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**REPORT**  
**EMERGENCY PREVENTION SYSTEM**  
**FOR TRANSBOUNDARY ANIMAL AND PLANT PESTS AND DISEASES**  
**(EMPRES)**  
**(DESERT LOCUST COMPONENT)**

**11<sup>TH</sup> EMPRES LIAISON OFFICERS MEETING**

**DJIBOUTI, REPUBLIC OF DJIBOUTI**

**19 – 23 OCTOBER 2003**

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**Eleventh EMPRES Liaison Officers Meeting  
19-23 October 2003  
Djibouti, Republic of Djibouti**

**I. OPENING**

1. The 11th ELO Meeting began with Mr. Rachid Elmi, EMPRES Liaison Officer (ELO) from Djibouti, thanking H.E. the Minister of Agriculture, Livestock and Sea, Mr. Dini Abdallah Bililis, for accepting officially to open the meeting. He then introduced those on the podium and invited the EMPRES/CR Coordinator, Mr. Christian Pantenius, to speak on behalf of the Food and Agriculture Organization of the United Nation.
2. The EMPRES/CR Coordinator expressed his thanks to the Government of Djibouti for hosting the ELO Meeting and pointed out the importance of good collaboration between the various partners in the Programme. He reminded the participants of the main objective of the EMPRES/CR Programme. He described the good progress that had been made since 1997 in achieving the EMPRES/CR goals and briefed the participants on the results of the evaluation of the current Phase II, which, had recommended a third phase of three years. The Phase III planning workshop held in Rome in May 2003 had recommended that EMPRES/CR should mainly focus on transferring programme responsibilities to the FAO Commission for Controlling the Desert Locust in the Central Region (CRC) and the EMPRES/CR member countries. Improved preparedness of the national and regional locust units through contingency planning was emphasized. The EMPRES/CR Coordinator said: "Successful management of the Desert Locust requires well coordinated collective efforts between all affected countries, since the failure of actions in one country may have severe consequences on food security of its neighbours." Referring to the recent Desert Locust outbreaks in Mauritania, Mali and Sudan, he informed the participants that FAO had issued an "Alert" for Desert Locust for the first time for several years. This underlined the importance of vigilance even during recession periods. He made an appeal to the delegates of the member countries to monitor the current situation thoroughly during the next months and to take the necessary action, if a more serious situation was to be avoided. He ended by reminding the participants that the outcome of the meeting will be crucial for the further success of the EMPRES/CR Programme.
3. H.E. the Minister of Agriculture, Livestock and Sea, Djibouti, welcomed the delegates from the EMPRES/CR member countries to Djibouti for the 11th ELO Meeting and expressed his deep gratitude to FAO for having had accepted his country's invitation to host the meeting. He referred to the seriousness of the Desert Locust invasions of 1986/89, and stressed the importance of the FAO-EMPRES Programme assistance to affected countries to be ready for possible outbreaks and to reduce the adverse effects of Desert Locust emergencies. He noted with pleasure that the locust unit in Djibouti had been rehabilitated as a result of the EMPRES/CR efforts. He mentioned that Djibouti is actively participating in international efforts to control the Desert Locust. His country had recently joined the CRC and he further reiterated his Government's obligations in this context of international collaboration. The Minister expressed his hope that the EMPRES/CR Phase III work programme would concentrate on sustainability issues and transfer of responsibilities to member countries and the Commission. He ended by congratulating the EMPRES/CR Coordinator, and all in FAO/HQ for their efforts and declared the meeting open.
4. The draft agenda for the meeting was presented by the EMPRES/CR Coordinator and was adopted with minor changes. The Coordinator introduced the new EMPRES Liaison Officer, Mr. Ghazi Hawari from Saudi Arabia, welcomed back Mr. Mamoon Al-Alawi from Oman who had been away for M.Sc. studies and introduced the new FAO-EMPRES/CR staff member, Mr. Charles Dewhurst. Mr. Abderrahmane Hafraoui, Senior Officer in the Locust Group, FAO/HQ, conveyed the apologies of the EMPRES Western Region Coordinator, Mr. Thami Benhalima, and the NPO, Mr. Mohamed Lemine, for their non-participation in the meeting due to the current Desert Locust developments the Western Region.
5. On behalf of the Food and Agriculture Organization of the United Nations, Mr. Hafraoui, presented a silver medal to the Minister of Agriculture of Djibouti, which commemorated 50 years of FAO's involvement in Desert Locust management. The award was received on behalf of the Minister by the ELO, Mr. Rachid Hersi.
6. Mr. Peter Odiyo (DLCO-EA), Mr. Felege Elias (ELO Ethiopia) and Mr. Charles Dewhurst (EMPRES/CR) were elected as the drafting committee.

## II. LOCUST SITUATION IN THE CENTRAL REGION

7. The Locust Information and Forecasting Officer, FAO HQ, Mr. Keith Cressman gave an update on the current Desert Locust situation in the Central and Western Regions. He said that FAO had issued an alert to all affected countries on 17 October 2003. Desert Locust outbreaks had been reported in Mauritania, Niger and Sudan involving early signs of gregarization. Control operations were launched in Mauritania and Sudan on 15/10/2003. The summer rains had nearly finished and vegetation was drying out in most places. Further breeding was likely in case of good winter rains. It was further noted that Morocco and Algeria could potentially be affected by the developments in Mauritania and Niger. As a first reaction, FAO had supported survey and control capabilities in these countries. So far, no Desert Locust had been reported in the Eastern Region and it was seen unlikely that the locust populations from Western Region would invade the Central Region in the near future.
8. Extensive surveys carried out during the past months in the summer breeding areas of Sudan could not detect significant Desert Locust numbers. Nonetheless, several small not yet fully gregarious swarms were reported later along the Atbara River in early October covering about 3400 ha. These were expected to move from the summer breeding areas northeast towards Derudeb and were likely to continue to the winter breeding areas of the Red Sea coast.
9. The ELO from Sudan informed the participants that the Government had five aircraft on standby and that an additional one could be provided by DLCO-EA. Sufficient pesticides were available to cope with the evolving situation and ground control was being undertaken with up to 500 ha controlled by 17/10. He said that locusts had already been reported on the Red Sea coast. DLIS said that the latter information had not been received at FAO HQ, and if it had, FAO would have extended its alert to include a warning also to Saudi Arabia. The participants expressed their concern at the failure to pass on all information available. Mr. Cressman said that the Red Sea coastal area and the eastern side of the river Nile should now be monitored very carefully. Locusts from Sudan were at this stage unlikely to move into Egypt on a large scale because of the prevailing wind direction, although a few locusts might reach the southeast corner.

## III. EMPRES/CR, PHASE III

10. The EMPRES/CR Coordinator briefed the participants of the main objectives of Phase III and the need to achieving sustainability of the EMPRES approach by the end of Phase III. Further support would be given to developing self-reliant national training programmes, to improving the management of resources and to the rational supervision of survey and control operations as part of the Contingency Planning process. He gave details of the technical, strategic and campaign management aspects and explained the need for member countries to take on ownership and responsibility for implementing Desert Locust management components to achieve the targets. It was also noted that with the CRC taking over coordination responsibilities from EMPRES by end of Phase III, it was essential that member countries should fulfill their financial commitments to the Commission.
11. The EMPRES/CR budget holder, Mr. Clive Elliott, gave an overview of the financial situation of the EMPRES/CR Programme and reviewed possible resources for funding Phase III. He explained that if all indicated funds were actually received, about US\$ 2,634,000 would be available for Phase III. However, the EMPRES budget proposed was US\$ 3,353,000 giving a shortfall of US\$ 719,000. Further support might be possible from Italy to bridge the shortfall. Seeking support from Saudi Arabia was also under consideration. He concluded that sufficient funds were likely to be available at least for the first year of Phase III, but further efforts were necessary to secure full support from the donor community.

## IV. LOCUST REPORTING STANDARDS

12. The FAO Locust Information and Forecasting Officer presented an assessment of locust reports received from national Locust Control Units (LCU) by the Desert Locust Information Service (DLIS) for the period 2000 – 2003. The assessment covered quality, timeliness and frequency criteria. The analysis revealed that continued improvement had been made by all countries resulting in an overall high performance rating. The need for better support to Information Officers by the senior management of the Locust Control Units was noted and some “fine tuning” regarding report quality was still required in some cases. More accurate checking of data by the national Information Officers before the reports are forwarded to DLIS was required by plotting the

data on RAMSES1 maps to ensure that localities are recorded in the correct places. During the discussion, it was recommended that an official letter should be sent to the relevant ministries of member countries acknowledging the improvement in the performance of the DL units.

13. The EMPRES/CR Locust Officer, Mr. Charles Dewhurst, presented an Excel spreadsheet for facilitating the estimation of the financial requirements of survey operations. The spreadsheet automatically calculates the funds required once key parameters had been inserted into the relevant fields of the spreadsheet. After some discussion the participants recommended that the ELOs should provide details from their countries so that parameters such as DSA and fuel cost could be entered into a cost estimation sheet specifically for their country. It was further recommended to develop a similar approach to estimate the costs of control operations.
14. Based on the experience made in Yemen, the EMPRES/CR National Professional Officer, Mr. Fuad Bahakim, presented a scheme for introducing an improved national locust information system. He explained the elements and components of the system, highlighted the obstacles observed and lessons learnt in using new techniques such as RAMSES, eLocust, Codan HF radios and remote sensing data. The process of identifying information sources within the summer and winter breeding areas was described and how they were linked to the Locust Control Centre in Sana'a. The result was better and timelier information from the field, with consequently more targeted survey operations, and an increased number of locust reports of better quality sent to DLIS since January 2003.
15. An extra session was held after the official end of the first day, to discuss necessary actions in response to the current Desert Locust outbreak in Sudan. The FAO Locust Forecasting Officer gave details of the current DL situation, likely movements of the locusts within Sudan, and their possible migration to Eritrea, Egypt, Yemen and Saudi Arabia. He pointed out that the proposed measures would be supplementary to the on-going operations in the River Atbara area. The following actions were jointly recommended to be taken immediately:

Sudan:

- Deploy 6 vehicles, 2 in each of three bases Suakin, Sinkat and Durdeib,
- Arrange 2 aircraft to be on standby at Wad Medani,
- Deploy 1 vehicle-mounted sprayer, 2 backpack sprayers to each base above,
- Deploy 8-12 locust officers,
- Repair and maintain the three airstrips in Suakin, Sinkat and Tokar.

Egypt:

- Activate 2 sub-bases at Abu Simbel and Abu Ramad in addition to the main base of Aswan.

Saudi Arabia:

- Deploy one survey team each at the 6 bases in Yenbo, Rabigh, Khulais, Al-lith, Qunfadah and Jizan.

Eritrea:

- Deploy one survey team of 2 vehicles and 3 officers to Mahimet near the Sudanese border.

Yemen:

- No immediate threat was identified, but routine surveys of the Red Sea coast should continue.

16. Concerning the establishment of national steering committees in the member countries, it was recommended that the intergovernmental steering committee in Sudan should immediately be activated.

## V. MEMBER COUNTRY ACHIEVEMENTS AND PROGRESS

17. Each ELO presented a country report on the progress made in introducing improved Desert Locust management components into the national programmes. The reports were prepared in accordance to the standard format developed by EMPRES/CR.

<sup>1</sup> GIS based Locust data management system (*Reconnaissance and Management System of the Environment of Schistocerca*)

Djibouti

18. The ELO from Djibouti highlighted the recent changes at the Ministry of Agriculture. He mentioned that eight surveys had been carried out during the past year but only tree locust and grasshoppers were observed. He pointed out that the national locust information system is still poor due to lack of human resources. Also, neither RAMSES nor eLocust had been introduced and only one vehicle was available at the LCU. No national survey and control training courses were organized in 2003.

DLCO-EA

19. The Director of DLCO-EA informed the participants that the Organization was providing support to the plant protection services in Ethiopia, Eritrea and Sudan in controlling quelea birds, grasshoppers and tree locusts. He pointed out that the aircraft based in Sudan could immediately be deployed for Desert Locust control if required and that priority would be given to Desert Locust control if the situation worsens.

The interaction between the regional institutions, DLCO-EA and the CRC, was discussed. The DLCO-EA Director explained the process involved in aircraft deployment, the issue of harmonizing preventive control with the Commission and EMPRES/CR. The participants mentioned that they did not receive the reports of the Joint Technical Forum Meetings and requested that minutes of meetings be made available to all EMPRES/CR member countries.

Egypt

20. The ELO from Egypt reported that the climatic conditions remained dry and unfavourable for Desert Locust breeding in most areas and the locust situation remained calm. It was only necessary to conduct control operations against grasshoppers. The ELO described some organizational changes, and the progress made to improve survey operations, information management and early control activities. The control capacity had been increased, some of the bases were being re-built and re-activated. The participants offered their appreciations for the efforts that had been made in Egypt.

Eritrea

21. The ELO from Eritrea highlighted the progress made by improving the weather forecasting infrastructure in his country. With more than 100 rainfall stations, there was good coverage now for the country. Desert Locust surveys were undertaken in February and September 2003 in both the coastal and summer breeding areas. Scattered Desert Locusts were found within an area of 18,000 ha mixed with grasshoppers and control operations were undertaken on 1,500 ha. Training had been received from DLIS staff on the use of the new RAMSES version and satellite image analysis. He mentioned that four qualified trainers were now available in the country who were trained by EMPRES/CR. Specific problems were identified with regard to the slow internet connection at the Ministry, which hampered smooth interaction with EMPRES/CR and DLIS. He informed the participants of the intention of his Government to train the plant protection officers on the identification of the Desert Locust, and that a contingency plan for aerial spraying will be prepared. He also mentioned the need to further stimulate the introduction of mycopesticides by initiating bio-control trials again.

Ethiopia

22. The ELO from Ethiopia reviewed the rainfall situation and the ecological conditions in the country during the past 12 months. Six teams surveyed 33 sites in the suspected Desert Locust areas. The recommended FAO Locust Survey and Spray Monitoring Form as well as GPS handsets had been regularly used by all survey teams. More recently, the Information Officer succeeded in downloading the satellite imageries from the FAO FTP web site and was now able to analyse VGI maps every decade. To improve the training capacity of the LCU, training materials were purchased and two national training courses conducted during the reporting period. Staff from DLIS provided training on the new RAMSES version and the use of remote sensing images to the Information Officers from the Crop Production and Protection Department and from DLCO-EA.

The participants stressed the importance of a full-time Information Officer at the LCU in Addis Ababa. The ELO explained that the Ministry of Agriculture was actively considering the provision of three additional staff to support the LCU. He also recommended to his counterparts to practice RAMSES on a daily basis as an appropriate way to become more confident in operating the system. The participants congratulated the ELO for his excellent achievements in his country and suggested that based on his good experience the ELO should also assist the other member countries in the use of RAMSES.

### Oman

23. The general rainfall and ecological conditions during the past 12 months were presented by the ELO from Oman. Compared to previous years, rainfall during 2003 was better but breeding conditions remained unfavourable because of high temperatures and the quick drying up of the vegetation. He reported that six regional survey teams carried out surveys, usually after rainfall. Except for one hopper, no locusts were detected. Plans for bio-control trials with *Metarhizium* could not be implemented because of the lack of locusts. However, the ELO requested information on the trials currently organized by EMPRES/CR and the University of Addis Ababa. He informed the participants that with support from EMPRES/CR an updated version of RAMSES was installed in May, and was now in use. It was also planned to provide training on RAMSES to the staff of six survey teams so that they better understand the purpose of the system and to introduce eLocust at the LCU.

### Saudi Arabia

24. The Kingdom of Saudi Arabia had been free of Desert Locust infestation throughout the past months. Medium to heavy rainfall was recorded in the coastal areas during July and August 2003. The ELO from Saudi Arabia said that the recently obtained RAMSES locust data base was only being used on a very limited scale due to computer problems. The FAO Remote Sensing Expert would visit Saudi Arabia in December to assist in resolving the difficulties with RAMSES and to introduce eLocust.

### Northern Somalia

25. The EMPRES Link Person (ELP) from Northern Somalia summarised the climatic developments in the region and the Desert Locust situation during the past months. Five meteorological stations are functional in Northern Somalia. In total eleven surveys had been carried out and 32 FAO Locust Survey & Control Forms passed electronically to the DLIS, but only a few, both mature and immature, Desert Locust were reported. The LCU is composed of only three staff that benefited from EMPRES/CR in terms of equipment and technical advice. It was planned to further expand the locust information system at the national level by involving and training private radio operators on communicating locust and rainfall information from travellers and nomads to the MoA.
26. The efforts of conducting locust surveys by such a small team were much appreciated by the participants of the meeting and the ELP was recommended to involve also NGOs for assistance in this matter. In relation to control capacity, the ELP said that only a few officers were familiar with using knapsack sprayers.

### Sudan

27. The ELO from Sudan reported that the Desert Locust situation in the winter breeding areas of Sudan remained calm during the period of late 2002 and until early 2003. Unusually heavy and widespread rainfall during the summer season 2003 had caused increasing numbers of Desert Locust. In the 1st decade of October, not fully gregarious swarms were reported from near Atbara River covering about 3400 ha. The PPD immediately initiated control operations. The LCU carried out six surveys during the winter breeding season 2002/2003 and 13 surveys during the summer breeding season. GPS equipment was regularly used by the survey teams and locust reports transferred to the DLIS.

Further significant progress was reported regarding the rehabilitation of the locust reference library at the PPD; the introduction of bio-control technologies such as *Metarhizium*; annual budget- plus work-planning, and regular up-dating of the inventory. With guidance from an expert from the Western Region, a self-reflection workshop was conducted to evaluate and improve the performance of the Locust Control Service. The use of the RAMSES locust database continued on a daily basis, survey plans for the different seasons were developed and satellite imageries analysing green vegetation had also been used. The provision of a diesel generator by EMPRES/CR helped to alleviate the irregular power supply at the Locust Control Section.

28. During the discussion, the participants identified a number of constraints with regard to locust reporting and the control operations being carried out in Sudan. The ELO informed the meeting that pesticides are stocked in Sinkat, near Port Sudan, and from there they were distributed as required. The meeting expressed concern that locust information was arriving late at the DLIS because of a lengthy clearance process before it reached the LCU and then was forwarded to the DLIS. Such hold-ups could potentially harm FAO's ability to provide real-time alerts and warnings to the affected countries. It was also recommended that control teams should make use of the FAO Control Monitoring Form in all on-going and future control operations.

### Yemen

29. The ELO from Yemen said that all locust monitoring and control operations had been centralized under the umbrella of the Desert Locust Monitoring and Control Centre and that it had been given more autonomy by the GDPP. All surveys were conducted as planned with a total of 15 surveys in the summer breeding areas and 11 in the winter breeding areas, all of them using the FAO Desert Locust Survey and Spray Monitoring forms. All locust reports were sent regularly to the DLIS. The ELO noted that control operations on only 200ha against Desert Locust hopper bands were carried out near Aden during October 2002 with an efficiency of 70%. The first joint survey between Yemen and Saudi Arabia was carried out in December 2002. The Information Officer had benefited much from technical backstopping by the DLIS and that he is now confident in using RAMSES, eLocust and satellite imageries.

The ELO briefed the participants of the efforts made to introduce contingency planning procedures in Yemen. As a first step, all survey and control equipment at Centre had been listed and radio equipment stored at the GDPP were checked for further use and distribution to the field stations. Some of the parts had been found defective and should be ordered from outside Yemen as they are not available locally. A first draft national contingency plan had been prepared and submitted to *High Level Disaster Prevention Steering Committee* for subsequent approval.

## **VI. EMPRES ACTIVITIES, ACHIEVEMENTS AND OBSTACLES DURING 2003**

30. The participants reviewed the activities carried out since the last ELO meeting in October 2002 by using the card method. The assessment of the progress and achievements was done jointly and recommendations were made to carry forward some unfinished tasks to the EMPRES/CR work plan for year 2004. The participants found that the progress was generally satisfactory. Only a few activities had not been initiated or completed on time. Further details are reported in Annex 4.

## **VII. SUSTAINABILITY OF THE PROGRAMME**

31. A brainstorming session was conducted to develop a common understanding among the participants on the areas and implications of sustainability for the stakeholders of the EMPRES/CR programme. There was high agreement between the participants on the main points, which were centered on the member countries and the CRC taking over more responsibilities for various activities as listed in Annex 5. The strengthening of the CRC both financially through contributions and with additional personnel was considered to be essential to achieve sustainability by 2006.

## **VIII. PLANNING FOR YEAR 2004**

32. Based on the Phase III implementation document and the recommendations that evolved from the joint review of the EMPRES/CR progress the components for the year 2004 work plan were developed by two groups using the participatory card method. The findings are given in Annex 6.

## **IX. ADOPTION OF THE REPORT OF THE MEETING**

33. The draft minutes of the meeting were adopted by the participants with minor changes.

## **X. CLOSING**

34. On behalf of his government, the ELO from Eritrea invited the EMPRES/CR management to hold the next ELO Meeting in Asmara. The participants thanked the ELO for this offer and tentatively agreed that the 12th Meeting would be held in Eritrea in October 2004. As an alternative venue, the ELO from Egypt invited the participants to Egypt. Tentatively, it was also agreed to hold the 13th ELO Meeting in Ethiopia.
35. On behalf of the Minister of Agriculture, Livestock and Sea, the ELO from Djibouti thanked FAO for the honour of having organized the 11<sup>th</sup> ELO Meeting in the Republic of Djibouti. He mentioned that the Ministry tried its level best to provide all the facilities needed to make the meeting a successful one and asked to be excused if there were any shortcomings. He closed by wishing everybody a safe journey back home.

36. The EMPRES/CR Coordinator thanked the participants for all the excellent support which had led to a successful and satisfying meeting. The positive spirit of the meeting demonstrated the harmonious relationships and good collaboration between the participants which had been reflected in the satisfactory results achieved during the past 12 months.

## **XI. RECOMMENDATIONS**

37. All recommendations discussed during the meeting have been reflected in the planning of the activities for 2004.

Immediate recommendations emerging from the meeting:

- AGPP should prepare an official letter to the relevant ministries of member countries acknowledging the improvements made in locust surveying and reporting by the DL units.
- The ELOs should provide details from their countries to the EMPRES/CR Locust Officer in Khartoum so that a country specific survey cost estimation sheet could be prepared and sent back to them.
- The EMPRES/CR Locust Expert should develop a cost estimation sheet to allow the costs of control operations to be estimated better.
- The PPD Sudan should immediately activate the Intergovernmental Locust Steering Committee in Sudan.
- The PPD Sudan should assure that the control teams make use of the FAO Spray Monitoring Form in all on going and future control operations
- The FAO Remote Sensing Expert should assist the Locust Control Centre in Saudi Arabia in resolving the difficulties observed with RAMSES and to introduce eLocust.
- The CRC Secretary should provide the member countries with an updated list of aerial companies operating in the Region.
- The ELP from Northern Somalia should involve NGOs in assisting Desert Locust monitoring and control.

**Annex 1. List of Participants**

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**Annex 2. Meeting Agenda**

Day	Time	Activity	Remarks
<b>1st Day Sunday 19.10.</b>	08:00	Welcome and Opening Addresses	<ul style="list-style-type: none"> <li>Mr. C. Pantenius (FAO)</li> <li>Hon. Minister of Agriculture, Livestock and Fisheries</li> </ul>
	10:00 – 10:30	Coffee Break / Snacks	
	10:30	<ul style="list-style-type: none"> <li>Registration, introduction, presentation of the objectives and procedures of the meeting, introduction of new colleagues</li> <li>Adoption of the agenda; selection of secretariat</li> </ul>	Christian Pantenius (EMPRES) Lidia Naguib (EMPRES)
	12:00	EMPRES/CR Phase III, targets and concept	Christian Pantenius (EMPRES)
	12:30 – 13:30	Break for coffee and pray	
	13:30 14:00 15:00	<ul style="list-style-type: none"> <li>Financial situation for Phase III</li> <li>Assessment of DL reporting 2003</li> <li>Survey programme planner</li> </ul>	Clive Elliott (AGPP) Keith Cressman (AGPP) Charles Dewhurst (EMPRES)
	15:30 – 16:00	Coffee Break / Snacks	
	16:00	Development of national DL information systems (as per the example of Yemen)	Fuad Bahakim (EMPRES)
<b>2<sup>nd</sup> Day Monday 20.10.</b>	8:30	Presentation of country reports on progress	<b>Speakers:</b> ELOs present a country paper on the progress of introducing improved DL management components into the national DL control services.
	10:00 – 10:30	Coffee Break / Snacks	
	10:30	Presentation of country reports on progress (cont.)	
	12:30 – 13:30	Break for coffee and pray	
	13:30	Presentation of country reports on progress (cont.)	
	15:30 – 16:00	Coffee Break / Snacks	
	16:00	Final discussion and recommendations	
<b>3<sup>rd</sup> Day Tuesday 21.10.</b>	8:30	Detailed presentation of EMPRES activities, achievements and obstacles during year 2003	<ul style="list-style-type: none"> <li>FAO EMPRES-team (Card Method)</li> </ul>
	10:00 – 10:30	Coffee Break / Snacks	
	10:30	Detailed presentation of EMPRES activities, achievements and obstacles during year 2003 (cont.)	
	12:30 – 13:30	Break for coffee and pray	
	13:30	<b>"Working for sustainability"</b> – strengthening ownership	Group session in two groups, using the card method. One ELO group, one FAO EMPRES group
	15:30 – 16:00	Coffee Break / Snacks	
	16:00	Presentation of results, discussion and recommendations	Plenary

Day	Time	Activity	Remarks
<b>4th Day Wednesday 22.10.</b>	8:30	Planning for year 2004 <i>Development of detailed work plan</i>	Group session in two groups <u>Group 1:</u> Result 1 "DL management components taken over" Result 3 "Campaign evaluation and contingency planning" <u>Group 2:</u> Result 2 "Implementation of early warning systems" Result 4 "Alternative control technologies"
	10:00 – 10:30	Coffee Break	
	10:30	Planning for year 2004 (cont.)	
	12:30 – 13:30	Break for coffee and pray	
	13:30	Planning for year 2004 (cont.)	
	15:30 – 16:00	Coffee Break / Snacks	
	16:00	Presentation of results and final discussion	Plenary
	19:00	Farwell Cocktail Party at Sheraton Hotel	FAO EMPRES/CR
<b>5th Day Thursday 23.10.</b>	8:30	<ul style="list-style-type: none"> <li>Write up of minutes of meeting</li> <li>visit to Locust Control section and the DLCO-EA base</li> </ul>	<ul style="list-style-type: none"> <li>Secretariat</li> <li>ELO Djibouti, DLCO-EA, participants</li> </ul>
	12:30 – 13:30	Break for coffee and pray	
	13:30 15:00	<ul style="list-style-type: none"> <li>Presentation of Minutes of Meeting</li> <li>Closure</li> </ul>	<ul style="list-style-type: none"> <li>Plenary</li> <li>FAO/EMPRES</li> </ul>

**Annex 3:** Evaluation of EMPRES activities in 2003**Result 1:** Operational mandate of different regional organization in Desert Locust management harmonized**Indicator 1.1:** At least 1 EMPRES country joins the CRC as new member by 2002.**Indicator 1.2:** A draft Memorandum of Understanding between CRC/DLCO on the implementation of sustainable Desert Locust management concepts in the Central Region formulated by 2003.

Activity	Milestone	Achievements	Deviation	Recommendations
1.1 Coordinate EMPRES/CR activities with various partners	<ul style="list-style-type: none"> <li>• <b>FAO EMPRES staff meeting conducted in Khartoum, January 2003.</b></li> <li>• Coordinator attended 1<sup>st</sup> EMPRES/WR ELO Meeting, January 2003.</li> <li>• Phase III planning workshop / consultative committee meeting in Cairo, by May 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• FAO staff meeting held in Khartoum from 13-15 January 2003 with the main purpose to develop individual work plans.</li> <li>• EMPRES/CR Coordinator and CRC Secretary attended the 1<sup>st</sup> EMPRES/WR ELO Meeting in Niamey from 30 January – 3 February 2003.</li> <li>• A Phase II evaluation mission was organized in collaboration with AGPP and conducted from 24 Feb - 08 March 2003. The mission visited Egypt, Sudan and Eritrea. Because of security reasons, the EMPRES staff from Yemen had to join the mission in Cairo.</li> <li>• Based on the findings of the Phase II evaluation mission, a Phase III planning workshop was held in Rome from 19-23 May 2003, and a Phase II implementation document prepared.</li> </ul>		

Activity	Milestone	Achievements	Deviation	Recommendations
(still 1.1)	<ul style="list-style-type: none"> <li>• Technical Group meeting organized by June 2003.</li> <li>• Participation in 37<sup>th</sup> DLCC meeting in Rome by September 2003.</li> <li>• 11<sup>th</sup> ELO Meeting in Djibouti conducted by December 2003.</li> <li>• Coordinating travel conducted to:               <ul style="list-style-type: none"> <li>Saudi Arabia and Oman by June 2003.</li> <li>Eritrea and Somalia by August – September 2003.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The EMPRES/CR Coordinator participated in the 37<sup>th</sup> DLCC meeting in Rome from 22-26 Sept 2003 and gave a presentation on EMPRES/CR achievements and directions.</li> <li>• The 11<sup>th</sup> ELO Meeting took place in Djibouti from 19-23 October 2003 instead of December to avoid a clash of dates with 2<sup>nd</sup> EMPRES/WR ELO Meeting.</li> </ul> <p>The following country visits have been conducted:</p> <ul style="list-style-type: none"> <li>• Sudan: 13-15 Jan. 2003 (CP and FB)</li> <li>• Egypt - Sudan: 09 Jan. – 07 Feb. 2003 (FB)</li> <li>• Eritrea: 16-26 Feb. 2003 (CD and KC)</li> <li>• Saudi Arabia: 15-20 March 2003 (MB)</li> <li>• Ethiopia – Djibouti - Eritrea: 27 April – 03 May 2003 (MB)</li> <li>• Eritrea: 06-11 May 2003 (CD)</li> <li>• Oman: 09-15 May 2003 (PC)</li> <li>• Ethiopia: 27 May – 03 June 2003 (CP)</li> <li>• Somalia: 09-20 June 2003 (KC)</li> <li>• Kenya – Somalia – Djibouti - Eritrea: 25 June – 13 July (FB +CP)</li> <li>• Sudan-Eritrea: 20-26 July (PC)</li> <li>• Yemen: 5-12 Aug. 2003 (PC)</li> <li>• Ethiopia: 13-19 Aug. 2003 (PC)</li> </ul> <p>The visits contributed much to strengthening national capacities.</p>	<ul style="list-style-type: none"> <li>• The planned Technical Group Meeting did not take place as planned but has been rescheduled for early 2004.</li> </ul>	

Activity	Milestone	Achievements	Deviation	Recommendations
(still 1.1)	<ul style="list-style-type: none"> <li>Up to 10 visits organized for national experts by 12/03</li> <li>One locust officer from Syria participated in bio-control workshop in Sudan by Jan 2003.</li> </ul>	<ul style="list-style-type: none"> <li>One pesticide storekeeper from Jordan trained in Cairo, 15-19 December 2002.</li> <li>One locust officer from Syria participated in bio-control workshop in Port Sudan, 10-20 January 2003.</li> <li>DL Officers from Saudi Arabia and Sudan to DGPS workshop in Mauritania 13 December 2002.</li> </ul>		<ul style="list-style-type: none"> <li>Arrange for technical information visits in 2004</li> </ul>
1.2 Develop mechanisms towards sustainability of improved Desert Locust management.	<ul style="list-style-type: none"> <li>Third meeting of the Joint Technical Forum with CRC and DLCO-EA conducted in Addis Ababa by October 2003.</li> <li>At least 4 tri-lateral activities (CRC, DLCO-EA, EMPRES) are carried out and documented by Oct 2003.</li> <li>A draft concept for a memorandum of understanding between CRC and DLCO-EA ready for adoption and approval by AGPP by November 2003.</li> </ul> <p>At least 4 Country Focus Programmes (CFP) are conducted by December 2003.</p> <ul style="list-style-type: none"> <li><b>Sudan:</b> Progress of CFP evaluated by June 2003.</li> </ul>	<ul style="list-style-type: none"> <li>The third meeting of the technical forum will be conducted in Addis Ababa, 16-20 November 2003.</li> <li>Monthly DL reports from key countries in the CR regularly (every month) forwarded to DLCO-EA.</li> <li>Agreed guideline for good aerial survey and spraying practices ( SOP), prepared in English, printing is in progress.</li> <li>A draft of memorandum of understanding between CRC and DLCO-EA planned to be ready by November 2003.</li> </ul> <p>A self-reflection workshop was held at the PPD in March 2003: report produced, agreed recommendations passed to senior management of PPD for implementation.</p>	<ul style="list-style-type: none"> <li>DGPS demonstration not conducted as planned due to the poor response from the participating countries (SUD, KSA)</li> </ul> <p>Recommended follow up actions have not been taken up by Senior PPD management.</p>	<ul style="list-style-type: none"> <li>Arrange for DGPS demonstration in April 2004.</li> <li>ELOs in Sudan and Saudi Arabia to liaise with the interested companies and to participate in the demonstration.</li> <li>Key officers from locust units from countries likely to use aerial spraying should be invited to the demonstration.</li> </ul> <p>Response from PPD management should be sought by December 2003.</p> <p>Encourage at least 1 self-reflection workshop in each of the member countries per year.</p>

Activity	Milestone	Achievements	Deviation	Recommendations
(still 1.2)	<ul style="list-style-type: none"> <li>• <b>Eritrea:</b> CFP implemented by PPQU as scheduled by Dec 2003, ELO officially appointed by January 2003.</li>   <li>• <b>Yemen:</b> CFP implemented by GPPD as scheduled by December 2003</li>   <li>• <b>Ethiopia:</b> CFP implemented as scheduled by December 2003</li>   <li>• <b>Saudi Arabia:</b> CFP Planning Workshop conducted by June 2003 and programme document ready and submitted for approval to AGPP and the Saudi MoA by August 2003</li> </ul>	<ul style="list-style-type: none"> <li>• RAMSES system has been updated in August 2003 and is operational.</li> <li>• LAN for better Internet access installed at the PPQU in July 2003.</li>   <li>• Training need assessment was defined and DL information sources at breeding areas were established in the regions. Locust information system in place and is operational</li> <li>• A national Steering Committee has been composed.</li> <li>• Two national survey and control training courses have been conducted (Kombolcha and Zeway).</li> <li>• RAMSES has been updated and is operational.</li> <li>• National locust information system has been set up and is functional</li> <li>• Surveys are being planned and conducted accordingly.</li> <li>• First discussion with the new Director of the Locust Centre on how to improve locust control operations in Saudi Arabia.</li> <li>• RAMSES system has been installed at the information office in January 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• Appointment of ELO still pending because of staff shortage and restructuring at the ministry</li> <li>• Reactivation of Steering Committee and its composition not yet formulated.</li>   <li>• Specific training courses resulted from training need assessment survey were not organized by the Locust Centre.</li>   <li>• The planned CFP planning workshop did not take place due to changes at the management level of the Locust Centre.</li> <li>• The RAMSES system and the information office are not functional.</li> </ul>	<ul style="list-style-type: none"> <li>• New ELO should be appointed by March 2004.</li> <li>• FAO HQ to write letter to FAOR indicating concern of slow internet and the need for support to download satellite images for the PPQU.</li>   <li>• During the remaining period of 2003 the Locust Centre should organize at least two training courses for DL officers and other information sources (scouts).</li>   <li>• Prepare CFP by mid 2004 with emphasis on improved survey operations and development of an early warning system.</li> </ul>

Activity	Milestone	Achievements	Deviation	Recommendations
(still 1.2)	<ul style="list-style-type: none"> <li>• <b>Somalia:</b> up to 6 surveys carried out in northern Somalia by Dec 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• Surveys are being conducted regularly.</li> <li>• A second MoA staff obtained practical training on survey procedures, GPS and compass handling.</li> <li>• Two staff received training on radio operation at the UNDP office.</li> <li>• An HF radio information network is being established with private radio operators.</li> <li>• A spreadsheet for storing survey data electronically has been introduced.</li> </ul>		<ul style="list-style-type: none"> <li>• Private radio operators should be trained on collecting climatic and locust information and on transferring it to the MoA.</li> <li>• A radio operator should be appointed at the MoA and trained by UNDP.</li> </ul>
1.3 Strengthen collaboration between EMPRES/CR and WR.	Joint survey supported by EMPRES/CR and WR and coordinated between Libya and Egypt by December 2003	<ul style="list-style-type: none"> <li>• Discussions on conducting joint survey between Libya and Egypt initiated between CRC &amp; CLCPRO and concerned countries.</li> <li>• 1 fellow from Libya graduated from DL Diploma Course (August 2003)</li> <li>• EMPRES/WR Coordinator participated in Phase III planning workshop (May 2003)</li> <li>• Two trainees from the Central Region (Saudi Arabia, Sudan) participated in a DGPS workshop in Mauritania (December 2002)</li> <li>• The CR Coordinator participated in 1st EMPRES/WR ELO Meeting (February 2003)</li> <li>• 3 participants from EMPRES/WR (Niger, Mauritania and Libya) attended the bio-control workshop in Sudan (January 2003).</li> </ul>	<p>The joint border survey between Libya and Egypt has been postponed to February 2004 due to:</p> <ul style="list-style-type: none"> <li>• Involvement of countries in other activities,</li> <li>• Delay in signing the agreement between the two countries,</li> <li>• December was seen as not an appropriate time for conducting the survey.</li> </ul>	<p>The joint border survey should be supported by EMPRES/CR and WR and conducted in February 2004.</p> <p>FAO HQ should contact FAOR in Tripoli and the Libyan authorities to clarify that a bilateral agreement is not required as a precondition for conducting the joint border surveys.</p>

Activity	Milestone	Achievements	Deviation	Recommendations
1.4 Promote CRC membership of non-member countries of the Central Region.	<ul style="list-style-type: none"> <li>• At least one additional non-CRC EMPRES/CR country joins the CRC by Dec 2003.</li>   <li>• At least one promotion visit conducted to ERI and ETH by March 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• Ethiopia officially applied for membership of the Central Region Commission in January 2003.</li>   <li>• Promotion and follow-up visits were conducted to Djibouti, Ethiopia, and Eritrea in April 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• The final approval of the Letter of Adherence for Ethiopia not yet obtained from the Government.</li> </ul>	<ul style="list-style-type: none"> <li>• The adherence of Ethiopia to the CRC should be followed up, and Eritrea encouraged to join the CRC by December 2004.</li>   <li>• CRC Secretary should visit Eritrea to encourage their adherence to the CRC by December 2004.</li> </ul>

**Result 2:** National & regional communication network enhanced**Indicator 2.1:** Timeliness in sending Desert Locust reports to DLIS improved 20% by 2001, 50% by 2002, 80% by 2003.**Indicator 2.2:** Fixed radio schedules defined and made standard communication procedures at 5 Desert Locust units by 2003

Activity	Milestone	Achievements	Deviation	Recommendations
2.1 Stimulate proactive attitude in information exchange among stakeholders (national and international).	<ul style="list-style-type: none"> <li>Missing information on radio network from Egypt and Djibouti obtained and comprehensively documented by November 2003.</li> <li>Standard Operating Procedures (SOP) for regular radio communication developed by March 2003.</li> <li>At least 1 email contact per month with each of the LCUs registered.</li> </ul>	<ul style="list-style-type: none"> <li>Information on the set-up of the HF radio network from Egypt was collected and prepared and sent to EMPRES and CRC, while that of Djibouti is still expected.</li> <li>SOP for regular HF radio communication was developed and submitted for approval.</li> </ul>		<ul style="list-style-type: none"> <li>Information on radio network in Djibouti will be submitted to EMPRES and CR by November 2003.</li> <li>SOP for HF radio communication should be produced and distributed to the member countries early in 2004</li> <li>Information between member countries should be shared only when it is important.</li> </ul>
2.2 Maintain and update communication and radio equipment.	<ul style="list-style-type: none"> <li>Up to 7 additional radio stations installed in Djibouti, Somalia, Yemen and at the DLCO-EA station in Djibouti by May 2003.</li> </ul>	<ul style="list-style-type: none"> <li><b>Djibouti:</b> 1 mobile and 1 base station successfully installed by DLCO engineer (June 03)</li> <li><b>Somalia:</b> 1 base station successfully installed in Hargeisa (May 2003)</li> </ul>	<ul style="list-style-type: none"> <li><b>Djibouti:</b> Installation of 1 base station at Obock station still pending.</li> <li><b>DLCO station in Djibouti:</b> The base-station radio provided has not been installed because of no electricity at the DLCO office.</li> <li><b>Yemen:</b> The two mobile HF radios planned could not be procured because of lack of (GTZ) funds.</li> </ul>	<ul style="list-style-type: none"> <li>Appeal is made to DLCO-EA to install the two remaining HF base stations in Djibouti and the base station at the HQ in Addis Ababa as soon as possible.</li> <li>The Obock radio station should be installed by the DLCO engineer by the end of 2003.</li> </ul>

**Result 3:** Desert Locust early warning and information systems improved.

**Indicator 3.1:** RAMSES system installed and being used in at least 5 countries by 2003.

**Indicator 3.2:** Remote sensing images incorporated into surveying decision in at least 2 countries by 2003

Activity	Milestone	Achievements	Deviation	Recommendations
3.1 Build up national and regional DL Information system.	<ul style="list-style-type: none"> <li>Missing information from Egypt and Djibouti obtained and comprehensively compiled by March 2003</li> <li>Recommendations for improved information systems completed for all member countries by October 2003.</li> </ul>	<ul style="list-style-type: none"> <li>National locust information system in Egypt was defined; requirements and needs were determined and provided to EMPRES and CRC. In the case of Djibouti some of requirements and needs were also provided.</li> <li>Recommendations for improved national information systems have been developed for Djibouti, Egypt, Eritrea, Ethiopia, Somalia, Saudi Arabia, Sudan and Yemen.</li> </ul>	<ul style="list-style-type: none"> <li>Report on national information system in Djibouti needs to be prepared by the ELO and submitted to EMPRES and CRC.</li> <li>The development of recommendations for improving the national information systems in <b>Oman</b> still needs to be defined.</li> </ul>	<ul style="list-style-type: none"> <li>The ELO from Djibouti should submit the report by November 2003, and should activate information sources.</li> <li>The ELO from Oman should determine the current status of information system and should make suggestions on how to improve the system.</li> <li>The NPO in return should make recommendations for improving the system in Oman.</li> </ul>
3.2 National locust information routinely dispatched to DLIS.	<ul style="list-style-type: none"> <li>Oman, Yemen, Saudi Arabia, Egypt, Eritrea, Somalia and Djibouti are reporting on locust events to DLIS according to standard by June 2003.</li> </ul>	(see DLIS reporting assessment)		
3.3 Harmonize DL information systems between CRC, DLIS and DLCO-EA.	<ul style="list-style-type: none"> <li>DL reporting mechanisms harmonized and defined by February 2003.</li> </ul>	<ul style="list-style-type: none"> <li>As a result of the 2<sup>nd</sup> meeting of the Technical Forum for the Central Region (TFCR) and to avoid duplication, DLCO-EA modified its monthly bulletin by incorporating information on the locust situation and forecasts from the monthly FAO Desert Locust Bulletin into its reports for DLCO-EA member countries.</li> </ul>		

Activity	Milestone	Achievements	Deviation	Recommendations
3.4 Incorporate DL data management systems (RAMSES) at the LCUs.	<ul style="list-style-type: none"> <li>• At least 2 additional LCUs started to make regular use of GIS by December 2003 (Sudan, Saudi Arabia, Oman).</li> <li>• Existing RAMSES versions updated, and connectivity between RAMSES and SWARMS GIS improved by September 2003.</li> <li>• RAMSES version for Oman developed and installed by December 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• By October 2003, the RAMSES system has been introduced to Eritrea, Ethiopia, Sudan, Yemen, Saudi Arabia and Oman.</li> <li>• RAMSES version for Egypt is being developed and will be installed soon.</li> <li>• The previous RAMSES versions have been updated with better connectivity to SWARMS GIS in the period from July to August 2003 in Sudan, Eritrea, Ethiopia and Yemen.</li> <li>• Training has been provided to the Information Officers on the new version of the RAMSES system, eLocust and the use of remote sensing images.</li> <li>• The RAMSES version for Oman has been developed in March and successfully installed in May 2003.</li> <li>• The Information Officers in Oman have been trained on the new system, eLocust and the use of remote sensing images at the same time.</li> </ul>	<ul style="list-style-type: none"> <li>• Saudi Arabia: RAMSES system not operational. Reasons are not yet clear.</li> </ul>	<ul style="list-style-type: none"> <li>• Further technical backstopping on the appropriate use of RAMSES is needed.</li> <li>• Phase III should be used to further strengthening the regional expertise on RAMSES.</li> <li>• Since RAMSES backstopping depends on expertise provided by the Locust Group at FAO HQ, the ELOs strongly urge FAO to ensure continuation of expertise in this subject.</li> </ul>

Activity	Milestone	Achievements	Deviation	Recommendations
(still 3.4)	<ul style="list-style-type: none"> <li>• Information Officers in Saudi Arabia trained by January 2003, and one backstopping visit conducted to Eritrea by DLIS by June 2003.</li>   <li>• Monthly DL reports produced by using RAMSES and submitted to the Department Heads and copied to DLIS and EMPRES HQ.</li>   <li>• Sudan, Yemen and Eritrea made significant progress entering historical locust data into RAMSES by June 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• The Information Officers of Saudi Arabia have been trained on the use of RAMSES in January 2003 by a GIS consultant, assisted by the Information Officer from the PPD in Sudan.</li> <li>• The FAO Forecasting Officer visited Eritrea in February 2003 and advised the Information Officers on the use of RAMSES and on better operation of the information system in the country.</li> <li>• Information transmission and locust reporting improved.</li> <li>• Reports are distributed regularly and are dispatched timely in most cases.</li>   <li>• Some good progress in entering historical data was made in Yemen (Data sets from 1997 up to date are available on RAMSES).</li> <li>• Sudan: 2001 – 2003 DL data entered in RAMSES.</li> </ul>	<ul style="list-style-type: none"> <li>• Sudan: Historical data recorded up to end of 2000 lost due to technical problems.</li> <li>• Eritrea: No information received on case studies or progress on data input.</li> </ul>	<ul style="list-style-type: none"> <li>• The Information Officers should cross-check the accuracy of locations of locust observations by plotting the coordinates on RAMSES maps.</li> <li>• The Information Officers should make regular (weekly) backups of their RAMSES data.</li> <li>• Sudan, Eritrea and all other RAMSES users should complete historical data sets through scheduled data recording in RAMSES by August 2004.</li> </ul>

Activity	Milestone	Achievements	Deviation	Recommendations
<p>3.5 Introduce new technology including remote sensing into early warning information system.</p>	<ul style="list-style-type: none"> <li>• SPOT imagery made available every 10 days to RAMSES countries by March 2003</li> <li>• Saudi Arabia, Ethiopia (in addition to Eritrea, Yemen and Sudan) are provided with software for using satellite images by June 2003.</li> <li>• Possible use of eLocust on mobile phone explored in Saudi Arabia and Oman by June 2003</li> <li>• Information Officers in Sudan and Yemen received backstopping on the use of eLocust by June 2003</li> <li>• The compatibility of radio modems to eLocust system in ERI known by February 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• SPOT satellite images are accessible through Internet every 10 days for all EMPRES member countries.</li> <li>• The software for using satellite images was provided to Ethiopia, Eritrea, Yemen and Sudan from July – Aug 2003.</li> <li>• Investigations revealed that it is not possible to use eLocust for the transmission of locust data by using mobile phones.</li> <li>• Backstopping visits were carried out to Sudan and Yemen by the DLIS Forecasting Officer.</li> <li>• The eLocust System was provided to Sudan and the mobile and base stations set up and tested in July 2003.</li> <li>• The eLocust system is fully operational in Yemen and the Psion palmtop regularly being used during surveys.</li> <li>• The investigation revealed that the HF radio modems used in Eritrea are for sending fax messages only.</li> </ul>	<ul style="list-style-type: none"> <li>• The Information Office in Oman is still facing difficulties to download SPOT imagery.</li> <li>• The Information Office at the Locust Centre in Saudi Arabia did not yet obtain the necessary software because of time shortage of the Remote Sensing Expert at FAO HQ.</li> <li>• In Sudan, eLocust is only partially operational: The radio communication link does not function. Also the Psion palmtop is not being fully used because of fears of dust.</li> <li>• Technical advice was sought to alleviate the operating problems from HF radio specialists and the EMPRES NPO which did not lead to the expected results.</li> </ul>	<ul style="list-style-type: none"> <li>• The member countries should provide feedback to DLIS on the usefulness and obstacles faced.</li> <li>• The DLIS Remote Sensing Expert should visit Saudi Arabia to provide the software and to train the Information Officer on the use of this tool by December 2003</li> <li>• The PPD in Sudan requires expertise on Codan HF radio to provide technical advice and missing / damaged spare parts.</li> <li>• The Psion palmtop linked to the GPS hand-set should be used as the primary data recording tool.</li> <li>• The other member countries e.g. Ethiopia, Eritrea, Saudi Arabia and Egypt should be provided with eLocust by 2004.</li> </ul>

Activity	Milestone	Achievements	Deviation	Recommendations
3.6 Carry out ground truthing operations.	<ul style="list-style-type: none"> <li>• DLIS provide ground verification parameters to member countries by February 2003.</li>   <li>• Photographic flip-over vegetation and locust / grasshopper recognition cards for specific zones in Eritrea and Sudan prepared by November 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• Record sheets with the necessary requirements were provided to Sudan by DLIS in April 2003.</li> <li>• Two ground truthing operations were carried out in Sudan (July / September 2003) and in Eritrea (February 2003) and data sent to DLIS.</li> <li>• Text for both sets of cards has been completed and given to a typesetter in August 2003.</li> <li>• Locust and grasshopper illustrations and the major proportion of vegetation photographs from Eritrea and Sudan have been completed/ compiled by August 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• Different software requirements by typesetter delayed the production process.</li> </ul>	<ul style="list-style-type: none"> <li>• Ground truthing operations should continue in Eritrea and Sudan during regular locust surveys.</li> <li>• The results should be sent to DLIS rapidly.</li>   <li>• Remaining illustrations to be acquired by December 2003 and sent to the typesetter.</li> </ul>

**Result 4:** Desert Locust survey procedures of member countries improved**Indicator 4.1:** Survey plans developed and made integral procedure of the PPD in at least 4 member countries by 2003**Indicator 4.2:** Key-breeding areas of at least 2 member countries identified and described by 2003.**Indicator 4.3:** Up to 2 joint border surveys conducted on 2 borders in the Central Region by 2003.

Activity	Milestone	Achievements	Deviation	Recommendations
4.1 Develop sustainable and targeted survey procedures.	<ul style="list-style-type: none"> <li>• All member countries have developed and make use of national survey plans (remaining countries: Egypt, Saudi Arabia, Ethiopia, Eritrea and Oman) by October 2003.</li> <li>• Prepare and distribute Standard Operating Procedures (SOP) on survey operations to the member countries by June 2003.</li> <li>• At least 3 backstopping visits on the use and handling of national survey plans conducted to Egypt, Eritrea, and Djibouti by December 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• National survey plans were developed and are being used by the LCUs in for Egypt, Saudi Arabia, Ethiopia and Eritrea except in Oman.</li> <li>• SOPs on survey operations were prepared and distributed to the member countries for comments.</li> <li>• The SOPs are in the process of being finalized and printed.</li> <li>• Backstopping visits were undertaken as planned between January and July 2003 and advice provided.</li> </ul>		<ul style="list-style-type: none"> <li>• The ELO of Oman should develop the national survey plan in consultation with EMPRES NPO by 2004.</li> </ul>
4.2 Carry out joint surveys	<ul style="list-style-type: none"> <li>• Up to 2 joint border survey conducted by December 2003 (<u>recommended</u>: Egypt-Libya, Egypt-Sudan, Eritrea-Djibouti).</li> </ul>	<ul style="list-style-type: none"> <li>• Egypt / Sudan joint border survey conducted in January 2003.</li> <li>• A joint border survey was conducted between Yemen and Saudi Arabia in December 2002.</li> <li>• A proposal for a joint survey between Eritrea-Djibouti was prepared by the ELO from Djibouti and submitted to the LCU of Eritrea for comments.</li> </ul>	<ul style="list-style-type: none"> <li>• The joint border survey between Libya and Egypt has been postponed to February 2004 (see also 1.3)</li> <li>• No feedback on the proposal prepared by Djibouti was received from the LCU in Eritrea.</li> </ul>	<ul style="list-style-type: none"> <li>• Preparations for conducting another joint border survey between Egypt and Sudan in the winter breeding areas should be made by November 2003.</li> <li>• Joint border survey between Djibouti and Somalia, and Yemen and Saudi Arabia should be conducted during the winter breeding season early 2004.</li> </ul>

Activity	Milestone	Achievements	Deviation	Recommendations
4.3 support national survey teams.	<ul style="list-style-type: none"><li>Vehicle, computer equipment, field material, camping equipment provided to selected CRC countries by December 2003</li></ul>	<ul style="list-style-type: none"><li>1 vehicle ordered for Egypt, under delivery.</li><li>2 Psion palm top computers ordered for Oman in December 2002.</li><li>Egypt was provided by EMPRES with computer set with two tables and chairs, coloured printer, digital cameras and scanner in September 2003.</li></ul>		

**Result 5:** Desert Locust technicians and officers qualified**Indicator 5.1:** At least 50% of Desert Locust technicians trained in each CR country by 2003.**Indicator 5.2:** At least 2 trainers trained according to agreed standards for each country by 2002.

Activity	Milestone	Achievements	Deviation	Recommendations
5.1 Define training needs on technical DL subjects at different levels.	<ul style="list-style-type: none"> <li>• Training needs known from Djibouti, Oman and Saudi Arabia by December 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• One training needs assessment survey conducted in Yemen.</li> <li>• One national training course has been conducted in Saudi Arabia upon request and supported by the CRC.</li> </ul>	<ul style="list-style-type: none"> <li>• No relevant activity has been observed in the other countries.</li> </ul>	<ul style="list-style-type: none"> <li>• More effort should be made by the LCUs to assess and monitor the technical knowledge of the locust control staff in their countries in order to develop more targeted (not ad-hoc) national training programmes according to the actual needs.</li> <li>• The experience gained in Yemen on the training needs assessment and training planning should be shared with other countries, on request.</li> </ul>
5.2 Develop training curricula/manuals for ToT courses.	<ul style="list-style-type: none"> <li>• Final version of the Training Manual (TM) ready by March 2003 and 50 Training Kits produced and distributed to the member countries by December 2003.</li> <li>• Advanced arrangement made for a French version of the Training Manual (EMPRES/WR) by December 2003.</li> <li>• In at least 2 member countries verifiable steps are undertaken to introduce the TM at national training institutions by December 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• The final version of the TM has been submitted in February 2003 to CRC and EMPRES.</li> <li>• One sample TM has been handed over to the colleagues in Mauritania for testing purposes in the Western Region. The response received was very positive.</li> </ul>	<ul style="list-style-type: none"> <li>• Activity delayed by 3 months.</li> <li>• It has been agreed to prepare 25 kits for the CR. Assembling of the Training Kits will be handled in Cairo. Contacts with printer have been made.</li> <li>• No action took place on this matter, since the production of the Training Kits was delayed.</li> </ul>	<ul style="list-style-type: none"> <li>• FPOs should be prepared as soon as possible to order the necessary items for the Training Kit.</li> </ul>

Activity	Milestone	Achievements	Deviation	Recommendations
5.3 Assist universities in DL curricular development.	<ul style="list-style-type: none"> <li>At least six students enrolled at the University of Khartoum per year.</li> <li>At least six additional students are enrolled for the academic year 2003/2004 by July 2003.</li> <li>At least 1 additional M.Sc. student supported by October 2003.</li> </ul>	<ul style="list-style-type: none"> <li>Six students (2 from Yemen, 1 from Sudan, 1 from Saudi Arabia, 1 from Ethiopia and 1 from Egypt) enrolled at the University of Khartoum in September 2003.</li> <li>1 additional M.Sc. fellowship approved in July 2003 to be supported by the CRC for the year 2003/2004. The selection is in progress.</li> </ul>		<ul style="list-style-type: none"> <li>The diploma course at the University of Khartoum should be further supported in 2004.</li> </ul>
5.4 Organize various training courses.	<ul style="list-style-type: none"> <li>Member countries undertake verifiable steps to organize Survey &amp; Control (S&amp;C) training courses on regular basis.</li> <li>At least 6 CRC and EMPRES/CR member countries organized national local Survey &amp; Control training courses by December 2003</li> </ul>	<ul style="list-style-type: none"> <li>Only in a few member countries have concrete steps been taken towards the development of their own staff capacity building schemes in 2003.</li> <li>Djibouti: S&amp;C course, 16 trainees, 9-14/11/2002;</li> <li>Ethiopia: Scouts training course, 27 trainees, 6-10/12/2002;</li> <li>Ethiopia: S&amp;C course, 13 trainees, 25/11 – 5/12/2002;</li> <li>Saudi Arabia: S&amp;C course, 17 trainees, 8-19/03/2003;</li> <li>Ethiopia: S&amp;C course, 21 trainees, 19-28/07/2003;</li> <li>Egypt: S&amp;C course, 20 trainees, 13-18/09/2003.</li> </ul>	<ul style="list-style-type: none"> <li>The ability to develop and to make regular use of their own training capacities is still weak in most of the countries.</li> <li>In most countries, the LCUs still depend on the inputs and support from EMPRES.</li> <li>Scheduled payments in support of national training courses make it difficult for the organizers to cover the cost of the courses in time.</li> <li>Only in 5 countries training courses have been organized and conducted since the last ELO meeting instead of 6 as planned.</li> </ul> <p>Eritrea:</p> <ul style="list-style-type: none"> <li>The planned training programme was postponed due to other seasonal activities.</li> </ul>	<ul style="list-style-type: none"> <li>Member countries should make more effort to use their own training capacities.</li> <li>FAO HQ is requested to allow full advance payment to the organizer of national training courses.</li> <li>More effort in particular in the frontline countries, should be made to train and to retrain their locust control staff.</li> </ul> <p>Reminder:</p> <ul style="list-style-type: none"> <li>Verifiable efforts should be undertaken by the member countries to integrate locust S&amp;C subjects into the national training schemes (agric. school, extension services etc.) following the recognized training standards.</li> </ul>

Activity	Milestone	Achievements	Deviation	Recommendations
(still 5.4)	<ul style="list-style-type: none"> <li>Up to 4 Information Officers receive backstopping (Eritrea, Egypt, Saudi Arabia, and Yemen) by December 2003.</li> </ul>	<ul style="list-style-type: none"> <li>The Information Officers of the LCUs in Eritrea, Egypt, Saudi Arabia, Yemen, northern Somalia, Sudan, Oman and Ethiopia received intensive backstopping on locust information management procedures (including RAMSES, eLocust, remote sensing, general computer training etc.) from FAO-EMPRES and FAO HQ staff.</li> </ul>		<ul style="list-style-type: none"> <li>Further technical backstopping is required in particular at the LCUs of Eritrea, Egypt, Saudi Arabia and Sudan.</li> <li>The LCUs should make more effort to make appropriate use of their Information Offices and to keep their relevant government agencies, the FAO Representations and donors agencies informed by issuing monthly national locust reports.</li> </ul>
5.5 Develop and introduce regular training impact mechanisms.	<ul style="list-style-type: none"> <li>At least in 3 member countries (Sudan, Eritrea and Yemen) impact assessment are carried out by December 2003.</li> <li>Standard training impact assessment guideline developed by June 2003</li> </ul>	<p>Yemen:</p> <ul style="list-style-type: none"> <li>Training impact survey was carried out in June 2003, as parts of training needs assessment for DL staff.</li> </ul> <p>Sudan:</p> <ul style="list-style-type: none"> <li>Field knowledge of Plant Protection Officers from out-stations was assessed during surveys in January, February and September 2003.</li> </ul>	<p>Eritrea:</p> <ul style="list-style-type: none"> <li>No training impact or needs assessment survey was conducted.</li> </ul> <p>no action taken place</p>	<ul style="list-style-type: none"> <li>Mock survey and control exercises should be conducted by the LCUs in order to obtain a better picture of the performance of the PP staff to carry out efficient locust control activities in the field.</li> <li>Training should be provided according to the observed shortcomings.</li> <li>Needs to be discussed further.</li> </ul>

**Result 6:** Contingency plans available and implemented

**Indicator 6.1:** National contingency plans for recession monitoring and control for outbreak, upsurges and plagues adopted in up to 6 countries by 2002.

Activity	Milestone	Achievements	Deviation	Recommendations
6.1 Introduce national contingency and rapid deployment plans into the locust management system.	<ul style="list-style-type: none"> <li>• First results on proposed contingency and rapid deployment mechanisms at national regional and international level drafted by June 2003.</li> <li>• Aerial deployment plan developed and submitted by DLCO-EA to CRC and EMPRES by June 2003.</li> <li>• Contingency Plans (CP) of Sudan and Oman reviewed by June 2003.</li> <li>• In up to 3 countries (Yemen, Eritrea and Saudi Arabia) significant steps undertaken for developing CPs by August 2003.</li> <li>• At least 4 member countries (Yemen, Eritrea, Saudi Arabia, and Sudan) initiate national CP steering committees by August 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• The DLCC Technical Group Meeting (scheduled for June 2003) to discuss the Contingency Planning matters did not take place as planned.</li> <li>• 1 DLCO-EA aircraft has been positioned in Sudan in September 2003.</li> <li>• CPs in Sudan reviewed by June 2003 and in use also for the preparation of winter campaign.</li> <li>• Eritrea: A Sectorial Food Security Group is functioning as national CP locust steering committee.</li> <li>• Yemen: Arrangements for initiating a national CP Steering Committee have been made in March 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• Delayed by eight months.</li> <li>• DLCO-EA did not submit a rapid deployment plan to CRC and EMPRES.</li> <li>• No information made available from Eritrea on CP development. Also the circulated capability sheet has not yet been completed.</li> <li>• Eritrea: The composition of Sectorial Food Security Group committee is not known.</li> <li>• Sudan: The initiated CP Steering Committee is not yet operational.</li> </ul>	<ul style="list-style-type: none"> <li>• The rapid aerial deployment plan should be prepared and submitted by DLCO-EA to CRC and EMPRES by March 2004.</li> <li>• The aerial deployment plan should include all sources of aircraft available to EMPRES/CR countries.</li> <li>• Eritrea should prepare a CP outline before April 2004 and should use country capacity information sheet.</li> <li>• Sudan: The Steering Committee should be reactivated by Nov 2003.</li> <li>• The LCUs should establish regular feedback mechanisms on DL situation to the national CP Steering Committees.</li> </ul>
6.2 Allocate funds for emergency pesticide stocks.	<ul style="list-style-type: none"> <li>• At least USD 100,000 reallocated by January 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• The CRC reallocated USD 100,000 in July 2003.</li> </ul>		<ul style="list-style-type: none"> <li>• The unused funds should be reallocated for emergency pesticide procurement in 2004.</li> </ul>



Activity	Milestone	Achievements	Deviation	Recommendations
	<ul style="list-style-type: none"> <li>One DGPS demonstration conducted (in collaboration with DLCO-EA) in Ethiopia by May 2003.</li> </ul>	<ul style="list-style-type: none"> <li>Advanced arrangements have been made to organize the demonstration in October 2003.</li> <li>Announcements have been distributed to the respective countries in June 2003.</li> </ul>	<ul style="list-style-type: none"> <li>The response from the contacted countries was too slow to meet the target dates.</li> </ul>	<ul style="list-style-type: none"> <li>The reasons for the slow response should be discussed with the relevant ELOs.</li> <li>The DGPS demonstration should be included in the workplan for 2004.</li> </ul>
7.2 Assess the environmental impact of locust control operations.	<ul style="list-style-type: none"> <li>At least one blood-testing survey conducted in Eritrea by November 2003.</li> <li>Ecological sensitive areas in Sudan documented by January 2003.</li> </ul>	<ul style="list-style-type: none"> <li>DLCO-EA handed over one blood-testing kit to the MoA in Eritrea for the implementation of blood-testing surveys.</li> <li>A study on environmental impacts of pesticides used for DL control in ecological sensitive areas in Sudan has been completed and documented in August 2003</li> </ul>	<ul style="list-style-type: none"> <li>No blood testing survey conducted so far.</li> <li>Approaches were made to identify a qualified nurse for training on the use of the blood-testing kit. However, no qualified nurse could be identified yet.</li> </ul>	<ul style="list-style-type: none"> <li>A suitably and qualified nurse should be identified and trained by December 2003.</li> <li>Baseline AchE information should be collected by April 2004.</li> </ul>
7.3 Support operational research projects.	<ul style="list-style-type: none"> <li>At least 6 additional project proposals submitted to CRC and EMPRES by December 2003 (in Phase II).</li> </ul>	<ul style="list-style-type: none"> <li>Since the beginning of Phase II, 14 research proposals have been received from the member countries.</li> <li>Only 4 proposals (28 %) met the quality requirements of EMPRES and the CRC, and are being supported.</li> </ul>		

Activity	Milestone	Achievements	Deviation	Recommendations
	<ul style="list-style-type: none"> <li>• In at least 2 more member countries (Egypt and Eritrea) relevant research proposals are initiated in collaboration with national research entities by June 2003.</li> <li>• The potential of PAN as low cost and environmentally sound locust control technology is demonstrated by December 2003.</li> </ul>	<p>Two research proposals have been submitted to EMPRES/CR and the CRC in 2003:</p> <ul style="list-style-type: none"> <li>• Egypt: Effect of Green Muscle on locusts and grasshoppers (status: endorsed).</li> <li>• Sudan: Effect of PAN on non-target organisms (status: under review).</li> <li>• The research collaboration with ICIPE on PAN is ongoing. A second Letter of Agreement with the aim to study the effects of PAN mixed with metarhizium and chemical pesticides has been issued on 12 February 2003.</li> </ul>		<ul style="list-style-type: none"> <li>• A second workshop to demonstrate the effects of PAN to a larger audience is not likely by December 2003. But it should be agreed with ICIPE to organize such a workshop in collaboration with EMPRES once encouraging results are confirmed.</li> </ul>
7.4 Promote the use of proven technologies.	<ul style="list-style-type: none"> <li>• At least one registration trial conducted on grasshoppers by May 2003.</li> <li>• Significant progress made towards registration of metarhizium in Eritrea by June 2003.</li> <li>• Guidelines on barrier treatment finalized and cleared by FAO and distributed to the ELOs by June 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• A semi-field trial for registration of GM was conducted in Sudan against DL in January 2003 in collaboration with PPD, GTZ, ICIPE, CRC, and EMPRES.</li> <li>• A consultant has been assigned the task by GTZ to develop barrier treatment guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>• The trial data were inconclusive and not sufficient for registration (two trials required).</li> <li>• Additional trials are being planned for April 2004 in collaboration with a commercial company.</li> <li>• No progress observed in this aspect.</li> <li>• Some difficulties delayed the preparation of the guideline by at least six months.</li> </ul>	<ul style="list-style-type: none"> <li>• EMPRES should give support to the planned registration trials.</li> <li>• Concise ToR for all parties involved should be prepared as part of the trail protocol.</li> <li>• Taking into account the currently difficult circumstances in Eritrea, it should be discussed and clarified whether to keep this point on the agenda or not.</li> </ul>

Activity	Milestone	Achievements	Deviation	Recommendations
	<ul style="list-style-type: none"> <li>• Oman sensitized to phase out ENS by December 2003.</li> <li>• Standard Operating Procedures (SOP) for spraying distributed to member countries by January 2003.</li> <li>• eLocust programme updated (including data input format for Spray Monitoring) by June 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• Oman confirmed having suspended the use of the ENS technology for Desert Locust control in June 2003.</li> <li>• SOPs for ground / aerial survey and control prepared in English and Arabic. Production in laminated pocket size cards in progress.</li> <li>• The Spray Monitoring Form has been incorporated in RAMSES in June 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• ENS technology still in use for grasshopper control.</li> <li>• eLocust programme not yet updated with an input format for Spray Monitoring data.</li> </ul>	<ul style="list-style-type: none"> <li>• The PPD in Oman should also stop using ENS for grasshopper control by December 2004.</li> <li>• SOPs should be distributed to member countries by January 2004.</li> <li>• The spray monitoring form should be incorporated into eLocust by June 2004.</li> </ul>
7.5 Provide LCUs with DL references.	<ul style="list-style-type: none"> <li>• Literature database available on CD ROM by June 2003 and distributed to the member countries.</li> </ul>	<ul style="list-style-type: none"> <li>• A consultant has been assigned by GTZ with the task to prepare a locust literature data base, which also includes references from NRI, PRIFAS and GTZ.</li> <li>• A draft version has been presented during the 37th DLCC meeting in September 2003.</li> </ul>	<ul style="list-style-type: none"> <li>• The whole process is delayed by about 6 months.</li> <li>• Insufficient consultation between the consultant and FAO EMPRES lead to some misunderstanding regarding the features of the literature data base and its contents.</li> </ul>	<ul style="list-style-type: none"> <li>• A next, updated, version should be more user-friendly.</li> </ul>

**Results 8:** Systematic method of campaign evaluation developed

**Indicator 8.1:** Two economic case studies conducted by 2002.

**Indicator 8.2:** Models to identify efficient control strategies via scenarios completed by 2003.

Activity	Milestone	Achievements	Deviation	Recommendations
8.1 Develop suitable campaign evaluation mechanisms.	<ul style="list-style-type: none"> <li>Missing information from baseline document on current intervention capacities available by June 2003.</li> <li>Final baseline document, describing the level of preparedness in the CR ready by August 2003.</li> <li>Spray Monitoring Form used by all LCUs on routine basis during DL campaigns.</li> </ul>	<ul style="list-style-type: none"> <li>The member countries had been requested to update their Capacity Data Sheets on information on staffing level and available equipment in March 2003.</li> <li>Most of the countries responded satisfactorily.</li> <li>A consultant has been hired in July 2003 to review preventive control strategies since 1920, and to assess the current level of preparedness of the affected countries to prevent plagues.</li> <li>A first part of the temporary report has been submitted for information in September 2003.</li> </ul>	<ul style="list-style-type: none"> <li>It became obvious that most of the member countries lack comprehensive knowledge of their own locust control resources and capacities.</li> <li>Due to the absence of DL infestations, the Spray Monitoring Form could only be practiced during training courses.</li> </ul>	<ul style="list-style-type: none"> <li>The ELOs should make sure that the Capacity Info Sheets are updated at least once a year and send them to the CRC and FAO HQ as part of the Contingency Planning process.</li> <li>The findings of the study should be presented during the next DLCC TG meeting early 2004.</li> <li>The findings should be presented to the ELOs during the planned Strategy Workshop in 2004.</li> <li>The Spray Monitoring Form should be used by all LCUs on routine basis during all likely DL control operations in 2004.</li> </ul>
8.2 Analyze socio-economic impact of campaigns.	<ul style="list-style-type: none"> <li>Economic symposium conducted in the context of the 11th ELO Meeting by December 2003.</li> </ul>		<ul style="list-style-type: none"> <li>It is not recommendable to organize a specific symposium at this point.</li> <li>Certain aspects still require further investigation i.e. economic advantage of preventive control versus emergency operations.</li> </ul>	

Activity	Milestone	Achievements	Deviation	Recommendations
	<ul style="list-style-type: none"> <li>The comparative costs of preventive control vs. emergency assessed by November 2003.</li> </ul>	none		This subject has been included in the agenda for Phase III.
8.3 Investigate scenarios on survey and control operations to improve strategies.	<ul style="list-style-type: none"> <li>Up-dated campaign simulation model ready on CD ROM and distributed to the member countries by October 2003.</li> </ul>		<ul style="list-style-type: none"> <li>Delayed by 12 months.</li> <li>The campaign simulation model was supposed to be available on CD ROM for the DLCC TG Meeting in June 2003. No indication has been received whether the consultant succeeded to modify the model in order to run it also from CD.</li> </ul>	<p>The model is considered as an important part in the context of contingency planning.</p> <ul style="list-style-type: none"> <li>The matter should be followed up soon with the consultant.</li> <li>50 copies should be prepared and distributed to the member countries by mid 2004.</li> </ul>

**Annex 4:** Key elements for the EMPRES/CR work plan in 2004<sup>2</sup>**Result 1:** EMPRES/CR Desert Locust management components gradually taken over by the CRC and the participating countries.**Indicator 1.1:** Improved preventive Desert Locust management component taken over by 2 countries by 2004, 3 more by 2005, 2 more by 2006.

Activities	Milestone	Responsibility	Timeframe	Remarks	Allocation
1.1 Support member countries to develop sustainable national training programmes, with reduced technical and financial support of EMPRES.				CRC/EMPRES will support one ToT refresher course in 2005	
1.1.1 Conduct national / local survey and control training courses.	At least one training course carried out in each member country.	ELOs, CRC, EMPRES		<ul style="list-style-type: none"> <li>Countries contribute to cost of own national training.</li> <li>Support by CRC and EMPRES subject to prior training needs assessment.</li> </ul>	<b>27,000</b>
1.1.2 Give support to the Diploma Course at University of Khartoum by funding fellowships.	6 students supported in 2004 5 students supported in 2005 4 students supported in 2006	CRC/EMPRES, Univ. of Khartoum	By September every year		<b>120,000</b>
1.1.3 Assist the University of Khartoum to develop self-reliant diploma courses.	One consultancy conducted by October 2004	CRC/EMPRES, Univ. of Khartoum	June – October 2004		<b>15,000</b>
1.1.4 Provide member countries with training manual overhead transparencies in Arabic.	Transparencies translated and printed into Arabic by August 2004	CRC	January - August 2004		<b>15,000</b>
1.1.5 Support the Locust Control Units with training material.	Up to 4 countries supported by December 2004.	CRC/EMPRES	January – December 2004	<ul style="list-style-type: none"> <li>On request by the countries.</li> </ul>	<b>10,000</b>

<sup>2</sup> Based on the recommendations made by the Phase III planning workshop

Activities	Milestone	Responsibility	Timeframe	Remarks	Allocation
1.2 Support the national Locust Control Units in management and administrative procedures and methods.					
1.2.1 Develop adapted management concept for LCUs.	Consultancy paper ready by August 2004.	EMPRES	January - August 2004		<b>15,000</b>
1.2.2 Support exchange of experience between Locust Managers,	Up to 2 visits supported by December 2004.	CRC/EMPRES	On-going	<ul style="list-style-type: none"> <li>• Visits to well-organized Locust Control Units.</li> </ul>	<b>6,000</b>
1.2.3 Develop check lists for good practices in survey and control to assist improved management.	Check lists prepared and approved by AGPP by June 2004.	CRC/EMPRES, AGPP	January – June 2004		
1.3 Support member countries in initiating bilateral projects on selected Desert Locust management components.					
1.3.1 Develop contacts to potential donor agencies in selected countries.	Contacts to potential donors initiated in up to 3 countries by 2004.	AGPP, EMPRES, CRC	January – December 2004		
1.4 Prepare a Monitoring and Evaluation system in collaboration with the CRC.	The CRC is in the position to organize annual meetings similar to the ELO Meetings from 2004 onwards.	CRC, EMPRES	June – December 2004		
1.5 Give support to Country Focus Programmes (CFP)	CFP support provided to up to 4 countries.	EMPRES	On-going	With support from CRC and Saudi Arabia.	<b>80,000</b>

**Result 2:** Implementation of improved early warning systems supported

**Indicator 2.1:** Improved early warning systems (routine survey, functional national information offices etc.) are operational in at least 6 Locust Control Units by 2006

Activities	Milestone	Responsibility	Timeframe	Remarks	Allocation
2.1 Make routine use of the RAMSES locust database, including the interpretation of results	Export data files sent electronically to DLIS within 5 days of the end of each survey.	ELOs, Information Officers, DLIS	On going		
2.1.1 Input all incoming locust data into RAMSES on a regular basis.	RAMSES outputs (maps) are integral part of all locust situation reports distributed to national authorities.	ELOs, Information Officers	On going	<ul style="list-style-type: none"> <li>• <b>Relevant only for LCUs that operating RAMSES</b></li> <li>• <b>CRC and DLIS should be provided with copies of the locust reports.</b></li> </ul>	
2.1.2 Organize inputting of all available historical locust data starting from most recent year backwards.	All LCUs with RAMSES input data sets comprising a minimum of 3 years by December 2004.	ELOs, Information Officers	January - December 2004	<ul style="list-style-type: none"> <li>• <b>DLCO-EA should make historical data available to member countries on request.</b></li> </ul>	
2.2 Facilitate the interpretation of remote sensing satellite images and their use in directing survey operations.	All LCUs with RAMSES obtain satellite images every 10 days.	DLIS	On going		
2.2.1 Provide LCUs with downloads of satellite images in conjunction with other relevant data on a regular basis.	<ul style="list-style-type: none"> <li>• Satellite image analysis made available by DLIS to survey officers every 10 days.</li> <li>• ELOs provide DLIS with a brief ground verification of SPOT satellite images at the same time with the survey reports.</li> </ul>	DLIS, ELOs, Information Officers	From January 2004 onwards	<b>FAO ensures the long-term availability of technical capacity in using satellite images.</b>	

Activities	Milestone	Responsibility	Timeframe	Remarks	Allocation
2.2.2 Provide training and backstopping on remote sensing interpretation.	The LCUs in Djibouti, Ethiopia, Egypt, Saudi Arabia and Sudan received at least one training opportunity each on remote sensing interpretation by December 2004.	DLIS	January - December 2004	<b>Depends upon availability of RS expert at DLIS.</b>	
2.2.3 Produce a User Manual on the management and interpretation of remote sensing images.	User Manual produced and distributed to the LCUs, in both hard and electronic copies by December 2004.	DLIS	Draft ready by June 2004 Final version by December 2004	<b>Draft will be sent to ELOs for comments. Feedback should be provided within 30 days.</b>	
2.3 Support joint cross border surveys.	Up to 5 joint cross border surveys carried out by December 2004.	ELOs, CRC, EMPRES, DLIS	Yemen-Saudi Arabia (1/2004), Egypt-Sudan (1/2004), Djibouti-Somalia (2/2004), Libya-Egypt (2/2004) Ethiopia-Somalia (4/2004)	<b>Cross border surveys subject to suitable conditions.</b>	<b>15,000</b>
2.4 Support development of survey practices and technologies through solicited research projects	At least 2 applied research proposals on improved survey matters are submitted to the CRC by May 2004 for support.	DLIS, CRC	January - May 2004	<b>From: Sudan, Egypt, Yemen, Ethiopia and Saudi Arabia.</b>	

**Result 3:** Campaign evaluation measures and contingency planning mechanisms in place

**Indicator 3.1:** National contingency planning mechanisms adopted and operationally assessed and satisfactory for 2 countries by 2004, 3 more by 2005, and 2 more by 2006

**Indicator 3.2:** Regional contingency planning mechanisms adopted by the CRC and operationally assessed and satisfactory by 2005

Activities	Milestone	Responsibility	Timeframe	Remarks	Allocation
3.1 Encourage the concerned countries to create national locust management committees (Steering Committees).	At least 3 steering committees operational in Yemen, Sudan and Eritrea by December 2004.	ELOs	January – December		
3.2 Prepare guidelines for national contingency planning mechanisms.	Guidelines ready by December 2005	AGPP, EMPRES		<b>Including rapid deployment procedures and good pesticide management practices at all stages.</b>	
3.2.1 Organize DLCC Technical Group Meeting (DLCCTG) on contingency planning questions.	DLCCTG organized in Mauritania by March 2004.	AGPP	January – March 2004		<b>30,000</b>
3.2.2 Prepare first draft of contingency planning guidelines.	First draft paper ready and submitted to AGPP by October 2004	AGPP, EMPRES	March – October 2004		
3.3 Support the national entities in developing national contingency planning mechanisms			On-going		
3.3.1 Update country information sheet on available resources for locust control.	All ELOs updated the country information sheet by June 2004 and submitted it to EMPRES and the CRC by July 2004 latest.	ELOs, EMPRES CRC	June – July 2004		
3.3.2 Finalize CD ROM on contingency planning spread sheets and circulate to member countries.	CD ROM finalized and distributed to all LCUs by September 2004.	EMPRES/ AGPP	January – September 2004		

Activities	Milestone	Responsibility	Timeframe	Remarks	Allocation
3.4 Assist the CRC in developing regional contingency planning mechanisms in accordance with those of countries and FAO.		EMPRES		Subject of 2005 work plan as a result of accomplishment of activity 3.2	
3.5 Asses the "operationality" of the contingency planning mechanisms.		EMPRES, ELOs		Subject of 2005 work plan as a result of accomplishment of activity 3.2	
3.6 Develop guidelines for campaign evaluation.	Guideline for campaign evaluation ready by July 2005.				
3.6.1 Review existing documents on campaign evaluation and identify elements of practical use and improvement.	Consultancy report issued to AGPP by Oct 2004.	EMPRES, Consultant, ELOs	March – October 2004	Consultant	15,000
3.7 Develop mechanisms to collect data on the extent of infestation, crop damage etc. during control campaign.			On-going		
3.7.1 Prepare databases for campaign evaluation.	Data input format prepared by October 2004.	EMPRES	March – October 2004	As part of 3.6.1	
3.7.2 Mobilize expert mission to evaluate campaign efficiency.	Advance preparations for the mission completed by April 2004.	EMPRES, AGPP	January – April 2004	Provided the locust situation allows.	50,000
3.8 Evaluate the comparative economic advantage of preventive control vs. emergency control.	Draft report ready by December 2004	AGPP / EMPRES	June – December 2004	Consultant	15,000
3.9 Assist member countries in developing simulated control campaign in the field.	Mock survey and control exercises are organized by the ELOs and carried out in at least 2 countries by October 2004	ELOs / EMPRES	January – October 2004		20,000

**Result4:** Alternative control technologies supported

**Indicator 4.1:** At least one bio-pesticide against the Desert Locust registered in at least 3 countries and ready for operational use by 2006

<b>Activities</b>	<b>Milestone</b>	<b>Responsibility</b>	<b>Timeframe</b>	<b>Remarks</b>	<b>Allocation</b>
4.1 Participate with member countries and other FAO collaborators to harmonize bio-pesticide regulations.	At least 1 bio-pesticide registered in at least 3 member countries by 2006.	FAO/AGPP, CRC, EMPRES, ELOs	On going	<b>Continue to encourage countries to register bio-pesticide.</b>	
4.2 Support demonstrations on the efficacy of bio-pesticides.	At least 1 bio-pesticide seminar carried out by December 2004 /early 2005.	EMPRES, ICIPE, ELO	June – December 2004	<b>Commercial operator also interested; LCU should provide support in kind.</b>	<b>30,000</b>
4.3 Support solicited research projects	At least 2 additional research projects on improved locust control technologies supported by CRC and EMPRES by December 2004	ELOs, Locust research centres (ICIPE), CRC, EMPRES	January – December 2004	<b>Subject to the quality and topic of the research proposal;</b> LCUs should provide support in kind to appropriate research projects.	<b>80,000 (incl. support to PAN research)</b>

**Annex 5: Achieving Sustainability (3)****A. General Considerations**

<b>Financial</b>	<b>Institutional</b>	<b>Management</b>	<b>Regional / International</b>
<b>Goal:</b> <b>The member governments take full financial responsibility to sustain Desert Locust control operations.</b>	<b>Institutional locust control structures are maintained in all member countries.</b>	<b>The governments follow and maintain the preventive locust control strategy concepts.</b>	<b>The CRC is accepted by all EMPRES/CR countries as the regional coordinator for Desert Locust control activities.</b>
Each member country must have a specific budget line for Desert Locust control operations.	<u>Autonomous</u> Locust Control Units should be well established within the governmental structures.	The management of the Locust Control Units prepares short-, mid- and long- term work plans.	The CRC is in the position to follow on capacity developments at the Locust Control Units of the member countries.
The management of the Locust Control Units prepares short-, mid- and long- term financial plans.	The position of the EMPRES Liaison Officers should be institutionalised as a contact point for the CRC under a new name.	The management of the Locust Control Units prepares and updates realistic and sensible contingency plans.	The CRC is in the position to coordinate Desert Locust management aspects at regional level and acts as a mediator to FAO.
The governments of the member countries assure that sufficient resources (vehicles, GPS, maps, sprayers, etc.) are available for survey and control operations at the Locust Control Units, and replaced as needed.	The Information Offices at the Locust Control Units should be maintained, and further strengthened by the governments.	Contingency plans are tested by practising mobilization procedures.	The CRC has enough funds available to provide support to national programmes.  The scale of the contributions by member countries to the CRC should be reviewed and increased.
The member countries contribute regularly to the CRC Trust Fund.	National Locust Management Steering Committees are established and functioning in all frontline countries.	The management of the Locust Control Units prepares plans for rapid aerial deployment.	The CRC should expand the Executive Committee to include all EMPRES/CR countries, and conduct annual meetings en lieu of the ELO Meetings.
The member countries actively approach donors for bilateral support.		The Locust Control Units ensure proper inventories of resources and keep them regularly updated.	The capacity of the CRC Secretariat to fulfil its coordinating functions needs to be strengthened.
		The national locust control staff takes good care of the available materials (maintenance, stock keeping etc.).	The CRC should continue to give support to various training aspects provided the countries undertake proper need assessments.

<sup>3</sup> Compiled remarks made by the participants

Financial	Institutional	Management	Regional / International
		<p>The management of the Locust Control Units assures that all relevant FAO forms (i.e. locust survey and control report form, spray monitoring form etc.) are made available to the locust officers and used properly.</p>	<p>FAO continues to support the use of satellite images, RAMSES and eLocust through technical backstopping visits.</p>
		<p>The management of the Locust Control Units assures timely transfer of locust information to DLIS.</p>	
		<p>The Locust Control Units should organize self-reflection workshops to evaluate their own performance once a year.</p>	

## B. Technical Considerations

Training	Early Warning	Early Reaction	Information	Research
<b>Goal:</b> The human capacity to operate locust management is properly maintained and further improved.	The early warning capacity is maintained and further developed.	The early reaction capacity is maintained and further developed.	Timely reporting of Desert Locust information from the field to the Locust Control Units, to DLIS and to the CRC is maintained.	National LCUs promote research on Desert Locust management subjects at their national research institutions.
The national institutions should take more care on staff development (Link to good management).	Surveys are planned and carried out by analysing all available data (locust, vegetation, rainfall, information from FAO DLIS, remote sensing etc.).	The member governments should encourage the introduction and use of alternative control technologies.	The member countries maintain and further develop their national locust communication networks and assure information exchange with neighbours as well to DLIS.	The CRC continues to support relevant Desert Locust research projects.
Human resources development should be planned in advance and locust staff properly trained.	Surveys undertaken should regularly be assessed and analysed by the Locust Control Units.	The member governments should further promote the development of advanced or new control technologies.	The Locust Control Units continue to keep their locust information data base (RAMSES) up to date.	
Training should be provided on a regular basis to all staff by national master trainer(s).	The member countries should continue to conduct joint border surveys.	The member governments should promote the introduction of the DGPS technology for aerial control operations.	The Information Offices at the Locust Control Units are kept functional and are further developed by the management.	
The member countries should continue to organize regular training programmes in order to achieve best practice on survey, reporting and control aspects.	The Locust Control Units should conduct simulated survey exercise also during recession periods.			
The Locust Control Units should continuously monitor the training impact and should carry out regular training need assessment surveys.				