

# REPORT

**Sana'a,**

**Yemen**

**20-24 May,**

**2007**

**FAO Commission**

**for Controlling**

**the Desert Locust**

**in the Central Region**

**The Twenty-Ninth Executive  
Committee Meeting**





**Report of the**

**TWENTY-NINTH EXECUTIVE COMMITTEE MEETING OF THE  
COMMISSION FOR CONTROLLING THE DESERT LOCUST IN THE  
CENTRAL REGION**

**Sana'a, Yemen, 20 - 24 May, 2007**

**Food and Agriculture Organization of the United Nations  
Regional Office for the Near East  
Cairo.**

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## **Summary of Recommendations**

### **Recommendations for the Secretariat of the Commission:**

1. The Commission should provide TGS specifications and cost to the countries, i.e. Sudan, Eritrea, Ethiopia, Egypt and Saudi Arabia.
2. Spray companies in the above countries should be provided with TGS, purchased by the governments, and companies should pay back the cost at a later stage.
3. The Head of Locust Control Centre in Saudi Arabia request the Commission to obtain a report on the use of Saudi donation from Eritrea.
4. The Secretary of the Commission should address the issue of covering the cost of participation of all representatives from the countries in the sessions from the CRC Trust fund, to the Director-General of FAO to include it in the agenda of the next Ministerial Meeting in order to amend it.
5. All key countries, particularly Sudan and Yemen, should have their administrative and financial autonomy under direct supervision of the Undersecretary or the Minister, and the Secretary of the Commission should follow up the matter and submit a report.
6. The Director of the Locust Control Centre in Saudi Arabia should complete the arrangement of using BGAN, provide the necessary information to DLIS so it can study the equipment and submit a technical report.

### **Subjects related to Desert Locust situation:**

7. Countries should send their updated information on spray aircraft to CRC.
8. Specifications of spray aircraft and contracting conditions and procedure should be sent to CRC.
9. Aerial control operations in Yemen using the Yemen Air Force or any local companies should be included in the agenda of the coming National Desert Locust Steering Committee.
10. Desert Locust information should be exchanged directly between Locust Control Centers of frontline countries.
11. Mr. Nassor Al-Harthy, the Information Officer in Oman, to visit Saudi Arabia to assist in solving RAMSES programme problems and ensure smooth running of the systems. Additionally, he should undertake the necessary training for the Information Officers in Saudi Arabia for 2 weeks. The Locust Control Centre in Saudi Arabia should specify when the visit should take place.

### **Updated information on eLocust2 and RAMSES: problems encountered during field use in the countries and possible solutions:**

12. The necessity for regular contact between Information Officers and field teams.
13. The necessity for regular contact between Directors of Locust Control Centres and Information Officers.
14. Survey plans and decision making should be based on good consultation with the Information Officers.

15. The available expertise in the Central Region should be used to support the Information Offices and for training.
16. One unit of eLocust2 in every frontline country should be, as a test, connected directly to the vehicle battery to avoid power supply interruption. In case this is successful, all eLocust2 units should be installed in the same way.
17. Incomplete or incorrect data entered into RAMSES should be corrected and DLIS informed either by email or sending the export data file at a later stage.
18. In case the infested area was far from the vehicle, the coordinates should be taken by a handheld GPS and sent later to the Information Officer in the Locust Control Centre for correction.
19. Any malfunctioning eLocust2 units should be sent to DLIS by FAO pouch for repair or replacement.
20. A workshop should be organized for Locust Control Centre Heads and Information Officers of frontline countries on using DLIS alerts and forecasts in Desert Locust management and decision-making.

**Reports on DL situation from Member Countries:**

21. The necessity to increase direct contact between the Locust Control Centres and the National Meteorology Services in the Central Region.
22. The necessity to sign a letter of agreement between the LCC and the NMS in order to obtain the appropriate meteorological data free of charge and make use of this data in planning future surveys.
23. Exchange visits should be undertaken and locust bulletins shared between the two Commissions (Central and Western Regions).

**Training:**

24. National training courses should continue to be supported.
25. In view of the positive feed back of the performance of the graduated Diploma students, it is recommended that the CRC continue its support of the Desert Locust Management Diploma.
26. In view of the high cost of the Diploma programme, particularly in the absence of the EMPRES Programme funding, it is recommended to support the Diploma course for the academic year 2007-2008. Thereafter, the Commission should seek financial support from donors. If this support is not secured, the financial support from CRC will be discontinued.
27. The Director of the Locust Control Centre in Saudi Arabia to continue his efforts to solve the problems that prevent the Centre from conducting national training courses.

**Research:**

28. The Commission should re-circulate the research documents (priority list, guidelines and formats) to Head of Locust Control Centres and Directors of Plant Protection Departments of all member countries.
29. The Directors of Locust Control Centres in the member countries should

continue their efforts to encourage research institutes in their country to submit proposals and to provide them with all the relevant documents (priority list, guidelines and formats).

30. The current priority list should be maintained for submitting research proposals. The list contains most of the relevant subjects for applied research in Desert Locust.
31. The Director of the Locust Control Centre in Saudi Arabia should investigate the possibility of establishing an International Centre for Desert Locust Research in Saudi Arabia. In case the concerned authorities in Saudi Arabia show a positive response, the Commission will recruit a consultant to prepare a comprehensive proposal for establishing the centre.

#### **Publications:**

32. The Desert Locust Glossary should be produced in hard copies as well as in electronic version.
33. The Secretary of the Commission should prepare a list of all printed publications, to be circulated to all member countries, to identify their requirements for reprinting.
34. Any reference or document related to Desert Locust could be translated or produced upon request by the member countries.

#### **Subjects related to budget:**

35. The expenditures for 2006 and for the period January to April 2007 as reported by the Secretary should be endorsed.
36. The workplan and budget for 2008 and 2009 should be endorsed.
37. The Secretary of the Commission, in consultation with the Chairman, is authorized to cover the cost of implementing the Commission's recommendations in cases these are not reflected in the Commission budget or workplan.
38. The budget of US\$ 150,000 allocated for the study of the diploma course for six students in the year 2009 should be cancelled. The budget allocated for the support to the member countries (10,000 US\$) should be transferred from budget line 5024 to 5025.

#### **Contributions and Arrears:**

39. Stress should be placed on the recommendation made in the 25<sup>th</sup> Session of the Commission in Doha, Qatar, to request the Director-General of FAO to address the countries that had not paid its annual contributions for the last three years or more, to clarify their position as a member of the Commission and to settle their arrears.
40. The Commission should request FAO HQ to issue the annual call for contributions and arrears in January rather than in July of each year in order to match the fiscal budget year in most of the member countries in the Central Region.
41. The Commission should investigate the possibility of settling Egypt's annual contribution and arrears in local currency through the FAO Representation in Cairo.



42. **The Commission should address the increase in annual contributions of a number of countries to enable the Commission to implement its activities and workplan, and to delegate the Secretary and the Chairman of the Commission to visit these countries as required.**

**Other Business:**

43. **An ad-hoc meeting should be held in September 2007 in Khartoum, Sudan to prepare a regional action plan for the coming winter campaign in the frontline countries e.g. Sudan, Saudi Arabia, Egypt, Yemen and Eritrea.**
44. **The participants recommended the Commission to secure a uniform for the CRC driver in Cairo at an annual cost of US\$ 200, similar to drivers employed by the Regional Office in Cairo.**
45. **Maintain the website and update it regularly by the Commission. Attempts should be made to record the number of visitors and their countries.**
46. **The agenda of the Executive Committee should be reconsidered to include the role of the Executive Committee as stated in the agreement.**
47. **A global locust situation should be presented in the Commission sessions with the emphasis on the locust situation in the Central Region.**
48. **When the Executive Committee meeting is held with the Commission Session, it should be conducted in the same manner as in the previous years.**
49. **In case of new or special subjects to be discussed, these should be included in the agenda of the Session of the Commission and a report should be prepared by the member countries of the Executive Committee in consultation with the Secretary of the Commission.**

# **Commission for Controlling the Desert Locust in the Central Region**

## **The Twenty-Ninth Executive Committee Meeting Sana'a, Yemen, 20 - 24 May 2007**

### **Introduction:**

According to the Agreement of the Establishment of the Commission for Controlling the Desert Locust in the Central Region (CRC), the Chairman of the Executive Committee, Mr. Mohamed Abdel Rahman, invited members of the Executive Committee in its 25<sup>th</sup> Session (Egypt, Iraq, Kuwait, Lebanon, Saudi Arabia, Sudan, and Yemen) to attend the Twenty-Ninth meeting of the Executive Committee of the Commission for Controlling the Desert Locust in the Central Region, to be held in Sana'a, Yemen, 20 – 24 May 2007. All members attended with the exception of the delegate of Iraq.

Invitations were also addressed to the Secretary of the Commission for Controlling the Desert Locust in the Western Region (CLCPRO). Mr. Keith Cressman, Information and Forecasting Officer, Locust and Other Migratory Pests Group, represented FAO HQ at the meeting. The names and addresses of the participants are presented in Appendix 1.

### **1. Opening of the meeting:**

H.E. the State Minister of Agriculture and Irrigation opened the meeting by welcoming the participants and guests. He stressed the necessity of coordination and cooperation between the affected countries, highlighting the importance of using the advance technology in Desert Locust Control. He also referred to the importance of regular and timely exchange of information, in order to obtain the required funds and support. He mentioned that training and building capacities on new technology are very crucial, and he emphasized the importance of joint border survey between neighbouring countries. He indicated that the inclusion of Desert Locust as a subject in school's syllabus would be useful to extend knowledge and information about Desert Locust among the public. He wished the members successful and fruitful discussion and safe return to their home countries.

Prior to H.E. the Minister, the Chairman of the Commission, Mr. Abdulla Safar, Al-Khanji, gave a presentation thanking the Government of Yemen for hosting the 29<sup>th</sup> meeting of the Executive Committee of the Commission, welcoming the Chairman and members of the Executive Committee. He mentioned that this is the first meeting after merging the CRC with EMPRES meetings. He stressed on the point that member countries should pay their contributions annually to enable the Commission accomplish its activities properly. He wished the meeting a successful and fruitful deliberation.

Mr. Hashim A-Shami, FAO Representative in Yemen, gave a short presentation about Desert Locust indicating the importance of research studies supported by CRC for the benefit of the agriculture sector in the Desert Locust affected countries, which represents 20% of the total of national income. He pointed out that donor communities and governments of same countries would agree in their point of view on curative rather than preventive control strategy of Desert Locust. He indicated that financial support and commitment for Desert Locust management should be shared between donors, organizations and affected countries. He expressed his thanks to the Minister of Agriculture and Irrigation of Yemen for his significant support to the Desert Locust Centre in spite of his short period in office.

## **2. Adoption of the Agenda**

After reviewing and discussing the proposed agenda, the participants unanimously agreed upon the following:

1. Opening of the meeting
2. Adoption of the Agenda
3. Election of the drafting Committee
4. Report on the activities of the Secretary and follow-up of the recommendations of the 25<sup>th</sup> Session of the Commission
5. Desert Locust situation May 2006-May 2007
6. Updated information on eLocust2 and RAMSES. Problem encountered during field application by the countries and possible solutions.
7. Training
8. Research
9. Publications
10. Accounts for 2006-2007, work plan and budget for 2008-2009
11. Arrears of contributions to the TF of the Commission
12. Any other business
13. Adoption of the report of the 29<sup>th</sup> Meeting of the Executive Committee
14. Closure of the Meeting

## **3. Election of the drafting Committee**

The representatives of Yemen and of Sudan were elected as members of the Drafting Committee. The secretariat activities of the meeting were to be handled by FAO.

#### **4. Report on the activities of the Secretary and follow-up of the recommendations of the 25th Session of the Commission:**

The Secretary of the Central Region Commission presented a detailed report on the implementation of recommendations of the Commission in the period from the 25<sup>th</sup> Session to date, which covered the following activities: training, research, joint survey, publications, secretary participation, and subjects relating to budget.

The participants discussed the presentation intensively. The representative of Saudi Arabia pointed out that the use of Differential Global Positioning System (DGPS) or Track Guidance System (TGS) by the spray companies would be very difficult since the contractual procedure extend for three years. He requested technical information and cost of TGS.

The participant from Sudan mentioned that the spray companies in Sudan refused to install DGPS on their aircraft due to its high cost. The Secretary of the Commission explained that TGS based on standard GPS is cheaper and could be used instead of DGPS.

The participants came up with the following recommendations:

- 1. The Commission should provide TGS specifications and cost to the countries, i.e. Sudan, Eritrea, Ethiopia, Egypt and Saudi Arabia.**
- 2. Spray companies in the above countries should be provided with TGS, purchased by the governments, and companies should pay back the cost at a later stage.**

The participants discussed the Saudi donation to Eritrea and requested a report from Eritrea on the use of the donation and how it helped in the current campaign.

It was recommended that:

- 3. The Head of Locust Control Centre in Saudi Arabia request the Commission to obtain the report from Eritrea.**

With regard to the amendment of the Agreement of the establishment of the Commission in order to cover the cost of all members to participate in the Commission sessions, the Secretary of the Commission informed the meeting that, according to the Legal Department at FAO HQ, it is not possible to amend this portion of the CRC agreement according to FAO regulations.

Therefore, the participants recommended that:

- 4. The Secretary of the Commission should address the issue to the Director-General of FAO to include it in the agenda of the next Ministerial Meeting in order to amend it.**

The participants agreed that the National Locust Control Centres should have their administrative and financial autonomy to ensure better and effective performance.

The following was recommended that:

- 5. All key countries, particularly Sudan and Yemen, should have their administrative and financial autonomy under direct supervision of the Undersecretary or the Minister, and the Secretary of the Commission should follow up the matter and submit a report.**
- 6. The Director of the Locust Control Centre in Saudi Arabia should complete the arrangement of using BGAN, provide the necessary information to DLIS so it can study the equipment and submit a technical report.**

The participants thanked the Secretariat of the Commission for the constructive efforts and endorsed the report in Appendix 2.

### **5. Desert Locust situation May 2006 – May 2007**

A report on the locust situation and forecast was presented by the Locust Information Officer, Mr. Keith Cressman, for the period May 2006 to May 2007. In his presentation, he focused on the recent Desert Locust outbreaks that occurred in Eritrea, northern Somalia, Saudi Arabia and Yemen.

In Eritrea, three generations developed between December 2006 and April 2007 in the winter breeding areas on the Red Sea coast. From February, some infestations crossed the Sudanese border but remained on the coast south of the Tokar Delta. Some 65,000 ha were treated in Eritrea from December to April and nearly 23,000 ha in Sudan from February to May. By mid April the locust situation declined and became calm.

In northern Somalia, good rain fell during October and November 2006 along the northwest coast, causing locust groups to form in January and swarms in March. The swarms moved the interior of Hargeisa, to Djibouti and Ethiopia, and north to Yemen. In view of the good rains and uncontrolled new generations, swarms may form in August and September that, in the worse case, could move south to Kenya. Therefore, it is necessary to monitor these areas very closely during the summer. So far, small spot treatments against hopper bands have been carried out in May.

In Saudi Arabia, at least two generations of breeding occurred along the Red Sea coast near Lith and Qunfidah, because of good rains. As good rains fell in the interior in mid-April, some swarms moved to the interior. Small residual populations were still present on the coast in May. If the remaining infestations are not controlled on the coast and in the interior, adults may form swarms in June that could move west and cross the Red Sea to the Nile Valley and interior of Sudan. A few other swarms could move south to the interior of Yemen. Ground and aerial operations treated more than 71,000 ha from February to May in Saudi Arabia.

In Yemen, local breeding took place on the southern coast during March and continued in April 2007. Control operations were not carried out due to the presence of beekeepers. Good rains fell in the interior in March and April, and adults moved into these areas from the coast, supplemented by a few swarms probably from northern Somalia, and laid eggs. Hatching and band formation occurred in May. So far 3,500 ha have been treated in

May. It is critical to monitor all summer breeding areas very closely in the coming months since there is a high probability of a second generation of breeding.

The forecast for the coming summer suggests that, as vegetation dries out, any remaining infestations in the spring breeding areas in the interior of Saudi Arabia will move to the summer breeding areas in the interior of Sudan in June where breeding will start with the onset of the rains. There is a risk that a few swarms could also move towards the interior in Yemen in June. Breeding will occur along both sides of the Somali-Ethiopian border and, by the end of the summer there could be a possibility that swarms form and move south to Kenya.

Finally, a number of points were raised for discussion. The participants agreed that the performance of DLCO-EA aircraft was poor. Therefore, there alternative sources of aerial control should be sought. It was evident that there are no obstacles to aerial control in Sudan, Saudi Arabia and Oman due to the availability of local spray companies. Egypt could benefit from the agriculture spray fleet of the Egypt Armed Forces as well as commercial spray companies operating inside and outside Egypt. No alternative for DLCO-EA aircraft in Ethiopia, Eritrea and Somalia could be identified.

The Secretary of the Commission in the Western Region informed the participants about the special meeting for aerial spray companies, held in FAO HQ in 2005. He explained that the resulted report contained specifications of spray aircraft and contracting conditions and procedure that should be considered and followed by the affected countries when contracting aerial spray companies. This report was supposed be circulated to all countries.

Therefore, the following was recommended:

- 7. Countries should send their updated information on spray aircraft to CRC.**
- 8. Specifications of spray aircraft and contracting conditions and procedure should be sent to CRC.**
- 9. Aerial control operations in Yemen using the Yemen Air Force or any local companies should be included in the agenda of the coming National Desert Locust Steering Committee.**

With regard to reporting and exchange of information, the participants recommended:

- 10. Desert Locust information should be exchanged directly between Locust Control Centers of frontline countries.**

With respect to the problems in using RAMSES and eLocust2 in Saudi Arabia, the participants recommended:

- 11. Mr. Nassor Al-Harthy, the Information Officer in Oman, to visit Saudi Arabia to assist in solving these problems and ensure smooth running of the systems. Additionally, he should undertake the necessary training for the Information Officers in Saudi Arabia for 2 weeks. The Locust Control Centre in Saudi Arabia should specify when the visit should take place.**

For more details, refer to Appendix 3.

## **6. Updated information on eLocust2 and RAMSES: problems encountered during field use in the countries and possible solutions**

Mr. Keith Cressman gave a presentation on eLocust2 and the transmission of information from the field to RAMSES programme in the Locust Centre. He indicated the problems that faced the use of eLocust2 in the field:

- a. Incomplete entry of the required data
- b. Interruption in the power supply and accordingly interruption in the transmission and loss of data.
- c. Difficulty in importing the data directly into RAMSES.

He explained that all these difficulties could be solved by proper training. A total of 45 eLocust2 units have been distributed to frontline countries in the Central Region, out of which 39 were activated, but only 24 units are in use. These units might be sufficient during recessions but not in emergencies.

Thereafter, Mr. Cressman explained the use of RAMSES Programme indicating that data could be entered into RAMSES either directly through eLocust2 from the field or manually. In case of a high volume of manual data, it could be entered in the MS Access database portion of RAMSES on several computers and then to be exported to the primary computer that hosts RAMSES.

In the extensive discussion that followed, the participants recommended that:

- 12. The necessity for regular contact between Information Officers and field teams.**
- 13. The necessity for regular contact between Directors of Locust Control Centres and Information Officers.**
- 14. Survey plans and decision making should be based on good consultation with the Information Officers.**
- 15. The available expertise in the Central Region should be used to support the Information Offices and for training.**
- 16. One unit of eLocust2 in every frontline country should be, as a test, connected directly to the vehicle battery to avoid power supply interruption. In case this is successful, all eLocust2 units should be installed in the same way.**
- 17. Incomplete or incorrect data entered into RAMSES should be corrected and DLIS informed either by email or sending the export data file at a later stage.**
- 18. In case the infested area was far from the vehicle, the coordinates should be taken by a handheld GPS and sent later to the Information Officer in the Locust Control Centre for correction.**
- 19. Any malfunctioning eLocust2 units should be sent to DLIS by FAO pouch for repair or replacement.**
- 20. A workshop should be organized for Locust Control Centre Heads and Information Officers of frontline countries on using DLIS alerts and forecasts in Desert Locust management and decision-making.**

For more details, see Appendix 4.



## **Reports on DL situation from Member Countries**

### **Egypt**

The representative from Egypt informed that due to unfavourable conditions in the past period no locusts were reported and the situation was calm with the exception of some solitary individuals detected on the border of Sudan and around Lake Nasser. He mentioned that survey teams are still in the field monitoring the situation. He concluded that during this period, maintenance and support of the locust bases were undertaken, that the African Development Bank supported the Locust Control Centre with US\$ 500,000 but only US\$ 300,000 was spent so far. He also stated that the Government of Egypt provides annual support to the Locust Control Centre with US\$ 600,000 and this could reach US\$ 2 million during emergencies.

### **Kuwait**

The representative of Kuwait mentioned that they have no problem with Desert Locust, indicating that there is an emergency fund allocated for operations. If not used, it is carried over to the next year. He also mentioned that they follow up the Desert Locust situation through the information sent by the CRC.

### **Lebanon**

The representative of Lebanon informed that the locust situation had been calm in the last period. He mentioned that they allocate funds only in an emergency.

### **Saudi Arabia**

The representative of Saudi Arabia presented a detailed report on the locust situation and the ecological conditions in addition to other activities of the Locust Control Centre. He stated that ecological conditions were favourable for locust breeding since the end of December 2006 along the coast and the interior. He reported that in March 2007 swarms arriving from eastern Africa were detected and that the total area controlled by ground and aerial operations was about 80,000 ha as of 15 May 2007. He concluded by mentioning all required resources i.e. staff, equipment, funds and logistics are sufficient.

### **Sudan**

The representative of Sudan gave a detailed report on locust situation and other activities of the Locust Control Centre. He mentioned that ecological conditions were favourable for locust breeding in the past summer and winter seasons, but the locust situation was calm during the 2006 summer. The situation developed in February 2007 due to an invasion of swarms and bands from Eritrea to south of Tokar Delta. The infestation was controlled by the end of April, where about 22,590 ha were treated by ground and aerial means. He assured the meeting that the pesticides are sufficient for the coming season, but the problem remains in the availability of funds at the right time.

### **Yemen**

The representative of Yemen informed that ecological conditions were not favourable for locust breeding although rainfall was reported in May to December 2006. Only isolated solitary were reported in the summer breeding areas in 2006. The conditions improved from January 2007 in the winter breeding areas, where small infestations were reported



along the southern and western coast up to the Saudi Arabia border. Heavy rain fell in March 2007 in most of the summer breeding areas in the country. Mature locusts laid eggs in Mahra coast in March, in Thammd and Zamakh in April, and local breeding was reported in Shabwa in May. Up to now about 3,500 ha were controlled by ground means. The infestation in Mahra was not controlled because of the presence of beekeepers.

### **Meteorological report**

Mr. Rasheed Al-Areeqi, the representative from the National Meteorological Service (NMS) in Yemen, gave an overview of the meteorological conditions that could affect the Desert Locust. He explained the effect of wind direction as a result of the low and high pressure systems which lead to rainfall that provides favourable conditions for locust outbreaks in the Central Region. He presented the forecast for the coming summer in Yemen, indicating that rain is expected to be about normal, and temperatures are expected to be above the normal.

The participants discussed the meteorology report and recommended:

- 21. The necessity to increase direct contact between the Locust Control Centres and the National Meteorology Services in the Central Region.**
- 22. The necessity to sign a letter of agreement between the LCC and the NMS in order to obtain the appropriate meteorological data free of charge and make use of this data in planning future surveys.**

### **The report of the Commission for Controlling the Desert Locust in the Western Region**

The Secretary of the Commission for Controlling the Desert Locust in the Western Region (CLCPRO) presented a report on the activities of the Commission in the last period. He stated that the financial arrangements of EMPRES programme were supported by the African Development Bank and the World Bank, indicating that there is US\$ 12 million allocated for preventive control for the Sahel countries. He also mentioned that there was a mission to evaluate the availability of resources in the Sahel countries. He then highlighted the number of meetings that were held in the previous period. He informed the meeting that the Commission logo and website were finalized, stating that the Locust Control Centres in Mauritania, Chad and Mali have been given administrative and financial autonomy. Niger is expected to follow suit in July 2007.

The participants recommended that:

- 23. Exchange visits should be undertaken and locust bulletins shared between the two Commissions.**

## **7. Training**

The Secretary of the Commission presented a report on the training activities, indicating the number of national training courses conducted in Egypt, Eritrea, Ethiopia, Oman, Sudan, Yemen and Djibouti. A regional training course on locust aerial operations will be held in Ethiopia in June 2007 with the cooperation of DLCO-EA. Invitations were sent to Sudan, Saudi Arabia, Egypt, Ethiopia, Oman and Yemen. Similarly, invitations were

sent to spray companies in Sudan, Ethiopia and Saudi Arabia in addition to a pilot from Omani Air force.

The Secretary also informed the Committee that the 3rd Sub-Regional Training course will be held in Damascus, Syria in July 2007 with the participation of trainees from Jordan, Syria, Iraq and Lebanon and co-trainers from Egypt.

He reported that the Secretariat has received a request from Kuwait to conduct a national training course in November-December 2007.

With regard to the Desert Locust Diploma at the University of Khartoum, he mentioned that the sixth group graduated in September 2006 and six students from Iraq, Yemen, Ethiopia, Egypt and two from Sudan were enrolled in the diploma course 2007-2008. He concluded that 32 students had graduated since 2001. He further stated that the Commission is following up the implementation of the recommendations in the consultant evaluation report.

With respect to the long-term training, he reported that the student from Egypt had obtained his M. Sc. degree in September 2006, stating that the Commission will announce a second M. Sc. scholarship for the academic year 2008-2009, and the study will not be restricted to only universities in the Region.

From the discussion that followed, the participants recommended:

- 24. National training courses should continue to be supported.**
- 25. In view of the positive feed back of the performance of the graduated Diploma students, it is recommended that the CRC continue its support of the Desert Locust Management Diploma.**
- 26. In view of the high cost of the Diploma programme, particularly in the absence of the EMPRES Programme funding, it is recommended to support the Diploma course for the academic year 2007-2008. Thereafter, the Commission should seek financial support from donors. If this support is not secured, the financial support from CRC will be discontinued.**
- 27. The Director of the Locust Control Centre in Saudi Arabia to continue his efforts to solve the problems that prevent the Centre from conducting national training courses.**

For more details, see Appendix 5.

## **8. Research:**

The Secretary of the Commission presented a report on the status of research carried out in the Region during the period after the 25<sup>th</sup> Session, as per Appendix (6). He stated that the research study in Egypt had been accomplished and the final report, including the financial report, was submitted. This was forwarded to FAO HQ for the final endorsement.

He also reported that the research study conducted by DLCO-EA concluded in December 2006 and the final report was endorsed by FAO HQ and it is available on the CRC-EMPRES website.

The Secretary also gave an overview of the trial of Green Muscle® and PAN against Desert Locust, conducted in Sudan with the cooperation of the International Centre for Insect Physiology and Ecology (ICIPE) and the Locust Control Centre of Sudan, where observers from Egypt, Mauritania and Senegal participated.

With regard to phase IV of the ICIPE project on the eco-toxicological effect of PAN, it had been revised by the Commission and amended in its final version by ICIPE. The Letter of Agreement between FAO and ICIPE is ready for signature.

Finally, he indicated that no research proposals or projects are in the Commission's hands, stating that it is important to encourage universities and research institutes in the member countries to submit research proposals to CRC.

After discussion, the participants recommended the following:

- 28. The Commission should re-circulate the research documents (priority list, guidelines and formats) to Head of Locust Control Centres and Directors of Plant Protection Departments of all member countries.**
- 29. The Directors of Locust Control Centres in the member countries should continue their efforts to encourage research institutes in their country to submit proposals and to provide them with all the relevant documents (priority list, guidelines and formats).**
- 30. The current priority list should be maintained for submitting research proposals. The list contains most of the relevant subjects for applied research in Desert Locust.**
- 31. The Director of the Locust Control Centre in Saudi Arabia should investigate the possibility of establishing an International Centre for Desert Locust Research in Saudi Arabia. In case the concerned authorities in Saudi Arabia show a positive response, the Commission will recruit a consultant to prepare a comprehensive proposal for establishing the centre.**

## **9. Publications**

The Secretary of the Commission presented a report on the publications produced during the past period (Appendix 7). The most important achievement was the completion of phase I of the Desert Locust Glossary in English, and now the Arabic version is in progress. He mentioned that the English version was forwarded to the Western Region to prepare the French version. The Secretary of the Commission in the Western Region stated that the French version will be ready by the end of 2007.

The Vegetation Index had been revised and is in its final stage for production.

The following was recommended:

- 32. The Desert Locust Glossary should be produced in hard copies as well as in electronic version.**
- 33. The Secretary of the Commission should prepare a list of all printed publications, to be circulated to all member countries, to identify their requirements for reprinting.**

**34. Any reference or document related to Desert Locust could be translated or produced upon request by the member countries.**

## **10. Accounts for 2006 - 2007, work plan and budget for 2008-2009**

The Secretary of the Commission presented a report on the expenditures for the year 2006 and the period from January to April 2007 (Appendix 8).

After discussion, the participants recommended:

**35. The expenditures for 2006 and for the period January to April 2007 as reported by the Secretary should be endorsed.**

**36. The workplan and budget for 2008 and 2009 should be endorsed.**

**37. The Secretary of the Commission, in consultation with the Chairman, is authorized to cover the cost of implementing the Commission's recommendations in cases these are not reflected in the Commission budget or workplan.**

**38. The budget of US\$ 150,000 allocated for the study of the diploma course for six students in the year 2009 should be cancelled. The budget allocated for the support to the member countries (10,000 US\$) should be transferred from budget line 5024 to 5025.**

## **11. Status of contributions and Arrears of member Countries**

A report was presented by the Secretary of the Commission on the financial status of the Commission's Trust Fund, indicating that a number of countries pay their contributions on a regular basis, whereas other countries do not (See Appendix 9). Djibouti had not paid its annual contribution since its adherence to the Commission in 2002.

The following were recommended:

**39. Stress should be placed on the recommendation made in the 25th Session of the Commission in Doha, Qatar, to request the Director-General of FAO to address the countries that had not paid its annual contributions for the last three years or more, to clarify their position as a member of the Commission and to settle their arrears.**

**40. The Commission should request FAO HQ to issue the annual call for contributions and arrears in January rather than in July of each year in order to match the fiscal budget year in most of the member countries in the Central Region.**

**41. The Commission should investigate the possibility of settling Egypt's annual contribution and arrears in local currency through the FAO Representation in Cairo.**

**42. The Commission should address the increase in annual contributions of a number of countries to enable the Commission to implement its activities and workplan, and to delegate the Secretary and the Chairman of the Commission to visit these countries as required.**

## **12. Other Business**

- **Ad-hoc Meetings in the Central Region**

The Secretary of the Commission emphasized the usefulness of the ad-hoc meetings during the locust upsurge in 2003-2005 to help contain the Desert Locust infestations.

Based on the current outbreak, the participants recommended that:

**43. An ad-hoc meeting should be held in September 2007 in Khartoum, Sudan to prepare a regional action plan for the coming winter campaign in the frontline countries e.g. Sudan, Saudi Arabia, Egypt, Yemen and Eritrea.**

- **Uniform for the CRC Driver in Cairo**

**44. The participants recommended the Commission to secure a uniform for the CRC driver in Cairo at an annual cost of US\$ 200, similar to drivers employed by the Regional Office in Cairo.**

- **CRC-EMPRES website**

In view of the importance and the benefit of the CRC-EMPRES website as discussed by the participants, it was recommended to:

**45. Maintain the website and update it regularly by the Commission. Attempts should be made to record the number of visitors and their countries.**

- **Saudi Arabia and Qatar Assistance to EMPRES**

The Secretary of the Commission briefed the meeting of the two project proposals prepared in Arabic and English to support the EMPRES programme in the Central Region. The proposals were submitted by the Director-General of FAO to Saudi Arabia and Qatar representatives in Rome. It was confirmed that the proposals were received by the official authorities in the two countries. During the intensive discussion, most of the participants supported the assistance and the necessity for the Secretary of the Commission and a representative from FAO HQ to visit the two countries to follow up the progress after close coordination with the concerned authorities in the countries. The representative from Saudi Arabia in the Executive Committee felt that it was advisable to continue his efforts to follow up the progress at the Ministry of Agriculture before undertaking any further action.

The Chairman of the Commission, Mr. Abdulla Safar, informed the meeting that the Ministry of Municipal Affairs and Agriculture, State of Qatar, have rejected the proposal for assistance, but he stressed that the Secretary and the Chairman of the Commission should continue their efforts in order to secure assistance to EMPRES Programme in the Central Region.

- **The Executive Committee meetings**

The Secretary of the Commission presented the role of the Executive Committee as it is stated in the Agreement of the Establishment of the Commission, indicating that the current procedure for conducting the Executive Committee Meetings do not follow

what is stated in the agreement. After an intensive discussion the participants agreed on the following recommendations:

- 46. The agenda of the Executive Committee should be reconsidered to include the role of the Executive Committee as stated in the agreement.**
- 47. A global locust situation should be presented in the Commission sessions with the emphasis on the locust situation in the Central Region.**
- 48. When the Executive Committee meeting is held with the Commission Session, it should be conducted in the same manner as in the previous years.**
- 49. In case of new or special subjects to be discussed, these should be included in the agenda of the Session of the Commission and a report should be prepared by the member countries of the Executive Committee in consultation with the Secretary of the Commission.**

### **13. Adoption of the report of the 29<sup>th</sup> Executive Committee meeting**

The participants unanimously endorsed and approved the report of the 29<sup>th</sup> Executive Committee meeting that was held in Sana'a, Yemen in the period 20-24 May 2007.

### **14. Closure of the meeting:**

On behalf of the participants, the Chairman of the Executive Committee thanked the Government of Yemen for hosting the meeting and for their good organization. He also thanked the Secretary of the Commission and members of the Executive Committee for their fruitful discussions and wished everyone a safe journey back home.

### **Vote of Thanks:**

The participants of the 29<sup>th</sup> Executive Committee Meeting extended their appreciation to the Government of Yemen and the Ministry of Agriculture and irrigation for their excellent organization of the meeting, which reflected in its success. They also extended their thanks to the Chairman of the Executive Committee for his objective and democratic management of the discussions.

Thanks were also extended to the Secretary of the Commission for his efforts in preparing the meeting's working papers. The participants appreciated the efforts of the drafting committee and the secretary in producing the meeting report.

**Appendix No. (1)**  
**List of participant**

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**Appendix No. (2) Report of the activities of the Secretariat of the Commission and follow up recommendations of the 25<sup>th</sup> Session of the Commission:**

During the period from May 2006 to May 2007, i.e. the period after the 25<sup>th</sup> CRC Session in Doha, Qatar, the Commission has taken up several activities summarized as follows:

**A) Training:**

1. The Commission supported the organization and preparation of national training courses in Desert Locust survey and control during 2006 in each of: Egypt, in Ismailia during October/November; Eritrea in Barentu during July; Oman in Alnagd during December; Sudan in wad Medani during May; Yemen in Aden during July. In 2007, training courses were supported in Ethiopia in Lake Zeway during February/march and in Djibouti during April.
2. The Commission also supported the local training course that was held in Tesseney in Eritrea during July 2007.
3. Preparation is under way to conduct a Regional Training Course on Desert Locust Aerial Survey and Control Operations in Ethiopia during 04-08 June 2007, the training will be held jointly between FAO-CRC and DLCO-EA.
4. The Secretariat of the Commission is planning to organize, the third sub-regional training course on the biology, survey and control aspects of Desert Locust in Damascus, Syria during July 2007.
5. Support will be provided to Kuwait for conducting a national training course during the second half of 2007.
6. The Commission, in collaboration with the EMPRES/CR Programme, supported the academic Diploma study in Desert Locust management at the University of Khartoum, Sudan. The sixth group graduated in September 2006 and the Seventh group (from Egypt, Iraq, Ethiopia, Sudan and Yemen) was enrolled in September 2006 and is expected to be graduated in September 2007.
7. The Secretariat of the Commission followed up the implementation of the recommendations that was reported in the British consultant evaluation report. In this respect the Secretary of the Commission visited the university in December 2006 and discussed with staff the follow up of the recommendations and reached the conclusion that about 90% of the recommendations were implemented.
8. The Desert Locust Management Course was introduced in December 2006 to the students at the final year at the College of Agriculture Studies, Sudan University of Science and Technology. Also in early 2007 the Technical Secondary school and Institutes in Yemen, agreed to accept the Desert Locust Management Course for their students.

9. In August 2006, the Egyptian Master Degree student completed his study on Desert Locust Survey at the University of Khartoum, Sudan, funded by the Commission. It is expected that the Commission announce the competition for candidates from the member countries for a second M. Sc. study in the academic year 2007-2008.
10. Certificates of Merits were sent to the students who graduated.

**B) Research:**

As agreed beforehand during the previous years and in collaboration with the EMPRES/CR Program, the research status can be summarized as follows:

1. The research study under the supervision of the Research Institute in Egypt was concluded end 2005; the final report was received 13 April 2007 and sent to FAO HQ for endorsement.
2. A research study from the Desert Locust Control Organization for East Africa (DLCO-EA) was completed in December 2006.
3. The Commission managed to coordinate with the International Centre for Insect Physiology and Ecology (ICIPE) during the Bio-pesticides Workshop at Saly, Senegal in March 2007, the preparation of a protocol for conducting trials on *Metarhizium* (Green Muscle) and the Pheromone PhenylAcetoNitrile (PAN) against Desert Locust infestation in the field. Costs of the trials are to be covered from IFAD fund.
4. The ICIPE Project proposal for Phase IV to study the eco-toxicological of the Pheromone PAN was revised by the Commission in March 2007 and resent to ICIPE for amendment.

**C) Joint survey:**

- 1) In view of the collaboration between the Commission and EMPRES in the Central Region, the fourth joint border survey of the Yemen/Saudi borders took place in the period 16-21 September 2006.
- 2) In view of the escalated Desert Locust situation in Eritrea and Sudan, the sixth joint border survey between Egypt and Sudan was cancelled for the year 2007.
- 3) The Commission is coordinating to undertake joint border survey between Yemen and Oman once rains fall and conditions are favourable for Desert Locust breeding. The Yemen Government has agreed to conduct joint border survey with Oman, it is expected that the Omani authorities send their agreement soon. In the same direction the Commission addressed the participation of the Omani Locust Officers in the Saudi/Yemeni joint border survey, to the Locust Centre in Saudi Arabia to issue the required approval.

#### **D) Publications:**

This can be summarized as follows:

- 1) The continuation of the translation of the monthly Desert Locust Bulletin from English into Arabic in PDF format and its circulation to member countries and concerned parties.
- 2) The first phase of preparing and compiling a Glossary of technical expressions and terms used in the research field and in the control of Desert Locust in (English Arabic/French) was concluded in December 2006, as indicated in the work plan. The Commission is in the process to prepare the same in Arabic and as agreed, the compiled English version was sent to the Commission for Controlling the Desert Locust in the Western Region in order to prepare the French version of the glossary and to add any Arabic terms used in the Western Region.
- 3) The Commission supervised, in August 2006, the translation into Arabic the EMPRES brochure that was produced in English by FAO.
- 4) The Commission prepared the Arabic translation of the Field Tests on an Integrated Differential GPS Navigation and Spray Monitoring System for Aerial Desert Locust Control Operations and distributed the document to all concerned parties.
- 5) In collaboration with EMPRES, a draft Desert Locust Vegetation Index Guideline was prepared. A consultant was recruited in October 2006 to revise and amend the draft. The final version has been received and now the Commission is in the process to produce the Guideline in its final version for wide distribution for the benefit of Desert Locust field staff.
- 6) The Commission, prepared and printed (in English and Arabic) pocket size laminated cards (SOP) and poster for Radio Communication for mobile teams and field stations. The radio SOP and poster were widely distributed to all concerned staff and institutions.
- 7) The Commission and EMPRES Programme created and issued the CRC/EMPRES Website. The Commission completed the administrative and the financial arrangements and placed the Website on line since July 2006. The Secretariat of the Commission is responsible for updating regularly the website with the information, documentations and the up-coming events.
- 8) A new selected logo for the Commission was produced in 3 different sizes and distributed to all member countries.

#### **E) Budget:**

- 1) The Commission has sent requests to all member countries to pay their contribution arrears and expressed its appreciation to those who pay their contribution in a regular manner.

- 2) The Secretariat of the Commission has followed up the settlement of Ethiopia and Eritrea contributions, and is following up regularly the status of the contribution of all member countries.

**F) Secretary's participation:**

The Secretary of the CRC has participated in the following events:

- 1) Organizing and participating in the 25<sup>th</sup> Session of the Commission for the Control of Desert Locust in the Central Region, Doha, Qatar, 28 May – 01 June 2006.
- 2) Introducing the Chairman of the Commission and submission of the 25<sup>th</sup> Session to the Locust Group, FAO,-Rome, 04-08 July 2006.
- 3) Accompanied by the Chairman of the Commission, a visit was paid to Sudan to meet with the Federal Minister of Agriculture and Forestry to discuss matters related to Desert Locust activities and the importance to support the financial autonomy of the Locust Centre in Sudan 21-25 July 2006.
- 4) Participation in the 38th Session of the Desert Locust Control Committee in Rome during the period of 10–16 September 2006.
- 5) Organize and participate in the 14th EMPRES Liaison Officers meeting held in Muscat, Oman from 08-15 November 2006.
- 6) Participation in the 25<sup>th</sup> Session of the Commission for Controlling the Desert Locust in South West Asia (SWAC) that was held in Tehran, Islamic Republic of Iran from 18-24 November 2006.
- 7) Meeting with the Dean of the Faculty of Agriculture, University of Khartoum and the Desert Locust Management Diploma staff to discuss the progress in the implementation of the recommendations of the Diploma Review Report. Also meeting with the Dean of College of Agriculture Studies, Sudan University of Science and Technology and his staff to discuss the incorporation of technical Desert Locust management subjects into technical teaching programmes of the College, 18-22 December 2006.
- 8) Participating and representing the Commission in the Workshop on the Future of Bio-pesticides in Desert Locust Management in Saly, Senegal from 11<sup>th</sup> to 16<sup>th</sup> February 2007.
- 9) Visiting with DLCO-EA representative and EMPRES/CR-NPO-Survey, Somaliland to discuss with the Minister of Agriculture various issues related to locust survey and control operations and to train the ELP and the Care Taker on proper undertaking of Desert Locust surveys, reporting and the use of eLocust2 as an advanced and fast technology in electronic transmission and reporting system.

**G) Other activities:**

- 1) The Commission is updating regularly the CRC-EMPRES Website on the Internet.
- 2) The Commission is regularly sending and exchanging Desert Locust bulletins and reports and information to member countries.
- 3) The Commission prepared the 14<sup>th</sup> ELOM report and the EMPRES progress report for the year 2006, the two reports are uploaded on the CRC-EMPRES Website.

- 4) The Training Manual files and CD of all SOPs, produced in the Central Region, were sent to the Western Region.
- 5) Finalization of the recruitment of the Driver Osama Mohamed Hassan in January 2006 replacing Driver Abdullah Nofel who retired in August 2006.

**H) Following up the implementation of the recommendations of the Commission and the Executive Committee May 2006:**

During the period May 2006 to May 2007, the Executive Committee and the Secretariat of the Commission followed up the implementation of the recommendations of the 25<sup>th</sup> Session of the Commission and the 28<sup>th</sup> Meeting of the Executive Committee that was held in Doha, Qatar, the following is the summary:

**Recommendations related to the Secretariat of the Commission:**

**Recommendation**

**Implementation**

- |   |   |
|---|---|
| 1. The contracted aerial spraying companies should install a Differential Global Positioning System (DGPS) in each of their spray aircraft, as a condition to submitting tenders for Desert Locust aerial control operations. | The recommendation was addressed to the countries with air spraying companies i.e. Sudan, Saudi Arabia and Ethiopia. Details to be provided by the countries! |
| 2. The Commission to send the DGPS test report that was conducted in Sudan in 1999, after its translation into Arabic, to Saudi Arabia and other member countries.  | The document was translated into Arabic and distributed to all member countries, also uploaded on the CRC-EMPRES Website.                                     |
| 3. The official adherence of Eritrea to the Commission to become Member no. 16.   | Done, during the 25 <sup>th</sup> Session of the Commission.  |
| 4. Eritrea should submit to the Commission a detailed report on the expenditure of the Saudi bilateral assistance.  | The issue was addressed to the concerned Authorities in Eritrea but no reply.   |

5. The DLIS Information Officer to study the information transmission system that was presented by Saudi Arabia, and to submit a technical report on its reliability for the use in transmitting locust information in the Central Region, in coordination with the Locust Centre of Saudi Arabia.

Saudi Arabia representative and DLIS Officer to shed some light on this recommendation!

6. The Chairman and the Secretary of the Commission to visit Yemen and Sudan very soon to encourage both countries to agree to provide financial autonomy to their Locust Control Centres.

The visit took place in July 2006, The Minister of Agriculture was met, he promised to support, but the efforts were halted at a later stage. The Sudan representative to shed some light on the follow up!! The visit to Yemen was postponed to take place after the election and formulation of the new government.

7. EMPRES/CR member countries that were not members of the Commission's Executive Committee should participate only in the Commission's Sessions. The cost of their travel should be met from EMPRES/CR fund when required.

The Secretariat of the Commission prepared a comprehensive study to estimate the required budget when inviting all member countries, the study was sent to the Legal Division at the FAO HQ to study the legal aspect of the issue.

8. The Executive Committee report should be sent to all EMPRES/CR member countries and to associate members to inform them of the Executive Committee's deliberations.

This will be done starting from this meeting.

9. FAO should be requested to check if it was necessary to amend the Establishment Agreement of the Commission to allow the cost of the participation of all members in Commission Sessions, to be covered by the Commission's Trust Fund, on condition that the member countries should settle their annual contributions regularly.

Refer to recommendation # 7.

10. The possibility of the Central Region making use of excess stocks of pesticides in the Western Region, free of charge, on the condition that shipment cost should be covered, should be investigated. Arrangements for the pesticides and their shipment should be negotiated between the donor country, recipient country, and FAO.

This recommendation was not welcomed, due to many obstacles regarding the approval from the original donor who donated the pesticides, approval from the country in possession of the pesticides and the acceptance of the country that will receive the pesticides. In addition to that active ingredient should be analyzed and cost of transportation is to be solved.

11. The donated pesticides should be analyzed for their efficacy at origin before shipping to the recipient country.

Refer to recommendation # 10.

12. The Commission in the Central Region should coordinate with the Western Region Commission to obtain a detailed list of the available pesticides.

Stock, types and locations of pesticides were received. Refer to recommendation # 10.

13. An appreciation message to be prepared by the Commission and sent to Mr. Christian Pantenius, the former EMPRES/CR Coordinator, acknowledging his efforts and excellent performance in the Central Region.

The letter was prepared and sent to Mr. Pantenius, who has expressed his happiness and thanked all member countries for this message.

14. To send a sympathy message to Mr. Ghazi Hawari, wishing him speedy recovery, signed by all members attending this session, and to be hand carried by the representative of Saudi Arabia in this meeting. The Commission Secretary, on behalf of the member countries, to purchase a gift to be sent to Mr. Hawari through the Locust Control Centre in Jeddah.

The letter was prepared and signed by all member countries, delivered to Mr. Hawari by Mr. Halawani. The Secretariat also prepared in Cairo a trophy and was sent in the name of the Commission's Chairman and members to Mr. Hawari.



**Recommendations related to Joint border's survey and training:**

15. The importance of conducting joint border surveys between neighbouring countries, CRC to provide the needed support.

The Commission is continuously supporting joint border surveys for neighbouring countries e.g. Sudan/Egypt; Yemen/Saudi Arabia; Somaliland/Djibouti.

16. Conduct joint border survey between Egypt and Libya when the administrative procedures permit.

Administrative procedures still do not permit joint border survey between Egypt/Libya. More Information from the representative from Egypt!

17. DLCO-EA to prepare curricula and transparencies on aerial survey and control of DL, to be submitted to the Commission for comments before conducting a training course.

All handouts and presentations were received, the training will be held in the period 04-08 June 2007 in Ethiopia.

18. Emphasis was made on conducting sub-regional training courses in view of their benefit to the member countries of the Central Region

Sub-regional training course is being held every year since 2005. The third sub-regional training course will be held in Syria in July 2007.

**Recommendations related to publications:**

19. Send an Arabic version of the training manual kit to Iraq as the previously sent kit was never received by the concerned department.

The Training Kit was sent and received by the Ministry of Agriculture in Iraq.

20. A logo was chosen provided that some changes were included. After these inclusions, the revised logo was approved.

The selected logo was printed as stickers and distributed to all countries.

**Recommendations related to the budget:**

21. Endorse the expenditure 2004 and 2005.

Done during the 25<sup>th</sup> Session of the Commission.

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|--|--|
| 22. The Commission pays the estimate cost of US\$19,000 per year being the transmission cost of eLocust2.  | Done during the 25 <sup>th</sup> Session of the Commission.  |
| 23. The Commission pays the annual cost of US\$3,000 for rainfall estimates and MODIS maps.  | Done during the 25 <sup>th</sup> Session of the Commission.  |
| 24. EMPRES/CR should cover the cost of the development of remote sensing system relating to the MODIS maps and rainfall estimates, being approximately US\$10,000–15,000, as a one time payment.   | Done during the 25 <sup>th</sup> Session of the Commission.  |
| 25. The Commission will purchase six eLocust2 for Saudi Arabia.  | Recommendation was implemented, details of number of eLocust2 units and distribution provided by DLIS Officer!!  |
| 26. Cancellation of 50% of Iraq's arrears, similarly to Lebanon and Sudan, and to freeze the remaining 50% until the situation improves in Iraq, on the condition that the annual contribution should be settled timely and regularly.                                   | Done during the 25 <sup>th</sup> Session of the Commission. The Commission is following up the settlement of the annual contribution, details provided by the representative from Iraq!! |
| 27. FAO should address the countries that had not made an annual contribution for three years or more, requesting these countries to clarify their position as members of the Commission, and to settle their arrears.   | Pending!!.   |
| 28. Since the Council of Ministers in Yemen approved the increase in the contribution to the Commission to US\$5,000 in January 2006, the participants recommended the Commission to request FAO to recalculate the US\$5,000 contribution of Yemen effective from 2006. | Action was taken. Annual contribution of US\$5,000 was considered from January 2006.   |

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|---|--|
| <p>29. Establish an emergency fund of at least US\$500,000 to face a locust outbreak or upsurge. The Secretary of the Commission should prepare the mechanism for managing the fund for discussion at the next Executive Committee Meeting, and for subsequent approval at the next Commission's Session.</p>   | <p>Pending!!.</p>  |
| <p>30. The endorsement of the budget workplan for 2006 and 2007 after additional expenses related to recommendations made at this Session are included. The Secretary of the Commission in consultation with the Chairman is authorized to cover the cost of implementing the Commission's recommendations when these are not reflected in the Commission budget workplan</p> | <p>Done during the 25<sup>th</sup> Session of the Commission.</p>  |
| <p>31. To extend Mr. Fuad Bahakim's contract for six months from January 2007 to 30 June 2007 at the Commission's cost. His contract should be terminated by 30th June 2007 if his contract was not taken over by another donor.</p>  | <p>In view of the remaining funds from EMPRES/CR Programme, Mr. Bahakim contract was extended to end 31 December 2007. His contract will be extended on the Commission fund for six months starting from 01 January 2008 to 30 June 2008</p> |
| <p>32. The Commission to follow up with FAO to secure the operational cost the NPO in Yemen for the recommended six months.</p>   | <p>Action was not taken; refer to the recommendation #31.</p>  |
| <p>33. Based on the request from the representative of Saudi Arabia, it was recommended to procure five laptop computers to support the field activities of the Locust Centre in Saudi Arabia.</p>  | <p>Action was taken; more details from the representative from Saudi Arabia.</p>   |

**I) Implementation of the recommendations of the 14<sup>th</sup> EMPRES/CR Liaison Officers Meeting, Muscat, Oman November 2006**

Detailed presentation was made on the activities of the Programme during 2006 followed by a comprehensive discussion by the participants, highlighting the achievements and the difficulties that they have faced. The 14<sup>th</sup> EMPRES ELO Meeting, being the last meeting of this kind, resulted in 41 recommendations, the Commission and the member countries are jointly implementing them. Due to the short period between the ELO and the Executive Committee meetings, the achievements will be presented in the 26<sup>th</sup> Session of the Commission.

### **Appendix No. (3) Desert Locust situation May 2006 – May 2007:**

The Desert Locust situation during the past twelve months was characterized by three outbreaks in the Central Region.<sup>1</sup> There was no significant activity in the other regions.

#### **Eritrea outbreak (Dec 2006 to Apr 2007)**

Unusually heavy and widespread rain that fell in the Eritrean Highlands and on the Red Sea coastal plains from September 2006 to February 2007 led to the development of a Desert Locust outbreak in December 2006 in which two generations of breeding occurred and gave rise to swarms that moved into adjacent areas of Sudan. Ground control operations were eventually supplemented by aerial control. By May, the situation had returned to normal.

**First-generation breeding.** As a result of earlier than normal rains on the coast and associated runoff from the highlands, ecological conditions became favourable in locust breeding areas along the coast in November 2006. Initially, only low numbers of adults were present on the coastal plains but they took advantage of the good conditions and laid eggs that hatched in November and December. Although most of the infestations were present near the important agricultural areas of Sheib and Mehimet, adults were probably scattered throughout most of the coast in between; in other words, within an area of about 200 km by 30 km (600,000 ha). As locust numbers increased, hoppers and adults started to concentrate and form small groups in some places. Locust grouping is a clear indication that the situation is serious and, unless controlled, hopper bands and swarms are likely to form. Control operations started on 12 December with eight vehicle-mounted sprayers.

**Second-generation breeding.** Additional rainfall during December and January maintained favourable ecological conditions and allowed breeding to continue along the coast between Sheib and the Sudanese border. Adults that were not detected or controlled laid eggs in early January that started hatching on the 18th. Hatching continued for the next four weeks and locust populations increased rapidly along the coast north of Massawa. Second-generation hoppers formed bands during February and March. Ground control operations continued in the infested areas but were hampered by land mines, an insufficient number of vehicle-mounted sprayers, and inadequate communications and reporting, protective clothing and camping equipment. During January, the outbreak spread across the border into Sudan where hatching occurred along the coast north of the border between Karora and Agetai within an area of about 7 by 15 km (105,000 ha). Most of the locusts did not reach the Tokar Delta. In early February, first-generation swarms formed in Eritrea and moved to the same area in Sudan where they laid eggs that started hatching by the end of the month and hopper bands immediately formed.

**Third-generation breeding.** By mid-March, the majority of the locust infestations in Eritrea were concentrated on the coast between Mehimet and the Sudanese border where green vegetation persisted. Small but dense (50-100+ hoppers/m<sup>2</sup>) fourth and fifth instar hopper bands were present in pearl millet along nearly the entire length of Wadi Falkat between Mehimet and the coast, a distance of about 60 km (about 5,000 ha). About ten percent of these infestations had fledged. Breeding also occurred within a large portion of

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<sup>1</sup> This paper is based on information and data received by DLIS up to 3 May 2007. Updated information will be provided by K. Cressman during the meeting.

the plains between W. Falkat and the Sudanese border, an area of about 40 km by 40 km (160,000 ha), where most of the hoppers had formed immature adult groups and small swarms. Residual infestations remained between Mehimet and Sheib, mainly near Mersa Gulbub and Geleb Sagla. On the other side of the border in Sudan, the swarms started forming at mid-month but most of the infestations were mainly hopper bands. In late March and early April, a few small swarms (presumably the earliest second-generation swarms that formed in Eritrea) laid eggs mainly in the Tokar Delta and to a lesser extent near the border. By mid-April, a third generation of hatching and band formation were underway on the Red Sea coast but limited to Tokar Delta. During the last week of the month, a few groups of immature adults appeared in the Nile Valley between Atbara and Dongola, and other adults were present in southern Egypt.

**Control operations.** Control operations in Eritrea commenced on 9 December 2006 and treated 64,876 ha up to 20 April 2007. In Sudan, teams started on 15 February and treated 22,574 ha up to 24 April 2007 by ground and air. These operations were supplemented by a DLCO-EA aircraft that treated 1,840 ha in Eritrea (28 March – 12 April) and 460 ha in Sudan (4-10 April). Despite a number of difficulties, it is clear that these operations have had a significant impact in reducing locust population levels; otherwise, the Region would have been faced with a much larger problem.

#### **Somalia outbreak (Jan-May 2007)**

As a result of good rains in late October 2006 and again from late November to early December, ecological conditions became unusually favourable for breeding on the coast of northwest Somalia. Isolated adults were first seen on the coast in December. By January, adults formed a few small groups and breeding continued. During February, there were several unconfirmed reports suggesting that locust numbers had increased and small bands and swarms had formed. Unfortunately, surveys were not carried out during this critical period. In March, surveys did confirm the presence of bands and immature and mature swarms in a relatively concentrated area near the Djibouti border at Silil. As the vegetation began to dry out, adults and a few swarms started to disperse further east along the plains as well as up the escarpment towards the plateau near Hargeisa. A few swarms crossed the border into Ethiopia starting in late March. During April, there were more reports of swarms on the plateau and on the other side of the border in Djibouti and Ethiopia, unconfirmed reports of locusts in Tigray province in northern Ethiopia, and reports of a few mature swarms in the eastern interior of Yemen near the Empty Quarter that were laying eggs. By 1 May, hatching started along the railway area in Ethiopia.

**Control.** Aerial control could not be organized in time for Somalia. Nevertheless, ground control operations treated 296 ha in Ethiopia in April.

#### **Saudi Arabia outbreak (Feb-May 2007)**

Rains started along the Red Sea coast in Saudi Arabia in July 2006 and continued until March 2007. Consequently, ecological conditions allowed breeding to occur from about October onwards and locust numbers gradually increased. Breeding was first detected north of Jeddah Masturah and then further south near Lith, Qunfidah and Jizan. By January, transiens locusts were reported near Qunfidah and a second generation of egg-laying was in progress. Ground teams started control operations in February using barrier treatments against transiens hoppers. In early March, adults were forming groups and by the end

of the month a few small swarms had formed on the central coast with some of these moving north of Jeddah. Most of the swarms were laying eggs. Control operations continued during April along the coast and, by the end of the month, several swarms had appeared in the spring breeding areas in the central interior and were laying eggs where good rains had fallen the previous month.

**Control.** Control operations in Saudi Arabia, initially by ground and then supplemented by air, treated 57,940 ha including barrier treatments from 20 February to 30 April.

#### **Other countries in the Region**

During the winter, local breeding occurred on the Red Sea and Gulf of Aden coastal plains in Yemen. Adults from the latter area moved into the Shabwah interior in March and laid eggs in April. Local breeding also took place in the winter on the Red Sea coast in southeast Egypt, and low numbers of adults moved into adjacent areas of northeastern Sudan in April. Unusually heavy and widespread rains occurred in coastal and interior areas of northern Oman in mid-March and, at the end of the month in coastal and interior areas on both sides of the Yemeni/Omani border.

#### **Forecast until Autumn 2007**

Much of the forecast depends on the effectiveness of control operations carried out in the spring breeding areas in the interior of Saudi Arabia, Yemen, and along the Somali/Ethiopian border. The latter will certainly be the most problematic yet probably the most important since swarms that form there could eventually affect Pakistan, India and Kenya. Control effectiveness in Saudi Arabia will have an impact on the scale of summer breeding in Sudan and Yemen.

**Djibouti.** There is a slight risk that some of the swarms may have laid eggs on the Henle and Gobaad plains in late April. If so, hatching and band formation will take place during May and, if uncontrolled, a few small swarms could form in June.

**Egypt.** Locust numbers will decline on the Red Sea coast as vegetation dries out and breeding ends. Adults and perhaps a few small swarms, from infestations in Sudan and Saudi Arabia, could appear in the Red Sea Hills east of Aswan, near Lake Nasser and in the southern part of the Western Desert in June.

**Eritrea.** Locust infestations will continue to decline on the Red Sea coast as vegetation dries out and the remaining adult groups and swarms move north into adjacent coastal areas in Sudan or west into the Highlands towards the western lowlands in May. If groups or swarms appear in the highlands, they could stay for several weeks or continue to the western lowlands, mainly to irrigated agriculture in the Gash Barka. These locusts may be supplemented by similar populations arriving from northern Ethiopia. Small-scale breeding will occur in the western lowlands with the onset of the rains in about July, causing locust numbers to increase in August and September.

**Ethiopia.** A few more small swarms could appear in early May from neighbouring areas in northern Somalia and lay eggs between Jijiga and Dire Dawa. Hatching and band formation will occur in May in the Dire Dawa area. If the bands are not controlled, new swarms could form by mid-June. If breeding conditions remain favourable, these swarms are



likely to persist and lay eggs that would hatch in July, causing hopper bands to form in August and new swarms by early September. If so, other countries in Eastern Africa such as Kenya could be threatened.

**Oman.** Scattered adults might be present and breeding in May on a small scale in a few coastal and interior areas in the southern province of Dhofar where good rains fell in March.

**Saudi Arabia.** A few more swarms could form on the Red Sea coast in May from hatching that occurred during April between Lith and Qunfidah. Unless further rainfall occurs, breeding will end on the coast and the adults and small swarms will primarily move into the interior although some could migrate west across the Red Sea to Sudan. In the spring breeding areas in the interior, hatching will occur in early May and hoppers are expected to form small bands. Fledging should take place in early June and small swarms could form and move towards the west or further south in about mid-June. By July, the situation should return to normal.

**Somalia.** Hatching and band formation will start in early May and continue throughout the month on the plateau between Boroma and Burao. Breeding could also occur in areas of recent rainfall on the coast, further east to Erigavo and south of Burao. If the resulting bands are not controlled, new swarms could form in mid-June. If ecological conditions remain favourable, the adults will mature and lay eggs in July. Hatching will occur in late July and early August, and there is a risk that hopper bands could form and perhaps new swarms by early September. If so, other countries in Eastern Africa such as Kenya could be threatened.

**Sudan.** Locusts will decline on the Red Sea coast although small hopper bands will continue to form in the Tokar Delta in May. Fledging is expected to occur during the second half of the month and a few small swarms could form and move to the summer breeding areas between Kassala and Darfur. Adults and small swarms may also arrive in the interior during June from breeding areas in southeast Egypt and in Saudi Arabia, and egg laying will commence with the onset of the summer rains. In the Nile Valley, small-scale breeding is likely to occur in crops north of Khartoum in May that could give rise to small hopper groups and bands. Depending on the timing and distribution of rainfall, at least one generation of summer breeding will occur on a small to moderate-scale between the Atbara area and Darfur.

**Yemen.** Locust breeding is likely to end in May on the southern coast and adults will probably move into the summer breeding areas in the interior. Hatching will occur in the interior during May and solitary locust numbers will increase between Marib, Ataq and Shabwah. Hatching will also occur at about the same time near Thamud where small hopper bands could form. In both areas, fledging is expected to occur in early June. There is a risk that immature swarms could appear from the interior of Saudi Arabia after mid-June. If ecological conditions remain favourable, the adults will mature and lay eggs in July. Hatching will occur in late July and early August, and there is a risk that hopper bands could form and perhaps new swarms by early September.

## Discussion points

Several difficulties occurred during the outbreaks and the control campaigns that were mounted in the affected countries. These should be addressed and solutions proposed in order to improve future early warning and response.

1. DLCO-EA – aircraft could not respond fast enough to the outbreaks in Eritrea, Somalia and Sudan.
2. Ethiopia – the quality of reporting is poor as forms are not used.
3. Eritrea – no reports were received during the height of the outbreak for 45 consecutive days; field teams are still unable to communicate amongst themselves or with the National Locust Centre in Asmara; eLocust2 was not used during the outbreak; a request for emergency assistance from Eritrea was made too late.
4. Saudi Arabia – exhaustive reporting but in narrative style rather than using RAMSES.
5. Somalia – surveys were not carried out in February, the most critical period when locust breeding was in progress in the northwest and infestations were increasing; forms and eLocust2 are completed incorrectly.
6. Yemen – funds were not readily available to insure adequate monitoring in the winter and summer breeding areas in Yemen on a regular basis; surveys were not undertaken after unusually heavy and widespread rains in late March in the east (Hadhramaut and Al Maharah).
7. FAO DLIS – how can DLIS improve its early warning and forecasts? Are they clear and precise enough?



**Appendix No. (4) Updated information on eLocust2 and RAMSES. Problem encountered during field application by the countries and possible solutions:**

FAO's Desert Locust Information Service (DLIS) has introduced two new tools, eLocust2 and RAMSES, for use in front-line countries that have a National Locust Unit and undertake surveys on a regular basis. Both tools were developed to help improve reporting and data management. When introducing new and custom-built technologies, it is common for small difficulties and minor problems to arise. These problems must be solved before the new technologies can be relied upon. Furthermore, it takes time for users to become trained and proficient in the use of these tools. Once this occurs and the tools are stable, then affected countries usually have sufficient confidence to incorporate them into their national locust programme and take advantage of the benefits offered by these new tools. Nevertheless, tools that are used regularly require maintenance, support and updating throughout their lifetime.

**eLocust2**

eLocust2 is a handheld device with a custom database that allows locust survey and control officers to enter field observations and transmit them to the National Locust Centre in their country in real time via satellite. The system was developed and tested in collaboration with locust-affected countries in the three regions in 2005. An initial order of 160 units was shipped at the end of the year and units slowly became operational in front-line countries during 2006. A second order of 80 units was placed in 2006 followed by a new order for 42 units this spring. The goal is that every survey and control team in front-line countries has an eLocust2 unit. This will be supplemented by small stocks of eLocust2 units in each region that can be called upon during an emergency since it takes up to three months for the supplier to deliver units.<sup>2</sup>

FAO paid for the development and testing of eLocust2 (about \$50,000) and for data transmission (about \$1 per survey or control location) during the first year. The regional locust commissions have agreed to cover the transmission costs in the subsequent years.

So far, 18 out of the 21 front-line countries have received eLocust2.<sup>3</sup> In the Central Region, all of the countries are using eLocust2. Ethiopia and Somalia just started using it in April 2006 and, in Eritrea, usage resumed in late April after being interrupted for three months during the locust outbreak there.

The main difficulty faced by eLocust2 users is that the power is interrupted during satellite transmission so that incomplete data are sent. eLocust2 is powered from the vehicle rather than by batteries. The solution is simple: eLocust2 should be kept on throughout the day's survey and the vehicle engine should remain running at least one minute beyond the confirmation that a report has been sent successfully. Although this problem has been resolved in some countries, a greater effort is required by National Locust Information Officers to inform field officers in their country. Field officers, regardless if they are using eLocust2 or the traditional survey forms, should be instructed to record and send complete information. Refresher courses should be organized for field officers. National Locust Information Officers who are responsible for managing and analyzing the field data are probably the best persons to conduct these courses.

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<sup>2</sup> One eLocust2 unit costs about \$1,700. Orders are placed in bulk to take advantage of volume discounts.

<sup>3</sup> Three front-line countries do not have eLocust2: Chad, Djibouti, and Libya.

National Locust Information Officers also faced a variety of minor difficulties associated with downloading eLocust2 data sent by satellite and received by email, decoding and importing it into RAMSES. By working directly with the Locust Information Officers, DLIS has solved most of these problems but it has involved a considerable effort.

### **RAMSES**

RAMSES is a custom geographic information system (GIS) that allows the National Locust Information Officer to manage the environment, survey and control data that are collected and sent by the field teams. It consists of two parts: a database for storing the data and GIS software that allows for the display of the data on maps, including remote sensing imagery.

A new version of RAMSES was released last year that provided additional functionality as requested by countries. DLIS conducted a regional workshop for National Locust Information Officers in each of the regions in the same year; that for the Central Region was held in Cairo in March. Since then, DLIS has been working closely with each user to insure that the new version was installed and working correctly. For example, users would contact DLIS whenever they had a problem and DLIS would try to respond in the same day. In some cases, the more difficult problems were sorted out by the programmers in the U.K. and fixes and updates were sent to the countries. There were also a few problems associated with the correct import of eLocust2 data. Nevertheless, the system became stable by the beginning of this year.

Based on the RAMSES data received by DLIS, it appears that many users are using mainly the database portion of the system and not the mapping GIS. This is evident when a map of the data shows that survey or control locations are, for example, in the sea or in another country or region. When this occurs, it suggests that the National Locust Information Officer is not using the map functionality of the system to check the accuracy of the data. In other cases, the data is incomplete or contradictory (locust absence but hopper details are provided; no breeding but adults are laying eggs; groups of adults at densities of 100 adults/ha). Users need to make a much greater effort in checking the data and ensuring that it is correct and sensible.

Another shortcoming is a general lack of data analysis and incorporating these results in decision-making. National Locust Information Officers should use RAMSES not only for data entry but also to analyze the data with the built-in functionality of the GIS portion of RAMSES that allows current data to be compared with past data and with remote sensing imagery (indicating vegetation and rainfall conditions). Often users do not have sufficient time for analysis, as they are required to do secretarial work. Lastly, the Information Officer should advise the Locust Unit Head about the current situation and its expected developments so that the latter can make better informed decisions regarding survey and control operations. The Information Officer – Locust Unit Head link appears to be weak in most all countries. Both individuals should make a greater effort in establishing this link and using data as a basis for decision-making.

### **Support to eLocust2 and RAMSES**

In the past year, it has become increasingly clear that RAMSES and, to a lesser extent, eLocust2 require a substantial amount of support if these systems are to be relied upon and used to manage and analyze national locust and environmental data on a regular basis. Until 31 March, Nasser Al-Harthy was the focal point in DLIS who was providing this support. Since then, he has returned to the Locust Unit in Oman. In addition, there are two users in the Region who are very adept in using these systems, Adel Al-Shaibani (Yemen) and Elias Felege (Ethiopia). These experts could support users in the Region by providing further training, trouble-shooting advice and support.

Lastly, DLIS manages all eLocust2 inventories, the configuration of eLocust2 units and their activation/deactivation. In other words, DLIS liaises between the affected countries and the service provider, Novacom.

### **Future trends**

DLIS continues to monitor technological developments in industry that could be applied to national locust programmes. One of the greatest impediments to good early warning and reaction has been the collection of complete and accurate field data and its timely transmission to decision-makers. eLocust2 has overcome this – if countries equip all of their teams and use it on a regular basis. In Pakistan, for example, field teams who do not use eLocust2 during survey and control operations do not receive their daily subsistence allowance from the Government.

Once all of the countries gain confidence in eLocust2 and national teams are using it regularly in the field, then there may be possibilities to refine it. For example, moving maps (similar to navigation systems found in vehicles and aircraft) might be able to be incorporated into eLocust2 so that users can see their location on a map while in the field. Improvements could be made to the database in eLocust2 but any change will also affect RAMSES and the SWARMS system in DLIS. Consequently, database changes may be expensive since they must include costs associated with updating RAMSES and SWARMS. In conclusion, new tools have been developed in the past five years for use by affected countries. They are slowly becoming the standard de-facto systems used for early warning and reaction. The tools are linked together and cover the entire spectrum of information flow from the field officer to national information officers and locust heads to the forecaster in DLIS. In other words, eLocust2 feeds into RAMSES and RAMSES feeds into SWARMS. It is likely that these systems will remain as the foundation for Desert Locust management in the years to come. Efforts in the future are likely to concentrate on improving these systems further according to national requirements and developing technologies.

### **Discussion points**

The following issues should be addressed and solutions proposed regarding the use of new technologies:

1. How can the necessary support for eLocust2 and RAMSES be maintained if affected countries are to use these systems on a regular, operational basis?
2. Are National Locust Information Officers capable of organizing and conducting training for their field staff on eLocust2, and will Governments support this effort?
3. If so, how can we ensure that sufficient training is carried out on a regular basis?
4. How should field teams be encouraged to always use eLocust2 during survey and control operations?
5. How should Locust Information Officers be encouraged to use the full functionality of RAMSES including the mapping GIS component?
6. How can the Locust Information Officer – Locust Unit Head link be strengthened?
7. How can Locust Unit Heads make better use of early warning and forecasts received from DLIS?
8. How can DLIS improve its support provided to countries for eLocust2 and RAMSES?
9. How can regional capacity be strengthened to help provide this support?

## **Appendix No. (5) Training:**

As technology development in all fields is continuing and fast, specifically in technical tools and equipment that used in increasing the efficiency of Desert Locust survey and control operations. Hence increasing national capacity and capability of the locust staff through training courses is a priority by CRC. In this respect, the Commission supported numbers of training courses and related activities conducted in the countries of the region. Training activities in the period after the 25<sup>th</sup> CRC Session, could be summarized as follows:

### **1. Short term national training:**

**National Trainings:** covering subjects relating to biology, survey and control of Desert Locust.

#### **Egypt**

- A national training course was organized and conducted in Ismailia, Egypt, during the period of 30 October-05 November 2006. Trainers were from the Desert Locust Control Centre at the Ministry of Agriculture. Sixteen Locust Officers from different governorates participated in the training.

#### **Eritrea**

- The Commission and EMPRES/CR supported the national training course held in Barentu in Eritrea in the period 03-10 July 2006 on Desert Locust biology, survey and control operations for 20 trainees. The training was conducted by national trainers.
- So as to benefit all particularly staff involved in survey and control operations, one local training course was carried out in the period 12-13 July 2006 for 20 farmers, laborers and scouts in Tesseney.

#### **Ethiopia**

- The Commission and EMPRES/CR supported the national training course held in Lake Zeway, Ethiopia during 28 February-05 March 2007 on Desert Locust survey and control operations for 16 trainees. It is to be mentioned this training was pending from 2006 and it was possible to be conducted after the replacement of EMPRES Liaison Officer.
- The Commission jointly with DLCO-EA is in the process to organize and conduct a Regional Desert Locust Aerial Operations Training Course in Lake Zeway, Ethiopia during the period 04-08 June 2007. All preparation was completed; two locust officers were invited from each of Egypt, Oman, Sudan, Yemen, Saudi Arabia, Ethiopia and Syria (one only). Representatives from air spraying companies/air force were invited from Sudan, Oman, Saudi Arabia, Ethiopia and Syria.

#### **Oman**

- With a support from the Commission, a national training course was organized and conducted in Alnagd, Oman in 2006 during 16-23 December.

Trainers were from the Desert Locust Control Centre at the Ministry of Agriculture. Twelve Locust Officers from different governorates participated in the training.

#### **Sudan**

- Only one national training course was organized and conducted in Wad Medani, Sudan, in 2006 during 20-26 May for 17 Locust Officers. Trainers were from the Desert Locust Control Centre at the Ministry of Agriculture.

#### **Yemen**

- Also in Yemen only one national training course was organized and conducted in Aden, in 2006 during 15-18 July for 20 Locust Officers. Trainers were from the Desert Locust Control Centre at the Ministry of Agriculture and EMPRES/CR-NPO.

#### **Djibouti**

- The Commission supported the national training course held in Djibouti during 29April-04 May 2007 on Desert Locust control operations for 16 trainees, from Djibouti (10 trainees) and from Somalia (6 trainees). The training was conducted by national trainers, and with the support of EMPRES/CR-NPO.

#### **Syria**

- After the success of the two sub-regional training course held in Amman, Jordan in 2005 and in Doha, Qatar in 2006; and in view of the recommendation of the Executive Committee meeting in Khartoum to conduct regularly every year this sub-regional training courses with participation of two co-trainers from the region. The Commission is in the process to conduct the third sub-regional training course in Damascus, Syria during 07-17 July 2007, with the participation of 4 trainees from Jordan, Iraq, Lebanon, 1 from Somalia and 7 from Syria.

#### **Kuwait**

- The Commission received a request from Kuwait to organize a national training course in 2007. In view of the current Desert Locust situation in the Central Region (Eritrea, Sudan and Somalia), the Commission is planning to hold this training in the second half of 2007.

## **2. Mid term training:**

- a) For the seventh consecutive year, the Commission has taken the responsibility, and in complete coordination with the EMPRES/CR Program of financing the Desert Locust Diploma course which started in 2001. Six students (1 from each of Egypt, Ethiopia, Iraq, Yemen and two from Sudan) were accepted from the Central Region since September 2006, and are now completing their diploma at the University of Khartoum. They are expected to graduate in September 2007. Six students (1 from each of Saudi Arabia, Sudan, Yemen and three from Egypt) have graduated in September 2006.
- b) The Commission continued and still following up the implementation of the

recommendations to support the Diploma course at the University of Khartoum. The Commission was satisfied with 90% achievements of the recommendations as indicated in the evaluation report prepared by the British consultant in 2005.

- c) An announcement for candidates to be enrolled for the academic year 2007/2008 will be circulated in June 2006, depending on the implementation of the recommendations, made by the consultant, by all concerned parties and also depending on availability of the necessary funding.
- d) Till now and since 2001, 32 students graduated as the following:  
Sudan (9), Egypt (6), Yemen (5), Ethiopia (4), Saudi Arabia (2), Eritrea (1), Jordan (1), Oman (1), Syria (1), Libya (1), India (1).

### **3. Long term training:**

- a) The sponsored Egyptian student obtained his Master Degree in Desert Locust Survey from the University of Khartoum in Sudan in August 2006. The results obtained from this study are expected to be of great value in its application during Desert Locust surveys. Detailed information of the study could be obtained from the CRC-EMPRES Website.
- b) The Commission has a plan to announce for M. Sc. Scholarship competition for the member countries in the Central Region for the academic year 2007/2008. Since the cost difference is not enormous and in order to benefit from other experiences in different universities, there will be no limitation to undertake the study only in the universities in the region.

### **Conclusion**

1. How do you see the current support by the Commission to national training courses? Should the Commission continue its support?
2. Does the current Desert Locust Management Diploma at the University of Khartoum play an important role in raising the capacity and the capability of the national Desert Locust staff?
3. How can the member countries support the Desert Locust Management Diploma at the University of Khartoum? How can this Diploma Programme be continued in the absence of EMPRES financial support?
4. Does the arrangement to widen the competition for M. Sc. Studies and not limiting the studies at universities in the region shall strengthen the study?
5. Since September 2005, no national training course held in Saudi Arabia, what would be the reasons? And how can these reasons be solved and national training courses are encouraged?



## **Appendix No. (6) Research:**

### **Background on the research program in the Central Region:**

In view of the agreement and collaboration with EMPRES/CR programme to conduct applied research on Desert Locust in the Central Region, to be financed equally by both parties for a total of 15,000 US\$ per each research study, research projects have been undertaken. Priority areas of research and guidelines for preparing research projects can be obtained from the CRC-EMPRES Website. The following is the research priority list:

### **Status of research studies up to May 2006:**

5. A research project under the supervision of the Research Institute in Egypt, titled:

#### ***Effect of Green Muscle on Locust and Grasshoppers.***

The research study was concluded by end 2005; the final report was received but not yet approved since the final financial report was not submitted at that time in a comprehensive way as indicated in the Letter of Agreement with the Ministry of Agriculture. The Secretary of the Commission has followed up this matter with the researcher, the Research Institute and the Desert Locust Centre at the Ministry of Agriculture. On 13 April 2007 the Commission received the necessary documents that completed the financial report, therefore the final technical report will be sent to FAO HQ for endorsement and hence to close the file.

6. A research study from the Desert Locust Control Organization for East Africa (DLCO-EA) was completed in December 2006, the research was under the title:

#### ***Filed Evaluation of Green Muscle (Metarhizium anisopliae) against Grasshoppers in Ethiopia***

This study is expected to assist in registering the fungal pesticide Green Muscle in Ethiopia for its use in the field in a large scale. The final report received and approved. The details of the study and the final report could be obtained from the CRC-EMPRES Website

7. In view of the developing Desert Locust situation south of Tokar Delta along the Red Sea coast of Sudan, the Commission managed to coordinate with the International Centre for Insect Physiology and Ecology (ICIPE) during the Bio-pesticides Workshop at Saly, Senegal in March 2007, a protocol for conducting trials on Metarhizium (Green Muscle) and the Pheromone PhenylAcetoNitrile (PAN) against Desert Locust infestation in the field. Costs of the trials are to be covered from IFAD fund. The trial was conducted in an area of about 600 ha infested with second generation hopper bands during March 2007, attended by observers from Mauritania, Niger, Egypt and Sudan. Final report of the project with detailed data and recommendations is expected to be submitted soon.

8. The ICIPE Project proposal for Phase IV to study the eco-toxicological of the Pheromone PAN was revised by the Commission and resent to ICIPE to amend the proposal in order to prepare the Letter of Agreement with FAO to commence the study during 2007. It is to be mentioned that this project was part of EMPRES Programme and that the cost of this Phase, which is the last phase, is US\$50,000 covered from the Swiss support to the EMPRES Programme in the Central Region.
9. Although great efforts are being made by the EMPRES Liaison Officers, the Secretary of the Commission and Directors of Desert Locust Centres in the Central Region, no research proposals were submitted to the Commission or EMPRES/CR in the last period, except that of the DLCO-EA, which was revised and resent for amendment, but no feed back received yet.
10. With regard to the CRC award of US\$ 5,000 for the outstanding research in the field of Desert Locust, the Commission is still making it available for competition.

### **Conclusion**

1. How can we encourage universities and research institutes to submit to the Commission research proposals that fulfill the required criteria for scientific research?
2. Is there a need to revise the Central Region research priority in order to widen the research subjects?
3. Are there any new ideas that we can discuss for the sake of encouraging our partners in the region to submit research proposals?



## **Appendix No. (7) Publications:**

The Commission continued its activities on publications since the last 25<sup>th</sup> Session of the Commission in Qatar in May 2006, these activities could be summarized in the following:

### **1. Translation of the monthly Desert Locust Bulletin:**

As it has been the practice for several years, the Desert Locust Information Service (DLIS) of the Food and Agriculture Organization in Rome issues a monthly bulletin on the Desert Locust situation in English on the 5<sup>th</sup> of every month. Since it is vital for this information to reach all concerned parties in the field of Desert Locust, the Commission translates the bulletin into Arabic, and then transforms it into PDF format to coincide with the English version. The Arabic bulletin is distributed to all concerned authorities worldwide. In ensuring this, the Commission has continued its contract with the same specialized translator in Desert Locust to perform this task.

### **2. Publication of a Glossary (English / Arabic/French) of Technical Expressions and Terms Used in the Research Field and in the Control of Desert Locust:**

The first phase of preparing and compiling a Glossary of technical expressions and terms used in the research field and in the control of Desert Locust in (English Arabic/French) was concluded by end December 2006, as indicated in the work plan (refer to the annex 1). In this respect it is worth mentioning that, more than 3,000 entries and terms were compiled in English, the Commission is in the process to prepare the same in Arabic. As agreed, the compiled English version was sent to the Commission for Controlling the Desert Locust in the Western Region in order to prepare the French version of the glossary and to add any Arabic terms used in the Western Region.

### **3. Production of EMPRES Brochure in Arabic Language:**

The Commission supervised, in August 2006, the translation into Arabic the EMPRES brochure that was produced in English by FAO.

### **4. Production of Desert Locust Vegetation Index Guideline:**

In collaboration with EMPRES, a draft Desert Locust Vegetation Index Guideline was prepared, but was not finalized. A consultant was recruited in October 2006 to revise and amend the draft. The final version has been received and now the Commission is in the process to produce the Guideline in its final version for wide distribution for the benefit of Desert Locust field staff.

### **5. Production of Field Tests on an Integrated Differential GPS Navigation and Spray Monitoring System for Aerial Desert Locust Control Operations:**

In the frame work of FAO production of Desert Locust Technical Series, the Field Tests on an Integrated Differential GPS Navigation and Spray Monitoring

System for Aerial Desert Locust Control Operations No. 29 was produced in English in 1999. The Commission prepared the Arabic translation and distributed the document to all concerned parties.

#### **6. The CRC-EMPRES Website**

Based on the 12<sup>th</sup> ELO meeting at Horghadah in Egypt 2004, and on the recommendation of the 27<sup>th</sup> Executive Committee meeting in Khartoum, Sudan 2005, the EMPRES Programme and the Commission created and issued the CRC/EMPRES Website. In view of the importance of this Website, it was presented in the 6<sup>th</sup> EMPRES Consultative Committee in October in Cairo, Egypt, in the 13<sup>th</sup> ELO meeting in Sana'a, Yemen in December 2005 and in the 25<sup>th</sup> Commission session in Doha, Qatar in June 2006.

The efforts made in preparing this Website were appreciated and its usefulness acknowledged. The Commission completed the administrative and the financial arrangements to place the Website on line. A fee of US\$ 200 was paid and the Website is on-line since July 2006 and it can be visited on the address: [www.crc-empres.org](http://www.crc-empres.org). The Commission is responsible for regularly updating the website with the information, documentations and the up-coming events.

#### **7. Production of Standard Operating Procedures and Poster for Radio Communication for Mobile Teams and Field Stations:**

It was necessary that all radio operators be aware of the principles of radio communications and standard operating procedures in order to improve the communication method for transferring data using high frequency radios. In this respect the Commission, in collaboration with EMPRES/CR and FAO Information Services (DLIS), prepared and printed (in English and Arabic) pocket size laminated cards (SOP) and poster for Radio Communication for mobile teams and field stations. The radio SOP and poster were widely distributed to all concerned staff and institutions.

#### **8. Commission New Logo:**

As per the recommendation of the 27<sup>th</sup> Executive Committee Meeting in Khartoum, Sudan 2005, to design a new logo for the Commission. The Commission in the 25<sup>th</sup> Session selected a logo that was produced in 3 different sizes and distributed to all member countries.

#### **Conclusion:**

1. Are the Commission's publications of any value to the member countries and help in improving Desert Locust activities?
2. Are there any needs to reprint more of these documents?
3. Are there any documents or publications that the Commission should consider to produce?

## Attachment. Encyclopedic Glossary of Scientific and Technical Terms used in Acridology



### Subject: Encyclopedic Glossary of Scientific and Technical Terms used in Acridology English – French – Arabic With Illustrations

The Desert Locust spreads in a vast area extending from the Atlantic Ocean in the West to India and Pakistan in the East. This belt covers several countries that differ in ecological and geographical aspects as well as in the languages used. In view of that, the Desert Locust belt was divided into three regions, i.e. Eastern, Central and Western, in order to harmonize the Desert Locust management in each region and to coordinate activities with the neighbouring regions.

Because of the different languages used in the three regions (English, Arabic and French), and in spite of the availability of a number of DL glossaries, these glossaries are not, qualitatively and quantitatively, satisfying the DL experts in the three regions. As it is well known that the new and advance technology in the DL and related subjects have demonstrated the importance of producing an updated and comprehensive DL glossary in the three languages including terms, phrases and their explanations and acronyms/abbreviations/illustrations used in the DL fields.

The glossary, as discussed in the 24th Commission Session in Jeddah, April 2004, will be prepared based on the English Alphabetical order. It was recommended that two experts should share the responsibility of producing the glossary, one with English and Arabic and the other with French and Arabic background.

The following is the mechanism/terms of reference of preparing and producing the glossary by the two experts:

#### Duties to be undertaken by the English/Arabic expert:

The expert will divide the preparation of the glossary into four phases as the following:

***a. First Phase***

1. Determine and collect entries, phrases, definitions, and scientific terms in English language from letters **A** to **Z** in DL and related subjects. The following references are suggested for consultation:
  - ⇒ FAO Desert Locust Guidelines
  - ⇒ Desert Locust monthly bulletins
  - ⇒ FAO guidelines for spray equipment, control techniques, pesticides and safety and toxicology
  - ⇒ Publications on meteorology, remote sensing, agro-aviation, computer science, etc
  - ⇒ Other documents related to Desert Locust such as extension manuals, reports, meeting minutes, workshops, etc
  - ⇒ Existing glossaries in Arabic, English and French, scientific references, encyclopedias
2. Add meanings, explanations, expressions and indications in English next to each term of every letter, the following should be considered:
  - a. Use of British English rather than American English
  - b. In combined terms follow the alphabet system by using the first letter of the first word e.g **R**otary atomizer and **T**erminal velocity
  - c. It can also be arranged by using the first letter of the second word, but should be written **A**tomizer rotary and **V**elocity terminal, and should refer to the words Rotary and Velocity to avoid repetition.
  - d. Arrange combined words by using the first letter of the first word then first letter of the second word and so on e.g. **R**otary **b**rush **a**tomizer comes first then Rotary **c**age atomizer and then Rotary **d**isc atomizer.
3. Add meaning/abbreviations/acronyms and explanation of terms in English in front of each term as necessary.
4. Collect and add meanings of acronyms/abbreviations/symbols in Desert Locust and related subjects in English.
5. It is expected that this glossary would contain 1,000 A4 pages.

The prepared document in Phase 1 will be circulated to all concerned parties for additional information/comments in order to be sent back to the expert within one month from the circulated date.

***b. Second Phase***

In case of additional information and/or comments, they will be incorporated and the

following will be undertaken:

1. Meanings, synonyms, thesaurus and explanations will be added in Arabic to the English term, meanings and explanations for the letters **A** to **E**.
2. Add the meaning of acronyms/abbreviations/symbols in Arabic for the letters **A** to **E**.
3. If applicable illustrations will be provided.

The prepared document in Phase 2 will be circulated to all concerned parties for additional information/comments in order to be sent back to the expert within one month from the circulated date.

***c. Third Phase***

Same procedure as in phase 1 and 2 will be followed in Phase 3 but for the letters **F** to **P**.

***d. Fourth Phase***

Same procedure as in phase 1 and 2 will be followed in Phase 4 but for the letters **Q** to **Z**. Each of the four phases is expected to take 4-6 months, and in order to facilitate the expert's job, a separate contract will be signed for each phase.

**Duties to be undertaken by the French/Arabic expert:**

The expert role will start in the second phase after the inclusion of English and Arabic terms, meanings and explanations. Therefore, his job will be to focus on the following:

1. Add terms in French next to each term of every letter in English.
2. Add meanings, explanations, expressions and indications in French that match with English and Arabic explanations.
3. Arrange, electronically, the French terms and meaning between the English and the Arabic versions.
4. Consider the addition of any local Arabic terms and meanings in the Western Region.
5. The expert should circulate the prepared document in each phase to all concerned parties for additional information/comments in order to be sent back to him within one month from the circulated date.
6. The expert should include a French index and terms in alphabetical order.

**Estimated Cost of preparing the Glossary:**

The cost of preparing the glossary is divided into four steps:

⇒ **Step one: 25,000 US\$** is to cover the cost of **First Phase:** Determine and collect entries, phrases, definitions, and scientific terms in English language from letters **A**

to **Z** in DL and related subjects. This phase would include also adding of meanings, explanations, expressions and indications in English next to each term of every letter and collecting and adding meanings of acronyms/abbreviations/symbols in English.

⇒ **Step two: 7,000 US\$** is to cover the cost of **Second Phase:** Additional information and/or comments will be incorporated; meanings, synonyms, thesaurus and explanations will be added in Arabic to the English terms, meanings and explanations for the letters **A** to **E**; adding the meaning of acronyms/abbreviations/symbols in Arabic for the letters **A** to **E** and illustrations will be provided if applicable.

⇒ **Step three: 7,000 US\$** is to cover the cost of **Third Phase:** Same procedure as in indicated above for the letters **F** to **P**.

⇒ **Step four: 7,000 US\$** is to cover the cost of **Fourth Phase:** Same procedure as in indicated above for the letters **Q** to **Z**.

Total cost for the preparation of the Glossary in English and Arabic would amount to **42,000 US\$ which will be covered by the Commission in the Central Region.** Extra funds will be required for printing and production of the prepared glossary

The Commission of the Western Region is expected to cover the cost of the expert of the Western Region in order to add the French translation to the English/Arabic terms and meanings.

**Appendix No. (8) Accounts for 2006-2007, work plan and budget for 2008-2009**

**Summary of Expenditures of CRC MTF/INT/007/MUL for the year 2006 in US\$**

Budget line	Activities	Budget Year 2006	Final Expenditure 2006
5012	Salaries-General Service Staff	38,233	39,131
5013	Consultants	25,000	1,000
5014	Contracts	56,000	7,544
5020	Locally contracted Labour	1,000	
5021	Travel	43,000	72,370
5023	Training	170,000	85,075
5024	Expendable Procurement	113,000	14,867
5025	Non-expendable Procurement	19,000	4,656
5027	Technical Support Services		3,008
5028	General Operating Expenses	20,000	11,790
5040	General Overhead Expenses		410
5050	Chargeback		3,056
5029	Support Cost	52,520	30,016
<b>Total</b>		<b>537,753</b>	<b>272,923</b>

**Summary of Expenditures of CRC MTF/INT/007/MUL for the year 2007 in US\$**

Budget line	Activities	Budget Year 2007	Expenditure up to 10 April 2007	
			Spent	Committed
5012	Salaries-General Service Staff	68,233	43,827	
5013	Consultants	25,000	3,000	
5014	Contracts	56,000		
5020	Over Time	1,000		
5021	Travel	30,000	5,955	8,088
5023	Training	170,000	91,068	
5024	Expendable Procurement	113,000	35,000	
5025	Non-expendable Procurement	7,000	2,995	
5027	Technical Support Services			
5028	General Operating Expenses	20,000	494	3,400
5040	General Overhead Expenses			
5050	Chargeback			
5029	Support Cost	54,130	51,061	
<b>Total</b>		<b>544,363</b>	<b>233,400</b>	<b>11,488</b>

**Commission for Controlling the Desert Locust in the Central Region**

<b>FINAL EXPENDITURE of THE COMMISSION</b>			
<b>ACCOUNT MTF/INT/007/MUL FOR THE YEAR 2006 (Final)</b>			
<b>Account</b>	<b>Description</b>	<b>Cost US \$</b>	<b>Total Cost US \$</b>
<b>5012</b>	<b>Salaries-General Service Staff</b>		<b>39,131</b>
	Lidia Naguib, G-5, administrative assistant	28,445	
	Driver G-2 Nofal Abdalla Ahmed Abdal	10,686	
<b>5013</b>	<b>Consultants</b>		<b>1,000</b>
	National cons. Prof.Asim Abdel Rahman to work with Dobson from NRI to revise diploma course Univ.Khartoum in DL-07.2005-reflected in exp. 2006	1,000	
<b>5014</b>	<b>Contracts</b>		<b>7,544</b>
	Clearance POs previous years	-3,027	
	PO 177559- In sight graphics-difference on printing SOPs	5	
	Printing of booklet Standard Operating Procedures (SOP) for Radio Communication for mobile Teams (Arabic/English)-PO 185950	313	
	Printing of Poster Standard Operating Procedures (SOP) for Radio Communication for mobile Teams (Arabic/English)-PO 185953	1,041	
	Printing sticker new CRC logo-PO 189050	332	
	LoA Ministry of Agric.& Land Reclamation Egypt- for organization National training course on DL Survey/control, Ismailia, Egypt, 28/10-2/11/06-PO 191327	4,980	
	Final payment-unmatched-LoA Univ. Khartoum ref PR 26076/PO 141443-approval Nelson 7/3/06	3,900	
<b>5021</b>	<b>Travel</b>		<b>72,370</b>
	<b>RAMSES NDVI Workshop, Cairo,19-23.3.06: co-financed CRC+SWI/817+967/USA</b>		
	Fahed Bin Mohamed Bin Abdin (EGY)	796	
	Al-Zidjali Khalid Mansour (EGY)	796	
	Sharaf ElDin Hassan Dawoud (EGY)	796	
	Mamoon Al-Alawi (Oman)	1,575	
	Al Harrasi Khalid (Oman)	1,575	
	Khan Adnan (SAU)	1,714	
	Gholam Abdullatif (SAU)	1,714	
	Cressman	411	
	<b>Sub-Regional Training Course, Doha, Qatar, 9-19.4.06:</b>		
	Abd-Alhlih Mohammed (Iraq)	1,400	
	Essam Qasim Fadhil (Iraq)	3,841	
	Hatam Mohammad or Abdullah waheed Hassan(Iraq)	3,841	
	Zaid Khalil Mohammed (Iraq)	3,841	



Abdul Nabi Ahmed (Bahrain)	2,062
Mohammed Jaffer Alaaraj (Bahrain)	2,062
Ahmed Youssef Boushahri (Kuwait)-Cancelled	-
Abdallah Abdel Salam (Kuwait)	2,219
Abdel Hamid Ali Hussein Heider (Kuwait)	2,219
Fahd Rashed Al Azmi (Kuwait)	2,219
Saiid Mesbah Maged (UAE)	2,398
Eissa Bou Samra (UAE)	2,398
Mamoon Al-Alawi (Oman)	2,440
Abdel Moneim Khidir (Sudan)	2,367
Harith Abdullah Ahmed (EAU)	2,412
Rabie Khalil (Sudan)	461
<b>FAO/WMO (World Meteorological Organization ) Meeting, Muscat, Oman, 8-12.4.06 (co-financed 007/001/006/MUL)</b>	
Mohamed Mohamed Abdel Rahman (EGY)	1,781
Abdu Farea Al-Romaih (Yemen)	1,326
Ato Lema Gebeyehu (Ethiopia)	605
Rabie Abdel Hamid Khalil (Sudan)	1,787
Matoug Ahmad S.Munshi (SAU)	2,577
Yohannes Beyene Kidane (ERI)-Cancelled	-
C.Rosi,G-5 (paid 007/Mul-001/RAS/2CP04)	2,497
Maehdi Ghaemian (Iran)-cancelled	-
<b>25th Session CRC, Doha, Qatar, 28.5-1.6.06:</b>	
Halawani Mohamed (SAU)	1,115
Al Romaih Abdu Farea (YEM)	990
Sharaf Eldin Daoud (SUD)	1,227
Rahman Mohamed Abdel (EGY)	949
Al Hossani Khaled (EAU)	1,091
Kidane Ghebre Kidan (ERI)	1,127
Mamoon Al-Alawi (Oman)	1,330
<b>Abdalla Safar Khanji-Chaiman CRC visit Sudan to meet Minister Agric./Finance to discuss financial autonomy of the Locust control centre-ref recom.25th CRC Session, Doha, 28.5-1.6.06</b>	2,977
<b>Abdallah Safar Khanji-Chairman CRC visit Hqs for discussions/submission 25th CRC report to ADG</b>	1,045
Mohamed Omer (Sudan)	236
Rahman F.(Sudan)	356
Fellow in Sudan Ibrahim Essam(EGY)-Back home- AHQ119218	285
Fellow in Sudan-Al Sayeh Abdul (SAU)-return home 16/9/07-AHQ119671	601
Fellow in Sudan Megally Mohamed (YEM)-back home 16/9/07-AHQ119668	500
<b>14th ELO Meeting, Muscat, Oman, 11-14.11.06:</b>	2,045
Adnan Khan (SAU)	

<b>5023</b>	<b>Training</b>		<b>85,075</b>
	Sub-Regional training course, Qatar, 8-18.4.06 (hand carried by M. Butrous)-FDA-RNE	5,000	
	<b>Fellow for 12 months study DL Control, Univ. Khartoum, Year 2005-2006:</b>		
	Mohamed Ali Elhadi (SUD)-fees-PO 180426	5,000	
	Megally Mohamed (Yemen)-fees-PO 180426	5,000	
	Al Sayeh Abdul (SAU)-fees-PO180426	5,000	
	Mohamed Ali Elhadi (SUD)- PO 180455	12,632	
	Megally Mohamed (Yemen)- Po 180456	12,632	
	Al Sayeh Abdul (SAU)-PO 180454	12,632	
	<b>Fellow for 24 months study DL Control, Univ. Khartoum, Year 2004-2006:</b>		
	Ibrahim Essam (EGY) - PO 180877	11,278	
	Ibrahim Essam (EGY)- PO 155741-closure	-1,712	
	Megally Mohamed-PO 184720-185360	162	
	Mohamed Ali Elhadi (SUD)- PO 186313	132	
	Univ Khartoum -fees -PO 188824	5,000	
SYR: Mohamed Hajjar-National training course DL, 2005-Claim	882		
Yemen: Saeed Abdullah Baangood	5,116		
In-service training for RAMSES NDVI Workshop, Cairo, Egypt, 19-23.3.06 -FDA-RNE	2,491		
National training course on Desert Locust survey/control operations for 12 Desert Locust officers ,16-23.12.06, in Oman-FBA-RNE hand carried by M. Butrous	3,830		
<b>5024</b>	<b>Expendable Procurement</b>		<b>14,867</b>
	SAU: 5 SONY Laptops	14,867	
<b>5025</b>	<b>Nonexpendable Procurement</b>		<b>4,656</b>
	PC Fly book for DL Centre Muscat (Oman)-Mamoon Al-Alawi -EVERCOM SPA-Win XP Home ed. En., Arabic keyboard,WAN,80GB Hard Disk, Extra battery, mouse, DVD Burner,512MB RAM, Display 8.9"Wide view 16.9,carrying case-PO 182069-financed by CRC and RP RA2CP04	1,170	
	PC Fly book for M. Butrous-FB Computers-Win XP Home ed. in En., Arabic keyboard,WLAN,80GB HD, Extra battery, Mouse DVD burner-PO 183528	2,155	
	Syria: HP Compaq business Notebook	1,331	
<b>5027</b>	<b>Technical Support Services</b>		<b>3,008</b>
	Secondment report Butrous 10.4-14.4.06	3,008	
<b>5028</b>	<b>General Operating Expenses</b>		<b>11,790</b>
	Settlement advance done by Butrous in Doha, Qatar, for participants 25th CRC Session, May-June 06, for organization	11,000	
	<b>JOR-SARF:</b> In-service training/material map production/training staff	452	
		267	

	Cairo: Vodaphone M. Butrous	21	
	AFSI Franking	51	
	Insurance POs		
<b>5040</b>	<b>General Overhead Expenses</b>		<b>410</b>
	Pouch services	410	
<b>5050</b>	<b>Chargeback</b>		<b>3,056</b>
	GIC translation in Arabic letter invitation 25th CRC Session and the Ex Com., Doha, Qatar, 28.5-1.6.06	750	
	Translation letter congratulation Minister Qatar for meeting-06.2006	200	
	Printing/distribution to countries 90 Arabic and 200 En. Copies report AGP-704 CRC Com. 25th session and 28th Session Ex. Com. CRC	1,100	
	Printing/distribution to countries 50 Arabic Copies report AGP-704 CRC Com. 25th session and 28th Session Ex. Com. CRC	306	
	Arabic translation project proposal for assistance to CR by the Government of Qatar-translation 286 words for letter and revision 1,922 words of project proposal-DPR-213546	700	
<b>5029</b>	<b>Support Costs</b>		<b>30,016</b>
	(5% on accounts 5024 and 5025)	976	
	(13% on all other accounts)	29,040	
<b>TOTAL EXPENDITURE FOR YEAR 2006</b>			<b>272,923</b>

<b>EXPENDITURE OF THE COMMISSION</b>				
<b>ACCOUNT MTF/INT/007/MUL FOR THE YEAR 2007 up to 10 April</b>				
<b>Account</b>	<b>Description</b>	<b>Cost US \$</b>	<b>Total Cost US \$</b>	
<b>5012</b>	<b>Salaries-General Service Staff</b>		<b>43,827</b>	
	Lidia Naguib, G-5, administrative assistant Driver G-2 Hassan Osama Mohamed,	26,036 17,791		
<b>5013</b>	<b>Consultants</b>		<b>3,000</b>	
	Harb Mahmoud-Translation DGPS Test Report and EMPRES Brochure, English/Arabic-PO 188586	1,000 2,000		
	Nat cons. Nagat El Tayeb (SUD) to revise vegetation index card-1/10/06-21/10/06-charged as expenditure 2007			
<b>5014</b>	<b>Contracts</b>	-		
<b>5020</b>	<b>Locally Contracted labour</b>	-		
<b>5021</b>	<b>Travel</b>		<b>5,955</b>	
	<b>To assess in Eritrea the DL development/requirements for further control/contingency planning, 12/3-20/3/07:</b> Cressman Pantenius	3,106 2,849	894 894 <b>6,300</b>	
	<b>Regional Training course Lake Zeway,ETH,4- 8/6/07-FBA-RNE</b>			
<b>5023</b>	<b>Training</b>		<b>91,068</b>	
	<b>Fellow for 12 months study DL Control, Univ. Khartoum, Year 2006-2007:</b> Al-Zubiri Ashoor Muftah(YEM)-PO 195765 Taha Mahmoud Osama(EGY)-PO 195768 Girmay Shinun Hailu(ETH)- PO 195773 Fadhl Hikmat(Iraq) -PO 195774-PO 196977 Salih Mohammed Mohammed(SUD)-PO 195775 Abakker Hussein(SUD)-PO 195776	11,078 11,078 11,078 11,078 7,970 7,970		
	Univ. of Khartoum-Fees 6 fellows-PO 195937-PO 195939	30,000		
	<b>5024</b>	<b>Expendable Procurement</b>		<b>35,000</b>
	Ordering for DLCO-EA (ETH) 5,000 L pesticides Malathion 96% for spraying in the Horn of Africa (Ethiopia, Djibouti and Northern Somalia)-PR 37030	35,000		
	<b>5025</b>	<b>Nonexpendable Procurement</b>		<b>2,995</b>
	For diploma course University of Khartoum- 1 scanner- 1 digital camera Sony and one multimedia projector Sony	2,995		
	<b>5027</b>	<b>Technical support services</b>		
<b>5028</b>	<b>General Operating Expenses</b>		<b>494</b>	

	GOE for mission Cressman/Pantenus to assess in Eritrea the DL development/requirements for further control/contingency planning, 12/3-20/3/07	423	<b>3,400</b>
	Organization of the 29th Ex. Com. CRC in Yemen, 20-24.5.07		
	Cairo: Vodaphone Secretary	71	
<b>5050</b>	<b>Chargeback</b>		
<b>5029</b>	<b>Support costs</b>		<b>51,061</b>
	(5% on accounts 5024 and 5025)	32,296	
	(13% on all other accounts)	18,765	
<b>TOTAL EXPENDITURE FOR YEAR 2007 up to April</b>			<b>11,488</b>
			<b>233,399</b>

Committed but not yet reflected in the Exp. As at 10/4/07: USD **11,488**

**Work plan 2008-2009**

<b>Proposal for Biennial Budget of CRC MTF/INT/007/MUL for the years 2008 &amp; 2009</b>			
<b>Budget Line</b>	<b>Activities</b>	<b>2008</b>	<b>2009</b>
<b>5012</b>	<b>Salaries-General Service Staff</b>		
	Secretary	26,036	26,036
	NPO Yemen salary for 6 months 1 <sup>st</sup> of January 2008-30 June 2008	30,000	
	Driver	17,791	17,791
	<b>Total</b>	<b>73,827</b>	<b>43,827</b>
<b>5013</b>	<b>Consultants</b>	5,000	5,000
	<b>Total</b>	<b>5,000</b>	<b>5,000</b>
<b>5014</b>	<b>Contracts</b>		
	Research	15,000	15,000
	Publication	15,000	15,000
	Translation	3,000	3,000
	Copying	1,000	1,000
	Annual fees for eLocust2 transmission	19,000	19,000
	Annual contribution for Remote sensing	3,000	3,000
	<b>Total</b>	<b>56,000</b>	<b>56,000</b>
<b>5020</b>	<b>Over Time</b>	1,000	1,000
	<b>Total</b>	<b>1,000</b>	<b>1,000</b>
<b>5021</b>	<b>Travel</b>		
	26 <sup>th</sup> CRC Session	30,000	
	31 <sup>st</sup> Ex Committee		15,000
	Five scientific exchange visits	10,000	10,000
	Chairman travel, Rome	3,000	
	Chairman travel, various	5,000	5,000
	<b>Total</b>	<b>48,000</b>	<b>30,000</b>

<b>5023</b>	<b>Training &amp; joint survey</b>		
	National and sub-regional	30,000	30,000
	Diploma Scholarship (six)	150,000	0
	M. Sc. Scholarship (one)	25,000	25,000
	Joint Survey	10,000	10,000
	<b>Total</b>	<b>215,000</b>	<b>65,000</b>
<b>5024</b>	<b>Expendable Procurement</b>		
	Spare parts	3,000	3,000
	Pesticides for Emergency only	100,000	100,000
	<b>Total</b>	<b>103,000</b>	<b>103,000</b>
<b>5025</b>	<b>Non-expendable Procurement</b>		
	Books, publications and survey equipment	5,000	5,000
	Unforeseen	5,000	5,000
	Support to member countries	10,000	10,000
	<b>Total</b>	<b>20,000</b>	<b>20,000</b>
<b>5028</b>	<b>General Operating Expenses</b>		
	Meetings, reception, equipment, communications, stationary	20,000	20,000
	<b>Total</b>	<b>20,000</b>	<b>20,000</b>
<b>5040</b>	<b>General Overhead Expenses</b>		
	<b>Total</b>		
<b>5029</b>	<b>Support Cost (13%)</b>		
	5% on accounts 5024 & 5025	6,150	6,150
	13% on all other accounts	54,447	48,207
	<b>Total</b>	<b>60,597</b>	<b>54,357</b>
<b>Grand Total</b>		<b>602,424</b>	<b>398,184</b>

**Appendix No. (9) Contribution and arrears of the member countries**

**TRUST FUND No. 9409.00 - MTF/INT/007/MUL Status of Contributions  
as at 31 December 2006 (Expressed in US\$)**

<i>Member Governments</i>	<i>Outstanding 31/12/2005</i>	<i>Contribution due for 2006/07 *</i>	<i>Received up to 31/12/2006</i>	<i>Outstanding 31/12/2006</i>
<i>BAHRAIN</i>	0.00	8,750.00	8,736.00	14.00
<i>DJIBOUTI</i>	4,400.00	1,100.00	0.00	5,500.00
<i>EGYPT</i>	97,620.00	32,540.00	0.00	130,160.00
<i>ERITREA<sup>1</sup></i>	4,000.00	4,000.00	7,992.89	7.11
<i>ETHIOPIA</i>	16,000.00	8,000.00	0.00	24,000.00
<i>IRAQ</i>	0.00	28,750.00	0.00	28,750.00
<i>JORDAN</i>	78,029.41	14,357.50	14,344.29	78,042.62
<i>KUWAIT</i>	0.00	25,000.00	0.00	25,000.00
<i>LEBANON</i>	0.00	11,212.50	11,155.58	92.56
<i>OMAN</i>	.00528,00	10,000.00	20,486.87	17,518.13 <sup>a</sup>
<i>QATAR</i>	.0456	12,500.00	0.00	0412,556.
<i>SAUDI ARABIA</i>	0.00	44,035.00	44,035.00	0.00
<i>SUDAN</i>	188,247.01	18,667.50	0.00	218,621.05
<i>SYRIA</i>	33,230.13	16,687.50	0.00	49,917.63
<i>UNITED ARAB EMIRATES</i>	.00,25026	26,250.00	26,250.00	26,250.00
<i>YEMEN</i>	4,779.31	5,000.00	2,354.65	7,424.66
<b><i>T O T A L</i></b>	<b>480,616.90</b>	<b>266,850.00</b>	<b>130,355.28</b>	<b>623,818.16</b>

\* Fiscal Year begins in July

<sup>a</sup> Transferred from MTF/INT/008/MUL

<sup>1</sup> ERITREA - is a new member since 2005

Iraq: Reference recommendation 25th Session Doha, May 2006: 50% arrears cancelled and remained 50% are frozen. As at 31/12/2005, arrears were \$ 632,602.25 (50%= \$ 316,301.13)



**TRUST FUND No. 9409.00 - MTF/INT/007/MUL Status of Contributions**  
**as at 12 April 2007 (Expressed in US\$)**

<i>Member Governments</i>	<i>Outstanding 31/12/2006</i>	<i>Contribution due for 2007/08 *</i>	<i>Received up to 12/04/2007</i>	<i>Outstanding 31/12/2007</i>
<i>BAHRAIN</i>	14.00	8,750.00	0.00	8,764.00
<i>DJIBOUTI</i>	5,500.00	1,100.00	0.00	.00600,6
<i>EGYPT</i>	130,160.00	32,540.00	0.00	162,700.00
<i>ERITREA</i>	7.11	4,000.00	0.00	4,007.11
<i>ETHIOPIA</i>	24,000.00	8,000.00	15,986.91	16,013.09
<i>IRAQ</i>	28,750.00	28,750.00	,000	57,500.00
<i>JORDAN</i>	78,042.50	14,357.50	.000	92,400.12
<i>KUWAIT</i>	25,000.00	25,000.00	,000.0025	25,000.00
<i>LEBANON</i>	56.92	11,212.50	0.00	.42911,26
<i>OMAN</i>	17,518.13	10,000.00	7,486.36	20,031.77
<i>QATAR</i>	12,556.04	12,500.00	12,500.00	12,556.04
<i>SAUDI ARABIA</i>	0.00	44,035.00	44,035.00	0.00
<i>SUDAN</i>	218,621.05	18,667.50	17,991.00	219,297.55
<i>SYRIA</i>	49,917.63	16,687.50	0.00	66,605.13
<i>UNITED ARAB EMIRATES</i>	26,250.00	26,250.00	0.00326,2	26,270.00
<i>YEMEN</i>	7,424.66	5,000.00	0.00	12,424.66
<b><i>T O T A L</i></b>	<b>623,818.16</b>	<b>266,850.00</b>	<b>149,229.27</b>	<b>741,438.89</b>

**Balance available as at 12 April 2007 is 2,043,830.00 US\$**

**Conclusion:**

**It is clear from the above tables of the status of the member countries contributions and their arrears that:**

1. Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates are paying regularly and every year their contributions.
2. Eritrea and Ethiopia, are paying their contribution since they joined the Commission, only one year arrear on Ethiopia.
3. Lebanon and Sudan are paying their annual contribution after the cancellation of their 50% arrears in 2004.
4. Iraq settled only a contribution of one year after cancellation of 50% of the arrears and freezing of the second 50%.
5. The settlement of contributions/arrears of the countries, Egypt, Jordan, Syria and Yemen are not regular.
6. Djibouti has not paid their contribution since the adhesion in 2002.

**How do we encourage member countries to pay the annual contribution and to settle their arrears?**