



REPORT

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

Sixth Meeting of the EMPRES Liaison Officers

(Cairo, 6-8 December 1998)

**Plant Protection Service
Food and Agriculture Organization of the United Nations
1999**

INTRODUCTION

1. The 6th Meeting of EMPRES Liaison Officers for the Central Region was hosted by the Regional Office for the Near East of the Food and Agriculture Organization of the United Nations, in Cairo, Egypt, 6-8 December 1998. The participants are listed below (see Annex I for full addresses).

EMPRES Liaison Officers

Houssein Elmi Amir (Djibouti)
Samir Simary (Egypt)
Mehari Tesfayohannes (Eritrea)
Abdurahman Abdulahi (Ethiopia)
Mamoon Al Alawi (Oman)
Jaber M. Al-Shehri (Saudi Arabia)
Ali Mohamed Ali (Sudan)
Abbas Ali Abdul Moghnei (Yemen)

FAO/HQ Staff:

A. Hafraoui (Senior Officer, i/c Locusts and Other Migratory Pests Group)
C. Elliott (Senior Officer: Migratory Pests)

FAO-EMPRES Central Region Staff

A.T. Showler (Coordinator, EMPRES Central Region)
C.U. Pantenius (Senior Field Officer)
M.G. Butrous (Control Officer)
T. Abate (Strategies Expert)

Regional Organizations

A.H. Karrar (DLCO-EA)
M.M. Taher (Secretary, CRC)

Invited

Gebremedhin Woldewahid (Ph.D. student, Wageningen Agricultural University)

2. The meeting was opened by Mr. Mahmoud Taher, Secretary for the Central Region Commission on behalf of Dr. A. Y. Bukhari, Deputy Regional Director, Regional Representative for the Near East. He welcomed the participants and pointed out that the meeting was taking place at a time when winter breeding of the Desert Locust was starting. Mr. Taher stated that the meeting should be held in an informal but professional manner.

3. The Chairman, Mr. Hafraoui, introduced the agenda and encouraged participants to be frank and open in their discussions and expressions of opinion. He suggested that concrete proposals should be made by participants if it was felt that EMPRES's work did not cover all the areas required to make the programme complete. He thanked the Regional Office for the Near East for hosting the meeting and providing facilities, the Department of Locusts and Agro-aviation Affairs of the

Ministry of Agriculture of Egypt for its support, and the EMPRES staff and member countries for their commitment.

4. Special Welcomes: Mr. Allan Showler, EMPRES Coordinator (Central Region), welcomed and introduced two new members, Mr. Mamoon Al-Alawi, EMPRES Liaison Officer (Oman) and Mr. Tsedeke Abate, EMPRES Strategies Expert.

AGENDA

5. The agenda was adopted as presented. (see Annex II)

PRESENTATIONS AND DISCUSSIONS

Locust Reports for 1998

Djibouti

6. Ecological conditions were suitable for Desert Locust development. Heavy rains resulted in green and dense vegetation in Desert Locust breeding areas along the Red Sea coast. Hopper bands were observed in Segalon, Ambabo and Kahlf areas along the Red Sea coast. Surveys in the Ali-Sabih, Dikhil and Yoboki also showed third instar hoppers.

7. Control operations were carried out in northern parts of the Red Sea coast against late instar hoppers with an exhaust nozzle sprayer mounted on a DLCO-EA Land Rover on an area of about 90 ha, using 192 lt of Fenitrothion 96% ULV. In southern parts of the country, 257 lt of Fenitrothion 96% ULV were sprayed on approximately 120 ha. Certain areas were not sprayed because of the presence of large numbers of livestock.

Egypt

8. Until 6th January 1998, Egypt was free from locust activity. From 6 January to 16 of February, 23 immature swarms invaded the south-eastern desert covering 97,200 ha. These were controlled immediately, using dusts, by 30 ground control teams. The invaded area stretched from the southern border with Sudan up to Hurghada on the Red Sea coast.

Eritrea

9. During the second dekad of November 1997, at first a radio report from Mahmimet indicated that small swarms of mature adult Desert Locusts were entering Eritrea from the north (insecure area of Sudan). Then, later in November, infestations of hoppers were reported all along the Red Sea coastal areas. The infestations were composed of Desert and African Migratory Locusts. It is believed that the high rate of rainfall received in September, October and November in these areas created favourable conditions for solitary locusts to build up and lay eggs within a short period of time.

10. A total area of about 28,575 ha was treated using 23,467 lt of insecticides. Due to the early intervention and effective control operations including the deployment of two DLCO-EA aircraft, locust numbers and breeding declined in the third dekad of January. No major locust movement was observed and reported from the beginning of February. Thus, during the winter 1997/98 campaign in Eritrea, no swarm development was observed as a result of early intervention.

11. Except for some minor breeding in the southern coastal area of the country, all other parts are at present free from any locust infestation. The coastal area is generally dry and there is a shortage of rainfall now, which will be unfavourable for any locust outbreaks.

Ethiopia

12. Intensive surveys were conducted in the spring breeding area in eastern Ethiopia, especially after information was received that locusts were present on the border between the Republic of Djibouti and northern Somalia. Several measures were also taken including informing the regional States bordering Djibouti and Somalia about the locust threat, deploying DLCO-EA aircraft for survey and control and recruiting locust scouts for early detection and intervention.

13. Two Desert Locust swarms, believed to have originated from northern Somalia were observed on March 24, 1998 in Jijiga and in Dembel Valley in an area of 10 ha and 800 ha respectively. On March 30 1998 two immature swarms were observed in Chinnhsen and north of Chinnhsen covering 1,000 ha and 2,400 ha respectively. Aerial and ground control measures were undertaken, treating 4,250 ha with 2,125 lt of pesticides.

Oman

14. The Desert Locust situation for the 1998 season was calm. On 14 May, two solitary adults per 400 m² were recorded. In general, ecological conditions were not favourable for Desert Locust breeding in Oman. By contrast, a total area of more than 11,000 ha was treated with 12,500 lt of pesticides (Fenitrothion, Chlorpyrifos and Lambdacyhalothrin) against tree locust.

Saudi Arabia

15. The west coast of Saudi Arabia was subject to the worst Desert Locust invasion coming from eastern Africa since 1988-89. Conditions were favourable for breeding and hosting the migratory swarms after unusually heavy rain during November and December 1997. Local breeding was registered in many locations, but it did not cause any damage. It was monitored and controlled when necessary. The first swarm arrived on 6 January 1998 from the west passing the Red Sea and landed on the coast in the Allith area. Control operations were started and other swarms followed in different regions, reaching a total of "115" swarms and parts of swarms (some swarms split to smaller swarms when they arrived). Escaped mature locusts were able to lay a huge amount of eggs. Later on, hopper bands occurred along the coastal plain in many locations. More than 70 ground teams together with 3 fixed-

wing aircraft and 2 helicopters were involved in winter and spring campaigns. The total treated area was 98,639 ha of swarms, and 275,537 ha of hopper bands. Control operations terminated by 11 June 1998, after which the country became free of any locust activity.

16. The winter breeding season in Saudi Arabia always starts from October each year up to February of the next year. In 1998, ground survey operations were conducted and covered the area from Jeddah in the middle of the west coast (Tihama) to the Saudi-Yemeni border in the south (850 km long – 50-100 km wide). Solitary locusts ranging from 50-100 per ha were registered in different locations. However, in four small locations the number was higher (5000/ha) and 120 ha were treated. Environmental conditions are currently unfavourable, the last rain having been in late September, and for this reason we are not expecting further development unless rain falls. All of the locations that have a few solitary locust are being monitored, and locust facilities are ready to deal with any developments.

Somalia

17. Signs of Desert Locust activity in northern Somalia were recorded by UNDP staff travelling in the region on other, unrelated business in March 1998. EMPRES, in collaboration with DLCO-EA, was able to identify limited pockets of locust breeding along the coastal plains and foothills of northern Somalia. EMPRES coordinated the transfer of pesticide stocks from the DLCO-EA base in Djibouti to Hargeisa and DLCO-EA aerial control operations were launched against these limited populations (less than 1,000 ha altogether). The combination of control operations and drying conditions resulted in the demise of gregarious locust infestations. However, a few swarms did escape and these entered Djibouti and eastern Ethiopia where national ministries of agriculture, EMPRES, and DLCO-EA cooperated to effect rapid control such that further spread of swarms from northern Somalia was averted. It is important to note that in northern Somalia where there is no national capacity to effect locust survey and control, the task of Desert Locust operations falls to EMPRES and DLCO-EA alone.

Sudan

18. The winter (November 1997 – March 1998) campaign was carried out in the Suakin and Tokar Delta areas, while the north remained calm throughout the winter breeding season. Major operations took place in the Tokar area due to a continuous influx of swarms from the insecure area south of the Tokar Delta. A total of 55,147 ha were treated with 42,800 lt of ULV, 1070 lt of EC and 19,387 kg of powder pesticide formulations. Two aircraft were used for the ULV spraying. The situation is reported as being calm since then.

19. In the summer (July – November 1998) breeding season, the rainfall was above average. Surveys carried out since early July revealed isolated solitary phase Desert Locusts in Wadi Doshin and Nahr Elnile State during August. Low numbers of solitary adults were also found in the localities of El Shiqiq, Um Rimta, El Hashim, and El Sayal localities in the White Nile State. Although ecological conditions were favourable, surveys in 38 localities in Northern Kordofan and Khartoum states showed no Desert Locust activity in August. In October, 100 ha were infested by

gregarious copulating swarmlets in Sidon, 150 ha of low density solitary adults in El Abaka, medium density copulating swarms in Berber, and 16,000 ha with medium density second instar hopper bands were detected in Umm Alaga, all in Nahr Elnile State. Infestations of all Desert Locust stages covering a total area of 2000 ha were detected north of Hamrat El Wuz, North Kordofan, in November. Different instars of hopper bands and adults covering a total area of 17,000 ha were also reported from the Sidon area. Preparations for aerial spraying are currently in place. Ground applications were made on a total area of 1493 ha against all Desert Locust stages in North Kordofan and Nahr Elnile State during the summer 1998 campaign.

Yemen

20. This report includes results of Desert Locust survey and control activities in the Republic of Yemen for the period October 1997 to November 1998. Routine surveys and control activities were undertaken in the breeding areas, viz. Tihama, Gulf of Aden, coastal plains of Abyan, Al Maharah and Shabwah, and Sada'a. Although the prevailing ecological conditions are suitable for Desert Locust breeding and development, the general situation is at present calm.

21. Control operations were carried out in parts of Hajjah, Al Hodeidah, Abyan, and Shabwah governorates. During this period, a total of 12,597 lt of insecticides (8,302 lt Chlorpyrifos 45% ULV, and 4,295 lt of Malathion 96% ULV) were sprayed on 24,116 ha. A total of 10 vehicles were deployed for surveys; and 25 Micronair mounted and 10 Micronair knapsack sprayers were employed for the control operations. A total of 101 workers carried out these activities. It was not possible to undertake control operations in some parts of the country because beekeepers did not allow their areas to be sprayed.

1997/98 Winter Campaign Assessment

22. Mr. M. Butrous presented an overview of past Desert Locust control campaigns evaluation, achievements and lessons learned since 1986-89 plague. His report for 1997/98 campaign is summarized as follows:

23. Climatic conditions in 1997/98 were reported to be favourable for locust breeding. In November 1997 gregarious late instar Desert Locust breeding was detected on the Red Sea coast of Sudan and Eritrea before the development of swarms. Breeding was also discovered in Yemen. Significant numbers of swarms developed and escaped to Egypt, Ethiopia and Saudi Arabia from the southern coast of Sudan and Somalia. It was noted that Somalia has no functional national survey and control system.

24. From November 1997 to May 1998 a total of 430,000 ha were treated in the EMPRES member countries at no cost to the donor community. Only US\$ 30,000 was provided to the Sudan by EMPRES for vehicle repairs. Improved preparedness and coordination in the control of hoppers led to the suppression of swarm development everywhere except the southern coast of Sudan and in Somalia. Fast preventive control against invading swarms in Egypt and Saudi Arabia terminated

swarm activity and prevented any significant breeding and escape to countries beyond the Central Region.

25. In conclusion, the meeting **RECOGNIZED** that, with the encouragement of EMPRES, improvement had already been made in carrying out surveys and control operations earlier than in previous years, but additional improvements were expected. It was **RECOMMENDED** that further efforts should be made (1) to continue making regular survey reporting to FAO/HQ a routine process, (2) through the CRC, to promote and facilitate joint surveys among member countries.

EMPRES Progress to date – Workplan 1998

26. The EMPRES Central Region Coordinator, Mr. Allan Showler, gave an overview of EMPRES activities during 1998. This included the situation on staffing, meetings and workshops, major issues, survey and early control operations, communications, databases, EMPRES-CRC linkages, research and training.

27. Various issues such as the usefulness of NDVI in Desert Locust forecasting were raised. It was agreed that there is a need to refine NDVI by combining increased imagery resolution with other pertinent information.

Central Region Commission links with EMPRES and Joint Activities

28. CRC Secretary, Mr. M. Taher, elaborated on events leading to a common understanding and linkages with EMPRES Central Region. He stated that for coordination of CRC and EMPRES, joint-activities were devised and agreements have been established. These included information exchange, joint review of annual work plans, carrying out joint training where appropriate, etc. Examples of cooperation in 1998 included preparation of a Desert Locust reference book which is to be published in 1999, a joint regional training course on aerial and ground pesticide applications in 1998, and a solicited research programme.

29. The meeting **WELCOMED** the establishment of a framework for coordination between the FAO Central Region Commission and the EMPRES Central Region Programme and **RECOMMENDED** that joint activities between the two bodies in support of improved locust management should be continued.

EMPRES Country Focus Programme

30. The EMPRES Coordinator, Mr. Showler, presented the rationale for developing such a programme. He stated that the CF programme is designed to create improved and sustainable national scouting, reporting and control systems. Since each country is unique in its approach to Desert Locust management, the EMPRES programme should adapt to the individual country's situation. It is envisaged that the CF programme will begin in the "Front Line" EMPRES member countries and will cover all member countries within the next five years. It is anticipated that two CF programmes will be established each year. A meeting to develop such a programme for Eritrea was held in November 1998 in Asmara.

EMPRES Liaison Officers Workshop

31. Mr. C. Pantenius, EMPRES Senior Field Officer (SFO), made a presentation on the outcome of the workshop held in Ziway, Ethiopia, 25-29 May 1998. He reported that six EMPRES Liaison Officers, one DLCO-EA staff and three EMPRES staff participated in the workshop. The main objective of the workshop was to formulate objectively verifiable and realistic performance indicators for the outputs of the EMPRES programme.

32. A participatory workshop methodology was adopted to give all participants an equal opportunity to contribute their ideas and to enable the development of a common sense approach. The workshop formulated indicators for six outputs which were listed in the ELO workshop report and in the 1998 annual EMPRES report.

33. It was suggested that the use of the phrase “up to” in the indicators was unnecessarily vague. It would have been more specific if round definitive figures were given. There were also questions whether more than eight year duration “up to the year 2006” would be compatible with FAO conventional project time frames. On the other hand, it was suggested that there might arise unforeseen factors and therefore putting concrete figures could be too ambitious and unrealistic; indicators have to be realistic and flexible, and they should be used as a general framework for programme direction as well as for progress assessment.

34. It was **RECOMMENDED** that further Liaison Officers Workshops to review and refine progress indicators and to explore EMPRES activities in a variety of areas should be considered.

Systems Monitoring Report

35. Mr. A. Abdulahi, EMPRES Liaison Officer in Ethiopia presented a report on systems of monitoring and reporting Desert Locust activities and environmental conditions as carried out in five EMPRES countries, namely Egypt, Eritrea, Ethiopia, Sudan and Yemen. The main objective of the study was to identify persons or organizations apart from Government locust staff that participate in reporting locust activities and environmental conditions, identify gaps and recommend methods to be used to improve the system. The major sources of information were scouts, nomads, farmers, travellers, national meteorological services, border guards and various governmental and non-governmental organizations.

36. Various constraints were identified in the reporting system. The major ones were a shortage of ground meteorological stations, lack of NDVI, shortage of scouts, security problem, land mines, lack of technical know-how and shortage of communication equipment.

37. The recommendations proposed to improve the system were: strengthening the scouting system, improving the availability of meteorological information and satellite imagery, training scouts and farmers, alleviating shortage of communication radios, and obtaining solar chargeable batteries.

38. Questions and comments were made regarding the use of NDVI and the practicality of meteorological stations in remote areas. The possibility of installing automatic meteorological stations was entertained. There was a general agreement that NDVI needs to be replaced by more useful tools that could incorporate NDVI information and that installation of automatic meteorological stations was too expensive, unwieldy, and possibly inaccurate to contemplate.

39. The meeting **RECOMMENDED** that FAO/EMPRES should complete the Systems Monitoring study and its collation for the remaining countries, as appropriate.

EMPRES Research Programmes

40. The EMPRES Coordinator elaborated on research programmes that are being planned in collaboration with the CRC. He stated that the research programme has two major components; Solicited Research Programme and Core Research Team (CRT). Funding for the solicited research programme will be provided by both CRC and EMPRES. This programme is expected to become operational in 1999.

41. It was stated that there are five CRTs at present. These are: population dynamics, survey improvement, biological control, barrier treatments and non-target impact testing. The purpose of CRTs is to provide new information and build research capacity in the region.

42. CRC Secretary, Mr. M. Taher, emphasized the importance of developing Solicited Research Programmes in the Region. He explained that all Solicited Research will be applied research. It was reported that invitations were extended to researchers in the member countries to submit research pre-proposals on various topics identified by CRC. A total of 27 expressions of interest to do research were submitted but less than 10 pre-proposals were actually drafted and most of them were on the identification of biological control agents. Only three of the pre-proposals appear to have the potential to be developed into full proposals.

43. It was suggested that clear guidelines on proposal writing need to be given to researchers in member countries.

44. It was **RECOGNIZED** that the plan to link Core Research Teams and Solicited Research Programme projects is appropriate and it was **RECOMMENDED** that further efforts to catalyze the development of suitable proposals for locust research from researchers within the Central Region be continued.

Desert Locust Economics

45. The EMPRES Strategies Expert, Mr. Tsedeke Abate first emphasized the importance of economics studies to the overall development of strategies. He highlighted the progress made so far in Desert Locust economics studies. FAO has been undertaking studies on economic and policy issues since 1996 and the analysis has been completed culminating in a workshop in September 1997 in Cairo.

46. A framework for further studies was established and it was agreed that the work be coordinated by EMPRES. An outline of the proposed framework was presented.

47. Implementation requires seeking ways and means of launching studies that will incorporate economic and social aspects to assist in the development of increasingly rational Desert Locust management. The first step towards this objective will be to establish a multidisciplinary team, whose major tasks will include, among other things, developing protocols, identifying partners, and establishing targets (timeframe). It was emphasized that the initial work may focus on data collection and risk assessment.

48. In respect of research on economics, the meeting **RECOMMENDED** that EMPRES continue to explore how best to continue investigations of the socio-economic impacts of locust damage and the cost/benefits of locust control, such that the studies would be supported by locust-affected countries and lead to improved locust management strategies.

EMPRES Training Programme

49. It was explained that regional workshops are designed to focus on specific issues and are conducted in collaboration with CRC so that many countries can participate. It is anticipated that 2-3 such workshops will be held each year. One example is a workshop on biological control awareness, planned for early 1999.

50. Mr. M. Butrous elaborated on national training courses offered by EMPRES. A two week course was held in October 1997 in Saudi Arabia and another one was conducted in October 1998 in Sudan. The one in Saudi Arabia was given in Arabic while the Sudan training was given in English. A total of 20 trainees (16 from Sudan and 4 from Djibouti) participated in Sudan. Here 60% of the training focused on field activities. A similar training course is planned in April 1999 in Cairo which might be postponed until after a regional training-of-trainers (ToT) course is conducted in early 1999. It is the policy of the training programme to offer courses in the national language of a particular country. Trainers from the region will be relied upon.

51. ToT training should receive a strong priority to strengthen future national training courses. This idea was already part of the 1999 workplan.

52. Although EMPRES supports computer training programmes, there have not been many requests to take up this offer. Computer training was given in Saudi Arabia in October 1998 by an expert contracted by EMPRES, and Yemen has also received EMPRES-supported computer training. During the discussion it was suggested that computer training be given in the respective countries as this will be cheaper than sending trainers abroad. This idea was elaborated upon by the Liaison Officer for Saudi Arabia who explained that in some cases, where there are special computer related challenges, outside assistance was especially helpful. There was also a need for standardizing computer software so that the problem of opening e-mail attachments could be solved.

53. It was **RECOMMENDED** that a workshop should be held to establish regional and national training needs. It was also **RECOMMENDED** that forthcoming EMPRES training/workshop events be announced in the Desert Locust Bulletin. It was further **RECOMMENDED** that, where appropriate, major training workshops allow participation by one or two locust officers from the other EMPRES regions.

EMPRES Material Assistance and Role of Donor Community

54. The Coordinator, Mr. A. Showler, reported the status of material assistance to EMPRES member countries. He emphasized that material assistance is provided only in special situations where there is a shortfall of materials to carry out essential Desert Locust management activities. He cited the examples of assistance given for Sudan for procurement of vehicle spare parts last year. He also stated that EMPRES can help national programmes by mobilizing donors in emergency situations.

Advanced Degree Programme

55. The CRC Secretary, Mr. M. Taher, said that existing degree programmes in universities do not offer courses on Desert Locust and therefore it was felt that a nine months post-graduate diploma training on Desert Locust would be very useful. University of Khartoum had been identified as a training partner.

56. During the discussions, suggestions were made to make the training a full-fledged advanced degree programme. However, it was felt that the first few years should concentrate on the originally planned diploma programme so that experience is gained before launching an advanced degree programme.

57. The meeting **RECOMMENDED** that any post-graduate course on locusts developed in the region should allow for the possibility that the course could be extended into a M.Sc. programme .

Contingency Planning

58. The SFO, Mr. C. Pantenius emphasized that the idea of a contingency planning programme is to optimize existing resources. He stated that clarification on the meaning of contingency planning was given during the first workshop held in Sudan in October 1998. It is based on difference scenarios. It was also stated that similar workshops would be conducted in each of the member countries after getting feedback from the one in Sudan.

Locust Reporting, Scouting and DLCO-EA

59. The Director of DLCO-EA, Mr. A. Karrar pointed out that DLCO-EA has field representation in each member country to collect information and convey it to DLCO-EA HQ. He further stated that the Council of Ministers of DLCO-EA agreed on a new mandate that includes concentrating on aerial survey and control of migrant pests, and coordinating the information flow and forecasting of infestations of migrant pests in particular the Desert Locust. The Council furthermore noting the

importance of the information and forecasting of the migrant pests, upgraded the unit dealing with that task to a Chief's Division.

Consultative Committee

60. The meeting was informed of the steps which had been followed leading to the holding of the first Consultative Committee back to back with this ELO meeting . It was explained that two informal "Stakeholders" meetings had been held in Rome to which EMPRES Central Region member countries and interested donors had been invited. Agreement had been reached on the mandate of the Consultative Committee and on the venue but there had been no consensus on the exact participation. Those members of the ELO meeting who were also taking part in the Consultative Committee , were asked to reflect on how to arrange participation in the most useful and practical way.

EMPRES Workplan 1999

61. The presenter, Mr. A. Showler, stated that this year's workplan is more specific and detailed than the previous ones as EMPRES has now gained more experience. The workplan was presented in a tabular form that included the activities and time frame matrices.

62. Intensive discussion was held concerning inclusion of all member country programmes, involving ELOs in the planning, collaboration with CRC, and including the Consultative Committee Meeting in the workplan. The Coordinator agreed to take these suggestions into consideration and reflect them in the amended workplan. The amended 1999 Workplan is attached as Annex III.

Any other Business

63. A suggestion was put forward to hold ELO meetings once every two years, the major rationale being to reduce expenses. It was agreed that the issue will be further explored by EMPRES coordination which will come up with a recommendation in the next ELO workshop.

64. It was **RECOMMENDED** that the next ELO meeting should be held in a participatory workshop format, should review EMPRES progress, should consider any particular technical topic as appropriate and jointly prepare a workplan for the year 2000. It was further **RECOMMENDED** that the possibility of holding an annual EMPRES Central Region meeting in combination with the Central Region Commission Executive Committee Meeting should be explored.

Next EMPRES Liaison Officers Meeting

65. *Venue:* Yemen; Egypt (alternative)
Date : October 1999

Adoption of Meeting Report

66. The meeting report was adopted.

Acknowledgements

67. The Chairman thanked the Regional Office for Near East, the Department of Locust and Agro-aviation Affairs of the Ministry of Agriculture of Egypt, the EMPRES Programme and the FAO HQ for their contributions to the success of this meeting.

ANNEX I

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ANNEX II

**AGENDA FOR EMPRES LIAISON OFFICERS MEETING
CAIRO, EGYPT 6 - 8 December 1998**

Chairman: FAO/HQ

Secretariat: Tsedeke Abate and one elected Liaison Officer (Mr. Abdurahman Abdulahi)

6 DECEMBER

09:30 Opening Statements

09:50 Adoption of Agenda

10:00 Locust Reports for 1998
Sudan (A. Ali)
Saudi Arabia (J. Al-Shehri)
Eritrea (M. Tesfayohannes)
Yemen (A. Moghni)
Egypt (S. Simary)
Ethiopia (A. Abdulahi)
Oman (T. Al-Zidjali)
Djibouti (H. Amir)
Somalia (A. Showler)

1030 Coffee Break

1100 Locust Reports – continued

1130 1997/8 Winter Campaign - Assessment (M. Butrous and ELOs)
Overall Characterization
Strengths
Weaknesses

1230 EMPRES Progress to Date - Workplan 1998 (A.Showler)

1300 Coffee Break

1330 Workplan - continued

1400 Central Region Commission (M.Taher)
Links with EMPRES and Joint Activities

1430 EMPRES Liaison Officer's Workshop (C. Pantenius and ELOs)
Liaison Officer Roles
Indicators of Progress

1530 EMPRES Country Focus Program (A.Showler)

1600 Systems Monitoring Report (A. Abdulahi)

1630 End of Day 1

7 DECEMBER

0900 EMPRES Research Program (A. Showler)
CRTs (A. Showler)
Solicited Research Program (M. Taher)
Economics (T. Abate)

1030 Coffee Break

1100 EMPRES Training Program
Regional Workshops (A. Showler)
National Training Courses (M. Butrous)
Computer Training Courses (A. Showler and J. Al-Shehri)
Country Focus Program (A. Showler)

1200 EMPRES Material Assistance and Role of Donor Community (A. Showler)

1300 Coffee Break

1330 Advanced Degree Program (M. Taher)

1345 Contingency Planning (A. Ali)

1400 Locust Reporting, Scouting, and DLCO-EA (A. Showler and A. Karrar)
Need for selection of locust reporting officers (C. Pantenius)

1500 Consultative Committee (C. Elliott)

1600 Discussion

1630 End of Day 2

8 DECEMBER

0900 EMPRES Workplan 1999 (A. Showler)

1000 Other Business/Discussion

1030 Coffee Break

1000 Discussions, continued

1130 Next EMPRES Liaison Officers Meeting
Venue
Time

1200 Secretariat Compiles Report of the Meeting
Break for Non-Secretariat Participants

1600 Discussion and Adoption of the Report of the Meeting

1800 Concluding Remarks

1830 End of Day 3

EMPRES/Central Region Workplan: 1999

ANNEX III

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CF/Eritrea Procurements	*****	*****										
CF/Eritrea Training			Phase 1 *****		Phase 2 *****			Phase 3 **				
CF/Eritrea Info Officer Training			*****	*****	*****							
CF/Eritrea Overall	*****	*****	*****	*****	*****	*****	*****	*****	*****			
CF/Yemen Meeting									****			
CF/Yemen Procurements										*****	*****	
CF/Yemen Training										Phase 1 *****		
CF/Yemen Info Officer Training										*****	*****	*****
CF/Yemen Overall										*****	*****	***** into year 2000 >>>>
Regional Workshop Biocontrol Awareness			****									
Regional Workshop Train the Trainer Methods				****								
Regional Workshop Survey & Control									*****			
National Training Egypt								*****				
Contingency Plan Workshop/Egypt								**				
National Training Ethiopia						***						
Contingency Plan Workshop/Ethiopia						**						
Contingency Plan Workshop/Saudi											***	

Activity Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

EMPRES Training Meeting	**											
Computer Training	-----	-----	-----	-----	-----	ad hoc	-----	-----	-----	-----	-----	-----
EMPRES Staff Meeting		***										
EMPRES Liaison Officer Meeting										****		
Showler/Pantenius Visit Oman		***										
Yemen Residue Lab Consultancy				*****								
Butrous Visits Senegal/Mauritania			***									
Blood Testing Program				*****	development	*****	*****	implementation	*****	*****	into year 2000 >>>>	*****
Cooperative Research Teams	concept development	paper	*****	*****	*****	*****	*****	*****	*****	*****	*****	into year 2000 >>>>
Solicited Research Pgm.	proposal	selection	*****	*****	*****	*****	*****	*****	*****	*****	*****	into year 2000 >>>>
Consultative Committee Meeting												***
Differential GPS Demonstration Saudi Arabia											**	
Economics Approach	*****	*****	development	*****	*****	*****	*****	*****	*****	*****	*****	into year 2000 >>>>
Strategies Development	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	into year 2000 >>>>
Early Intervention Assessment	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Neem Field Trials	-----	-----	-----	-----	-----	ad hoc	-----	-----	-----	-----	-----	-----
RAMSES Training in Eritrea		****										
Database Construction	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Yemen Scout Training		****						****				
General Survey & Control Assistance	-----	-----	-----	-----	-----	ad hoc	-----	-----	-----	-----	-----	-----

EMPRES/Central Region 1999 Workplan: Explanatory Notes

CF/Eritrea Procurements: Part of the overall Country Focus (CF) Programme for Eritrea; procurement of essential material and equipment for improving the national survey and control system. Needs were identified at a CF/Eritrea Meeting held in November 1998.

CF/Eritrea Training: Three phase training programme which is part of the Country Focus Programme for Eritrea. The training component of the CF/Eritrea Programme was decided at the CF/Eritrea Meeting held in November 1998. Phase 1 training will be carried out mainly by the PPD for zonal and subzonal offices. Phase 2 will be carried out for farmers and nomads by PPD staff. Phase 3 will be in the form of a meeting with the MoA/Eritrea to summarize the CF/Eritrea Programme and identify additional work to be done as well as to outline follow-on mechanisms. Training at the MoA/Headquarters level was determined as being unnecessary in light of prior training that was conducted before EMPRES by USAID.

CF/Eritrea Locust Information Officer Training: EMPRES will assist in training the Eritrean Locust Information Officer in survey data collection and transmittal to FAO/Headquarters, computer operation, data interpretation, data management, and radio repair and maintenance. The Eritrean Locust Information Officer will ensure that zonal office personnel are trained in basic radio operation and maintenance.

CF/Eritrea Overall: This simply shows the overall time frame in which the CF/Eritrea Programme occurs.

CF/Yemen Meeting: A meeting between EMPRES staff and MoA/Yemen to determine the needs and processes for the CF/Yemen Programme which will begin in late 1999 and extend into year 2000. Procurement needs, training, and survey, reporting, and control systems will be delineated upon which the CF/Yemen Programme will be based.

CF/Yemen Procurements: Procurements of essential material and equipment for improving the national survey and control system. Will be based on the CF/Yemen Meeting.

CF/Yemen Training: Training requirements will be developed at the CF/Yemen Meeting. Assuming that it will occur in phases (as per Eritrea), only phase 1 will occur in 1999.

CF/Yemen Locust Information Officer Training: Will be determined at the CF/Yemen Meeting. It is likely that this will be the same or similar to the CF/Eritrea Locust Information Officer Training described above.

CF/Yemen Overall: This simply shows the time frame in which the beginning of the overall CF/Yemen Programme occurs (it extends into year 2000).

Regional Workshop on Biological Control Awareness: A relatively short workshop is planned wherein issues relating to use of biocontrol agents in the Central Region will be examined with the aim of clarifying any misunderstandings about what

biocontrol is; defining the meaning of species, strain, and isolate; determining the relevance of the word “exotic” to use of microbial isolates; and legal and regulatory issues unique to the region. It is expected that this workshop will pave the way for further research on biological control and implementation of results in the Central Region. This workshop is expected to be conducted in collaboration with the CRC.

Regional Course on Training-of-Trainers Methods: An in-depth course/workshop on training-of-trainers techniques and methods. International experts in this field are expected to serve as trainers in this regional course. This course is expected to be conducted in collaboration with the CRC.

Regional Workshop on Survey and Control: This workshop is a continuation of the annual NRI survey and control workshop that has, until now, been held in Silwood Park, England. The workshop planned for 1999 will be held in the Central Region and increasing reliance on regional expertise will be effected. This workshop will be conducted in collaboration with the CRC.

National Training/Egypt: A national training course in Egypt will be held on survey, control and train the trainer techniques.

Contingency Plan Development Workshop/Egypt: A workshop will be held in Egypt for the development of national, scenario-based contingency plans.

National Training/Ethiopia: A national training course in Ethiopia will be held on survey, control and training-of-trainers techniques.

Contingency Plan Development Workshop/Ethiopia: A workshop will be held in Ethiopia for the development of national, scenario-based contingency plans.

Contingency Plan Development Workshop/Saudi Arabia: A workshop will be held in Saudi Arabia for the development of national, scenario-based contingency plans.

EMPRES Training Meeting: EMPRES staff and selected specialists in locust control training will meet informally in Addis Ababa to discuss the overall EMPRES training approach for the future. Needs for training courses will also be determined.

Computer Training: EMPRES is prepared to assist in making available computer training to national locust management staffs on an “as needed” basis. Initiative for this rests with national MoAs.

EMPRES Staff Meeting: Self-explanatory; will be held in Sana’a, Yemen.

EMPRES Liaison Officers Meeting: As decided at the EMPRES Liaison Officers Meeting held in Cairo, December 1998, the next Liaison Officers Meeting will be held in a workshop format in late 1999.

Showler/Pantenius Visit Oman: A scoping mission to determine the availability of resources that can be linked to EMPRES activities, form strong relations with the

MoA/Oman, visit the field in Oman, and obtain a stronger idea of the current locust management system there.

Yemen Residue Laboratory Consultancy: EMPRES will provide a consultant, tentatively from LOCUSTOX, to determine the needs for equipping (personnel and material) a residue lab that will be constructed in Yemen. The lab will be available for use by other countries.

Butrous Visit to Senegal and Mauritania: This visit will be to study the blood testing (acetylcholinesterase levels) programmes in Senegal and Mauritania that were developed with assistance from LOCUSTOX and Norway. If appropriate, those programmes will be adapted for implementation in the Central Region.

Blood Testing Programme: Development and implementation of a blood testing programme (for acetylcholinesterase levels) possibly based on the programmes in Senegal and Mauritania. The development and implementation of this programme will depend largely upon the adaptability of the Senegal and Mauritania programmes; it is a relatively long-term activity that may take two or three years to complete.

Cooperative Research Teams (CRTs): Formerly known as “Core” Research Teams, Cooperative Research Teams are forming and will present concept papers on their research approaches. CRTs are being developed for biological control, population dynamics, environmental concerns, nontarget impact and barrier treatments, and survey improvement. After the concept papers are reviewed and consensus with EMPRES is achieved, they will implement their programmes.

Solicited Research Programme: Carried out in collaboration with the CRC. Full proposals will be collected and implementation of research is expected to commence in 1999. Solicited research projects will be linked to the appropriate CRTs.

EMPRES Consultative Committee Meeting: As decided at the Consultative Committee Meeting in Cairo, December 1998, the next Consultative Committee Meeting will be held in December 1999.

Differential GPS Demonstration in Saudi Arabia: A demonstration of differential GPS technology will be held in Saudi Arabia.

Economics Approach: EMPRES will develop an overall approach to examining locust impacts (including economics) in the Central Region in collaboration with other partners. An approach is expected to be finalized in mid-1999 and implementation will commence thereafter.

Strategies Development: A very long-term process that will first assemble the necessary building blocks for establishing strategies.

Early Intervention Assessment: EMPRES will assess past campaigns with the aim of constructing a “measuring stick” to ascertain the relative impacts that early intervention has had during those campaigns. This is essential as an early step in the development of strategies.

Neem Field Trials: Such trials will focus on operations usage but will be dependent on the availability of suitable Desert Locust populations.

RAMSES Training in Eritrea: NRI will hold a training course in Asmara on RAMSES. This will be attended by Eritreans, and selected persons from Yemen, Saudi Arabia, and DLCO-EA.

Database Construction: A long-term activity in which a database is designed, requirements identified, and data collected and installed.

Yemen Scout Training: Short field courses for Yemeni scouts to assist them in improving their survey skills and in transmitting information quickly and accurately. Two time frames are shown in the workplan, one for the north and one for the south during the most appropriate season for each.

General Survey and Control Assistance: EMPRES will assist by provisioning material for survey and control during times of national MoA budgetary shortfalls in critical periods or during other special circumstances.

Survey in Somalia: EMPRES staff works continually in Somalia with national and DLCO-EA counterparts to ensure that survey is accomplished there.

Abate to WAU, PRIFAS, and FAO: Abate will travel to Wageningen Agricultural University, PRIFAS, and FAO/Headquarters to conduct background work on locust strategies development, economics assessment, and assessment of previous campaigns.

General EMPRES Staff Travel: This simply indicates that ad hoc travel will be done by all members of the EMPRES/Central Region staff during the year as needs dictate.

Showler/Pantenius/Bahakim Travel to Somalia: Showler, Pantenius, and Bahakim will visit Charles Mushi in Somalia to scope the locust survey and control situation there and to determine steps that can be taken in Somalia to improve upon it.

Recruit NPO-Training: When it is possible, EMPRES will recruit a training officer on its staff. It is not possible now to determine when this will occur because of the present security situation in Eritrea. The candidate for this post has been selected and will be posted in Asmara.

Recruit APO-Research: Given sufficient interest by candidates, EMPRES is prepared to recruit an APO for certain research activities that relate particularly to locust population measurement, donor support permitting.

Training Package Development: EMPRES will, in collaboration with NRI and possibly others, develop a training package for survey and control courses that will be made available to EMPRES member countries for future national training courses. The package will include transparencies, handouts, slide sets, worksheets, acridid identification cards, etc.

Communications Trouble-shooting: An on-going process by which EMPRES staff assists with the amelioration of communications problems in the Central Region as they relate to locust control.

Academic Programme Development: The CRC and EMPRES are collaborating with the University of Khartoum to develop and implement an advanced degree programme specific to Desert Locust biology, behavior, and management.

EMPRES Website Submissions: EMPRES staff contribute to the EMPRES website. This website is established, but a concise and relevant means of establishing the format is to be developed.

EMPRES Brochure Development: The EMPRES brochure will be completed and distributed in 1999.