphasized female-headed households) were selected²⁸. The application of fairly strict criteria (derived from the provisions of the project document) ensured that in most communities the choice of beneficiaries is well accepted. However, in most communities there are still a significant number of potentially eligible beneficiaries – if these are left out of the development process, the possibility of social discontent exists.

Those beneficiaries that received high-value inputs – in particular cattle and greenhouses – have been provided with the means for achieving significantly higher incomes.

It is, however, obvious that several constraints remain a challenge to the activities initiated by the projects, and that more work remains to be done. For these reasons, the mission recommends that the projects should be followed up: even if there is no immediate prospect of continued funding from the LRF, as a minimum, the mission recommends the provision of technical advice and backstopping services (from within Lebanon: through private veterinarians, horticulture experts, in collaboration with MoA, NGOs, LARI, etc) especially to the poorer recipients of high-value packages, so as to safeguard the investments made by the project.

²⁸ The mission observed that among the visited beneficiaries, not all (perhaps 20% to 30%) fell into the needy category. This as explained by the need to account for local sensitivities (people recognized as leaders by the community), and also that some could set a good example for managing the more demanding project inputs.

THE WAY FORWARD

The projects have achieved encouraging results and laid the basis for future significant improvements in living standards, for some beneficiaries (recipients of greenhouses, cattle, and Shami bucks). Due to the short timeframe, the projects have so far concentrated on input delivery: in the view of the mission, there is still a need to focus on nurturing the development processes that the projects have set in motion.

For this reason, some essential follow-up activities are recommended to consolidate and safeguard the achievements of the projects.

In the follow-up, there should be a concentration on the development character of the project²⁹: i.e. those beneficiaries that are struggling to reach adequate management standards for the inputs they received (greenhouses, cattle, and Shami bucks). They still need to acquire the necessary skills and experience to run their new farm assets in a profitable and sustainable way.

For livestock beneficiaries, the mission recommends the hiring of private veterinarians and livestock experts to advise on management, feeding and husbandry practices on a contract basis, to monitor the conditions of the animals received, perform simple diagnostic tests, and advise on improvements in the beneficiaries' animal husbandry regimes. If sufficient funds can be found, a basic diagnostic laboratory should be deployed with the MoA. (In this context, the mission learned that the Governorate of South Lebanon has a room designated for a laboratory, but no equipment or qualified technician)

For greenhouse farmers, the mission recommends to follow up for at least one year (to achieve one production cycle) with on-farm visits by horticulture experts and technicians, to provide advice and technical training on recommended practices (mulching, pruning, use of double-door system, pest control). These advisers should be hired on contract perhaps with MoA, or could also be drawn from NGOs or institutes like LARI.

At the same time, in most communities there are still a significant number of potentially eligible beneficiaries: ideally, these should be covered by a follow-up project in order to avoid the possibility of social discontent³⁰.

In the view of the mission, these follow-up recommendations should be considered within the existing project proposals now before the LRF for approval. If room exist for more substantial follow-up, emphasis should be on strengthening and fine-tuning project activities rather than expanding the range and diversity of activities (which would create additional backstopping requirements).

On important lesson learned from the project is the need for transparency about project deliveries and services, which seems to have worked well for beneficiary selection, but less well concerning delays in input delivery. For the future, the introduction of cost recovery mechanisms should also be considered. (For example, a passing on of goat kids to other eligible members of the village might be one possibility.) Finally, once a few cropping seasons have passed and enough

²⁹ After all, two years have passed since the original conflict: the challenge is now more about development than reconstruction.

³⁰ Especially open field farmers – who have received comparatively little assistance – should be supported in the future with quantities of seeds and fertilizers to plant at least 2 or 3 acres, either as a grant or using micro credit.

experience has been gained with the livestock activities, the projects should be revisited in order to analyse and document successful project interventions, with a view to identifying approaches that can be taken up and replicated in the context of larger programmes.

CONCLUSIONS AND RECOMMENDATIONS - OSRO/LEB/701/UNJ

Project design

Objectives and outputs

Both the development goal and the key immediate objective of the project stressed the developmental character of the project (to improve horticulture practices), while the outputs also emphasized the project's emergency side (to provide support to the lives and livelihoods of horticulture farmers).

What the project design failed to highlight were the likely complications arising from targeting resource-poor and vulnerable farmers: the upgrading of their management practices was not likely to be achieved within six months (the planned timeframe available after construction of greenhouses). The repeated emphasis in the project document that "... the activities were designed in a manner not to incur any current or future liability to the MoA budget even after the lifespan of the project ...", was at best highly optimistic.

Recommendation: Even if formal limitations exist regarding time frame and future institutional support requirements, project documents should be realistic: if they (partly) aim at initiating longer-term reconstruction and development processes (as was intended also with the LRF), the requirements for extended technical support and guidance beyond the delivery phase of the project have to be spelled out.

Beneficiaries

The criteria for beneficiary selection in the project document were not always consistent: on the one hand, the beneficiaries were to be 1,600 of the most vulnerable farmers with the highest level of depravation, living exclusively from agriculture, and preferable female-headed households. On the other hand, beneficiaries were expected to be "progressive" farmers employing two workers (about 3,000 indirect beneficiaries) on the farm – a contradiction that the project document did not care to explain.

Other beneficiaries listed in the project document were extension agents from the MoA (which hardly exist), NGOs and private companies through capacity building – given the amount of actual training provided by the project, this was not a realistic proposition.

Recommendation: The project document went through a number of revisions (to accommodate budget reductions), which eliminated some components and may have led to inconsistencies. But before final approval, the project document should have gone through a careful appraisal process to avoid unnecessary and confusing flaws in the project logic.

Work plans, assumptions and risks

By and large, the basic work plan (short activity listing and bar chart) of the project document reflected a logical sequence of events. However, the expectation that greenhouses could be constructed by month 3 AND production in gardens and greenhouses could start in the same month, was unrealistic.

Only limited risks (deterioration in political and security conditions) were foreseen for this project. Risks that did materialize – delays in procurement, insufficient adoption of recommended practices – were not addressed in the project document.

Recommendation: The project document foresaw the preparation of a revised and more detailed work plan at project inception – the preparation of a revised project document would have been better. Future project proposals could benefit from having a mandatory review of the project document shortly after project inception, to account for any changes in the project environment as well as to correct evident inconsistencies in the project document.

Institutional arrangements

Institutional arrangements were not outlined in great detail in the project document – the Project Steering Committee that eventually emerged was not foreseen as such in the project document. (Only a beneficiary selection committee, with a “cooperating partner” and the MoA was explicitly provided for.) MoA was involved through a National Coordinator³¹ in all aspects of implementation, including selection of beneficiaries, procurement, training modules, and distribution plans.

Recommendation: Establishing the Project Steering Committee was a useful initiative; however, for a project of short duration, a quarterly frequency of meetings³² may not have been the most appropriate. A more flexible schedule to coincide with major decision points (in this case, about dropping certain project components, adjusting the time frame, etc) would have been more suitable.

Support by government/national institutions

On a higher institutional level, the project received good support from the MoA as counterpart agency: there was a national coordinator based in the MoA, who actively pursued his mandate to validate decisions made by the project (such as selection of beneficiaries, tender preparations, etc).

However, the Regional Offices of Agriculture in the Governorate of Nabatiyeh and in the South Governorate (Saida) were much less involved; while the former participated to some extent in the selection process of beneficiaries, the distribution of inputs and equipment as well as training (one of the engineers of the Regional Office in Nabatiyeh was engaged as a trainer), the Regional Office of the Governorate of South Lebanon had no real involvement.

Technical and operational backstopping

Technical support from FAO came in the form of clearances for the tenders prepared by the project. Procurement was also the area where most delays occurred in project implementation: tenders had to be split and were changed from international procurement to local procurement, seed specifications had to be modified when the spring planting season was missed (for some species and locations), etc. This does not necessarily reflect badly on the backstopping; rather, it was a combination of an over-ambitious time table, meticulous scrutiny of the specifications, unfamiliarity with tender procedures, rapid price increases for some commodities, etc.

³¹ The project document envisaged a Consultant/National Coordinator as a full-time position.

³² There seem to have been only two: an inception meeting in December 2007, and a second PSC meeting in March.

Operational support came from several sources – FAO HQ (TCES), the Emergency Coordination Office in Amman, the Coordination Office in Tyre, and the FAO Representation in Beirut. Overall, the project received a relatively high number of operational backstopping visits. With the unscheduled departure of the International Coordinator based in Tyre in May 2008, the CTA of the project was nominated Officer-in-Charge during his third mission – and had to cope with a dramatically workload as a result.

Project management

Project management functioned without the full-time National Coordinator/Consultant envisaged in the project document³³ (the Coordinator nominated by the MoA had a full-time position managerial position in the ministry). The FAO International Consultant/Coordinator (later called CTA) came to the project for a total period of 18 weeks in five separate visits – the first visit began in November 2008 as per the work plan: in the view of the mission, an earlier start would have been better to give more time for project start-up³⁴. From May 2008, he was also in-charge of the Coordination Office due to the unscheduled departure of the previous (full-time) incumbent.

Project management dealt very conscientiously with the selection of beneficiaries – the project management had to validate the list of potential beneficiaries as original beneficiary lists were flawed.

While some delays could perhaps have been avoided in the procurement process (it took some time to clarify specifications for the preparation of tender), it is also evident that the implementation timetable proposed in the project document was unrealistic.

The CTA also prepared exceptionally detailed and comprehensive mission (progress) reports; however, when viewed against the constraints experienced, the reports tend to present an idealized picture of the project performance.

Actual and expected project results

The project listed four outputs, which were to contribute to reaching the intended Immediate Objective of providing support to the lives and livelihoods of 1,600 resource-poor and vulnerable horticulture farmers – with critical crop harvest losses – in south Lebanon:

Output One – Small-scale farmers enabled to resume crop production activities, and technical improvement of the production systems

The project reached 1,752 farmers in 77 villages instead of 1,406 in 36 villages as envisaged in the original project document. Agriculture supplies such as vegetable seeds, fertilizers, irrigation equipment and low tunnels were distributed. However, despite claims in the project progress reports, many inputs did not reach farmers in time. (Input delivery started in April 2008 – definitely too late for spring planting³⁵, but

³³ The actual staff composition of the Horticulture Project (International CTA/Consultant, National Horticulture Programme Officer, National Horticulture Projects Assistant, and a National Administrative Assistant/Training Focal Point) differed significantly from the one proposed in the project document: International CTA, National Project Coordinator, National Irrigation Consultant, and National Greenhouse Consultant. A horticulture technician (who could have provided technical backstopping after the distribution of the packages – greenhouses, low tunnels, seeds, plantlets, fertilizers – to beneficiaries) left the project in December 2007 without replacement .

³⁴ As per project document, the CTA was to be hired for a total of 6 months.

³⁵ Specifications for all seeds were changed for summer planting.

as deliveries extended into late May, in some areas it was also too late for summer planting³⁶.)

The project also added another activity to the project: the construction of four double span greenhouses (nurseries), in order to guarantee supplies to project farmers. However, the justification for this additional activity may have been based on a misreading of the actual supply situation, as farmers do not seem to experience problems in obtaining plantlets from commercial nurseries.

Output Two – Water- and fertilizer use efficiency improved through rational use of water using localized/adapted drip irrigation systems

This output did not receive much attention as a specialized activity of the project – it was part of a general package of inputs and supplies going to greenhouse and low-tunnel farmers. The original idea of hiring a national consultant on a temporary basis to help with setting up (micro) irrigation systems at the level of beneficiary farms apparently did not materialize. It seems that due to late receipt of the equipment, some farmers (especially in the Governorate of Nabatiyeh) will wait for the next season.

*Output Three – Capacity of farmers and stakeholders built on the needs and means to rehabilitate the horticulture sector*³⁷

The project organized training sessions on Good Agriculture Practices and plant grafting in September, for open-field farmers, greenhouse farmers and staff of the plant nurseries, respectively. Although the project progress reports claimed that the training was practical and trained farmers as trainers, it appears that the sessions were mainly one-day, lecture-type workshops. Nursery staff received more hands-on instruction on plant grafting. Many farmers stated that the booklets produced by the project are very useful.

Recommendation: More training sessions using a practical approach and with a smaller number of attendants should be implemented as a follow-up to ensure better interaction with farmers.

*Output Four – Greenhouse design improved for higher yields*³⁸

Greenhouses went to needy as well as less needy farmers: apparently, the project expected a multiplier effect by giving improved greenhouses to bigger farmers. Farmers expect the production to be higher in the new greenhouses: plant growth is more vigorous, pest management will be less costly, and labour requirements are lower. However, the mission also observed that some greenhouse recipients have not yet adopted the new techniques: they still spray growth hormones, do not use the safety chambers, choose wrong places for the insect traps, do not know how to use hooks for training, etc.

Recommendation: The training and follow-up advisory visits to greenhouse beneficiaries have only been a beginning. More horticulture extension advice should be provided to beneficiaries for the coming planting seasons in order to help with

³⁶ Seeds can, however, be kept for the next season, or exchanged.

³⁷ Not a fortunate wording – the proposed indicator was clearer: 1,500 farmers trained in managing crops using GAP.

³⁸ This was very much a development activity: according to the 2006 Needs Assessment, only 3% of the greenhouse production was lost with regard to the normal production and 2% of the greenhouses were damaged as a result of the 2006 hostilities.

trouble-shooting and gradually build up management levels, particularly of resource-poor recipients.

Specific topics and issues

Sustainability of project interventions

Regarding the open-field farmers, the assistance received from the project did not lead to changes in their production systems, but it will have brought about some short-term financial gains.

Greenhouse farmers can expect a potentially much higher income, but in the case of slow adopters, it remains to be seen whether they can cope with the technical requirements – the mission observed several instances of wrong practices, which can affect the profitability of the green house cultivation.

Continuation of activities for at least the not-so-well-off and inexperienced farmers will therefore depend on finding some arrangements for technical advice and troubleshooting in the future.

Cost-effectiveness

The cost-effectiveness of the project cannot be judged at this point as most beneficiaries have not yet gone through a full production cycle. As more than 60% of the project's budget went into the provision of equipment and supplies for beneficiaries, the ratio seems high enough to warrant a positive return.

The value of the inputs provided by the project spans a wide range: the cost of greenhouse is approximately US\$ 3,000-4,000 (rehabilitated) and US\$ 5,000-7,000 (new construction); the nurseries cost US\$ 13,000. In comparison, the price of the low tunnels is only US\$ 500, and the value of the seeds and other inputs supplied to open-field farmers is in the range of a few hundred US dollars. While the greenhouse farmers will be able (if there are no production and marketing problems) to generate a significant profit, the assistance received by open-field farmers will have a much more limited impact.

There are some doubts about the future cost-effectiveness of the nursery operations: these do not appear to be guided by commercial concerns, and without proper business plans and professional staff, they may not be able to compete with existing commercial suppliers³⁹.

Gender equity in project implementation and results

Although the project document stated that assistance should preferably go to female-headed households, it cannot be stated with certainty that this was achieved by the project. The project lists do not give a clear indication as to how many female beneficiaries the project has reached. It appears that some widows, especially in the coastal area, could have benefited from the project if selection criteria regarding experience in horticulture had been less strictly applied.

Beneficiary selection process

Project management paid much attention to the selection of beneficiaries, and the project's intention to target the most vulnerable farmers was reached in a majority of

³⁹ The CTA of the project points out that nurseries producing quality planting material are not present in South Lebanon, and that at least one nursery established by the project has started commercial production.

cases: in the estimate of the mission, about 60% to 70% of the beneficiaries are resource-poor farmers, while the remaining recipients are better-off who own horticultural assets (greenhouses, etc) or have other sources of income (cooperative leaders, teachers ...) and collaborated with the project at local level.

Major factors affecting the project results

A combination of factors delayed the procurement of inputs: clarifications were required, prices had changed, tenders needed to be split, etc.

In addition, political instability in Lebanon around May 2008 caused some delay in the construction of the greenhouses and in some cases also deterred farmers from preparing their land.

No specific feasibility study in the project area was carried out before project implementation in order to rank the possible interventions for their expected impact⁴⁰. It appears that the quantities of seeds provided by the project were too limited in order to make a significant impact, and also some of the species provided (squash was named frequently) were not much in demand.

An analysis of the supply and demand situation in the horticulture sector could have given guidance to new greenhouse producers without market experience.

Also, many farmers are still indebted to suppliers due to the production failures in 2006 – they may have little money to invest for their horticultural activities if they have to repay their debts.

The limited involvement of government agencies at field level constitutes a major constraint: future technical backstopping will almost entirely depend on private suppliers, who are naturally more interested in those producers with larger commercial operations – which may leave out some of the smaller farmers assisted by the project.

⁴⁰ Partly, the first mission of CTA was an inception mission to re-evaluate the situation, but much of the time had to be spent on beneficiary lists and the preparation of tender specifications.

1. INTRODUCTION AND BACKGROUND

During July and August 2006, large-scale hostilities in Southern Lebanon caused massive damage to tens of thousands of rural families. Virtually no sector remained unscathed – the local economy, infrastructure, and public administration were all affected. Beyond the direct losses and immediate impact on employment and revenue generation capacity, the damage to the population's asset base also affected the prospects for medium- and long-term recovery. A damage and needs assessment mission carried out by FAO at the request of the Ministry of Agriculture of Lebanon in 2006 established that the loss of crops and livestock from the hostilities had critically worsened the living conditions of the most vulnerable populations, many of whom were dependent on agriculture for their livelihoods.

Immediately following the cessation of hostilities, the Government of Lebanon, supported by the international community, initiated a series of early recovery efforts, designed to address immediate needs and prepare the development of a comprehensive long term reconstruction and recovery program. In collaboration with the United Nations, the government created the Lebanon Recovery Fund (LRF) as a Multi-Donor Trust Fund (MDTF) to channel donor resources for the financing of priority recovery and reconstruction activities approved by the Government.

In August 2007, the LRF approved two projects proposed by FAO: OSRO/LEB/701/UNJ (Early Recovery Assistance for the Agriculture Small-holder) aimed at sustaining the early rehabilitation and recovery of small vegetable growers in South Lebanon and to ensure resumption of agricultural activity, and OSRO/LEB/702/UNJ (Early Recovery Assistance to War-affected, Resource-poor Livestock Keepers in Southern Lebanon) intended to provide a basis for livestock keepers and farmers to resume production and income-generation activities after the war. Duration for both projects was from September 2007 to October 2008. (This part of the report deals with the horticulture project – OSRO/LEB/701/UNJ – only.)

2. PROJECT OBJECTIVES AND DESIGN

For OSRO/LEB/701/UNJ, the key objectives⁴¹ were described as follows:

“The development goal of the project is to improve horticulture practices in Lebanon by improving cultivars, planting densities, greenhouse structure, Good Agriculture Practices (GAP), water-use efficiency, rational use of fertilizers and low toxicity pesticides and production of organic vegetables.

The key immediate objective of the project is to provide support to the lives and livelihoods of 1 600 resource-poor and vulnerable horticulture farmers – with critical crop harvest losses – in south Lebanon”.

2.1 *Development and immediate objectives*

Both the development goal and the key immediate objective of the project stressed the developmental character of the project (to improve horticulture practices), while

⁴¹ The project documents followed the LRF project document template and not the FAO project document format and terminology; the project document also used a slightly different wording for the Immediate Objective in its Logical Framework matrix: “Sustain the early rehabilitation and recovery of small farm vegetable growers in South and Nabatiyeh governorates and to ensure resumption of agricultural activity”.

the outputs also emphasized the project's emergency side (to provide support to the lives and livelihoods of horticulture farmers).

Four outputs were formulated to help achieve the Immediate Objective:

1. Small-scale farmers enabled to resume crop production activities, and technical improvement of the production systems
2. Water and fertilizer use efficiency improved through rational use of water using localized/adapted drip irrigation systems
3. Capacity of farmers and stakeholders built on the needs and means to rehabilitate the horticulture sector⁴²
4. Greenhouse design improved for higher yields

The wording and definition of the Immediate Objective as well as of the outputs was not always following a logical sequence, or using SMART⁴³ criteria: Output One is almost a re-wording of the Immediate Objective, and the outputs as described in the logframe matrix mostly lacked measurable indicators, or indeed clear descriptions of targets.⁴⁴

Apart from immediate recovery concerns, the project clearly aimed at longer-term improvements: three of the four outputs were about improvement (improve production systems in Output One, improved water and fertilizer use efficiency in Output Two and improved greenhouse design in Output Four), and Output Three was entirely about capacity building.

While the general thrust of the project was clear (to improve the livelihoods of some 1,600 resource-poor horticulture farmers), the means by which this objective was to be achieved were not clearly spelled out in the project document: no clear targets were given for e.g. the number of greenhouses to be constructed, or the type of input packages (apart from greenhouses) that other horticulture farmers were to receive. The project document provided a general statement: "... the project's main objective is to provide 1,600 farmers with sufficient inputs to cultivate 0.05 to 1 ha⁴⁵ of land each, depending on the type of crops (greenhouse, perennial or seasonal)." This left a wide range open for possible interventions ...⁴⁶

What the project design failed to highlight were the implications of the development activities, especially if they were to reach resource-poor and vulnerable farmers: the upgrading of their management practices was not likely to be achieved within six months (the planned timeframe available after construction of greenhouses). The repeated emphasis in the project document that "... the activities were designed in a manner not to incur any current or future liability to the MoA budget even after the lifespan of the project ...", was at best highly optimistic⁴⁷.

⁴² Not a fortunate wording – the proposed indicator was clearer: 1,500 farmers trained in managing crops using GAP.

⁴³ Specific, Measurable, Achievable, Realistic and Timely.

⁴⁴ Occasionally, indicators were given, e.g. for Output Three: 1,500 farmers trained in managing crops using GAP.

⁴⁵ In another section of the project document, this mutated to 0.4 to 0.5 ha.

⁴⁶ Some of the activities were barely outlined in the project document, or were not based on an actual analysis of the situation: for example, related to the capacity building/training output, the project document talked of training of extension agents (which didn't exist at farm level), the creation of Farmers' Field Schools (too ambitious, not attempted by the project, and training abroad (not appropriate); under activities related to the greenhouse output it was stated that "... about 50% of the total beneficiary farmers (i.e. 800 farmers) would be provided with the tunnels (improved greenhouse design) for vegetable production.

⁴⁷ It should be kept in mind that the project budget was drastically reduced during the project review and approval process. However, this does not justify the flaws in the internal logic of the document.

2.2 Work plans, assumptions and risks

By and large, the basic work plan (short activity listing and bar chart) of the project document reflected a logical sequence of events. However, the expectation that greenhouses could be constructed by month 3 AND production in gardens and greenhouses could start in the same month, was unrealistic.

Apparently there was an assumption that the work plan (and perhaps the project document?) would be revised once the International Consultant/CTA arrived on the scene. The work plan was indeed updated following each visit by the CTA, but the changes that were made to the work plan and the project approach were not well documented – new outputs were added (the nurseries are a case in point), and other outputs were de-emphasized (irrigation) or dropped (Farmers' Field Schools).

Only limited risks (deterioration in political and security conditions⁴⁸) were foreseen for this project. Risks that did materialize – delays in procurement, insufficient adoption of recommended practices – were not addressed in the project document.

2.3 Institutional arrangements

Institutional arrangements were not outlined in great detail in the project document – the section on Implementation Modalities outlined that the MoA would be the counterpart agency and “assist all consultants and experts in the performance of their assigned tasks”. Regarding beneficiary selection, the document foresaw that “municipalities with good leadership, commitment to development, good transparency and progressive community organization” would be involved, and that committees would be established comprising “... mainly FAO, NGOs as cooperating partners and the MoA”.

In the course of project implementation, this envisaged set-up was changed: a Project Steering Committee – PSC (for both projects: 701 and 702) was created in December 2007⁴⁹, with participation from MoA, FAO and UNDP. MoA also appointed a National Coordinator to be involved in all aspects of implementation, including selection of beneficiaries, procurement, training modules, and distribution plans. Regarding beneficiary selection, municipalities and NGOs were at best marginally involved in beneficiary selection; instead, the project would prepare the beneficiary lists and the MoA would approve⁵⁰. The project reported also to the LRF Steering Committee⁵¹, which received quarterly progress reports.

Municipalities were not involved on purpose in the selection process to avoid any bias; the planned involvement of NGOs as cooperating partners (outlined in the project document) did not happen.

⁴⁸ The logframe matrix made an assumption that trainees could move easily to training locations outside the country – this was never a serious consideration for this project.

⁴⁹ Two PSC meetings are documented: December 2007 and March 2008.

⁵⁰ A list originally prepared by the MoA listed mostly people whose assets had been damaged, but did not apply any socio-economic selection criteria.

⁵¹ The LRF Steering Committee is chaired by the Minister of Economy and Trade, and has members from the Ministry of Economy and Trade, the Recovery and Reconstruction Cell in the Prime Minister's Office, the Ministry of Finance, five representatives of donors, and the United Nations Resident Coordinator.

2.4 Beneficiaries

The project document gave much space to the identification of beneficiaries as well as their selection criteria: almost two pages out of an 18-page document. The criteria for beneficiary selection in the project document were not always consistent: on the one hand, the beneficiaries were to be 1,600 of the most vulnerable farmers with the highest level of deprivation, living exclusively from agriculture, and preferable female-headed households. On the other hand, beneficiaries were expected to be “progressive” farmers employing two workers (about 3,000 indirect beneficiaries) on the farm – a contradiction that the project document did not care to explain⁵².

3. PROJECT IMPLEMENTATION STATUS

The budget and expenditure figures are based on the latest budget information available from the project; the reporting on the implementation status is derived from project progress reports, other project files and observations of the mission. The emphasis is on recent developments.

3.1 Project budget and expenditure

Table 1: Budget, Expenditure and Commitments (10/2008)⁵³

	Budget (US\$)	Percentage of Budget	Commitments and Expenditure (US\$)	Percentage of Commitments and Expenditure
Salaries Professional	75000	5.47%		
Salaries General Service	15000	1.09%		
Consultants	87500	6.38%	72213.47	6.39%
Contracts	41000	2.99%		0.00%
Locally Contracted Labour	71000	5.18%	56541.46	5.01%
Travel	127000	9.27%	101387.83	8.98%
Training	30000	2.19%	27881.25	2.47%
Expendable Procurement	732500	53.44%	731445.03	64.76%
Non Expendable				
Procurement	3500	0.26%	2904.3	0.26%
Technical Support Services	30000	2.19%	20000	1.77%
General Operating				
Expenses	68329	4.99%	59851.53	5.30%
Support Costs	89670	6.54%	57150.09	5.06%
General Overhead				
Expenses	171	0.01%	171.34	0.02%
Total	1370670	100.00%	1129546.3	100.00%

The budget breakdown above indicates that the bulk of expenditure was on equipment and supplies that went to beneficiaries (currently 65%). Consultants, locally recruited labour account for approximately 11%, travel for approximately 9%, while all other expenditure items (leaving out the support costs) remain below 5%.

⁵² The project team developed their own, more specific selection criteria: i) to have a previous experience in vegetable growing, ii) to rely on farming as the major livelihood, iii) to live on farm, and iv) not to have another source of income.

⁵³ The original budget table in the project document follows a different order; the total amount is the same, but the individual budget lines have significant variations from the FAO budget table due to different accounting conventions.

including the allocation for training. There has been no formal budget revision in the course of project implementation, but a no-cost extension of the project NTE was approved to account for delays in delivery of inputs, and to allow extra time for training.

3.2 Implementation status

This section provides an overview of the activities of the project; statistical breakdowns can be found in the annexes. (The narrative follows – more-or-less – the visits of the CTA, as these provide a chronological account of project activities.)

Project activities proper started with the arrival of the CTA⁵⁴ in November 2007⁵⁵; the first major activity was the preparation/verification of a list of beneficiaries. (The MoA had provided a list apparently based on damage claims from a large number of villages in Southern Lebanon, while the Coordination Unit in Tyre had already started its own identification process in the municipalities pre-selected in the project document).

Field visits to the targeted villages led to the identification of five types of project interventions: 1) construction of greenhouse nurseries (4), 2) construction of production greenhouses (50); 3) upgrading of existing greenhouses (40); 4) construction of low tunnels (200 - for open fields); and 5) vegetable seeds, fertilizers and pesticides for the production of open field crops (initial target = 1,300 farms).

When these revised targets were accepted by the PSC, four international tenders were prepared with detailed technical specifications and cost estimates for greenhouse construction and upgrading, purchase of vegetable seeds, purchase of agricultural supplies and fertilizers, and purchase of crop protection products. (Later on, tenders had to be split, and specifications needed to be re-visited. A timeline of the tendering process can be found in annex ...) In addition, an outline of training modules was produced.

During the second CTA mission (March 2008), the revised beneficiary list had been accepted and the project now targeted 1,600 beneficiaries in 72 villages (instead of the original 36). By that time, delays in the procurement process necessitated a consequent change in “downstream” activities: as planting in greenhouses could no longer take place before May 2008 (too late for the spring crops cycle), the CTA recommended delaying greenhouse planting until fall. Similarly, as the planting target for open field farmers had been March 2008, also here corrective measures had to be taken and the seeds to be provided were changed to more drought-tolerant species (melon, squash, cucumbers, snake cucumbers, and okra)⁵⁶. Two technical booklets in Arabic (for open field crops and for greenhouse crops, respectively) were produced together with a training calendar (discussed with the MoA, and approved by the second PSC).

The third mission of the CTA (May-June 2008) coincided with the first deliveries to farmers⁵⁷: the number of farmers reached by the project had increased to over 1,700

⁵⁴ Five missions in total: 11 November - 2 December 2007, 4-22 March 2008, 22 May - 8 June 2008, 26 June - 31 July 2008, 10 September - 17 October 2008.

⁵⁵ National project staff had already been hired before the arrival of the CTA, and some staff had already left again by the end of the CTA's first mission.

⁵⁶ At the same time, the International Company that had won the bid for fertilizers informed FAO on 14 March that they were no more willing to supply the fertilizers because of price increase.

⁵⁷ A special training and distribution was held on 22 April 2008 in Tyre, which marked the opening of the distribution campaign for seeds.

(instead of 1600 initially foreseen) in 77 villages (instead of 36/72)⁵⁸. The work plan for this period foresaw greenhouse construction, the delivery of the remaining agricultural inputs (pesticides for 90 greenhouse beneficiaries) to the warehouse, and irrigation systems of low tunnels delivered to 100 farmers to be completed by late June 2008. (During this mission, the CTA also prepared a project document for a Horticulture Phase II project. In addition to his CTA position, he was also nominated Officer-in-Charge of the Coordination Unit of TCES in Tyre.)

The fourth CTA visit (June-July 2008) resulted in the preparation of another project document (Recovery assistance for the Horticulture smallholder in Naher El Bared). This and the Horticulture Phase II project were presented to the Peer Review Committee of the LRF. Regarding core project activities, the upgrading of greenhouses was mostly completed by July, but several details were missing (SAS doors not correctly installed, plastic covers not correctly attached, etc). New greenhouses were likewise mostly installed, with more attention to detail. Vegetable seeds were scheduled to be delivered to the nurseries by August, and pesticides were scheduled to be delivered to farmers by September. The order for irrigation systems for low tunnels went to the second bidder, as the original winner of the tender declined to deliver due to increased costs. In addition, a contract for the production of grafted tomato was prepared for delivery by September 2008.

In terms of training, a booklet was prepared for greenhouse farmers, to be used in a training session in September 2008. (The booklet was to be distributed also to other greenhouse farmers as well as the Ministry of Agriculture.) A practical training session (5 days) for staff of the nurseries established by the project was organized with a private seed company.

By October 2008, the following activities (apart from the delivery of seeds and fertilizer mentioned before) had been completed:

- 90 greenhouses built (50 newly constructed and 40 upgraded)
- Fertilizers, pesticides, plant hooks, plastic mulch and sticky traps delivered to all 90 greenhouse farmers
- Distribution of cucumber plantlets (700 plantlets per farmer) to all 40 upgraded greenhouses
- Distribution of grafted tomato plantlets (400) to all 50 newly constructed greenhouses
- Training to staff of the 4 nurseries established by the project on plantlet production and nursery management as well as plant care
- Technical follow-up with the 90 greenhouse farmers, providing advice on planting density, the use of mulching, plant hooks and sticky traps
- Production of training materials – four technical manuals in Arabic (Greenhouse Design and Construction, Good Agricultural Practices in Greenhouse Crops, Irrigation and Fertigation Management of Greenhouse Crops, and Vegetable Production in Open Field), and one technical manual in English on practices in greenhouse crops⁵⁹.

⁵⁸ In the caza of Tyre, 692 beneficiaries received 4 bags of fertilizer and 1 pack of seeds, 37 beneficiaries received 2 packs of seeds and 1 bag of fertilizer, 13 beneficiaries received 4 packs of seeds without fertilizer; in the caza of Saida, 82 beneficiaries received 4 bags of fertilizer and 1 pack of seeds, 20 beneficiaries received 4 packs of seeds without fertilizer; in the caza of Nabatiyeh, 172 beneficiaries received 4 bags of fertilizer and 1 pack of seeds, 30 beneficiaries received 4 bags of fertilizer without seeds, 10 beneficiaries received 4 packs of seeds without fertilizer; in the caza of Marjayoun, 314 beneficiaries received 4 bags of fertilizer and 1 pack of seeds, 30 beneficiaries received 4 packs of seeds without fertilizer; and in the caza of Bint Jbail, 160 beneficiaries received 4 bags of fertilizer and 1 pack of seeds, 112 beneficiaries received 4 packs of seeds without fertilizer.

⁵⁹ The publication, however, makes no reference to the actual project.

In addition, there were several meetings with UNDP, MoA and other stakeholders to discuss mainly future projects. The planned training session for greenhouse farmers (approximately 200 participants) took place on 6 October 2008, and was accompanied by the distribution three technical brochure (in Arabic). The training session was conducted jointly by FAO, MoA and staff of the three private companies who participated in the implementation of the project.

Regarding the implementation status, the project reported in September-October 2008 that “all activities of the Horticulture Project had been implemented”. (The following are quotations from the October 2008 mission report):

- Open field farmers have received their inputs and have realized one crop cycle under the supervision of national consultants
- Low tunnel farmers have received their input (1000 low tunnel, plastic cover, micro irrigation systems, fertilizers)
- 40 greenhouse farmers have seen their greenhouse upgraded with an improved plastic cover, an insect net on all ventilation opening and a double door system. These farmers were also delivered cucumber plantlets produced by a professional nursery and are now implementing their first crop cycle.
- The project has erected 50 new greenhouses with an improved plastic cover, an insect net on all ventilation opening and a double door system. These farmers were also delivered cucumber plantlets produced by a professional nursery and are now implementing their first crop cycle.
- The project has erected 4 double span tunnels and equipped them with all necessary inputs and supplies for the production of plantlets. The nurseries have already started producing plantlets and established their relation with farmers.

Based on observations and investigations of the mission, this was an optimistic interpretation of the situation: not all farmers had planted their seeds after distribution, especially in coastal regions where distribution started late in May and the planting time was missed. In higher altitudes like Bint Jbeil and Marjayoun cazas as well some villages in the Nabatiyeh caza, some open field farmers planted after the distribution of inputs (melon, okra and beans). Other farmers did not plant as they had already cultivated their land with other crops and they preferred to wait for the coming season. At least the two nurseries visited by the mission had not seriously started their production, and had not yet established a working relationship with farmers. Due to the late completion of the greenhouses, the first crop cycle was still being implemented by the time of the mission’s visit.

4. SUPPORT BY GOVERNMENT, TECHNICAL AND OPERATIONAL BACKSTOPPING, PROJECT MANAGEMENT

4.1 Support by government/national institutions

On a higher institutional level, the project received good support from the MoA as counterpart agency: there was a national coordinator based in the MoA, who actively pursued his mandate to validate decisions made by the project (such as selection of beneficiaries, tender preparations, etc).

However, the Regional Offices of Agriculture in the Governorate of Nabatiyeh and in the South Governorate (Saida) were much less involved; while the former participated to some extent in the selection process of beneficiaries, the distribution of inputs and equipment as well as training (one of the engineers of the Regional Office in Nabatiyeh was engaged as a trainer), the Regional Office of the Governorate of South Lebanon had no real involvement.

Municipalities were not involved on purpose in the selection process to avoid any bias; the planned involvement of NGOs as cooperating partners (outlined in the project document) did not happen.

4.2 Technical and operational backstopping

Technical support from FAO came in the form of clearances for the tenders prepared by the project. Procurement was also the area where most delays occurred in project implementation: tenders had to be split and were changed from international procurement to local procurement, seed specifications had to be modified when the spring planting season was missed, etc. This does not necessarily reflect badly on the backstopping; rather, it was a combination of an over-ambitious time table, meticulous scrutiny of the specifications, unfamiliarity with tender procedures, rapid price increases for some commodities, etc.

Operational support came from several sources – FAO HQ (TCES), the Emergency Coordination Office in Amman⁶⁰, the Coordination Office in Tyre, and the FAO representation in Beirut. Overall, the project received a relatively high number of operational backstopping visits.

With the unscheduled departure of the International Coordinator based in Tyre in May 2008, the CTA of the project was nominated Officer-in-Charge during his third mission. While TCE is of the opinion that this was an opportune move as the administrative and coordination workload had declined (most orders had been placed and supplies and equipment were arriving), it appears that this still increased considerably the operational burden on the CTA and his collaborators.

4.3 Project management

The project document envisaged that there would be a Project Management Unit (essentially the Coordination Office in Tyre) and full-time National Coordinator from the MoA. The latter position did not materialize; the Coordinator nominated by the MoA had a full-time managerial position and provided mainly general oversight and guidance. The FAO International Consultant/Coordinator (later called CTA) was to be hired for a total of 6 months. He actually came to the project for a period of 18 weeks on five separate visits; from May 2008, he was also in-charge of the Coordination Office in Tyre due to the unscheduled departure of the previous (full-time) incumbent.

Project management dealt very conscientiously with the selection of beneficiaries – as the lists originally supplied by the MoA did mostly not match the selection criteria, project management (in a time-consuming process) had to validate the list of potential beneficiaries.

While some delays could perhaps have been avoided in the procurement process (it took some time to clarify tender specifications), it is also evident that the implementation timetable proposed in the project document was based on a best-case scenario, and therefore not likely to be realistic.

The CTA also prepared exceptionally detailed and comprehensive mission (progress) reports; however, when viewed against the constraints experienced, the reports

⁶⁰ 1) Mission by Chief, TCES in October 2007; Mission 29 Nov to 3 Dec 2007 by Senior Project Coordinator and Operations Officer, TCES; Mission 27 Jan to 3 Feb 2008 by Operations Officer, TCES; Mission 5-25 April 2008 by Operations Officer, TCES; Mission 1-8 July 2008 by Senior Project Coordinator and Operations Officer, TCES; Mission 5-12 October 2008 by Chief, Senior Project Coordinator and Operations Officer, TCES.

tended to present an idealized picture of the project performance. The same is also true of the short quarterly progress reports submitted to the LRF. (A request by the LRF to have also quarterly financial updates could not be accommodated by FAO as the Organization's financial reporting system has a different frequency.)

5. ACTUAL AND POTENTIAL RESULTS

The project listed four outputs, which were to contribute to reaching the intended Immediate Objective of providing support to the lives and livelihoods of 1,600 resource-poor and vulnerable horticulture farmers – with critical crop harvest losses – in South Lebanon:

Output One – Small-scale farmers enabled to resume crop production activities, and technical improvement of the production systems

The project reached 1,752 farmers in 77 villages instead of 1,406 in 36 villages as envisaged in the original project document. Agriculture supplies such as vegetable seeds, fertilizers, irrigation equipment and low tunnels were distributed. However, despite claims in project progress reports, many inputs did not reach farmers in time (input delivery started in April 2008 – definitely too late for spring planting, but as deliveries extended into late May, also too late for summer planting).

The seeds provided by the project did not in every case find the approval of farmers: in particular squash did not seem to be an attractive crop. On the other hand, open-field farmers were able to exchange the seeds with other beneficiaries and thus managed to plant a range of seeds in their gardens for home consumption. Also in cases where seeds came late, some farmers tended to use the fertilizer received on other crops (tobacco, olive trees). The project inputs thus had a beneficial short-term effect, but not always along the lines that the project document had suggested.

The project also added another activity to this Output: the construction of four double span greenhouses (nurseries) for the production of plantlets, in order to guarantee supplies to project farmers (and others). In the view of the mission, the justification for this is not fully convincing: project reports describe these as nurseries located in remote areas providing a supply of plantlets to farmers who otherwise could not access them.

This appears to have been a misreading of the actual supply situation, as farmers do not seem to experience problems in obtaining plantlets from commercial nurseries. (In fact, all plantlets supplied to project farmers were purchased by the project from commercial nurseries, but farmers also buy plantlets on their own.) At least two of the nursery operators⁶¹ selected by the project are new to horticulture and may require more practical guidance before they can start a viable operation. In addition, they will need to develop a proper business perspective, and build up a relationship with their potential clients.

The value of the inputs provided by the project spans a wide range: the cost of greenhouse is approximately US\$ 3,000-4,000 (rehabilitated) and US\$ 5,000-7,000 (new construction); the nurseries cost US\$ 13,000. In comparison, the price of the low tunnels is only US\$ 500, and the value of the seeds and other inputs supplied to open-field farmers is in the range of a few hundred US dollars. While the greenhouse farmers will be able to generate a significant profit (if there are no production and

⁶¹ The nurseries visited by the mission (Lebanese Association for the Handicapped in Sarafand, and Agro-processing Women's Association in Deir Kanoun).

marketing problems), the open-field farmers will experience a much more limited – but nevertheless positive – impact.

Output Two – Water- and fertilizer use efficiency improved through rational use of water using localized/adapted drip irrigation systems

This output did not receive much attention as a specialized activity of the project – it was part of a general package of inputs and supplies going to greenhouse and low-tunnel farmers. The original idea of hiring a national consultant on a temporary basis to help with setting up (micro) irrigation systems at the level of beneficiary farms apparently did not materialize. It seems that due to late receipt of the equipment, many farmers will wait for the next season before using the equipment.

*Output Three – Capacity of farmers and stakeholders built on the needs and means to rehabilitate the horticulture sector*⁶²

The project organized training sessions on Good Agriculture Practices and plant grafting in September, for open-field farmers, greenhouse farmers and staff of the plant nurseries, respectively, and produced four booklets in Arabic (three for greenhouse farmers, one for open-field farmers) and one book in English on greenhouse cultivation. The creation of Farmers' Field Schools as announced in the project document did not happen (and would have been beyond the scope and timeframe of the project).

Although the project progress reports claimed that the training was practical and that farmers were trained as trainers, it appears that the sessions were mainly lecture-type workshops lasting one day. Nursery staff received more hands-on instruction (a five-day course), mainly on plant grafting. Many farmers stated that the booklets produced by the project are very useful.

The participation of MoA staff in the training sessions as trainers was deemed useful; however, the training sessions were limited and mainly theoretical. The expectation in the project document: "... it is envisaged that the technical capacity of the Ministry would be strengthened and the capacity of the crop production services of the MoA built so as to continue and complete the recovery process beyond the life of the project", was unrealistic.

*Output Four – Greenhouse design improved for higher yields*⁶³

Greenhouses went to needy as well as less needy farmers: apparently, where deviations from the beneficiary selection criteria occurred, the project expected a multiplier effect by giving improved greenhouses to better-off farmers. The new greenhouse design is appreciated by recipients, but the mission could not yet observe any replication effect on other farmers. (The slow uptake of the new design was also confirmed by one of the companies involved in greenhouse construction.)

Farmers expect their production to go up with the new greenhouses: plant growth is more vigorous, pest management will be less costly, and labour requirements are lower. However, the mission also observed that several greenhouse recipients have not yet adopted the new techniques: they still spray growth hormones, do not use the

⁶² Not a fortunate wording – the proposed indicator was clearer: 1,500 farmers trained in managing crops using GAP.

⁶³ This was very much a development activity: according to the 2006 Needs Assessment, only 3% of the greenhouse production was lost with regard to the normal production and 2% of the greenhouses were damaged as a result of the 2006 hostilities.

safety chambers, choose wrong places for the insect traps, do not use hooks for training, etc.

Specific topics and issues

Sustainability of project interventions

For open-field farmers, the assistance received from the project did not influence their production system. In the case where they have saved some of the inputs received for a future cropping cycle, they will continue to receive some benefits also in the future – but it will not be a kick-start to significantly higher income levels.

Concerning greenhouse farmers, they can expect a potentially much higher income, especially if they operated only on a small level before the project intervention. However, even where new techniques have been adopted (use of grafted plantlets, mulching, fertigation), the farmers have not yet gone through a full cropping cycle and do not know yet whether they will be able to buy similar inputs with the same specifications next year, or if they will get a good price for their crop.

In the case of slow adopters, it also remains to be seen how they can cope with the technical requirements – the mission observed several instances of wrong practices, which can affect the profitability of the green house cultivation. The continuation of improved greenhouse cultivation practices (at least the not-so-well-off and inexperienced farmers) will therefore depend on finding some arrangements for technical advice and troubleshooting in the future.

Cost-effectiveness

The cost-effectiveness of the project cannot be judged at this point in time, as most beneficiaries have not yet gone through a full production cycle. As more than 60% of the project's expenditure was on provision of equipment and supplies for beneficiaries, the ratio seems high enough to warrant an overall positive return for the project.

Open-field farmers only got limited quantities of seeds and fertilizers that will not make a substantial difference in terms of livelihood.

The major part of the project funds was utilized for the construction of greenhouses and upgrading of existing greenhouses. In the case of poor farmers, this has the potential of raising their income levels significantly. However, as already mentioned under Sustainability, the training (capacity building) provided by the project to greenhouse farmers has been very limited – without future technical backstopping and trouble-shooting, small farmers may not be able to reach their full production potential. Also, many of the farmers are still indebted to suppliers due to the production failures in 2006 – they may have little money to invest for their horticultural activities if they have to repay their debts.

There are some doubts about the future cost-effectiveness of the nursery operations initiated by the project: the nurseries (at least not the ones visited by the mission) are not guided commercial concerns, but they will have to compete with the services and products offered by commercial suppliers⁶⁴. Without proper business plans and professional staff, this may not be possible for the current operators (in the case of

⁶⁴ The CTA of the project points out that nurseries producing quality planting material are not present in South Lebanon, and that at least one nursery established by the project has started commercial production.

the nurseries visited by the mission, the nurseries were run by a major hospital for the handicapped (Lebanese Association for the Handicapped in Sarafand), and a women's association (Agro-processing Women's Association in Deir Kanoun).

Gender equity in project implementation and results

Although the project document stated that assistance should preferably go to female-headed households, it cannot be stated with certainty that this was achieved by the project. The project lists do not give a clear indication as to how many female beneficiaries the project has reached.

However, in the view of the mission more women could have benefited, if some of the selection criteria (in particular the one requiring experience in horticulture) had been interpreted more flexibly. Many widows, especially on the coastal area, could have benefited from the project activities as they used to work as labourers in agriculture or together with their husbands.

Beneficiary selection process

The project document did not give clear guidance as to who were the intended beneficiaries: the given criteria were not consistent. In a general sense, it was clear that the project should assist mostly vulnerable farmers, and preferably female-headed households, but the criteria had to be significantly amended and rationalized by the project team⁶⁵.

The project management paid much attention to the selection of beneficiaries – as the original MoA list did not reflect the selection criteria, project management had to validate the list of potential beneficiaries. Beneficiary selection provisions in the project document proved not to be operational: it envisaged a selection committee comprised of FAO, a cooperating partner and the MoA, and also village committees with the involvement of NGOs as cooperating partners. As this probably would have led to very cumbersome negotiations, project management opted for an approach whereby project staff would identify and verify beneficiaries – in consultation with local stakeholders, but without formalizing the process. The final validation then occurred at the level of the MoA and the Project Steering Committee.

The project's intention to target the most vulnerable farmers was fulfilled in a majority of cases: in the estimate of the mission, about 60% to 70% of the beneficiaries are resource-poor farmers, while the remaining recipients are better-off who own horticultural assets (greenhouses, etc) or have other sources of income (cooperative leaders, teachers ...) but assisted the project at local level.

As the project included both development and emergency objectives, the selection of better-off beneficiaries made sense, if they were targeted for a multiplier effect. (And the local realities apparently demanded that certain key collaborators had to be included – this seems to be confirmed by the experience of other aid agencies.)

Major factors affecting the project results

The project initially had to struggle with the late start of deliveries (starting mostly in May 2008, and not February as per the work plan), and thus could not take

⁶⁵ The mission feels that the project staff tried hard to use the revised beneficiary selection criteria, but that some of them were difficult to apply, such as 'not to have another source of income'. Actually, most of the people in the South rely on 2 or 3 sources of income (less so in the Governorate of Nabatiyeh)

advantage of the spring cropping season. The delays seem to be due to a combination of factors: the original specifications for the tenders were prepared in December 2007, but as clarifications were required, the first tender (for greenhouses) was issued only in February 2008⁶⁶. As it appeared that procurement could no longer be guaranteed for spring planting, the seed specifications were changed accordingly to summer seeds⁶⁷. Although delivery of seeds and other inputs started formally in April, many farmers received their delivery only in late May and preferred to wait for the coming season to plant.

In addition, political instability in Lebanon around May 2008 caused some delay in the construction of the greenhouses and in some cases also deterred farmers from preparing their land.

Also, many farmers are still indebted to suppliers due to the production failures in 2006 – they may have little money to invest for their horticultural activities if they have to repay their debts.

No specific feasibility study in the project area was carried out before the project implementation in order to rank the possible interventions for their expected impact. Thus, it appears that the quantities of seeds provided by the project were too limited in order to make a significant impact, and also some of the species provided (squash was named frequently) were not in demand.

The limited involvement of government agencies at field level constitutes a major constraint: future technical backstopping will almost entirely depend on private suppliers, who are more interested in larger commercial operations – which may leave out some of the smaller farmers assisted by the project.

Finally, the absence of an analysis of the supply and marketing systems could prove a limitation for the future (and could have also been used to establish the need – or otherwise – for the nurseries set up by the project). Lebanese horticulture products have to compete with imports from neighbouring countries (this sector is only partially regulated by the government; Lebanon is principle in a free trade agreement with her neighbours), which may limit the profitability particularly of new greenhouse producers without market experience.

⁶⁶ The international company that won the fertilizer tender informed FAO in March 2008 that they would no longer deliver fertilizer under the old conditions due to sharp price increases.

⁶⁷ The seed tender was also changed to local variety seeds.

CONCLUSIONS AND RECOMMENDATIONS - OSRO/LEB/702/UNJ

*Project design*⁶⁸

Objectives and outputs

The project strategy was to improve food security and economic status of poor rural families in the south of Lebanon through the distribution of animals and animal feed. More than the horticulture project, the objectives stressed the rehabilitation aspect: the project was about “restocking and distribution of animals”.

However, two of the three project outputs stressed development activities – the result was a two-pronged strategy; early recovery to bring relief to severely affected livestock keepers in South Lebanon, but also “accompanying measures that have the greatest potential to contribute to rapid improvements of livestock productivity in affected areas ...⁶⁹”

As in the horticulture project, also the livestock project displayed a tension between development ambitions, and improving the livelihoods of resource-poor and vulnerable livestock keepers: a claim that “... the 12-month timeframe ... will ensure that farmers are up on their feet and with proper income ...” was highly optimistic, as was the repeated emphasis in the project document that “... the activities were designed in a manner not to incur any current or future liability to the MoA budget even after the lifespan of the project ...⁷⁰”.

Beneficiaries

The criteria for beneficiary selection were reasonably clear: a total of 715 farmers⁷¹ (1/3 of them to be female-headed households) were to be helped with a partial restocking of animals: they also had to be small farmers and vulnerable, year-round residents in the village, and their HH income dependant on agriculture. Mostly, the actual beneficiaries met these criteria, even though the number of female beneficiaries is probably lower, and a few better-off farmers have been recipients as well.

Work plans, assumptions and risks

The project document included a basic work plan (short activity listing and bar chart), which was to be updated in the first month of project implementation. This happened – to some extent – with the first mission report by the CTA in January 2008. In particular, the CTA recommended dropping (or delegating) some project components, such as draught animals and beehives⁷² (the report kept quiet about

⁶⁸ A number of recommendations are made for the horticulture project (OSRO/LEB/701/UNJ) regarding future improvements to project design and approach: these apply here as well.

⁶⁹ This was acknowledged in the PSC session of March 2008: the minutes stated that the two projects were designed ... with a developmental perspective ... such as the genetic improvements in livestock under the Livestock project.

⁷⁰ It may be true that there will be no MoA liability for follow-up, but only because there is no MoA presence on the ground. However, should the MoA be able to deploy – as planned – newly hired veterinarians to South Lebanon and Nabatiyeh, it would make eminent sense to follow up with at least the poorer beneficiaries assisted by the project.

⁷¹ Scaled down during project implementation to 482 farmers.

⁷² It was argued by FAO that due to the reduction in budget (from originally more than 5 m US dollars), it was agreed with the PSC and MOA that draught animals and beehives would not be supplied by the project. However, this could have been clear before project signature, and the January 2008 mission report still implies that the project would fund this activity (but delegate the work to NGOs).

veterinary drugs and artificial insemination), and adjusted the unrealistic timeframe regarding deliveries.

Only limited risks (deterioration in political and security conditions) were foreseen for this project. Risks that did materialize – delays in procurement, insufficient adoption of recommended practices – were not addressed in the project document.

Institutional arrangements

Institutional arrangements were not outlined in great detail in the project document – the Project Steering Committee that eventually emerged was not foreseen as such in the project document. (The envisaged Project Management Unit⁷³ was to have linkages with the Division of Livestock and Animal Health of the MoA, agricultural colleges, local government units and NGOs.) MoA also appointed a National Coordinator⁷⁴ to be involved in all aspects of implementation, including selection of beneficiaries, procurement, training modules, and distribution plans.

Support by government/national institutions

On a higher institutional level, the project received good support from the MoA as counterpart agency: there was a national coordinator based in the MoA, who actively pursued his mandate to validate decisions made by the project (such as selection of beneficiaries, tender preparations, etc). The Director of the Division of Livestock and Animal Health of the MoA participated in the selection of cattle, and also the veterinarian of the Regional Office of the Governorate of South Lebanon was actively involved in the selection of animals.

However, at the field level, the Regional Offices of Agriculture in the Governorate of Nabatiyeh and in the South Governorate (Saida) were much less involved; the former participated to some extent in the selection process of beneficiaries, the distribution of animals and supplies, and the Regional Office of the Governorate of South Lebanon was involved in the selection of animals. Due to the absence of specialized field staff, veterinary services had to be arranged for by the project through contracts with a private veterinarian.

Technical and operational backstopping

Technical support from FAO came in the form of clearances and inspection services for the Shami buck, Baladi goat and heifer tenders prepared by the project. Although delays occurred in project implementation, they were not critical as livestock keepers do not depend as much on the agricultural season as horticulturists do. (However, an opportunity for longer-lasting on-farm training was missed.)

Technical backstopping was meticulous: the technical officer concerned from FAO HQ was involved in the scrutiny of technical specifications and delivery conditions, the inspection of suppliers as well as the selection of live animals. (Three backstopping visits were conducted.)

Operational support came from several sources – FAO HQ (TCES), the Emergency Coordination Office in Amman, the Coordination Office in Tyre, and the FAO

⁷³ The project document was contradictory regarding the PMU: in one section, it was to be headed by the International Coordinator, in another, by the CTA. However, the PMU as such never came into existence, and was in effect the Coordination Unit.

⁷⁴ The project document envisaged a Consultant/National Coordinator as a full-time position.

representation in Beirut⁷⁵. Overall, the project received a relatively high number of operational backstopping visits.

Project management

Project management functioned without the full-time National Coordinator/Consultant envisaged in the project document (the Coordinator nominated by the MoA had a full-time position managerial position in the ministry). The FAO International Livestock Consultant/Coordinator (later called CTA) came to the project in four missions: 14 November 2007 - 15 December 2007, 5 March 2008 - 4 May 2008, 1 June - 3 August 2008, 31 August - 19 October 2008, for a total duration of approximately six months as foreseen in the project document.

As in the horticulture project, project management had to validate the list of potential beneficiaries as the original list was not in line with the stipulated selection criteria⁷⁶.

The CTA also prepared very detailed and comprehensive mission (progress) reports, which, however, also tended to gloss over some of the constraints experienced. Some important changes in the project approach – such as the cancellation of beehives and draught animals – were explained, others – cancellation of AI services and provision of veterinary drugs – were not⁷⁷.

Actual and expected project results

The project listed four outputs, which were to contribute to reaching the intended Immediate Objective of improving the lives and livelihoods of 715 (later reduced to 482) war-affected livestock owners in South Lebanon:

Output One – War-affected livestock smallholders supported by restocking and distribution of animals (cattle, goats, draught animal power, and beehives)

The project reached 482 mostly poor livestock farmers in 50 Southern Litani River's villages hit hardest by the 2006 conflict.

The project delivered 202 pregnant heifers⁷⁸ to 202 beneficiaries (one each for every beneficiary) together with 190 tons alfalfa pellets and 200 tons feed concentrate. In addition, the project provided 99 Shami bucks for upgrading local Baladi goats (30 farmers received only Shami bucks and 69 farmers received Baladi goats and Shami bucks), and 1500 Baladi goats with their kids (1500 kids) were distributed to 250 farmers (6 female Baladi goats and 6 kids per farmer⁷⁹).

Of the 202 families that received pregnant heifers and animal feed, 17 were women-headed households; of the 280 families that received Baladi goats and/or Shami bucks, none were women-headed households. (However, it was said that for cultural reasons, some women preferred to have a male relative register as recipient even if the women carried out the work.)

⁷⁵ The CTA remarked that there was a confusing aspect to this, as project administration was split between the Emergency coordination Office in Tyre, the FAO Representation, and TCES in FAO HQ. He recommended decentralization of decision-making and accounting.

⁷⁶ The project claims to have travelled 10,000 km on field investigations.

⁷⁷ The CTA points out that the cancellation of AI services and veterinary drugs was due to increased prices and budget reductions, and known to all project stakeholders.

⁷⁸ The original target was 340 pregnant heifers; price increases in the international markets required a reduction.

⁷⁹ Also the number of Baladi goats was modified (6 female Baladi goats were distributed to each beneficiary instead of 8).

Despite the reduction in targeted numbers due to price increases, the mission feels that the project was successful in achieving this output. All farmers that received assistance were able to improve their livelihoods: however, management practices are sub-standard with about 30% of cattle recipients. Improvements in management practices as well as upgrading of animal housing⁸⁰ (both for cattle and for Shami bucks) appear essential to maintain and improve productivity and to prevent diseases.

Output Two – Animal production improved through provision of supplementary livestock feed and improved healthcare

The distribution of concentrates and alfalfa pellets was adequate and the amount provided was enough for the cows until calving.

The project provided limited veterinary services through hiring one veterinarian – there is currently only one veterinarian in the South Lebanon and Nabatiyeh governorates mainly concerned with surveillance and prevention activities.

The provision of artificial insemination⁸¹ as mentioned in the original project document was not performed⁸².

Recommendation One: The provision of veterinary services and animal husbandry extension to the beneficiaries was kept at a minimum. It is recommended to provide veterinary assistance and livestock extension services to cattle beneficiaries at least during the upcoming winter season. This should help to maintain and improve the production level of these cows.

Recommendation Two: A supporting laboratory with minimal capacity could provide essential information to veterinarians to perform adequate diagnosis and therefore proper treatment.

Output Three – Capacity of project beneficiaries (including rural youth and women, as well as extension staff from MoA, NGOs and other related entities) built and improved

The project organized training sessions for project beneficiaries both before and after delivery of animals. While beneficiaries testified to the importance of these training sessions and a majority are following most of the instructions given to them, they also asked for more practical training workshops. (The workshops were mainly one-day lecture sessions, and some comments were made regarding the lack of teaching expertise of some trainers.)

Recommendation: More training sessions using a practical approach and with a smaller number of attendants should be implemented as a follow-up to ensure better interaction with farmers.

Specific topics and issues

Sustainability of project interventions

⁸⁰ The percentage of sub-standard animal housing appears to be even higher than 30%.

⁸¹ The project document also listed the extensive provision of veterinary drugs, and rehabilitation of buildings – activities which were eventually dropped from the project.

⁸² Limited AI services were provided by the national consultant; however, not as a project activity and on a commercial basis.

The project has good potential for sustainability since it is likely that the increased production from the animals distributed will cover more than the expenses needed for maintaining these animals.

However, there is a significant percentage of beneficiaries with sub-standard management practices that will continue to need some technical advice and troubleshooting in the future.

Cost-effectiveness

The cost-effectiveness of the project cannot be judged at this point as most beneficiaries have not yet gone through a full production cycle. However, as more than 60% of the project's budget went into the provision of farmers with animals and supplies, the ratio seems high enough to warrant a positive overall return on the project.

Pregnant heifers have a faster impact than goats and Shami bucks⁸³, as milk production started soon after delivery – but there is also a higher risk of failure if management levels are low and veterinary services unreliable.

The value of the inputs provided by the project spans ranges from approximately US\$ 3,000 for a heifer and approx. US\$ 2,000 for a Shami buck and six Baladi goats, to approx. US\$ 1,000 for six Baladi goats.

Gender equity in project implementation and results

Although the project document suggested that at least 1/3 of the beneficiaries should be women, it cannot be stated with certainty that this was achieved by the project. According to beneficiary lists, only 13% of the beneficiaries that received heifers were women and no women received goats. (It was said that for cultural reasons, some women preferred to have a male relative register as recipient even if the women carried out the work.)

Beneficiary selection process

The project management paid much attention to the selection of beneficiaries, and the project's intention to target the most vulnerable farmers was reached in a majority of cases: in the estimate of the mission, about 70% of the beneficiaries are resource-poor farmers. Some criteria could not be followed strictly: the suggested number of women-headed households was not reached, and criteria regarding family size and size of herds at re-stocking time were not closely followed.

Major factors affecting the project results

A combination of factors delayed the procurement of livestock, when compared to the original project document (which, however, was not realistic in its time planning)⁸⁴. Due to price increases, shortage of suitable animals on the market (both for cattle and the purchase of local Baladi goats), procurement⁸⁵ took longer than originally expected.

⁸³ Shami bucks are intended for a longer-term impact through genetic improvement.

⁸⁴ Also, the security situation in Lebanon in spring 2008 had some effect. In the end, the timing of distribution of the heifers was quite favourable for the beneficiaries as the calving and peak milk production occurred around Ramadan, when there is a high demand for milk and milk products.

⁸⁵ According to project backstoppers, there was difficulty in finding animals in Europe that met the strict health specifications outlined by FAO, and required a special effort.

Some project components (beehives, draught animals, artificial insemination service, supply of veterinary drugs, building/rehabilitation of goat/ cattle housing⁸⁶) were still included in the project document (probably from earlier versions of the project document with more than twice the budget) that had to be dropped when implementation started.

The limited involvement of government agencies at field level constitutes a major constraint: future technical backstopping will almost entirely depend on private veterinarians, whose services will be more affordable by better-off farmers – the smaller farmers may tend to economize on veterinary services to the point of jeopardizing the well-being of their livestock⁸⁷.

⁸⁶ Beehives and draught animals were proposed as activities in the 2006 Damage and Needs Assessment; however, no re-validation seems to have taken place when the current project document was prepared.

⁸⁷ The CTA is more sanguine regarding this point; in his final report, he wrote: “the project has utilized services of two national consultants originally and living in the South, in the project areas: one Vet and one Smallholder Dairy Extension & Artificial Insemination Specialist, who are continuing working with farmer beneficiaries on private basis. Therefore they will contribute greatly in enhancing project sustainability, particularly for veterinary assistance and health checks, artificial insemination and dairy farm management”.

1. INTRODUCTION AND BACKGROUND

During July and August 2006, large-scale hostilities in Southern Lebanon caused massive damage to tens of thousands of rural families. Virtually no sector remained unscathed – the local economy, infrastructure, and public administration were all affected. Beyond the direct losses and immediate impact on employment and revenue generation capacity, the damage to the population's asset base also affected the prospects for medium- and long-term recovery. A damage and needs assessment mission carried out by FAO at the request of the Ministry of Agriculture of Lebanon in 2006 established that the loss of crops and livestock from the hostilities had critically worsened the living conditions of the most vulnerable populations, many of whom were dependent on agriculture for their livelihoods.

Immediately following the cessation of hostilities, the Government of Lebanon, supported by the international community, initiated a series of early recovery efforts, designed to address immediate needs and prepare the development of a comprehensive long term reconstruction and recovery program. In collaboration with the United Nations, the government created the Lebanon Recovery Fund (LRF) as a Multi-Donor Trust Fund (MDTF) to channel donor resources for the financing of priority recovery and reconstruction activities approved by the Government.

In August 2007, the LRF approved two projects proposed by FAO: OSRO/LEB/701/UNJ (Early Recovery Assistance for the Agriculture Small-holder) aimed at sustaining the early rehabilitation and recovery of small vegetable growers in South Lebanon and to ensure resumption of agricultural activity, and OSRO/LEB/702/UNJ (Early Recovery Assistance to War-affected, Resource-poor Livestock Keepers in Southern Lebanon) intended to provide a basis for livestock keepers and farmers to resume production and income-generation activities after the war. Duration for both projects was from September 2007 to October 2008. (This part of the report deals with the livestock project – OSRO/LEB/702/UNJ – only.)

2. PROJECT OBJECTIVES AND DESIGN

For OSRO/LEB/702/UNJ, the objectives⁸⁸ were described as follows:

“The development goal of the project is to improve the food security, nutritional and economic status of low-income rural families by initiating comprehensive recovery measures to support the war-affected livestock smallholders, mainly by restocking and distribution of animals (cattle, goats, draft animal power and beehives). The immediate objectives are improvement of the lives and livelihoods of 715 war-affected livestock owners with special emphasis on women-headed households, through restocking of animals.”

2.1 *Development and immediate objectives*

While the development goal and the immediate objective of the project stressed the rehabilitation aspect of the project (restocking of animals, etc), two of three project outputs also emphasized the project's development side (to improve animal production, and to build capacity of beneficiaries).

⁸⁸ The project documents followed the LRF project document template and not the FAO project document format and terminology; the project document also used a slightly different wording for the Immediate Objective in its Logical Framework matrix: “Improve the lives and livelihoods of 715 war-affected livestock owners (5,600 persons with an average of 7 members per household) with special emphasis on women-headed households, through restocking of animals, veterinary drugs, feed, semen and small equipment for honeybee”.

Three outputs were formulated to help achieve the Immediate Objective:

- War-affected livestock holders supported by restocking and distribution of animals (cattle, goats, draught animal power and beehives).
- Animal production improved through provision of supplementary livestock feeds and improved healthcare.
- Capacity of project beneficiaries (including rural youth and women, as well as extension staff from MoA, NGOs and other related entities) built and improved.

The wording and definition of the Immediate Objective as well as of the outputs was not always following a logical sequence, or using SMART⁸⁹ criteria: Output One is almost a re-wording of the Development and Immediate Objective, and the outputs as described in the logframe matrix mostly lacked measurable indicators, or indeed clear descriptions of targets⁹⁰.

Apart from immediate recovery concerns, the project clearly also aimed at longer-term improvements – the result was a two-pronged strategy; early recovery to bring relief to severely affected livestock keepers in South Lebanon, but also “accompanying measures that have the greatest potential to contribute to rapid improvements of livestock productivity in affected areas ...”⁹¹

As in the horticulture project, also the livestock project displayed a tension between development ambitions, and improving the livelihoods of resource-poor and vulnerable livestock keepers: a claim that “... the 12-month timeframe ... will ensure that farmers are up on their feet and with proper income ...” was highly optimistic, as was the repeated emphasis in the project document that “... the activities were designed in a manner not to incur any current or future liability to the MoA budget even after the lifespan of the project ...”⁹².

The upgrading of farmers’ management practices was unlikely to be achieved within the few months that remained after delivery of animals. Other ambitious statements made in the project document (improved health and veterinary services as well as animal extension services, national campaign of vaccination, treatment and control of the major diseases, artificial insemination services ...) were apparently not seriously regarded as within the scope of the project⁹³.

2.2 Work plans, assumptions and risks

The project document included a basic work plan (short activity listing and bar chart), which was to be updated in the first month of project implementation. This happened

⁸⁹ Specific, Measurable, Achievable, Realistic and Timely.

⁹⁰ Only the Immediate Objective gave a measurable target: 715 war-affected livestock owners.

⁹¹ This was acknowledged in the PSC session of March 2008: the minutes stated that the two projects were designed ... with a developmental perspective ... such as the genetic improvements in livestock under the Livestock project.

⁹² It may be true that there will be no MoA liability for follow-up, but only because there is no MoA presence on the ground. However, should the MoA be able to deploy – as planned – newly hired veterinarians to South Lebanon and Nabatiyeh, it would make eminent sense to follow up with at least the poorer beneficiaries assisted by the project.

⁹³ Initially the project intended to distribute heifers, goats, draft horses, and beehives. The activities related to draft animals and beehives were cancelled, and this action was approved by the 2nd PSC meeting of 18 March 2008. (Also the provision of an artificial insemination service and the supply of veterinary drugs seem to have been cancelled by early 2008. In addition, the project document made claims that an amount of US\$ of 100,000 would be set aside for civil works – building/rehabilitation of 25 goat/dairy cattle housings – but this was not reflected in the stated objectives and outputs, not did it have a dedicated budget line.) These unfulfilled promises may be remnants from the earlier versions of the project document, when the proposed budget exceeded US\$ 5m.

– to some extent – with the first mission report by the CTA in January 2008. In particular, the CTA recommended dropping some project components, such as draught animals and beehives (the mission report kept quiet about veterinary drugs and artificial insemination), and adjusted the unrealistic timeframe regarding deliveries.

Only limited risks (deterioration in political and security conditions) were foreseen for this project. Risks that did materialize – delays in procurement, insufficient adoption of recommended practices – were not addressed in the project document. Some assumptions – such as “easy movement of trainees to the training locations outside the country” were not relevant to the current project.

2.3 Institutional arrangements

Institutional arrangements were not outlined in great detail in the project document – the Project Steering Committee that eventually emerged was not foreseen as such in the project document. (The envisaged Project Management Unit⁹⁴ was to have linkages with the Division of Livestock and Animal Health of the MoA, agricultural colleges, local government units and NGOs.) MoA also appointed a National Coordinator⁹⁵ to be involved in all aspects of implementation, including selection of beneficiaries, procurement, training modules, and distribution plans.

In the course of project implementation, this envisaged set-up was changed: a Project Steering Committee – PSC (for both projects: 701 and 702) was created in December 2007⁹⁶, with participation from MoA, FAO and UNDP. MoA also appointed a National Coordinator to be involved in all aspects of implementation, including selection of beneficiaries, procurement, training modules, and distribution plans. Regarding beneficiary selection, municipalities and NGOs were at best marginally involved in beneficiary selection; instead, the project would prepare the beneficiary lists and the MoA would approve⁹⁷. The project reported also to the LRF Steering Committee⁹⁸, which received quarterly progress reports.

Municipalities were not involved on purpose in the selection process to avoid any bias; the planned involvement of NGOs as cooperating partners (outlined in the project document) did not happen.

2.4 Beneficiaries

The criteria for beneficiary selection were reasonably clear: a total of 715 farmers⁹⁹ (1/3 of them to be female-headed households) were to be helped with a partial restocking of animals: they also had to be small farmers and vulnerable, year-round residents in the village, and their HH income dependant on agriculture.

The project document also envisaged indirect beneficiaries: 500 – or 1,000, depending on the section of the project document – livestock producers were to benefit from improved veterinary services, and also “extension staff from MoA, NGOs

⁹⁴ The project document was contradictory regarding the PMU: in one section, it was to be headed by the International Coordinator, in another, by the CTA. However, the PMU as such never came into existence, and was in effect the Coordination Unit.

⁹⁵ The project document envisaged a Consultant/National Coordinator as a full-time position.

⁹⁶ Two PSC meetings are documented: December 2007 and March 2008.

⁹⁷ A list originally prepared by the MoA listed mostly people whose assets had been damaged, but did not apply any socio-economic selection criteria.

⁹⁸ The LRF Steering Committee is chaired by the Minister of Economy and Trade, and has members from the Ministry of Economy and Trade, the Recovery and Reconstruction Cell in the Prime Minister's Office, the Ministry of Finance, five representatives of donors, and the United Nations Resident Coordinator.

⁹⁹ Scaled down during project implementation to 482 farmers.

and other related entities” stood to benefit from the project’s capacity building activities. As the project seems to have organized training primarily for project farmers, there is no indication that the indirect beneficiaries have been reached. (And it appears that there is no MoA livestock extension staff active on the ground.)

3. PROJECT IMPLEMENTATION STATUS

The budget and expenditure figures are based on the latest budget information available from the project; the reporting on the implementation status is derived from project progress reports, other project files and observations of the mission. The emphasis is on recent developments.

3.1 Project budget and expenditure

Table 2: Budget, Expenditure and Commitments (10/2008)

	Budget	Percentage of Budget	Commitments and Expenditure	Percentage of Budget
Salaries Professional	87500	4.61%	30044	1.72%
Consultants	107500	5.66%	87375	5.02%
Contracts	0	0.00%	0	0.00%
Locally Contracted Labour	89000	4.68%	91832	5.27%
Travel	108700	5.72%	63170	3.63%
Training	45000	2.37%	38738	2.22%
Expendable Procurement	1206070	63.48%	1199823	68.88%
Non-expendable Procurement	4700	0.25%	4410	0.25%
Technical Support Services	20000	1.05%	20000	1.15%
General Operating Expenses	107230	5.64%	95124	5.46%
Support Costs	124300	6.54%	111451	6.40%
Total	1900000	100.00%	1741967	100.00%

The budget breakdown above indicates that the bulk of expenditure was on equipment and supplies that went to beneficiaries (currently 69%). Consultants, professionals, and locally recruited staff account for approximately 15%¹⁰⁰, while all other expenditure items (leaving out the support costs) remain below 5%, including the allocation for training. There has been no formal budget revision in the course of project implementation, but a no-cost extension of the project NTE was approved to account for delays in delivery of inputs.

3.2 Implementation status

This section provides an overview of the activities of the project; statistical breakdowns can be found in the annexes. (The following narrative provides a mainly chronological account of project activities.)

During the first visit of the CTA¹⁰¹, he prepared technical specifications for procurement of livestock and submitted them to the relevant FAO technical unit for clearance. The plans for cattle were slightly reduced downward from the project document: 200 pregnant heifers (instead of 220), but the target was still 2,000 Baladi

¹⁰⁰ The last mission of the CTA (ended in Oct 2008) may not be reflected here.

¹⁰¹ Supported by a national livestock consultant; a private veterinarian was hired (on monthly contracts) from May 2008 onwards.

goats. The other delivery targets (100 Shami bucks, 50 horses, 2000 beehives, 200 tons of feed concentrates, and 200 tons of alfalfa) were still maintained, but a proposal was made to delegate to NGOs the delivery of draught animals and beehives.

Targeted by the project were now 44 villages in South Lebanon with 650 project beneficiaries, to be selected according to the following criteria: poorest among the livestock farmers, with direct physical damage and losses related to the conflict, dependent on livestock production and remaining on their farms. Priority was to be given to women-headed households, war widows, large size families, and poor families with handicapped children.

Training sessions were prepared to be held shortly before the distribution of animals and inputs (then planned for February-March), and for a later period in May-June 2008. (The progress report acknowledged the limited presence of the MoA extension service, and stressed the need for regular monitoring and follow-up of the proposed project interventions.)

During March to May 2008, the project finalized the identification and selection of project beneficiaries (now 46 villages with 476 beneficiaries¹⁰²), organized training sessions with project beneficiaries, coordinated, and participated in, the selection of animals¹⁰³ and inputs (for local purchase as well as for import to Lebanon), and prepare two project proposals: 1) "Emergency Plan for Rehabilitation of Sustainable Livestock in War-Affected South Lebanon" and 2) "Emergency Plan for Rehabilitation of Sustainable Livestock in Bekâa Valley".

A total of six training sessions were conducted during March-April 2008¹⁰⁴: one session for 60 project facilitators in the villages on the project strategy, selection criteria of the project, distribution plans, etc; a second session for recipients of pregnant heifers (separately in three locations for a total of 245 farmers) on basic management practices to improve dairy cow husbandry (feeding, housing, hygiene and reproduction); and a third session for goat recipients (separately in two locations for a total of 270 farmers) on basic management practices to improve dairy goat husbandry (improvement of traditional management through feed supplementation, weaning techniques, vaccination and hygiene, upgrading of local Baladi goats with Shami bucks).

The training sessions (all of one-day duration) were held by the CTA with the support of the national livestock consultant and the veterinarian hired by the project. (According to the project, women represented 40% of the attending farmers.) A second training period was planned for June-July 2008, but did actually take place only in October 2008¹⁰⁵: topics were milk hygiene and processing, forage crops under rainfed and irrigated conditions, prevention and treatment of the most common dairy

¹⁰² The target was now 200 farmers for pregnant heifers, 250 farmers for 1500 Baladi goats (6 female goats each), out of which 74 farmers were to also Shami bucks, while 26 farmers were to benefit only from one Shami buck each. The reductions were said to be due to price increases. (According to the project, prices of concentrate feeds and forage in South Lebanon doubled in one year, and also the price for imported heifers had gone up.)

¹⁰³ The technical backstopping officer from FAO HQ undertook a duty travel to Lebanon and Cyprus (accompanied by the veterinarian from the Veterinary Department in the South Lebanon Governorate) from 11- 18 March 2008, among others, in order to follow up on the Shami goat procurement. From 22 - 28 April and 21- 24 May 2008, the officer visited Netherlands and Hungary to inspect pregnant heifers, accompanied on the second trip by the Head of Animal Resources Department of the MoA. (A number of animals were rejected as they did not meet the tender specifications for age, stage of gestation and method of insemination, while others had incomplete pedigree information.)

¹⁰⁴ In addition, a National Seminar was held on 22 April 2008 in Tyre, with 450 farmers present and representatives of the Ministry of Agriculture (MoA), Ministry of Finance, FAO, UNDP, UNRC, ILO, Civil Society Organizations, NGO's and FAO-TCES.

¹⁰⁵ Due to heavy involvement with the selection and delivery of Baladi goats.

cattle diseases, rational use of locally available crop residues and agro-industrial by-products, and manufacture and utilization of Multinutritional Feed Blocks (MB) as strategic feed supplement for ruminants in South Lebanon. Training sessions were supported by extension materials (booklets and posters) in Arabic and illustrated with photos¹⁰⁶.

By October 2008, the project had provided 202 pregnant imported heifers to one beneficiary each, distributed 190 tons alfalfa pellets¹⁰⁷ and 200 tons feed concentrate for cattle beneficiaries, given 99 imported Shami bucks for upgrading local Baladi goats (30 farmers received only Shami bucks and 69 farmers received Baladi goats and Shami bucks), and provided 1,500 local Baladi goats (with one kid each to 250 farmers (6 female Baladi goats and 6 kids/farmer), and provided training to farmers on appropriate husbandry techniques and related issues. In total, 482 farmers in 50 villages south of the Litani River were reached by the project.

4. SUPPORT BY GOVERNMENT, TECHNICAL AND OPERATIONAL BACKSTOPPING, PROJECT MANAGEMENT

4.1 Support by government/national institutions

On a higher institutional level, the project received good support from the MoA as counterpart agency: there was a national coordinator based in the MoA, who actively pursued his mandate to validate decisions made by the project (such as selection of beneficiaries, tender preparations, etc). The Director of the Division of Livestock and Animal Health of the MoA participated in the selection of livestock, and the veterinarian of the Regional Office of the Governorate of South Lebanon was actively involved in the selection of animals.

However, at the field level, the Regional Offices of Agriculture in the Governorate of Nabatiyeh and in the South Governorate (Saida) were much less involved; the former participated to some extent in the selection process of beneficiaries, the distribution of animals and supplies, and the Regional Office of the Governorate of South Lebanon was involved in the selection of animals. Due to the absence of specialized field staff, veterinary services had to be arranged for by the project through contracts with a private veterinarian.

4.2 Technical and operational backstopping

Technical support from FAO came in the form of clearances and inspection services for the Shami buck, Baladi goat and heifer tenders prepared by the project. Although delays occurred in project implementation, they were not critical as livestock keepers do not depend as much on the agricultural season as horticulturists do. (However, an opportunity for a longer on-farm training period was missed.)

Technical backstopping was meticulous: the technical officer concerned from FAO HQ was involved in the scrutiny of technical specifications and delivery conditions, the inspection of suppliers as well as the selection of live animals¹⁰⁸.

¹⁰⁶ Five booklets (1000 copies each) and five posters (500 copies each) were produced related to the most important topics faced by dairy farmers: 1. The Most significant Tips for Dairy Cow Feeding; 2. Your Success in Dairy Cow Management = Your Attention paid to Dairy Cow during Dry-Pre-Post Calving Periods; 3. What are the Important Tips to Improve Fertility of your Cows?; 4. How can you Prevent Mastitis in your Dairy Herd?; 5. How can you Prevent Foot Rot in your Dairy Herd?

¹⁰⁷ From Belgium.

¹⁰⁸ The technical backstopping officer from FAO HQ undertook duty travels 11- 18 March 2008, 22 - 28 April and 21- 24 May 2008 to inspect animals and guide the reception and delivery processes.

Operational support came from several sources – FAO HQ (TCES), the Emergency Coordination Office in Amman, the Coordination Office in Tyre, and the FAO representation in Beirut¹⁰⁹. Overall, the project received a relatively high number of operational backstopping visits.

4.3 Project management

Project management functioned without the full-time National Coordinator/Consultant envisaged in the project document (the Coordinator nominated by the MoA had a full-time position managerial position in the ministry). The FAO International Livestock Consultant/Coordinator (later called CTA) came to the project in four missions: 14 November 2007 - 15 December 2007, 5 March 2008 - 4 May 2008, 1 June - 3 August 2008, 31 August - 19 October 2008, for a total duration of approximately six months as foreseen in the project document¹¹⁰.

As in the horticulture project, project management had to validate the list of potential beneficiaries as the original list was not in line with the stipulated selection criteria¹¹¹. (The work plan was also very vague with regard to delivery of animals – the period stretched over the first nine months, but a delivery in the first quarter was highly unlikely. Project management therefore had to revise the procurement as well as the implementation plan.)

The CTA also prepared very detailed and comprehensive mission (progress) reports, which, however, also tended to gloss over some of the constraints experienced. Some important changes in the project approach – such as the cancellation of beehives and draught animals – were explained, others (cancellation of AI services, extensive provision of veterinary drugs – were not.

5. ACTUAL AND POTENTIAL RESULTS

The project document listed three outputs, which were to contribute to reaching the intended Immediate Objective of improving the lives and livelihoods of 715 (later reduced to 482) war-affected livestock owners in South Lebanon. Certain planned activities (draught animals, beehives, extensive provision of veterinary drugs, rehabilitation of buildings) were dropped from the project, either because they were no longer really part of the project design (rehabilitation of buildings was promised in the project document but not budgeted for), because they would have overtaxed the logistical capacity of the project (beehives, draught animals), and/or were due to price increases of inputs that reduced the purchasing power of the project.

Output One – War-affected livestock smallholders supported by restocking and distribution of animals (cattle, goats, draught animal power, and beehives)

The project reached 482 mostly poor livestock farmers in 50 Southern Litani River's villages, who were hit hardest by the 2006 conflict.

The project delivered 202 pregnant heifers¹¹² to 202 beneficiaries (one each for every beneficiary), together with 190 tons alfalfa pellets and 200 tons feed concentrate. In addition, the project provided 99 Shami bucks for upgrading local Baladi goats (30

¹⁰⁹ The CTA remarked that there was a confusing aspect to this, as project administration was split between the Emergency coordination Office in Tyre, the FAO Representation, and TCES in FAO HQ. He recommended decentralization of decision-making and accounting.

¹¹⁰ For most of the time, the project

¹¹¹ Project staff claim to have travelled 10,000 km on field investigations.

¹¹² The original target was 340 pregnant heifers; price increases in the international markets required a reduction.

farmers received only Shami bucks and 69 farmers received Baladi goats and Shami bucks), and 1500 Baladi goats with their kids (1500 kids) were distributed to 250 farmers (6 female Baladi goats and 6 kids per farmer¹¹³).

Of the 202 families that received pregnant heifers and animal feed, 17 were women-headed households; of the 280 families that received Baladi goats and/or Shami bucks, none were women-headed households. Otherwise, most beneficiaries seem to be chosen according to project criteria. (It was also said that the original government list frequently proposed ineligible potential beneficiaries.)

Despite the reduction of targeted numbers due to price increases, the mission is of the opinion that the project was successful in achieving this output. All farmers that received assistance were able to improve their livelihoods: most heifers have surviving calves (a few calves died) and the milk production per day (of beneficiaries visited by the mission) averaged 20 kg/day. This milk production level is, however, below the potential of these cows; poor barn management and inadequate nutrition probably have contributed to this low production level. A local veterinarian hired by the project indicated that about 70% of the cattle beneficiaries have adequate management practices, while 30% are of poor standard. Improvement of the management practices as well as upgrading of cattle housing (and housing for Shami bucks) appears essential to maintain and improve productivity and to prevent diseases.

A few cattle farmers mentioned that a market for milk was not always guaranteed, but this does not seem to present a significant problem yet. Likewise, goat herders felt a small-scale processing plant might help to make of milk production more profitable. There were some critical comments about the reproduction performance of the Shami bucks: this may have to do with differences in management, as Shami goats are an indoor breed not used to free-range conditions.

Output Two – Animal production improved through provision of supplementary livestock feed and improved healthcare

The distribution of concentrates and alfalfa pellets was fairly adequate and the amount was enough for the cows until calving. Many of the beneficiaries left the feed outside the barn and uncovered. This could create a problem during the wet season because of possible fungal growth and mycotoxin production. Some beneficiaries mixed the given concentrate and the pellets with feed that they have mixed and grounded themselves. This action led to lower milk production by these cows.

The project provided limited veterinary services through hiring one veterinarian (on a monthly contract basis) once animals were delivered in May. This veterinarian had the responsibility of receiving animals at the port (and providing antibiotic treatment and vaccinations) and to follow up during the quarantine period. (There is currently only one veterinarian in the South Lebanon and Nabatiyeh governorates who is mainly concerned with surveillance and prevention activities. In the project, he was involved in the selection of Shami bucks, but could not provide veterinary services in the field¹¹⁴.)

¹¹³ Also the number of Baladi goats was modified (6 female Baladi goats were distributed to each beneficiary instead of 8).

¹¹⁴ The MoA indicated that the deployment of 20 additional (for all of Lebanon) is under way.

Some cattle beneficiaries complained of having cows with only three producing udder glands. This might be due to dry period mastitis which could have been prevented by proper management and dry cow therapy protocols.

The provision of artificial insemination as mentioned in the original project document was not taken up by the project¹¹⁵.

Output Three – Capacity of project beneficiaries (including rural youth and women, as well as extension staff from MoA, NGOs and other related entities) built and improved

Prior to distribution of animals, the project organized six training sessions for all project beneficiaries covering good practices to improve dairy cow husbandry (feeding, housing, hygiene and reproduction) and good practices to improve dairy goat husbandry (improvement of traditional management through feed supplementation, weaning techniques, vaccination and hygiene, upgrading of local Baladi goats with Shami bucks). The capacity building of targeted beneficiaries before receiving the animals helped to ensure that farmers knew about the more demanding management standards they were supposed to follow.

Three more training sessions were performed after the distribution of animals on subjects similar to the previous training. These training sessions were not only to project beneficiaries, but to other farmers as well. While beneficiaries testified to the importance of these training sessions and a majority are following most of the instructions given to them, they also asked for more practical training workshops. (The workshops were mainly one-day lecture sessions, and some comments were made regarding the lack of teaching expertise of some trainers.) The training booklets prepared by the project were appreciated by farmers.

As a public veterinary service is absent at field level in the two governorates, it appears that there was no MoA extension staff that could be trained.

Specific topics and issues

Sustainability of project interventions

The project has good sustainability potential since it is likely that the products of distributed animals will cover more than the expenses needed for maintaining these animals.

The introduction of Shami bucks should improve the Baladi breed. The resulting cross-bred goats will be high-volume milk producers and are likely to produce more offspring.

Priority was given to training and strengthening the capacity of the project beneficiaries to ensure sustainability and improved productivity. This is important because there is an obvious shortage of extension services by the MoA, and because there exists a significant percentage of mostly poor farmers with sub-standard management practices that will continue to need some technical advice and troubleshooting in the future¹¹⁶.

¹¹⁵ Limited AI services were provided by the national consultant; however, not as a project activity and on a commercial basis.

¹¹⁶ The CTA is more sanguine regarding this point; in his final report, he wrote: "the project has utilized services of two national consultants originally and living in the South, in the project areas: one Vet and one Smallholder Dairy Extension & Artificial Insemination Specialist, who are continuing working with farmer beneficiaries on private basis.

Cost-effectiveness

The cost-effectiveness of the project cannot be judged at this point as most beneficiaries have not yet gone through a full production cycle. As more than 60% of the project's budget went into the provision of animals and supplies, the ratio seems high enough to warrant a positive return.

Interviews with beneficiaries revealed that pregnant heifers had a faster impact than goats and Shami bucks. The impact is especially true among poorer farmers – but there is also a higher risk of failure if management levels are low and veterinary services unreliable.

The value of the inputs provided by the project spans ranges from approximately US\$ 3,000 for a heifer and approx. US\$ 2,000 for a Shami buck and six Baladi goats, to approx. US\$ 1,000 for six Baladi goats. While the heifers generated immediate profits with the start of lactation, the Shami bucks are intended for a longer-term impact through genetic improvement of the herd¹¹⁷.

Gender equity in project implementation and results

Although the project document suggested that at least 1/3 of the beneficiaries should be women, it cannot be stated with certainty that this was achieved by the project. According to beneficiary lists, only 13% of the beneficiaries that received heifers were women, and no women received goats. (It was said that for cultural reasons, some women preferred to have a male relative register as recipient even if the women carried out the work.)

Beneficiary selection process

The project management paid much attention to the selection of beneficiaries, and the project's intention to target the most vulnerable farmers was reached in a majority of cases: in the estimate of the mission, about 70% of the beneficiaries are resource-poor farmers.

Some criteria could not be followed strictly: the suggested number of women-headed households was not reached, and criteria regarding family size and size of herds at re-stocking time were not closely followed.

Major factors affecting the project results

A combination of factors delayed the procurement of livestock, when compared to the original project document (which, however, was not realistic in its time planning)¹¹⁸. Due to price increases, shortage of suitable animals on the market (both for cattle and the purchase of local Baladi goats), procurement took longer than originally expected.

Therefore they will contribute greatly in enhancing project sustainability, particularly for veterinary assistance and health checks, artificial insemination and dairy farm management".

¹¹⁷ With regard to financial returns: the CTA offered some calculations (not exactly farm model analyses as claimed, but good enough rough estimates) of an annual incremental net income from heifers of US\$ 1,000, and of US\$ 700 from Baladi goats. The mission largely concurs with these estimates.

¹¹⁸ Also, the security situation in Lebanon in spring 2008 had some effect. In the end, the timing of distribution of the heifers was quite favourable for the beneficiaries as the calving and peak milk production occurred around Ramadan, when there is a high demand for milk and milk products.

Some project components (beehives, draught animals, artificial insemination service, supply of veterinary drugs, building/rehabilitation of goat/ cattle housing¹¹⁹) were still included in the project document (probably from earlier versions of the project document with more than twice the budget) that had to be dropped when implementation started.

The limited involvement of government agencies at field level constitutes a major constraint: future technical backstopping will almost entirely depend on private veterinarians, whose services will be more affordable by better-off farmers – small farmers may tend to economize on veterinary services to the point of jeopardizing the well-being of their livestock.

¹¹⁹ Beehives and draught animals were proposed as activities in the 2006 Damage and Needs Assessment; however, no re-validation seems to have taken place when the current project document was prepared.

Annex One: Terms of Reference

OSRO/LEB/701/UNJ and OSRO/LEB/702/UNJ

1. Background Section (specific to each project; here: 702 - Livestock)

The project “Early recovery assistance to war-affected, resource poor livestock keepers in south Lebanon” aimed to support the early recovery of livelihoods for 750 vulnerable livestock keepers (one-third women-headed households) who were severely affected by the 2006 military hostilities. An additional 1 000 farmers were expected to draw indirect benefits from the project through training and veterinary services. The activities implemented by FAO were to provide a basis for livestock keepers and farmers to resume production and income-generation activities after the war.

This project was the first early recovery project in Lebanon. The project began on 1 September 2007 and procurement, distribution and training activities were completed in October 2008. The value of the project is USD1 900 000.

The major activities implemented include: 1) dairy cattle redistribution/restocking; 2) provision of feed concentrate and forage; 3) distribution of shamee goats; 4) distribution of baladi goats; and 5) training to livestock farmers.

The specific outputs of the project are as follows:

- distribution of 202 pregnant Holstein-friesian heifers to 202 beneficiaries;
- 190 tonnes of alfalfa pellets for distribution to beneficiaries that received heifers;
- 200 tonnes of feed concentrate to beneficiaries that received heifers;
- 99 shamee goat bucks for distribution to 30 farmers to help upgrade the local goat breed;
- 1 500 baladi goats with 1 500 kids distributed to 250 farmers (six female baladi goats and six kids per farmer).

No major problems were experienced in the procurement or distribution of the project activities.

2. Purpose of the Evaluation

The purpose of the evaluation is to review the relevance, design, effectiveness, efficiency and sustainability of the project. Any further need for external assistance to secure sustainability will be identified.

3. Scope of the Evaluation

The mission will assess the following:

- a) Relevance of the project to emergency/early recovery priorities and needs;
- b) Clarity and realism of the project's development and immediate objectives, including specification of targets and identification of beneficiaries and prospects for sustainability;

c) Quality, clarity and adequacy of project design including:

- clarity and logical consistency between inputs, activities, outputs and progress towards achievement of objectives (quality, quantity and time-frame);
- realism and clarity in the specification of prior obligations and prerequisites (assumptions and risks);
- realism and clarity of external institutional relationships, and in the managerial and institutional framework for implementation and the work plan;
- likely cost-effectiveness of the project design.

d) Efficiency and adequacy of project implementation including: availability of funds as compared with budget for both the donor and national component; the quality and timeliness of input delivery by both FAO and the Government; managerial and work efficiency; implementation difficulties; adequacy of monitoring and reporting; the extent of national support and commitment and the quality and quantity of administrative and technical support by FAO.

e) Project results, including a systematic assessment of outputs produced to date (quantity and quality as compared with workplan and progress towards achieving the immediate objectives). The mission will especially review, the status and quality of work on the outputs, including:

- the restocking and distribution of animals (dairy cattle, shamee goats, baladi goats);
- improvement of animal production through the distribution of supplementary animal feeds;
- increased capacity of beneficiaries, including farmers, rural youth, and MoA staff;
- targeting of female-headed households for distribution of inputs/training.

f) The prospects for sustaining the project's results by the beneficiaries and the host institutions after the termination of the project. The mission should examine in particular how farmers, at this initial stage after distribution, are managing with the animals distributed through the project and the newly acquired skills attained during the training programmes and from the material distributed.

g) The cost-effectiveness of the project (see definition in Annex 1).

“Based on the above analysis the mission will draw specific conclusions and make proposals for any necessary further action by Government and/or FAO/donor to ensure sustainable development, including any need for additional assistance and activities of the project prior to its completion. The mission will draw attention to any lessons of general interest”. Any proposal for further assistance should include precise specification of objectives and the major suggested outputs and inputs.

4. Composition of the Mission

The mission will comprise of:

- Team leader (FAO) with experience in agriculture, food production, and evaluation;

- Livestock Specialist;
- Horticulture Specialist
-

Mission members are independent and thus have no previous direct involvement with the project either with regard to its formulation, implementation or backstopping. The members also have experience of evaluation of FAO projects.

5. Timetable and Itinerary of the Mission

The mission will assemble in Beirut, Lebanon and travel to locations in South Lebanon where FAO had implemented its activities with livestock farmers. The itinerary for the mission is as follows:

16 November	Arrival of Mission to Beirut
17-18 November	Meetings with FAO Representative and Ministry of Agriculture
19-22 November	Field visits to locations in South Lebanon
23 November	Report Preparation (Beirut)
24-25 November	Meetings with Ministry / Review findings
26-29 November	Report Writing / Debriefing with FAO Representative
30 November	Departure from Beirut

6. Consultations

The mission will maintain close liaison with the Representatives of the donor and FAO and the concerned national agencies, as well as with national and international project staff. Although the mission should feel free to discuss with the authorities concerned anything relevant to its assignment, it is not authorized to make any commitments on behalf of the Government, the donor, or FAO."

7. Reporting

The mission is fully responsible for its independent report which may not necessarily reflect the views of the Government, the donor or FAO. The report will be written in conformity with the headings shown in Annex 3.

The report will be completed, to the extent possible, in the country and the findings and recommendations fully discussed with all concerned parties and wherever possible consensus achieved.

The mission will also complete the FAO Project Evaluation Questionnaire.

The mission leader bears responsibility for finalization of the report, which will be submitted to FAO within one week of mission completion. FAO will submit the report to Government and donor together with its comments.

Annex Two: Itinerary and List of People Met

MONDAY, 17/11/08

Briefing with FAOR (Mr Ali Moumen FAO Lebanon Representative, Ms Solange Matta Saade, Assistant FAO Representative)
Mr. Samir Chami, D. G. - Ministry of Agriculture
Mr. Chris de Clercq, Adviser to Minister of Finance
Ms Marta Ruedas, UN RC

TUESDAY, 18/11/08

Dr. Talal Sahili, Former Minister of Agriculture
Mr. Eli Skaff, Minister of Agriculture
Phone Interviews:
Chedly Kayouli, former CTA for Livestock project
Abdelhaq Hanafi, former CTA for Horticulture project

WEDNESDAY, 19/11/08

Mr Malek Abdul Khalek, Governor of South Lebanon (Saida)
Mr Hassan Solly, Regional Director of Agriculture Dept., Governorate of South Lebanon
Mr Hadi Maki, Regional Director of Agriculture Dept., Governorate of Nabatiyeh
Ms Dalya Farran, Media and Post Clearance Officer of UNMACC

THURSDAY, 20/11/08 (Team split for Livestock and Horticulture projects¹²⁰)

Horticulture:

Lebanese Welfare Association for the Handicapped
Groups of farmers in Sarafand, Saksakiyeh, Loubiyeh
Companies from the private sector
Groups of farmers in Kharayeb and Rzaii
Mr Hassen Alouia President of the Farmers' Union
Mr Hassen Dhane President of the Syndicate of Agriculture Labour
Mr Jaafar Dib Akid Mokhtar Jobal

Livestock:

Farmers in Hanaway village
Farmers in Bazourieh village
Farmers in Quana village
Farmers in Aiteet village

FRIDAY, 21/11/08

Horticulture:

Open-field farmers and Union of Agricultural Coops in the South
Women's Association in Deir Kanoun
Groups of open-field and greenhouse farmers in Siddikine
Mr Abdel Mohsen El Hussein, President of the municipalities of Caza of Tyre

Livestock:

¹²⁰ Separate lists of beneficiaries met can be found at the end of the section.

Farmers in Froun village
Farmers in Marwahin village
Farmers in Aita El Chaab village
Farmers in Tibnin village
Farmers in Majdaselem village
President of Farmer's Union/Association
Farmer in Jmeijmeh village
Farmers in Srifra village

SATURDAY, 22/11/08

Horticulture:
Open-field farmers in Marjayoun
Open-field and greenhouse farmers in Meiss El Jabal
Farmer groups in Bint Jbeil caza

Livestock:
Farmers in Houla village
Farmers in Markaba village
Farmers in Kfarkila village
Farmers in Khiam village
Meeting with project veterinarian
Farmers in Halta village
Farmers in Kfarshouba village

SUNDAY, 23/11/08

Rest day; document review; working on notes

MONDAY, 24/11/08

Internal meetings, discussions with FAO staff

TUESDAY, 25/11/08

Dr. Nabih Ghaouch, Director Animal Resources, MoA
Dr Hussein Nazrallah, FAO-MoA Focal Point, Director of Studies and Coordination
Mr. Wassim Baroudi, Manager Robinson (Ag Supplies; greenhouse contracts)
Mr. Ghassan Taher, Adviser to the Prime Minister and Head of LRF Unit

WEDNESDAY, 26/11/08

Mr. Hassan Bitar, Development Coordination Officer, Cooperation Italienne
Mr. Marco Perini, AVSI Representative in Lebanon

THURSDAY, 27/11/08

Meetings with project staff (Mr Issam Nahal, National Livestock Consultant, Mr Fadi El Hussaini, National Horticulture Consultant)
Mr Zaki Aboud, Veterinarian Agriculture Dept., Governorate of South Lebanon
Mr Abdelhaq Hanafi (phone call)
Mr Mohamed Abbes, Director Ali Abbes Est. Supplier (fertilizers, irrigation systems)

FRIDAY, 28/11/08

Work Session with FAOR staff
Mr. Mohamed Safadi, Minister of Economy

Mr Jose Antonio Naya Villaverde, ICU Resident Representative
 Ms Mejda Mcheik, ICU Gender Specialist
 Mr. Georgio Colombo, Movimondo
 Debriefing FAOR

Meetings with Horticulture Beneficiaries

Name of Beneficiary	Village	Type of input received	Date of interview
Lebanese Welfare Association	Sarafand	Nursery	20/11/08
Women' association	Sadiquine	Nursery	21/11/2008
Mustapha Khalife Mohamed Younes Ali Mohamed Dohman Hassine Ali Ajimi Naji Chalhoub Soukne Kharouba Hassen Younes	Sarafand	Greenhouses Seeds and fertilizers for development of open field vegetable production	20/11/2008
Mohamed Dhib Moussa Group of farmers	Saksakie	Green houses and upgraded green houses	20/11/2008
Kassem Assaili Hani Ameer	Saksakie	Did not benefit from the project	20/11/2008
Ameer Abbas Youssef Hassen Bachrouch	Jobal	Seeds and fertilizers for development of open field vegetable production	21/11/2008
Hamza Azzam (key person) Mhamed Azzam Hayet Hayder Group of farmers	Sadiquine	Green Houses	21/11/2008
Khadher Serhane (key person) Abbes Sarhan Ali Fares Ferial Chit Ali Serhane Khalil Faouez Ali Daoud Chit 2 farmers	Sarada	Seeds and fertilizers for development of open field vegetable production Irrigation systems Low tunnels	22/11/2008
El Haj Abbes Zahredine (key person) Mustapha Borji 4 farmers	Mais El Jebel	Seeds and fertilizers for development of open field vegetable production Greenhouses	22/11/2008
Khalil Baziz (key person) Group of farmers	Bint Jbeil	Seeds and fertilizers for development of open field vegetable production	22/11/2008

Meetings with Livestock Beneficiaries

Name of Beneficiary	Village	Type of input received	Date of interview
Mr Khaleel Ismail	Hanaway	Pregnant Heifer	20-11-2008
Mr Mohammad Shalhoob	Quana	Pregnant Heifer	20-11-2008
Mr Bilal Amer	Quana	Pregnant Heifer	20-11-2008
Mr Ali Saeed Duka	Aiteet	Pregnant Heifer	20-11-2008
Mr Yossef Basma	Aiteet	Not a beneficiary	20-11-2008
Mr Abedlateef Madfi	Aiteet	Baladi Goat + Shami Buck	20-11-2008
Mr Ali Madfi	Aiteet	Baladi Goat	20-11-2008
Mr Hassan M. Balhas	Sidikine	Pregnant Heifer	20-11-2008
Mr Ali Azam	Sidikine	Pregnant Heifer	20-11-2008
Mr Hassan K. Balhas	Sidikine	Baladi Goat	20-11-2008
Mr Hajer K. Balhas	Sidikine	Pregnant Heifer	20-11-2008
Mr Mohammad S. Barakat	Sidikine	Pregnant Heifer	20-11-2008
Mr Hassan Azam	Sidikine	Baladi Goat	20-11-2008

Mr. Fiad H. Balhas	Sidikine	Baladi Goat	20-11-2008
Mr Yossef Barakat	Sidikine	Baladi Goat	20-11-2008
Mr Asem Barakat	Sidikine	Baladi Goat	20-11-2008
Mr Hussain Moreb	Sidikine	Baladi Goat + Shami Buck	20-11-2008
Mr Mustafa Al-Jamal	Bazowrieh	Pregnant Heifer	20-11-2008
Mr Abdelhussain Madraj	Bazowrieh	Pregnant Heifer	20-11-2008
Mr Mohammad Dameraji	Bazowrieh	Pregnant Heifer	20-11-2008
Mr Ali A. Soror	Bazowrieh	Not a Beneficiary	20-11-2008
Mr Hussain Aedwan	Zibkine	Pregnant Heifer	20-11-2008
Mr Ahmad Amasha	Froun	Pregnant Heifer	21-11-2008
Mr Mohammad Ghoul	Froun	Baladi Goat + Shami Buck	21-11-2008
Mr Ibrahim Karaki	Gandowrieh	Pregnant Heifer	21-11-2008
Mr Mousa Abeed	Marwahin	Pregnant Heifer	21-11-2008
Mr Mohammad Srer	Aita el chaab	Pregnant Heifer	21-11-2008
Mr Ali Abed Rida	Aita el chaab	Pregnant Heifer	21-11-2008
Mr Mohammad Fawaz	Tibnin	Pregnant Heifer	21-11-2008
Mr. Khaleel Somadi	Tibnin	Pregnant Heifer	21-11-2008
Mr Ali Sabra	Majdaselam	Chairman of Cattle coop.	21-11-2008
Mr Abbas Zuhdi	Majdaselam	Pregnant Heifer	21-11-2008
M Hassan Sabra	Majdaselam	Pregnant Heifer	21-11-2008
Mr Ali Halawi	Majdaselam	Pregnant Heifer	21-11-2008
MS Zynab Hamza	Jmeijmeh	Pregnant Heifer	21-11-2008
Mr Jamal Mustafa	Srifa	Pregnant Heifer	21-11-2008
Ms Zynab Yaqoub	Houla	Pregnant Heifer	22-11-2008
Mr Mahmoud Yakoob	Houla	Pregnant Heifer	22-11-2008
Mr Ali Ahmad Hussain	Houla	Pregnant Heifer	22-11-2008
Mr Galeb Haj	Houla	Pregnant Heifer	22-11-2008
Mr Hassan Qtash	Houla	Baladi Goat + Shami Buck	22-11-2008
Mr Aqeel Mobarak	Markaba	Pregnant Heifer	22-11-2008
Mr Muneef Shahla	Markaba	Baladi Goat + Shami Buck	22-11-2008
Mr Ibrahim Sheeht	Kfar Killa	Pregnant Heifer	22-11-2008
Mr Ismail Sheeht	Kfar Killa	Pregnant Heifer	22-11-2008
Mr Hassan Kamel Saad	Khiam	Baladi Goat + Shami Buck	22-11-2008
Mr Ali M. Saad	Khiam	Pregnant Heifer	22-11-2008
Mr Abdo Abo Abbas	Khiam	Pregnant Heifer	22-11-2008
Mr Mohammad Qadri	Kafer Shouba	Baladi Goat + Shami Buck	22-11-2008
Mr Mohammad Saeed	Kafer Shouba	Baladi Goat	22-11-2008
Mr Ibrahim Qadri	Kafer Shouba	Baladi Goat	22-11-2008
Mr Haitham Abdelal	Halta	Baladi Goat	22-11-2008
Mr Mohammad Abdelal	Halta	Baladi Goat + Shami Buck	22-11-2008
Mr Osama Abdelal	Halta	Baladi Goat	22-11-2008
Mr Hussain Abdelal	Halta	Baladi Goat	22-11-2008

Annex Three: Publications/Training Materials Produced

OSRO/LEB/701/UNJ

1. Greenhouse Design and Construction
2. Good Agricultural Practices in Greenhouse Crops
3. Irrigation and Fertigation Management of Greenhouse Crops
4. Vegetable Production in Open Field
5. Technical Manual on Greenhouse Production

OSRO/LEB/702/UNJ

Five booklets (1000 copies each) and five posters (500 copies each):

1. The Most significant Tips for Dairy Cow Feeding
2. Your Success in Dairy Cow Management = Your Attention paid to Dairy Cow during Dry-Pre-Post Calving Periods
3. What are the Important Tips to Improve Fertility of your Cows?
4. How can you Prevent Mastitis in your Dairy Herd?
5. How can you Prevent Foot Rot in your Dairy Herd?

Annex Four: Timeline of Procurement Process

VEGETABLE SEED AND GREENHOUSES

	ACTIVITY
Nov 07	<ul style="list-style-type: none"> - Project Document finalized and presented to Project Steering Committee - Preparation of technical specifications for greenhouses, seeds, fertilizer, and pesticides
Dec 07	<ul style="list-style-type: none"> - Finalization of tech specs, submission to technical units for clearance... - technical specifications for greenhouses were technically cleared on 27 Dec. - all other specifications were still awaiting clearances
Jan 08	<ul style="list-style-type: none"> - Request to launch tender for greenhouses sent to AFSP on 15 January for all types of greenhouses – double span, single span and upgrading. - AFSP split tender according to types of greenhouse and preparations for tender documentation begun in late January - Seeds specifications were under review and technical unit requesting further details, including adherence to the Quality Declared Seed table. Specifications approved on 08 January - when it became apparent that the greenhouse procurement will be delayed and the installation would occur only in Spring, too late for making plantlets for distribution. In January, it was decided to cancel ordering the seeds previously cleared and do new specifications for seeds to be distributed locally. Under consideration was also to buy plantlets from already established nurseries in Lebanon to meet the spring planting season, but the professional nurseries did not have enough plantlets available for distribution to the beneficiaries.
Feb 08	<ul style="list-style-type: none"> - Tender issued for greenhouses on 15 February - During month of February, specifications for new variety of seeds prepared at field level and appropriate clearances received
March 08	<ul style="list-style-type: none"> - Request made to AFSP on 11 March to issue tender for local variety seeds through the FAO Lebanon office. AFSP granted local procurement of vegetable seed on 13 March. - Tender launched locally on 19 March
April 08	<ul style="list-style-type: none"> - Tender Opening Panel met on 1 April to open tenders for vegetable seeds - Purchase Orders to 3 suppliers for seeds sent out between 7 and 8 April - during month of April, seeds delivered and kept in warehouse. distribution plan made and final beneficiaries list established with newly added beneficiaries
May 08	<ul style="list-style-type: none"> - During month of May and June, seeds distributed to 1 660 open field farmers.

OSRO/LEB/701/UNJ

Annex Five: Documents consulted by the Mission

- Project Documentation (progress/mission reports, transactions listings, financial statements)
- Documents available on LRF website (<http://www.undp.org/mdtf/lebanon/overview.shtml>)
- Economist Intelligence Unit reports
- World Bank documents on Lebanon (<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/LEBANON/EXTN/0>)