

## ANNUAL PROJECT REPORT (APR)

### Basic project information

Programme or project number and title: **INT/98/K02, Emergency Control of the Moroccan Locust and other Insect Pests**

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Designated institution: **State Board for Agricultural Research, Ministry of Agriculture**

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Project starting date:

Originally planned: **January 2000**

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Actual: **December 2000**

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Project completion date:

Originally planned: **December 2001**

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New: **December 2002**

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Total budget (\$):

Original: **\$50,000**

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Latest signed revision: **\$50,000**

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Period covered by the report:

**Januray 2001-October 2002**

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## **PROJECT ASSESSMENT**

1. What are the major achievements of the programme or project *vis-à-vis* the expected results during the year under review? To the extent possible, include an assessment of the potential impact, sustainability and contribution to capacity development.

Out of the five expected outcomes (see Part II of this report for the complete list of outcomes, outputs and results), the project achieved acceptable results in the first four. Under the fifth outcome, which relates to regional coordination, no results were achieved due to the weak response from neighbouring countries. The project was initially designed to address the problem of degrading pest management and control in Iraq. Overall, the project contributed to developing the pest control management capacities, the capacity of technical staff in the pest control fields, in addition to upgrading 4 pest control research labs through the supply of equipment

2. What major issues and problems are affecting the achievement of programme or project results?

The scale of the project is not commensurate with the level of pest control requirements of the country. Surveys have shown that the Jasmine Whitefly pest which was discovered during the implementation of project is causing devastating damage in the citrus crop in the country. Citrus is an important crop in Iraq, and it is mainly found in the central area covering around 40,000 Hectares. An estimated labour force of 75,000 depends on this crop for income. Since in comparison, there is an acute shortage of pesticides, low skill level, and lack of adequate laboratories and equipment, the limited resources provided by the project is not enough to properly address the critical situation. Another difficulty arises from the weak response of the pest control authorities in neighbouring countries. These authorities were contacted for participation in one of the project's activities, but no response was received so far.

3. How should these issues or problems be resolved? Please explain in detail the action(s) recommended. Specify who should be responsible for such actions. Also indicate a tentative time-frame and the resources required.

A more comprehensive project to address citrus pest infections is now required. One of the objectives of the current project is to lead into a more comprehensive Integrated Pest Management programme. Results from the current project should be used in the design of the new project, particularly in assessing material and human capacity required for the programme. UNDP should work with the State Board for Agricultural Research to formulate a proposal for a three-year project to start early 2003, to be initially funded by UNDP TRAC resources. The up-coming Tri-partite Meeting for this project, which will be attended by representatives from the Ministry of Foreign Affairs, and the Ministry of Planning, should be used to demonstrate the priority and importance of the required programme.

4. What new developments (if any) are likely to affect the achievement of programme or project results? What do you recommend to respond to these developments?

Lack of response from concerned authorities in neighbouring countries will prevent the implementation of the regional workshop. Time and prevailing conditions prevents pursuing these activities. However, the compilation of project findings for use by other neighbouring countries will be pursued.

5. What are the views of the target groups with regard to the programme or project? Please note any significant gender-based differences in those views.

When compared with the initial requirements, the State Board finds the results of the project as satisfying. However, the State Bureau for Agricultural Research suggests that in order that the project completely fulfils its objectives, it should be extended into a full-fledged integrated pest control programme.

6. To date, what lessons (both positive and negative) can be drawn from the experience of the programme or project?

- Initial preparations should be made to ensure the availability of required resources in time for the planned starting date of the project.
- National Executing Agency should be well trained in UNDP financial procedures and practices, in order to ensure the timely submission and acceptable Financial Reports, Direct Payment Requests, and their supporting documents
- UNDP should ensure reporting of quantitative indicators by the Executing Agency to measure project success, and fulfilment of requirements

7. If the programme or project has been evaluated, what is the implementation status of the recommendations made by the evaluators?

Not evaluated

8. Do you propose any substantive revision to the programme or project document? If yes, what are they? State justification.

The project was successful in its main objectives and no revision of the current project is suggested. One of the main achievements of the project is to lay the basis of a more comprehensive Integrated Pest Management Programme (IPM). The IPM would focus on the newly identified Jasmine Whitefly, as this pest was found to have the more severe effect on crop production in the country.

**Programme or project summary table**

<b>Project title and number: Emergency Control Measures of the Moroccan Locust and Other Insect Pests, INT/98/K02</b>		<b>Management arrangement: National Execution</b>	
<b>Designated institution: State Board for Agricultural Research, Ministry of Agriculture.</b>		<b>Period covered: Jan 2000 – Dec 2002</b>	
<b>OVERALL ASSESSMENT</b>			
<i>Most of the expected outputs were achieved, and the planned activities under each output were implemented. However, outputs relating to regional coordination were not produced, due to the lack of response from neighbouring countries. The remaining activities to be implemented under this project is the training of senior staff in the State Board for Agricultural Research, and the preparation of the final reports</i>			
<b>FINANCIAL SUMMARY</b>			
<b>Source of funds</b>	<b>Budget (2001-2002) (\$ '000)</b>	<b>Up-to-date Expenditures (\$ '000)</b>	<b>Delivery rate (%)</b>
Perez Guerrero Trust Fund	50	37	74%

## SUMMARY OF RESULTS

	<b>Project Outcomes</b>	<b>Indicators</b>	<b>Achievements</b>
<b>1</b>	To evaluate and select for registration specific chemical insecticides suitable for the control ML, EWSSF, and CLM in a manner as to minimize the potential environmental risks resulting from the imperial use of broad-spectrum chemical insecticides	An effective pesticide identified and registered for each of the ML, EWSSF, and CLM pests.	Three insecticides were identified and tested (Vertimec, Trebon, Admiral). These chemicals were locally available and registered. They were effective against the pests detected. Biorational control of pests is preferred to chemical control methods, however, since these methods are time-intensive, and time was not available for the their full application, chemical pest control was used.
<b>2</b>	To determine the most efficient and economical technique for the control of ML, EWSSF, and CLM	Efficient and systematic application of effective techniques carried out by pest control centres in the country	Chemical pesticides were effective and time/cost-efficient. On the biorational pest control techniques, two parasitoids and one predator have been identified for the CLM
<b>3</b>	Assist in the continuous efforts to develop and implement an integrated pest management programme for ML, EWSSF, and CLM	Outline of Integrated Pest Management submitted	Draft of IPM submitted
<b>4</b>	To provide training to improve the capabilities of the professional and intermediate technical staff by in-project and short-term training fellowships abroad	Pest control management staff and technical staff can identify and implement pest control programmes	Training activities under the project are almost complete. The skill level of technical staff upgraded in the area of biorational pest control techniques in anticipation of a comprehensive Integrated Pest Management programme.
<b>5</b>	To exchange information with the neighboring countries about the biology, ecology and control measure of ML, EWSSF, and CLM	Number of reports shared and pest control coordination activities among neighbouring countries	No results achieved.

## SUMMARY OF RESULTS

Output targets	Achievement of outputs
<p><b>Outcome 1</b></p> <ul style="list-style-type: none"> <li>- Selection/Recruitment of project staff</li> <li>- Selection and registration of pesticides</li> </ul>	<ul style="list-style-type: none"> <li>- The project was planned to start in early 2000. However, due to the delay in the transfer of funds till August 2000, and the time required to appoint a National Project Manager and the Project Consultant, actual project delivery only started in December 2000. The Project Consultant fulfilled the requirements of training and preparation of the project's technical reports. It was not found necessary to recruit technical staff other than the Project Consultant and the National Project Manager.</li> <li>- Locally available and registered insecticides were identified, such as Vertimec, Admiral, and Trebon. These insecticides were tested and were found effective against the Citrus Leafminer (CLM). Therefore, there was no need to further identify and register new pesticides. Biorational control of the CLM is being investigated with some success. However, due to the long time this method takes, use of chemical pesticides was preferred, especially by the orchardardists, for quick results.</li> <li>- Sixty-five per cent of project procurement has been completed (See Annex I)</li> </ul>
<p><b>Outcome 2</b></p> <ul style="list-style-type: none"> <li>- Determination of efficient techniques to control the ML, EWSSF, and CLM pests</li> </ul>	<ul style="list-style-type: none"> <li>- A general survey was conducted to monitor and study the movement and densities of the Moroccan Locust. The survey proved the absence of the pest from Iraqi soil. The EWSSF was also found to be of insignificant effect (1%). However surveys showed a severe infection of the citrus crops with the Citrus Leaf Miner (CLM). Citrus crop production in some parts of the country fell to nil. Another pest infecting citrus was found in the process. This pest is new to the country and was sent for identification abroad. It was found to be what is called the Jasmine Whitefly.</li> <li>- Economic injury caused by the newly discovered Jasmine Whitefly was the severest among the pests covered by the project. In combination with the Citrus Leafminer, 90% of citrus plants were infected, of which 70% infection was from the Jasmine Whitefly alone. Through the use of pesticides, it was possible to reduce infection in citrus nurseries to 10%. However, the technique of using pesticides is reaching exhaustion, as it has a counter-effect on the more environment-friendly biorational techniques, which are preferred, and aimed for in a proposal for an Integrated Pest Management programme, to follow this project.</li> </ul>
<p><b>Outcome 3</b></p> <ul style="list-style-type: none"> <li>- Development of an integrated pest management programme for the ML, EWSSF, and CLM</li> </ul>	<ul style="list-style-type: none"> <li>- Research is being conducted to develop natural enemies to the CLM pest. Two parasitoids and a predator were identified.</li> <li>- A draft IPM was presented by State Board for Agricultural Research.</li> </ul>

<p><b>Outcome 4</b></p> <ul style="list-style-type: none"> <li>- Improvement of knowledge and capabilities of junior and intermediate technical staff by in-project instruction</li> </ul>	<ul style="list-style-type: none"> <li>- One course of in-job training for each of the three pests were conducted. Eight technical staff were trained one of whom was a women (the number of women working in technical support in the Agricultural field is low compared with other governmental sectors). Six fellowships to ICARDA, Syria were completed, and two training fellowships for senior staff are underway</li> </ul>
<p><b>SUMMARY OF RESULTS</b></p>	
<p><b>Output targets</b></p>	<p><b>Achievement of outputs</b></p>
<p><b>Outcome 5</b></p> <ul style="list-style-type: none"> <li>- Compiling of information on the biology, ecology, and control methods of the ML, EWSSF, and CLM</li> </ul>	<ul style="list-style-type: none"> <li>- Concerned authorities in Syria, Turkey, Iran, and Jordan were contacted but no positive response was received.</li> </ul>