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

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

**Sana'a, YEMEN**

**6 -10 November 1999**

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

## Introduction

1. The 7<sup>th</sup> Meeting of the EMPRES Liaison Officers for the Central Region was hosted by the Plant Protection Directorate of the Ministry of Agriculture of the Republic of Yemen, Sana'a, Yemen, 6<sup>th</sup> – 10<sup>th</sup> November 1999. The participants are listed below (see Annex for full address).

### EMPRES Liaison Officers:

Hossein Elmi Amir (Djibouti)  
Samir Simary (Egypt)  
Yonatan Abraham (Eritrea)  
Merid Kumsa (Ethiopia)  
Mamoon Al Alawi (Oman)  
Jaber Al-Shehri (Saudi Arabia)  
Ali Mohamed Ali (Sudan)  
Abbas Ali Abdul Moghnei (Yemen)

### FAO/HQ Staff:

A. Hafraoui (Senior Officer, i/c Locust and other Migratory Pests Group AGPP)  
C. Elliott (Senior Officer, Migratory Pests)  
B. Zelazny (EMPRES Consultant)

### FAO-EMPRES Central Region Staff

C. Pantenius (Senior Field Officer, acting Coordinator)  
T. Abate (Strategy Expert)  
M. Butrous (NPO-Control)  
F. Bahakim (NPO-Survey)  
J. Breithaupt (APO-Strategies)

### Regional Organizations

P. Odiyo (Acting Director General, DLCO-EA)  
M. M. Taher (Secretary, CRC)

Due to further commitments Mr. C. Elliott attended the Meeting during the first day only. Mr. A. Hafraoui had to leave after the 2<sup>nd</sup> day.

2. His Excellency the Minister of Agriculture Mr. Ahmed Salem Al Jabali welcomed the participants and underlined the importance of the EMPRES programme not only for Yemen but the whole of the Central Region (CR). On behalf of the Director General of the FAO, the Representative of FAO in Yemen, Mr. S.S. Mahadi, opened the meeting addressing the objectives of the EMPRES Programme and the importance of the meeting for the future.
3. The Chairman, Mr. Pantenius, introduced the agenda and reminded that it had been agreed at the last EMPRES Liaison Officers Meeting that the next meeting should be held in a participatory workshop format. The first step was to identify the objectives of the meeting. The participants agreed on the goal of the meeting as: To improve the cooperation between the EMPRES Member Countries, the Desert Locust Control Organization for East Africa (DLCO-EA), the Commission for Controlling the Desert

Locust in the Central Region (CRC), EMPRES and other relevant partners. Furthermore the aims of the meeting were defined as:

- Analyze the achievements and obstacles of the EMPRES activities during 1999
- To identify the areas for improvement
- To define the key components and targets for the 2000
- To develop a joint work plan for the year 2000
- To work towards sustainability

4. Special welcomes: Mr. Pantenius introduced three new members, Mr. Yonatan Abraham from Eritrea, who was delegated on behalf Mr. Mehari Tesfayohannes, Mr. Merid Kumsa from Ethiopia, who replaced Mr. Abdurahman Abdulahi and Mr. Peter Odiyo as the acting Director General of DLCO-EA.

### **Agenda**

5. It was requested to extend the lunch break for half an hour and to start the afternoon session at 13:30 h. On request of the participants the original timetable was again put into application from the 3<sup>rd</sup> day onwards. The topics and the procedures of the meeting were adopted as presented. (see Annex 2)

### **Presentations and Findings**

#### **Country Reports 1999**

##### **Djibouti**

6. Throughout the year the ecological conditions in Djibouti were not suitable for Desert Locust development due to the absence of rainfall. It was only in October that significant rainfall was received. The PPD is prepared to conduct surveys in the potential breeding areas.

##### **Egypt**

7. During August 1998 solitary locusts were reported in some localities around Lake Nasser and the Red Sea plains near the southern borders. In February 1999 ground control was carried out on 200 ha against solitary adults at a density of 400 / ha at Sh. Owainat. Again in May and June solitary locust were reported around Lake Nasser. In August dense solitary locusts mixed with grasshopper populations were sighted at Sh. Owainat and control operations conducted on 4400 ha. Solitary adults and hoppers on sorghum near Sh. Owainat were controlled on 80 ha early November.

##### **Eritrea**

8. in early 1999 most of the vegetation of the coastal plains was dry and not suitable for locust breeding. Only from south of Massawa some scattered solitary locust have been reported. Some rainfall was received in March on the escarpment and the coastal plains. Survey teams reported low locust densities on crops that were eliminated by predator birds. Wide spread rain showers were observed in most parts of the country during July-September. As a result, breeding conditions became favourable, but no significant locust development was observed.

9. In regard to the cooperation with EMPRES, training was provided on the RAMSES version ELMAT.

### **Ethiopia**

10. The locust situation in Ethiopia remained calm throughout the year. No significant locust populations were reported. However, 30 scouts were recruited from Dire Dawa, Somalia and Afar Region to regularly survey the traditional breeding areas. To facilitate aerial control operations, air strips were constructed and maintained in the Central Rift Valley, North-Eastern and South-Eastern parts of the country.
11. In collaboration with EMPRES and DLCO-EA regional and zonal crop protection personnel were trained on survey and control subjects. This training was followed by local training courses in the affected areas during October-November. A locust training manual was prepared in Amharic language and 2500 copies were printed. In addition, radio communication equipment and survey tools were received from EMPRES.

### **Oman**

12. During the past two years, no significant Desert Locust development was observed. Continuously carried out surveys only sighted small numbers of scattered solitary adults. However, the Tree Locust became a predominant pest in Oman. A total of about 27,000 fadan have been sprayed against this pest.
13. The locust control strategy in Oman is based on Early Warning, Early Reaction and Capacity Building. Survey reports from the different regions of the Sultanate and information from FAO-DLIS and the Directorate General of the Civil Aviation & Meteorology provides a comprehensive picture of the locust situation. New sub-stations have been build up in 5 regions and equipped with new sprayers in order to enhance the intervention capacity. Training on national level is regularly conducted on survey and control subjects. The cooperation with Sultan Qaboos University has further been enhanced in order to develop alternative control tactics based on the use of metarhizium products.
14. The Delegate from Oman reminded EMPRES that it was agreed to install a Remote Sensing Receiver at the Meteorological Agency, but no action was taken so far. Furthermore, it was expected that EMPRES should pay more attention to the requirements of Oman to improve its locust management capacities. It was explained that remote sensing using satellite images is undergoing new developments and that recently SPOT satellite images are being investigated to further improve the detection of green areas.

### **Saudi Arabia**

15. No significant locust developments were recorded from Saudi Arabia. Only an area of 600 ha with a density of 50 – 100 / ha was observed. Regarding the prevailing ecological conditions, no serious developments are expected for the near future. Furthermore, it was reported that 2 national training courses were conducted on newly received spraying equipment (60 ULVA-mast sprayers). Apart from research activities in regard to registration, no research was undertaken.

## **Sudan**

16. Little rainfall was received during the winter breeding season November '98 – February '99. However, a detailed survey was conducted during the summer season in the Darfur and Kordofan States, but no locusts were reported. A second survey programme was conducted from October to November. The prevailing ecological conditions were considered as favourable for locust breeding. Reports on the presence of solitary locust were not confirmed by the survey teams. Furthermore, surveys were conducted in the Nahr El-Neel State along the Atbara river during October, but no locusts were found. Also from the Red Sea Coastal plains no locusts were reported.

## **Yemen**

17. Due to lack of rainfall the ecological conditions were not suitable for Desert Locust breeding during January – August 1999. Moderate and heavy rainfall were reported from the winter and spring breeding areas along the coastal areas of the Red Sea and the Gulf of Aden late August and the second decade of October and was leading to improved ecological conditions for breeding. Also the summer breeding areas received good rains during October. Hence, small-scale breeding is expected in these areas. In general, the Desert Locust situation remained calm throughout the whole year.
18. A summary of EMPRES activities in Yemen carried out during 1999 was given. Despite the many activities conducted in cooperation with the DLC, it was mentioned that EMPRES should provide more effort to improve the DL management system through strengthening the DL Units and that national counterparts should be nominated. In addition, the need for providing Arabic translations of the most important documents was brought forward.

## **DLCO-EA**

19. The Delegate from DLCO-EA presented a comprehensive report on the Desert Locust situation in the areas of its member countries Sudan, Eritrea, Somalia, Ethiopia and Djibouti. In general, the DLCO-EA report confirmed the observations from CR Member Countries.

## **CRC**

20. The Secretary of the CRC presented a summary and the recommendations of the 23<sup>rd</sup> Session of the Executive Committee of the CRC, which took place in Amman, Jordan, from 18<sup>th</sup> to 20<sup>th</sup> October. The main subjects addressed were: Desert Locust situation in the CR, training, research, meteorology, joint surveys, publications, registration of spray equipment, obsolete pesticides and coordination between CRC and EMPRES. Referring to the latter, it was highlighted that an additional paragraph stating that "CRC and EMPRES should establish one workplan and defined commitments and responsibilities of each party of its implementation" should be included in the endorsed framework of cooperation.

## **Presentation of the EMPRES achievements**

21. Before the auto-evaluation sessions started, and in order to establish the basis for all further procedures, the chairman reminded the participants of the EMPRES purposes

as well as the provisional Programme indicators, which were jointly developed during the Ziway exercise in Ethiopia, May 1998.

22. Referring to the responsibilities of each of the EMPRES staff members, the activities carried out during 1999 under the outputs as stipulated in Programme document were presented. During the presentation, the achievements were addressed as well as the obstacles observed during implementation. All statements were written on cards, displayed on a board and discussed in the plenary. The findings provided the basis for the development of recommended improvements for the next year.

**Output 1: EMPRES activities coordinated**

23. Due to unforeseen reasons, the implementation of the planned Country Focus Programme for Eritrea was delayed. A planning CF-Planning Workshop was conducted in Sudan in June '99. Its implementation is planned for 2000. Despite all obstacles, various field equipment for Eritrea was procured and made available. Additional purchase of spraying equipment is still in process, as well as research programmes initiated in regard to remote sensing in cooperation between the PPD and DLCO-EA. A second CF-Planning workshop was held in Yemen in September '99. The planning document has been submitted to PPD in Yemen for approval in October '99.
24. To enhance the survey and reporting capacity in Ethiopia survey and communication equipment has been procured as well as a training manual in Amharic 2500 copies of which were printed.
25. The 3<sup>rd</sup> EMPRES staff meeting was conducted in Sana'a in February '99 and the workplan for 1999 submitted and endorsed by all staff members. However, the workplans were not brought to the attention of ELOs, FAO and CRC, which led to some difficulties during implementation of the envisaged activities. Furthermore, the interaction within the staff (roles and responsibilities) was not determined, which led to increasing discontent within the staff.
26. Five Cooperative-Research-Team (CRT) concepts were drafted on barrier treatment, biocontrol, environmental aspects, population dynamics, and remote sensing. In the frame of the Biocontrol CRT a regional biocontrol workshop was conducted in Cairo in April '99, in order to develop a common understanding on the introduction of biocontrol methods in the CR. Delegates from 5 CR countries, and experts from VPI, CABI, BBA, Uni AA attended the workshop. As a consequence, the MoA of Ethiopia initiated a national workshop in Addis Ababa in July '99 to develop a national legal frame for registration of biocontrol agents. This workshop was supported by VPI, DLCO-EA and EMPRES. A draft legislation has now been submitted to the Council of Ministers for adoption. Under the same token, a mission composed of members from GTZ, BBA and FZB (a private company) evaluated in November '99 the possibility for introduction of liquid fermenter techniques for production of microbial pesticides in Ethiopia and to find private partners in the frame of a bilateral Public-Private-Partnership Project.
27. However, none of CRTs really materialized. All in all the approach was considered as too ambitious and expensive. Once the first research proposals were developed, it became too difficult for the CRT members to coordinate their interests and to mobilize financial resources for the ambitious research projects. In addition, the ELOs and the CRC have scarcely been involved in the discussions of the CRT approach, which led to increasing concerns in regard to the national research entities and the cooperation with EMPRES in the field of research in general. It was decided,

not to follow the CRT approach further, but to concentrate on operational and applied research projects.

28. The EMPRES Coordinator as well as the SFO (since October '99 acting coordinator) participated in the DLCC Meeting in Rome in May '99; the acting Coordinator in the Executive Committee Meeting of the CRC in Amman in October '99. During the Executive Committee Meeting it was recommended to strengthen the cooperation between CRC and EMPRES. In regard to future ELO-Meetings it was suggested to invite interested research experts from the CR as observers.
29. Following the recommendations of the 1<sup>st</sup> Consultative Committee Meeting, December '98, a Mid-Term Review under FAO was conducted in July/August '99 to evaluate the EMPRES Programme. The Mission visited 6 CR countries and had interviews with the Ministry staff, the FAO staff at the HQ as well in field and different other resource persons. The final report was brought to attention of the ELOs and will further be presented during the forthcoming Consultative Committee Meeting in Rome scheduled for November '99.

## **Output 2: Survey and early warning systems improved**

30. In order to define suitable ways to improve the know-how transfer on Desert Locust subjects in more sustainable manner and to enhance self-reliant training and follow-up mechanisms in the CR, a Training Concept workshop was held in Addis Ababa, January '99. A first draft of a table of contents for an improved Training Manual was submitted for comments. It was agreed that this activity should be harmonized with the CRC and that once the Training Manual is finalized to be translated into Arabic by the CRC.
31. To build up the capacity of national trainers in the Region, a Training Skills workshop was held in Sana'a in September '99. 14 trainees from 7 CR countries and one regional organization (DLCO-EA) received a comprehensive training on participatory training course conduct and organization.
32. 15 Desert Locust staff and plant protection technicians received a Survey & Control training course in Yemen, February '99. A Scouts training course was also held in Yemen in April '99 for 4 scouts from the summer breeding areas. The planned course for scouts from the winter breeding has had to be postponed due to time limitations. A national ToT training course was carried out in Ethiopia in May '99, and 14 trainees from the locust affected areas were qualified as local trainers. During the follow-up training course of October/November '99 under the guidance of the national master trainer, 72 plant protection technicians and extension agents were trained on locust subjects in Bahir Dar, Dire Dawa and Jigjiga. A special DL survey-training course was organized in Djibouti, in October '99, whereas 11 trainees from Djibouti and 5 from Somalia have been qualified.
33. Some of the activities in regard to qualification of locust personnel in CR did not materialize as planned, as e.g. the permission from the Government of Oman to host the International Survey & Control Course, organized in cooperation with NRI. NRI and EMPRES, is pending. It is now anticipated to organize the course in January 2000. In addition, due to the prevailing security situation in Eritrea the envisaged implementation of activities in the frame of the CF Programme is delayed. On request from Egypt, the planned national Survey & Control training course was postponed. The planned performance baseline on survey aspects in Yemen and Somalia could not be carried out due to time limitations and will be held during 2000.

34. Different GPS models were tested and the "GARMIN" recommended to MoAs of the CR countries as standard GPS.

**Output 3: Regional information system linked to FAO-HQ**

35. The EMPRES address list was regularly up-dated and distributed to all relevant stakeholders (May/August/November). The DL Web page was updated and submitted to the FAO HQ in June 99. The bibliographical data banks was made available from DLIS, NRI, WAU in May 99. However, since the data banks are based on different softwares, a common access is still not yet possible. Furthermore, it was mentioned that the available e-mail and fax facilities are not yet regularly used in all cases for reporting of DL information to the FAO HQ.
36. The introduction of the RAMSES system (NRI) in Eritrea was finalized in February '99. However, it has been reported that systems errors occurred, which brought the use of GIS tentatively to a halt. Furthermore, no training was provided for the interpretation of satellite images, which have been provided with the system. The RAMSES version for Yemen is currently prepared by NRI and two Information Offices received training on the system in UK, August 99. Unfortunately, one of the trained officers did not return from his training.
37. Ad hoc computer training has been provided and trouble shooting carried out on request throughout 1999. So far the Information Officers in Yemen and Sudan as well as 4 staff in Djibouti received computer training from local institutions. A regional training course on RAMSES was carried out in Asmara under NRI for 8 info officers (1 Sudan, 1 DLCO-EA, 2 Yemen, 2 S.A., 2 Eritrea) in Feb. 99.

**Output 4: Early control capacity improved**

38. Most of the training courses in regard to improved control and safety aspects were jointly conducted in connection to survey and reporting.
39. The envisaged demonstration trial on Differential GPS for Saudi Arabia did not materialize as planned, since the third party involved failed to meet its commitments.
40. In order to be in a better position to monitor improvements on pesticides application and safe handling in future, a questionnaire was distributed to the member countries to evaluate the current state of pesticide application in the Region. Six out of eight CR countries so far replied. The planned control monitoring activity in Sudan was postponed, since no control operations took place. The introduced control monitoring form was considered as too bulky and complicated to be practical. It was recommended, to review the form and maintain only the most important items necessary. A pilot blood-testing programme to evaluate the contamination of pesticide operators was initiated for Sudan. A local expert has been contacted to carry out the blood-testing activities during control operations. However, the original test-kit was found to be redundant, since the manufacturer changed some of the solvents and test indicators. It is planned to exchange the test-kit for the new one.
41. The planned trials on metarhizium and neem products in Sudan and Yemen could not be carried out due to absence of locusts. Some stand-by field equipment to conduct trials once the situation is favourable has been procured for the EMPRES field-stations in Sudan, Yemen and Eritrea. Still, this equipment is not yet complete, and further procurement is planned for 2000.

**Output 5: Desert Locust Management methods and strategies improved**

42. A protocol for Desert Locust population estimation has been developed in cooperation with WAU during November '99. Furthermore, the research capacities in Yemen and Sudan have been evaluated in order to assess their capability to participate in the investigations on locust population dynamics. First observation trials have been set up in October '99 in Yemen and Sudan.
43. Procedures to assess improved control efficacy methods have been developed in cooperation with WAU. The planned field-testing of the methodology is still pending due to absence of locust infestations.
44. In order to promote investigations on the socio-economic impact of Desert Locust infestations, Terms of References for socio-economic studies have been drafted and the links to the Universities of Khartoum and Hannover were also strengthened. Local consultants to conduct suitable investigations have been identified. The University of Hannover drafted general guidelines for economic studies. However, the guidelines are considered to be too scientific and not practical in the field. It was recommended that the guidelines should be reviewed and simplified.
45. The development of criteria to build a rational basis for early intervention is still under process. Divers information such as donor contributions to locust control, agricultural production data from Sudan and Yemen, data on treated areas from all of the CR countries from 1988-1998 have already been compiled. However, additional base-line information is needed to establish an intervention threshold.
46. The development of guidelines for improved Desert Locust strategies at national and regional levels is an ongoing process and the ultimate product of the EMPRES Programme. Nevertheless, important basic data such as information on the national control capacities, planning steps, decision-making procedures, control tactics etc. of the DL Control Units in the region have been collected and analyzed for further strategy development. A glossary on DL terminologies has been drafted and submitted to the CRC. It was found that some of the definitions do not meet the requirements or are confusing. It was recommended to review the draft in accordance with international understanding and to submit it to the Technical Committee of the DLCC for final approval.
47. A Campaign Simulation Model, developed by WAU/GTZ, has been presented and introduced to the DL Control Units in Ethiopia (May '99) and Yemen (October '99) for improved resources management and campaign planning. The model was found to be a useful tool, and it was recommended that its introduction should further be promoted at the DL-Services. A regional workshop on this computer based tool in collaboration with WAU is planned to be conducted in Sana'a for November/December '99.
48. In order to develop a better picture of the status and the distribution of Desert Locusts in Ethiopia, a biogeographical research project has been initiated in collaboration with DLCO-EA, the PPTRD (Ethiopia) and NRI (November '99). It is planned to map the population distribution, to conduct case studies on locust breeding in Ethiopia during the past 10 years and to compare three recession periods.

**Output 6: Rapid deployment plans and contingency arrangements in place**

49. A first draft of Contingency Planning Guidelines have been developed (July '99) after three Planning workshops were conducted in Sudan, Ethiopia and Yemen. The workshops aimed at developing a clear understanding of its purposes, mechanisms and components. In general the workshop participants acknowledged the usefulness of this tool and started to work out the planning procedures. However, still no consensus has been achieved whether contingency plans are meant for emergency prevention only or has to be understood as general planning instrument for locust control. It was recommended, to conduct one regional workshop by next year in order to come up with common understanding.
50. It was recommended to move the indicator I.D5.1: "The management and planning capacity of the Heads of the DL Units in up to 8 of the CR countries enhanced by 2006", formerly under Output 5 to Output 6 and to be reconsidered for 2000.

**Recommendations for the workplan 2000**

51. After the plenary comprehensively evaluated and acknowledged the achievements of the EMPRES activities during 1999, three groups were formed to elaborate jointly the planning framework for the year 2000. Group 1 worked on the Outputs 1, "*EMPRES activities coordinated*", and 5, "*DL management methods and strategies improved*" (Mr. Tsedeke, Mr. Taher, Mr. Zelazny, Mr. Abbas, Mr. Pantenius); Group 2 defined the targets under the Outputs 2, "*Survey and early warning systems improved*", and 4, "*Early control capacity improved*" (Mr. Simary, Mr. Mamoon, Mr. Yonatan, Mr. Butrous, Mr. Bahakim); while Group 3 discussed the Outputs 3, "*Regional information exchange system linked to FAO-HQ*", and 6, "*Rapid deployment plans and contingency arrangements in place*" (Mr. Ali Mohamed Ali, Mr. Merid, Mr. Odiyo, Mr. Elmi Amir, Mr. Breithaupt). After completion of the groupwork, the findings were presented in the plenary for final discussion and agreement.

**Output 1: EMPRES activities coordinated**

52. It was recommended no longer to follow the Cooperative Research Team approach, but to emphasis operational investigations in collaboration with local research institutions, which would fall under Output 5. However, it was recommended to continue with the country specific programmes such as the Country Focus Programmes. It was agreed to implement the CF Programmes under the leadership of the benefiting Services. For this purpose, the DL-Services will draft plans for 2000 and report the progress to the Coordinator on half-yearly basis. The EMPRES Programme will contribute with up to USD 50,000 per country and will provide backstopping and advice if requested. Furthermore, it was agree to initiate one additional CF-Programme in Saudi Arabia.
53. As far as coordination is concerned the plenary recommended that a workplan for 2000 should jointly be developed with the CRC Secretariat. For this purpose it was suggested that the EMPRES Coordinator should work out a proposal workplan on the basis of the findings of the ELO-Meeting and to specify the modalities and mechanisms of joint implementation of the activities with the CRC Secretary in February 2000.
54. A planning workshop should be conducted in March 2000 for the preparation of the 2nd Phase of the EMPRES Programme. The Delegate from Egypt invited FAO to host the workshop at a suitable location in Egypt. It was recommended that all ELO and the donor community should be invited to attend this planning workshop.

55. It was felt necessary that the EMPRES Coordinator should undertake more coordinating visits in the CR. It was recommended that the Coordinator should conduct during 2000 visits to Egypt, Eritrea, Sudan, Djibouti, Somalia and Saudi Arabia in connection with other duties.
56. In regard to the promotion of the CRC-Membership of four of the EMPRES Member Countries it was recommended that delegates from Ethiopia, Eritrea, Djibouti and Somalia should be invited as observers to the next Consultative Committee Meeting of the CRC in Cairo.
57. It was felt necessary to start the cooperation with EMPRES-West by next year. In this regard it was recommended that the EMPRES Coordinator should visit EMPRES West if convenient and initiate collaboration on technical level.
58. Other subjects such as a staff-meeting, cooperation with DLCO-EA, participation at the next Consultative Committee Meeting etc. were considered as normal obligations of the Coordinator and no specific recommendations were determined.

Output 2 & 4: Survey and early warning systems improved. Early control capacity improved

59. The two above outputs were treated together, since training activities such as the International S&C Training Course in collaboration with NRI, Training Manual development and national training courses were falling under both outputs.
60. In regard to training it was recommended to conduct the postponed International S&C Training course as soon as possible next year. In case the agreement to host the course in Oman cannot be obtained from the Omani Government in due time, it was agreed to conduct the course alternatively in Egypt. The Delegate from Egypt promised his support in this case. Furthermore, the ELO's agreed to conduct up to 1 S&C national training course and up to 2 local training courses in each of their countries and would request assistance from EMPRES in due time if felt necessary. For this purpose EMPRES agreed to earmark up to USD 5,000 as support to the national training courses. In case that the requesting country is both member of EMPRES and the CRC, cost sharing was agreed. The local courses were acknowledged to fall under the responsibility of the relevant DL-Service. In order to know better the actual needs regarding training of the DL personnel in the Region, it was agreed to conduct up to 3 needs assessment studies in up to 3 selected countries.
61. The proposed Training Manual was considered as a very useful tool to harmonize and to standardize DL training approaches in the Region. It was agreed to continue the development during 2000 and to provide USD 10,000 for external expertise if necessary. The ELOs recommended that the Manual should be finalized by 2001 latest.
62. The participants felt the need for improved DL information management in the Region. It was agreed to train up to 5 information officers on remote sensing, forecasting and report assessment at the DLIS in Rome and to organize 1 regional Forecasting and Information Management course under the participation of the CRC and DLIS for up to 8 officers.
63. Due to the positive experiences in the past and in order to enhance joint surveys, it was recommended that joint border surveys between Sudan and Egypt, and Somalia, Ethiopia and Djibouti should further be supported by next year. Under the

same token 1 joint in-country survey was suggested to be conducted in Sudan (Kordofan, Darfur) for up to 9 DL-Officers from the CR. Both activities would be carried out under the sponsorship of CRC and EMPRES.

64. Recommended survey and trial equipment is still not available in all of the EMPRES countries. In particular Djibouti, Egypt, Eritrea, Sudan and Yemen expressed their needs regarding survey equipment. It was agreed to look into the possibilities for next year to fill at least some of the gaps.
65. The envisaged blood-testing pilot-survey in Sudan should be conducted once control operations are carried out during next year.
66. The current spray monitoring form should be reviewed and made easier to handle. The new draft should be tested in collaboration with the control officers and submitted to the CRC for further comments before distribution to the DL-Services.
67. In order to be in a better position to observe and monitor the performance of the survey and control teams in the field, it was agreed to organize up to 3 performance surveys in selected countries upon approval from the host country.
68. The need was felt to promote the survey capacity in Somalia further, after 4 technicians from Somalia received training on survey aspects. It was recommended that the sustainability of the services of the Government of Somalia should be examined in cooperation with DLCO-EA and recommendations developed on what further support is required.

Output 3: Regional information system linked to FAO-HQ

69. It was recommended to provide further assistance to the introduction of the RAMSES system in the CR. In particular it was mentioned, to coach the use of the GIS in Eritrea, to continue the installation in Yemen and promote the introduction at the DLCO-EA, in Saudi Arabia and in Oman.
70. Regarding appropriate use of the computer equipment in the CR it was suggested to give support to computer training in up to 5 countries upon request during next year. Furthermore, support should be given to the DL-Units in Sudan, Yemen and particular Djibouti to have direct access to e-mail and internet.
71. The ELOs agreed to promote the establishment of Desert Locust related documentation centres at their services. EMPRES and CRC decided to help with certain publications and bibliographic data banks.

Output 5: Desert Locust Management methods and strategies improved

72. In order to enhance research on Desert Locust, it was recommended to establish an ad-hoc working group by March 2000 to define the modalities of research cooperation between EMPRES and the CRC. It was suggested that up to 6 scientists from the CR should be invited to participate in the forum.
73. The studies already started on Desert Locust population assessment were recommended to be continued for further development of a better understanding of DL population dynamics and to improve the assessment methodology. In the same light, the research capacities in the CR will be further assessed.

74. In the framework of the possibilities and given favourable conditions, it was agreed between EMPRES and the CRC to conduct up to 5 research projects where both parties may commit jointly up to USD 15,000 per project next year. The main areas were defined as in alternative pesticides research and improved pesticides application technology.
75. The better understanding of the environmental impact of DL control measures should be addressed by next year. It is anticipated to conduct up to 2 impact studies in Sudan and Egypt in April 2000, and to contribute to one regional environmental safety workshop, organized by LOCUSTOX, in February 2000. In addition, it is planned that one APO will start investigations on potential ecological sensitive areas in Sudan in collaboration with the Swedish Cooperation (SIDA) by mid 2000.
76. The participants recommended that the studies on the economic impact of control operations should further be developed. It was agreed to initiate up to 3 economic studies in Egypt, Yemen and Sudan in collaboration with the University of Hannover.

Output 6: Rapid deployment plans and contingency arrangements in place

77. The development of rapid deployment or contingency plans should be continued during 2000. At the first instance, it is expected to develop a common understanding during a regional workshop by mid 2000. Two member countries, Egypt and Oman, expressed their wish to host the workshop. The ELOs from Sudan, Yemen and Ethiopia agreed to further promote the implementation of the contingency planning tool in their Services.
78. With the aim to enhance the overall management capacity at the DL-Services in a sustainable way, it was agreed to investigate appropriate management training programmes and facilities inside and outside the Region.

**Special Session: Roles of the ELOs**

79. After the development of the general targets and features of the EMPRES Programme for the year 2000, it was felt necessary to run a special session on the question concerning the "Role of the ELOs". Some of the ELOs perceived the EMPRES activities as an additional burden without appropriate acknowledgment. Some of the participants mentioned that this situation may result in a lack of motivation to be involved in the EMPRES activities.
80. However, a general consensus was achieved amongst the participants that the definitions, which have been identified during the workshop in Ziway / Ethiopia, are still acceptable and valid. Furthermore, the participants agreed in the principles that the ELO coordinates EMPRES activities with their governments (MoAs), compliments EMPRES activities with the national programmes, facilitates EMPRES activities in the respective Member Country, and represents the interests of his Government during EMPRES Meetings.
81. It was recommended that the EMPRES staff must strictly interact with the Governments through the ELOs. In addition, it was found necessary to draw the attention of the anticipated roles of the ELOs to the respective governments in a more appropriate manner (ToRs). In the case of Yemen it was felt important to pass the planning documents to the ELO **and also** through the official channels to the Government of Yemen. Furthermore, it was recommended that the roles of the ELOs should be clearly defined prior to the planning of the 2nd Phase of EMPRES.

82. Due to time limitations at the end of the meeting, it was agreed that the minutes of meeting should be prepared later and cross checked by the Delegate from Ethiopia.

### Evaluation of the Meeting

83. In order to know the views of the participants in regard to the new approach of participatory assessment and planning, an evaluation of the meeting was conducted before the closure.

The evaluation showed the following results:

Topic	Bad	Poor	Fair	Good	Very good
Organization of the meeting	0	0	0	6	9
Hotel accommodation	0	0	2	10	3
Service during the meeting	0	0	1	8	6
Moderation of meeting	0	0	0	6	9
Meeting methodology	0	0	0	6	9

Topic	Too short		↔		Too long
Duration of the meeting	1	0	14	0	0

Topic	Not at all		↔		Very much
Expectations met	0	0	4	2	9
Meeting contributed to improved cooperation	0	0	4	2	9

All 15 participants recommended that meetings of the same kind should be conducted also in future.

### Next EMPRES Liaison Officers Meeting

84. The representative from Oman invited EMPRES to host the 8th ELOM in Oman by end of October 2000. The representative from Egypt requested to host the next meeting in Egypt. It was agreed to find a final decision by mid of next year.
85. The meeting was closed on 10th November, 1999 at 16:00 h

### Acknowledgments

86. The Chairman and the CRC-Secretary thanked the Ministry of Agriculture and its Plant Protection Directorate of Yemen, the participants for their commitments as well as the FAO HQ for the successful meeting.

## Annex 1: List of Participants

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**Annex 2:**

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**Programme of the  
7<sup>th</sup> EMPRES Liaison Officers Meeting / Workshop  
Sana'a (Yemen), 06<sup>th</sup> November - 10<sup>th</sup> November 1999**

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Day	Time	Activity
<b>1<sup>st</sup> Day (06.11.99)</b>	09:00 – 09:30	<i>Welcome Address</i> by his Excellency the Minister of Agriculture, Mr. Ahmed Salem Al Jabali
	09:30 – 10:00	<b>Opening Address by the FAO-Representative in Yemen, Mr. Mahadi</b>
	10:00 – 10:30	Coffee Break
	10:30 – 11:00	<ul style="list-style-type: none"> <li>• Presentation of the workshop objectives and procedures, agenda.</li> <li>• Adoption of the WS Agenda</li> </ul>
	11:00 - 12:00	Presentation of country reports and reports from the regional organizations
	12:00 – 13:00	<b>Lunch Break</b>
	13:00 – 14:30	Presentation of reports cont.
	14:30 – 15:00	Coffee Break
	15:00 – 16:30	Presentation of reports cont. and discussion
<b>2<sup>nd</sup> Day (07.11.99)</b>	8:30 – 10:00	Presentation of Meeting objectives and procedures
	10:00 – 10:30	Coffee Break
	10:30 – 12:00	Presentation of EMPRES activities, achievements and obstacles
	12:00 – 13:30	Lunch Break
	13:30 – 15:00	Presentation of EMPRES activities, achievements and obstacles (cont.)
	15:00 – 15:30	Coffee Break
	15:30 – 17:00	Presentation of EMPRES activities, achievements and obstacles (cont.)

Day	Time	Activity
<b>3<sup>rd</sup> Day (08.11.99)</b>	8:30 – 9:00	<p>“Year 2000 - Working for Improvement”</p> <p>Division of tasks between participants in 3 Groups @ 5 pers.</p> <p><b>Group 1:</b> # 1 EMPRES activities coordinated, # 5 DL management methods and strategies improved (Mr. Tsedeke, Mr. Taher, Mr. Zelazny, Mr. Abbas, Mr. Pantenius)</p> <p><b>Group 2:</b> # 2 Survey and early warning systems improved, # 4 Early control capacity improved (Mr. Simary, Mr. Mamoon, Mr. Yonathan, Mr. Butrous, Mr. Bahakim)</p> <p><b>Group 3:</b> # 3 Regional information exchange system linked to FAO-HQ, # 6 Rapid deployment plans and contingency arrangements in place (Mr. Ali Mohamed Ali, Mr. Merid, Mr. Odiyo, Mr. Elmi Amir, Mr. Breithaupt)</p>
	9:00 – 10:00	<p>Definition of the targets for the work plan 2000 (Group work)</p> <p>(What to do? For whom? How much to do? Where? When? Responsible? Cost?)</p>
	10:00 – 10:30	Coffee Break
	10:30 – 13:00	Definition of the targets for the work plan 2000 (Group work) cont.
	13:00 – 14:30	Lunch Break, Invitation of the participants by his Excellency the Minister of Agriculture Mr. Ahmed Salem Al Jabali at “Heima” Restaurant
	14:30 – 16:00	Definition of the targets for the work plan 2000 (Group work) cont.
	16:00 – 16:30	Coffee Break
	16:30 – 18:00	Definition of the targets for the work plan 2000 (Group work) cont.
<b>4<sup>th</sup> Day (09.11.99)</b>	8:30 – 10:00	Definition of the targets for the work plan 2000 (Group work) cont.
	10:00 – 10:30	Coffee Break
	10:30 – 11:00	Definition of the targets for the work plan 2000 (Group work) cont.
	12:00 – 13:00	Lunch Break
	13:00 – 14:30	Presentation of group results in the plenary and discussion
	14:30 – 15:00	Coffee Break
	15:00 – 16:30	Presentation of group results in the plenary and discussion
	20:00	Dinner at “Al Diwan” Restaurant
<b>5<sup>th</sup> Day (10.11.99)</b>	8:30 – 10:00	Presentation of group results in the plenary and discussion
	10:00 – 10:30	Coffee Break
	10:30 – 11:00	Presentation of group results in the plenary and discussion
	12:00 – 13:00	Lunch Break
	13:00 – 14:00	Extraordinary Session: “Roles of the ELOs”
	14:00 – 16:00	<b>Evaluation of the Meeting and Closure</b>