



REPORT

Rome,
Italy,
16-20 January
1995

FAO Desert Locust Control Committee

Thirty-third session



**Food
and
Agriculture
Organization
of
the
United
Nations**

**REPORT OF
THE THIRTY THIRD SESSION OF THE FAO DESERT LOCUST
CONTROL COMMITTEE**

**held in
Rome, Italy
16-20 January 1995**

**Plant Production and Protection Division
Food and Agriculture Organization of the United Nations
Rome 1995**

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1. INTRODUCTION

At its thirty-second Session, held in Rome from 12-16 October 1992 the FAO Desert Locust Control Committee had decided that the thirty-third session of the Committee would be held in Rome at a date to be determined by the Director-General of FAO.

In view of the locust situation and the steady support provided by the international community, it was again considered appropriate to invite both DLCC member countries and donor countries and institutions to this Session.

The Director-General of FAO therefore invited the Governments of the countries listed hereunder to be represented at this thirty-third session which was held in Rome from 16-20 January 1995:

Afghanistan	Kuwait
Algeria	Lebanon
Australia	Libya
Bahrain	Luxembourg
Belgium	Mali
Benin	Mauritania
Bulgaria	Morocco
Burkina Faso	Netherlands
Cameroon	Niger
Canada	Nigeria
Cape Verde	Norway
Central African Republic	Oman
Chad	Pakistan
Côte d'Ivoire	Portugal
Denmark	Qatar
Djibouti	Saudi Arabia, Kingdom of
Egypt	Senegal
Eritrea	Sierra Leone
Ethiopia	Somalia
Finland	Spain
France	Sudan
Gambia	Sweden
Germany	Switzerland
Ghana	Syria
Greece	Tanzania
Guinea	Togo
India	Tunisia
Iran, Islamic Republic of	Turkey
Iraq	Uganda
Israel	United Arab Emirates
Italy	United Kingdom
Japan	United States of America
Jordan	Yemen Republic
Kenya	

Representatives of the following organizations were also invited to participate: Desert Locust Control Organization for Eastern Africa (DLCO-EA), International Red Locust Control Organization for Central and Southern Africa, (IRLCO-CSA), Organisation commune de lutte antiacridienne et de lutte antiaviaire (OCLALAV), United Nations Development Programme (UNDP), World Meteorological Organization (WMO), International Fund for Agricultural Development (IFAD), European Union (EU), African Development Bank (ADB), Islamic Development Bank (IDB), Economic Commission for Africa (ECA), and the Inter-African Phytosanitary Council (IPC) of the Organization for African Unity (OAU).

A list of the persons who attended the meeting appears as Appendix I.

The Session was opened by Mr H.W. Hjort, Deputy Director-General, who welcomed the participants on behalf of the Director-General. He reminded participants that since the last meeting there had been a major upsurge of Desert Locusts in Africa, the Near East and South-West Asia and that it had been necessary to treat a total of 40,000 km² to bring this pest under control.

Mr Hjort noted that during recent years locust-affected countries and donors have become increasingly concerned about the frequency of locust emergencies, about the resulting costs, as well as about the associated risks to humans and the environment. Although a number of projects and programmes had been implemented and some progress had been achieved there was a need for a new initiative to address the weakness in current approaches in dealing with the Desert Locust.

Mr Hjort informed the meeting that last year plans were adopted by the FAO Council to establish a locust field programme under the Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases (EMPRES). The aims of the locust component of this programme are to reduce the risks of locust emergencies and to prevent environmental damage occurring in the future. The programme will initially concentrate on the Central Region and expand to the other regions.

He informed the participants that FAO funds have already been allocated to EMPRES but that FAO will need the collaborative efforts of all parties concerned to realise the objectives of this programme. Therefore, the establishment of a collaborative EMPRES programme will be an important agenda item. Some preparatory steps have been taken; a concept paper outlining the rationale for a new initiative on Desert Locust management and research was distributed to donors and affected countries and a team of three consultants visited key locust affected countries in Eastern Africa and the Near East in September and October last year. Their findings were discussed in a donor meeting last December as well as in Cairo with representatives of regional locust commissions and organizations and with representatives from key affected countries of the Central Region.

Mr Hjort informed the meeting that FAO is further studying the economic aspect of locust control and will provide information as it becomes available. He also mentioned that the FAO, with financial assistance from the Netherlands, has been active in assessing the environmental impact and is addressing the question of obsolete pesticides. A new Dutch-funded FAO project has recently started in this field and is expected to make an important initial contribution to solving the problem of obsolete stocks.

He finally wished every success for the present session.

2. OFFICERS OF THE SESSION

Chairman: Cheikh Ould Dih, Mauritania
Vice-Chairman: Tahar Rachadi, France

The Chairman thanked the Food and Agriculture Organization of the United Nations for the arrangements which had been made for the meeting and mentioned that for future sessions earlier availability of the working papers would be appreciated. He expressed the desire that the close collaboration between affected countries, the international donor community and FAO would continue.

3. CONDOLENCES

The meeting expressed its sincere condolences to the representative from Japan and his Government for the tragic earthquake which recently occurred in his country.

4. AGENDA

1. Opening of the Session
2. Election of Chairman and Vice-Chairman
3. Condolence
4. Adoption of the Agenda
5. Election of the Drafting Committee
6. The Locust Situation, October 1992 - January 1995
 - (a) Desert Locust
 - (b) Other Species
 - (c) Additional information from affected countries
7. Control Measures
8. Review of Existing Control Potential
9. Assistance Provided to Countries and Regional Organizations
10. Reports of the Desert Locust Technical Group
11. Status of Recommendations from the 32nd Session
12. Preventive Control Strategy
13. Emergency Prevention System (EMPRES) for Desert Locust
14. Research Activities
- 15.. Environmental Aspects of Desert Locust Control
- 16.. Obsolete and Expired Pesticides
17. Training and other activities
18. Status of Regional Desert Locust Commissions and Organizations and Status of Recommendations
 - (a) Near East Commission
 - (b) North-West Africa Commission
 - (c) South-West Asia Commission
 - (d) DLCO-EA
 - (e) OCLALAV
 - (f) IRLCO-CSA
19. International Trust Fund 9161: Contributions, Expenditures and proposed workplan 1995/96
20. Any other Business
21. Date and Place of next Session
22. Adoption of the Report
23. Acknowledgements

5. ELECTION OF THE DRAFTING COMMITTEE

The session opted for a Rapporteur rather than for a drafting committee and Mr A. van Huis, The Netherlands, was elected as Rapporteur. Mr. van Huis was asked to select several representatives from affected countries to assist him.

6. THE LOCUST SITUATION, OCTOBER 1992-JANUARY 1995

A. Desert Locust

Overview

1. In late 1992, an important Desert Locust upsurge developed in the Red Sea area which later spread to South-West Asia and West and North-West Africa. During the upsurge there were at least eight generations of breeding, 22 countries were affected and nearly four million hectares were treated. By the summer of 1994, the upsurge had declined. However there was a resurgence of locust activity in late 1994 as a result of above average summer rains in the Sahel of West Africa and Sudan.

General situation

2. Following widespread heavy rains during the autumn in northern Eritrea and in adjacent areas of Sudan, swarms first started forming on the northern coastal plains of Eritrea in late October and by early November the swarms started to emigrate, reaching the southern Red Sea coast of Sudan and the Tihama of western Saudi Arabia.

3. Good rains fell during the winter along both sides of the Red Sea, which ensured favourable conditions for breeding until March 1993. Considerable numbers of adults including swarms, started moving out of the Red Sea area in early March. Following further good rains in the interior of the Arabian peninsula, a new generation of swarms started to form in April and migrated south to the interior of Yemen as well as westwards across northern and western Sudan, Chad, Niger and Mali, eventually reaching southern Mauritania in mid-July after covering a distance of about 5,000 km in about 6 weeks. The swarms which reached Yemen laid in May, producing new swarms, which migrated north-east across Oman, reaching Pakistan and north-west India in July.

4. Therefore, at the beginning of the 1993 summer breeding season there were two main areas of infestation, one in the eastern end and one in the western end of the summer breeding belt with only minor infestations in Sudan between them.

5. The swarms that arrived in the border area of Pakistan and India as well as those in Mauritania laid eggs, which hatched a few weeks later and produced yet another generation of new swarms in late August and early September. Intensive control operations in India and Pakistan led to a dramatic decline in the populations to the extent that the situation had returned back to normal by mid November 1993. However, conditions remained favourable in Mauritania, which allowed some of the mature swarms to lay again while others invaded western Mauritania and north-western Senegal where they laid in early October. A few swarms also reached the extreme south of Morocco in late October.

6. From November 1993 onwards, the few remaining swarms in Senegal gradually moved further south, while those still along the coast of Mauritania moved further north. Late in the year, breeding occurred in northern Mauritania, but on a relatively small scale. A small scale migration also occurred off the coast of West Africa to the Cape Verde Islands.

7. In early February 1994, a few small swarms reached Gambia and continued south to Guinea Bissau and Guinea Conakry where they dispersed in forested areas. As a result of increasing temperatures, several small swarms had moved further north from Mauritania and reached the southern side of the Atlas Mountains in Morocco and western Algeria by the end of February.

8. Due to below-normal rainfall in the traditional winter/spring breeding areas of the Red Sea in early 1994, only small and insignificant infestations were present along the coastal plains of Eritrea and Sudan. Unlike the previous year, swarm formation did not occur. Although, several small hopper bands and adult groups were reported on the northern coast of Somalia in early January 1994, these infestations did not develop into a significant threat.

9. Breeding occurred during the spring of 1994 in one area of northern Mauritania and in small areas south of the Atlas Mountains in Morocco and Algeria. As a result a few small swarms were produced, which moved south towards the summer breeding areas of the Sahel during May and June. Swarms first appeared in central Mauritania in May and in Niger in June. Although most all of these swarms dispersed, laying occurred with the onset of the summer rains. A few swarms also re-appeared in eastern Guinea Conakry in mid May and moved into neighbouring areas of Mali and as far as western Niger during June. However, these probably did not lay.

10. By early summer 1994 there was an apparent decline in the upsurge. However, above-average rains fell over a widespread area of the Sahel late in the summer causing extremely favourable conditions for breeding. Consequently, a few hopper bands formed late in the season in breeding areas of southern and central Mauritania, northern Mali and Niger, northern Chad and central Sudan from October onwards. As some of this breeding was not detected and occurred in

inaccessible or insecure places, several swarms formed during October and November and started moving towards winter breeding areas. No further laying was reported from summer areas after November.

11. Although good rains were associated with the summer monsoon in South-West Asia, no significant breeding was reported from India and Pakistan and swarms did not form.

12. Early rains fell in the winter/spring breeding areas of north-western Mauritania and along the Red Sea coast of Sudan and Eritrea during September and October 1994. Adults from the summer breeding areas, including a few small swarms, appeared in north-western Mauritania, southern Algeria and south-western Morocco.

13. Winter breeding occurred earlier than usual in northern Mauritania where hopper bands and immature swarms were forming in late 1994. Some swarms were reported as mature and laying in early January 1995. In the Red Sea Trench and Gulf of Aden, breeding conditions were favourable on the coastal plains. Scattered adults were reported in south-eastern Egypt and in adjacent areas of Sudan. From November onwards, increasing numbers of adults and several swarms appeared on the coasts of Sudan, Eritrea and Saudi Arabia where they started to lay. By the end of the year large areas of the northern Tihama coastal plains of Saudi Arabia were reported to be infested with hopper bands and additional swarms were seen coming from the west.

14. Elsewhere, scattered adults were reported in late 1994 in south-eastern Iran and in the north-eastern Arabian Peninsula indicating that a small scale movement of adults had occurred from the Indo-Pakistan summer monsoon breeding areas.

Control Measures

15. Although aerial and ground control operations were quickly launched in the Red Sea area in late 1992, primarily in Sudan and Saudi Arabia and to a limited extent in Eritrea, the first stages of the upsurge were not detected in time to take preventive control measures. This, combined with extremely favourable breeding conditions over a wide area, resulted in a rapid build-up in locust numbers during the winter and spring of 1993. Control operations were further hampered in some areas because of difficulty of access and insecurity. Control operations continued on the Red Sea coasts of Sudan and Eritrea until March 1993; operations in Saudi Arabia shifted from the Red Sea coast to the interior during the spring of 1993 and concluded by late May. In Yemen, control operations were delayed due to the difficulty of detecting the swarms that invaded the remote interior deserts in May 1993; however, aerial and ground operations commenced in June and continued to early August.

16. In Pakistan and India successful aerial and ground control operations were mounted against the immigrant swarms and subsequent breeding from July to November 1993. This reduced significantly the spread of the upsurge in the Eastern Region.

17. In Mauritania, control operations were slow in starting due to the remote areas in which the Desert Locusts invaded in late July 1993 and the general difficulties of quickly organizing a large scale control campaign with limited resources. By October eight to ten aircraft were operating every day as well as numerous national ground teams and the Maghreb Task Force composed of locust officers from North-West Africa. Control continued throughout October but late in the month some small swarms reached southern Morocco. In November 1993 control operations extended to western and northern Mauritania and continued to April 1994.

18. In Senegal, aerial and ground control operations were launched in October 1993 in response to an invasion from Mauritania. These operations significantly reduced population levels although some small swarms did form in early December which moved south to Gambia and Guinea Bissau where limited control operations were carried out in March 1994.

19. In Morocco and to a lesser extent in Algeria, control operations commenced in late February 1994 after several small swarms arrived and concentrated into a relatively small area south of the Atlas Mountains near the Moroccan/Algerian border. Control operations continued against the resulting hopper bands and adults until early July.

20. Limited control operations were required in the summer breeding areas of India during July and September 1994 and later in Chad and Niger. Larger control operations were carried out in Mauritania and Sudan from October onwards. Control operations resumed in Algeria and Morocco against in-coming adults and small swarms during December as well as in Saudi Arabia against swarms and bands.

Outlook until summer 1995

21. A potentially dangerous resurgence developed in late 1994. The forecast for the remainder of the winter and for the upcoming spring depends on the extent of rains that fall in the breeding areas along the Red Sea and in North-West Africa as well as on the intensity of surveys and successfulness of control operations. The following outlook is based on information available to FAO up to mid January 1995. This will be modified as new information is received and countries will be advised accordingly.

22. In the **Red Sea area**, swarms will form on a small to moderate scale from mid January onwards primarily on the coasts of Sudan and Saudi Arabia and to a lesser extent Eritrea and Egypt. Adults and perhaps a few swarms are expected to appear on the coastal plains of Yemen during this period. If rains continue to fall in the Red Sea Trench during the winter and spring and if survey and control operations are not successfully implemented, there is a strong possibility that a second generation of breeding could occur in some places. In this case, locust infestations are expected to increase rapidly and become more widespread. If conditions become unfavourable early in the spring, adults and swarms are expected to move towards the spring breeding areas of the northern central interior of Saudi Arabia. Any infestations that escape detection and control on the coastal plains are expected to move to the interior of Saudi Arabia and breed during the spring. By late spring, infestations could expand into southern and eastern areas of the Arabian Peninsula.

23. In the **Gulf of Aden area**, the current situation in northern Somalia is unclear where survey and control operations are not possible due to insecurity. However, conditions are expected to be favourable over a widespread area and breeding may occur.

24. In **South-West Asia**, limited breeding may occur along the coastal plains of western Pakistan and perhaps adjacent areas of south-eastern Iran during the spring. Taking into consideration the probability of spring breeding in the Arabian Peninsula and the uncertain situation in northern Somalia, there is a moderate risk of swarms appearing in the summer monsoon breeding area of India and Pakistan.

25. In **North-West Africa**, additional hopper bands and swarms will form and slowly mature early in 1995 in northern Mauritania. If temperatures remain warm and conditions favourable some adults could mature and lay during the winter. Low to moderate numbers of locust adults and small swarms are expected to appear in Oued Draa of Morocco and western Algeria from January onwards. As temperatures increase, these are expected to lay in areas of green vegetation starting in late February or early March. There is a moderate risk of breeding in southern and central Algeria during the spring although the scale is difficult to assess.

26. Elsewhere in the **Sahel of West Africa**, small populations of hoppers and adults will slowly mature in parts of northern Mali and Niger and to a lesser extent in northern Chad.

27. Based on the seriousness of the current situation and on its possible development during the coming months, the Committee recommended the urgent strengthening of control operations particularly in northern Mauritania, Sudan, Saudi Arabia and Yemen, in order to prevent the plague from spreading to other regions of the invasion area.

B. Other Locusts

African Migratory Locust

28. The break of the drought in late 1992 in Eastern Africa led to several outbreaks in Botswana, Madagascar, Malawi, Mozambique, Zambia and Zimbabwe where control operations were required during the first half of 1993. Further control was required in late 1993 and early 1994. Swarms were also controlled in Ethiopia and Somalia in late 1993.

Red Locust

29. There was a significant increase in Red Locust activity in 1993 and 1994. As a result of severe drought in southern and central Africa the traditional outbreak areas of the Red Locust became active as water levels receded thereby providing suitable breeding conditions. Swarms were reported from a number of the traditional outbreak areas in Tanzania and Zambia including Rukwa, Wembere and Malaragasi. There were also reports of Red Locust in Mozambique.

30. Although, the IRLCO-CSA together with national plant protection authorities undertook control measures in 1994 with assistance from FAO and other donors, additional control operations are expected to be required in early 1995 against hopper bands resulting from breeding after the rains in late 1994.

Brown Locust

31. Whilst no details are available, there was a major outbreak of Brown Locust in South Africa in 1993 and in early 1994 which required large scale control operations. Smaller outbreaks were reported in Botswana and Namibia during the same period.

Moroccan Locust

32. During the spring of 1993, breeding occurred in several areas of central and northern Afghanistan and control operations were undertaken against hopper bands. In early 1994 there were indications of damage caused by Moroccan Locust infestations in southern Uzbekistan and Tajikistan along the border with Afghanistan.

Tree Locusts

33. Tree Locust continued to present problems to national plant protection authorities particularly in Sudan, Ethiopia and Eritrea. However, no details are available on the extent of control measures undertaken. It is believed that further research on Tree Locust is urgently required to try to assess the effectiveness of current control strategies.

C. Additional information from Affected Countries

34. In **Mauritania**, swarms have reached the extreme north and north-east of the country to 22°N where they are in the process of laying.

35. In **Morocco**, control operations started in January 1994 against patches of adults in the Dakhla region where 46 ha were treated. Four aircraft and six teams have been mobilised for survey and control operations.

36. In **Algeria**, control operations were undertaken in late 1994 against adults that were forming groups on 2,000 ha. Teams generally treat infestations when densities reach 1,000 per ha. Re-grouping of infestations and breeding is expected to resume in March primarily in the eastern Tademaït Plateau area and north of In Salah.

37. In **Libya**, the situation is relatively calm except for a few isolated adults in the Hammada al Hamra region and in Jebel Lawinat.. African Migratory Locust adults and hoppers were treated in irrigated winter crops (Sarir Project) in December 1992 and again in August 1994.

38. In **Sudan**, a total of 174,636 ha out of 192,392 ha infested by Desert Locust were treated in Northern Kordofan from June to October 1993. During the winter, October to March 1994 a total of 11,018 ha were infested of which 90 ha were treated since most of the infestations were scattered and did not represent suitable control targets. During the summer of 1994, a total of 19,000 ha were treated out of 24,280 ha infested during June to October 1994. Currently infestations are scattered over a vast area.

39. In **Sudan**, important infestations of Tree Locust occurred on trees and cereals in 1992-94. A total of 918,099 ha were treated in 1992-93, 287,000 ha in 1993-94 and 115,000 ha in 1994-95. Small infestations of African Migratory Locust occurred on mechanised sugarcane and sorghum plantations in 1992-93 and in 1994 while other infestations, sometimes mixed with Desert Locust, were present in the Tokar Delta.

40. In **Saudi Arabia**, swarms continue to be present along the Red Sea coast from Lith to Medina. From 29 November to 15 January 1995 a total of 78 swarms arrived from the West and invaded an estimated area of 850,000 ha. Swarms have laid and hatching commenced from 7 December.

41. In **Kenya**, Tree Locust infestations were present in northern parts of the country on 1,000 ha in 1992-93.

42. In **Eastern Africa**, survey and control operations are expected to resume against the Red Locust in 1994 outbreak areas of Tanzania by the end of January 1995. However, swarms may form during May to July.

43. The meeting stressed that the situation in various parts of the Desert Locust distribution area is cause for concern, although, the situation does not yet seem to be as critical as during the beginning of the 1986-89 plague. The meeting requested FAO and Member Countries to increase monitoring efforts in the critical areas in order to enable a better assessment of the situation.

44. Possible explanations for the development and persistence of the recent upsurges included:

- (i) lack of early enough interventions;
- (ii) lack of access to certain areas (e.g. Northern Mali and Northern Niger);
- (iii) a need to improve monitoring, information exchange and forecasting
- (iv) urgent need to strengthen control operations, especially in key affected countries.

7. CONTROL MEASURES UNDERTAKEN BY AFFECTED COUNTRIES

45. Since the beginning of the current Desert Locust upsurge, a total of 4,053,256 ha have been treated. A table summarising the control operations undertaken from November 1992 to January 1995 was presented to the meeting (see Appendix II).

8. REVIEW OF EXISTING CONTROL POTENTIAL

46. The FAO Secretariat introduced the subject and presented a form (Appendix III) to collect information on resources in a standardised manner from the countries and to assess their control potential. It was proposed that the form be completed during the meeting or otherwise the Delegates should do so upon return to their country and transmit the form to FAO soonest.

9. ASSISTANCE PROVIDED TO COUNTRIES AND REGIONAL ORGANIZATIONS

47. The FAO Secretariat reported on bilateral and multilateral aid provided by donors since 1992. These data are summarised in Appendix IV.

48. Canada supported the decision of OCLALAV to create a Sahelian Task Force and continued to provide assistance to several West African countries for locust survey and control through OCLALAV. GTZ has several bilateral projects on general plant protection and on the disposal of obsolete pesticide stocks. France has supported survey and control operations through Ecoforces. Since 1992, USAID has provided a total of \$US 4.65 million of emergency assistance to locust affected countries. Research activities continue on long term management of locusts. Other donors have supported the campaigns in 1993 and 1994.

49. The meeting expressed appreciation for the assistance provided by donor countries and noted that resources were also provided from locust-affected countries to other affected countries, e.g. in the Maghreb region. This development was considered very encouraging and could serve as an example for other regions.

10. REPORTS OF THE DESERT LOCUST TECHNICAL GROUP

50. Mr Shafi, the current Chairman of the Desert Locust Technical Group outlined the conclusions made at its third session and these were subsequently approved by the meeting (Appendix V(b)). The report of the 2nd meeting of the Group was also presented to the meeting and appears as Appendix V(b). It was, however, noted that the Technical Group was established in 1990 and felt that a review of the Group's terms of reference, duration and composition would be desirable. The meeting assigned eight participants (Messrs Chara, Ghaout, Gueye, Mahjoub, Rassipour, Shafi, Showler and van Huis) to discuss this issue further and to prepare a proposal for consideration by the meeting.

51. The meeting discussed the proposal on the revised mandate, membership and organization of the Technical Group which had been proposed by the sub-committee. The proposal was adopted by the meeting after some modifications and is attached as Appendix VI. The meeting emphasised that technical expertise should be an important criteria for membership of the Technical Group. Therefore, DLCC Member Countries were requested to submit to FAO within one month, nominations for one expert from each of the five Desert Locust regions (North-West Africa, West Africa, Eastern Africa, Near East and South-West Asia) and for three experts from donor countries. It was noted that the Technical Group would be able to call upon specialised expertise when required.

52. The meeting recognised that the most important immediate issue for the Technical Group to discuss would be the Desert Locust component of the EMPRES programme. Additional issues have been identified by the last session of the Technical Group and include control strategies, reorganization of regional structures and information exchange. Additional important topics for consideration by the Technical Group could be assigned by the Secretariat or the Technical Group itself.

53. The meeting recommended that the Technical Group would be composed of the following individuals in their personal capacity as locust experts: Mr Chara (Algeria), Mr Gueye (Senegal), Mr El-Gammal (Egypt), Mr Karrar (DLCO-EA) and Mr Shafi (Pakistan). Three representatives would be nominated by the donors within one month. The representative for the Netherlands agreed to contact other donors to ensure a timely submission which would be made by the Netherlands on behalf of the other donors.

11. STATUS OF RECOMMENDATIONS FROM THE 32ND SESSION

54. The FAO Secretariat outlined what actions had been taken to implement the recommendations made during the 32nd Session. Most recommendations had been implemented, but in some cases implementation was affected by lack of funding. In particular, the meeting felt that more attention needs to be paid to the disposal of stocks of obsolete pesticides. Current financial constraints at FAO prevented the re-establishment of the Secretariat post for South West Asia. However, the meeting agreed on the importance of the South-West Asia region for locust control.

12. PREVENTIVE CONTROL STRATEGY

55. FAO introduced the subject and Mr van Huis provided a summary of the seminar on control strategies held in December 1993 in Wageningen. There was general agreement during the meeting on the importance of preventive control, which was generally understood as outbreak and upsurge prevention. Such control would be aimed at preventing migration of locusts to surrounding countries. Plague prevention would automatically become the goal if an upsurge developed.

56. The following points were emphasised during the Session:

- (a) Any preventive control programme should focus on regular monitoring during breeding seasons in areas where locusts are likely to be present and breeding. Dangerous infestations that are detected should be controlled. However, in some cases it is difficult to detect and control gregarising populations, especially in those areas that are remote or insecure.
- (b) Control intervention thresholds vary from country to country.
- (c) Any preventive control strategy depends on the collaboration and participation of all affected countries.
- (d) The meeting noted that further discussions and work is required to develop methodological details of preventive control. It has not yet been possible to establish a global preventive control strategy. The meeting accepted the EMPRES proposal as a basis for formulating a preventive control project.
- (e) FAO should be the lead coordinator in preventive control programmes. Structures that already exist in affected countries need to be strengthened. Any approach to preventive control should be adapted to the particular area or region.

57. A Group of donors proposed that a consultative group composed of donors, affected countries and FAO be established which would examine research, strategies, emergency intervention and coordination issues and asked FAO to initiate an economic study that could be the basis for control justification. This study should address (i) the economic consequences of plagues, (ii) the economic and environmental costs including bilateral and multilateral funding and (iii) the appropriateness of current technologies for locust control.

58. After consultation with donors (ADB, Germany, Netherlands, USA, EU, Canada, France, Japan and Norway) and affected countries (Algeria, Benin, Egypt, Pakistan and Sudan) in a special working group, the establishment of a consultative group was considered premature. The donors would further discuss the mandate of this group in relation to that of the Technical Group and would consider the modality of selecting members from affected countries.

59. The Secretariat assured the meeting that FAO is committed to continue the consultative process with donors and affected countries as part of the EMPRES programme.

13. EMERGENCY PREVENTION SYSTEM (EMPRES) FOR DESERT LOCUST

60. The FAO Secretariat outlined which preparatory steps have already been taken for formulating a framework of EMPRES. The Director-General of FAO created the EMPRES programme which was approved by the Council in May 1994 and initial priorities were assigned to locusts and rinderpest. An FAO document entitled "Desert Locust Control - A Concept Paper" elaborating on the rationale for establishing EMPRES and its objective, had been prepared and distributed to all DLCC countries.

61. A team of three FAO consultants analysed the problems associated with Desert Locust control and proposed a framework for an EMPRES programme in the Central Region. The concept of EMPRES as well as the proposal by the team had been previously discussed with donors, and also with affected countries in the Central Region and with representatives of other Regions during

a workshop in Cairo; it was also discussed during the last meeting of the Near East Commission and the North-West Africa Commission.

62. The meeting expressed appreciation to the Director-General of FAO for initiating the EMPRES programme. There was general agreement from the locust affected countries to base the locust component of EMPRES on the developed framework. However, it was emphasised that EMPRES should also pay attention to the Western and Eastern Regions of the Desert Locust distribution area. The FAO Secretariat noted that limited FAO EMPRES funds have also been allocated for these regions. The Programme should not establish new structures but should strengthen existing national locust services. Priority needs to be given to monitoring and survey operations but account should at the same time be taken of the existing structures in the Region..

63. The meeting agreed with the objectives of EMPRES but emphasised that the aspect of economic justification would need to be considered. The meeting recommended FAO to urgently undertake such an economic assessment. FAO indicated that it has already initiated such studies, but that support from all parties is required for the conclusion of such a study.

64. There was a general agreement that the detailed design of the locust component of EMPRES needs further discussion. However, this discussion should not delay the start of EMPRES activities in the Central Region. The Technical Group would meet in March to further discuss the implementation of EMPRES and its extension to other regions outside of the Central Region. For this occasion the Technical Group would invite additional donor representatives to participate in its deliberations to ensure wide support for future action.

14. RESEARCH ACTIVITIES

65. The meeting noted the recent progress made in certain areas of Desert Locust research. This includes attempts to find alternative pesticides (to replace dieldrin). which could be used for barrier treatments, but would be safer and less hazardous to the environment. France mentioned that there is a new pesticide (Fipronil) which has been tested on the Desert Locust and initial evidence suggests that it could be used as a barrier treatment without presenting the inconveniences which resulted from the use of dieldrin.

66. Further research is required in the operational use of satellite imagery for vegetation detection, environmentally safe pesticides and application techniques for locust control. It is important that research findings reach the end user. The Committee emphasised the importance of operational research and recommended that it be encouraged.

15. ENVIRONMENTAL ASPECTS OF DESERT LOCUST CONTROL

67. During the past four years FAO, through the Locustox project in Senegal, has been examining the effects of pesticides used in Desert Locust control on the environment and on human health. Project results will be made available under the FAO Desert Locust Guideline series.

68. Morocco had established a national unit for environmental monitoring; Mauritania, in cooperation with the Locustox project, has recently decided to do so.

69. The meeting encouraged the establishment of similar projects in other regions in order to increase the knowledge of the effects of pesticide usage as well as to train national staff in the proper and safe use of pesticides.

16. OBSOLETE AND EXPIRED PESTICIDES

70. There are old and poorly stored stocks of pesticide remaining from the 1986-89 plague dispersed throughout affected countries. Most of these stocks are obsolete and some consist of organo-chlorine pesticides which are no longer used in Desert Locust control. FAO has examined the various options to reduce these stocks. The response from some donors was generous. FAO, with funds from the Netherlands implemented a project to dispose of obsolete pesticides. However,

71. The meeting recommended that the current problem should not be exacerbated by unnecessary accumulation of pesticide stocks. The meeting recommended that FAO, the donors and affected countries initiate further collaborative efforts to solve this problem and to grant priority to the problem where it is acute.

17. TRAINING AND OTHER ACTIVITIES

72. The Secretariat reviewed the training and other activities that have occurred since the last session:

- national and regional level training as well as individual training at Headquarters including several workshops and seminars on specific issues.
- the Committee noted that a Workshop on survey and ULV control methods is scheduled to take place in Morocco in May 1995.
- FAO has produced a series of Guidelines covering locust biology, survey, information and forecasting, control and campaign organization. These will be translated into French and Arabic and distributed to affected countries and donors. FAO has also prepared an atlas of Desert Locust habitats as well as a Desert Locust Research Register.
- FAO is continuing its efforts to improve the quality and transmission of the monthly Desert Locust Bulletin by using facsimile and e-mail technologies.
- a 24 hour reporting hot-line has been established at Headquarters that operates 24 hours a day; one for English speakers (522-52420); one for French (522-54578) and one for Arab speakers (522-54021).

73. The DLCC recommended the adoption of a standardised survey and control reporting form to be used by all affected countries for transmission of data to FAO Headquarters (Appendix VII).

74. The meeting noted that training is also being provided by a number of donors on a bilateral basis. The DLCC noted with satisfaction that France has introduced a masters degree programme in locust management.

75. The session requested FAO to continue to organize training, particularly a special course on the use of satellite imagery for locust survey and control operations.

76. The Committee approved the granting of a longterm fellowship for the Eastern Region from Trust Fund 9161.

18. STATUS OF REGIONAL DESERT LOCUST COMMISSIONS AND ORGANIZATIONS AND STATUS OF RECOMMENDATIONS

77. The **North-West Africa Commission** met in Algiers in October 1992 and in Tripoli in October 1994. The Executive Committee held a meeting in Agadir in October 1993. The following priorities were identified: (1) Desert Locust situation in Mauritania and measures to be undertaken to limit its extension, (2) mobilisation of funds for the projects submitted regarding preventive control, automatic weather stations and research, and (3) strengthening of national locust services, particularly through training and equipment.

78. A summary of the conclusions and recommendations of the 19th and 20th sessions of the **Near East Commission** was presented. Information exchange, training and research were identified as main areas of concern to the Commission and progress in such areas was reported. The Desert Locust component of the EMPRES programme as well as the report of the 1994 Cairo special workshop on its implementation in the Central Region were endorsed by the Commission. It has been proposed to amend the founding agreement of the Commission which would allow other Central Region countries access to membership.

79. The main activities of the **South-West Asia Commission** concentrated on joint border surveys between Iran and Pakistan and special surveys in the summer breeding areas of India and Pakistan, national and regional training courses, and strengthening of Member Countries' survey and control capabilities. Recommendations made at the last session of the Commission concentrated on further strengthening of the Commission itself as well as Member Countries. The status of these recommendations will be reviewed during the first session of the Executive Committee to be held in Rome from 23-25 January 1995.

80. The meeting stressed that FAO should make every effort to continue the strengthening of the South-West Asia Commission including the assignment of a Secretariat.

81. The Director of **DLCO-EA** communicated to the FAO Secretariat his regret for not being able to attend the meeting. Unfortunately his report was not received in time to be distributed to the participants of the meeting.

82. **OCLALAV** has established a Sahelian Task Force (in accordance with the Resolution of the OCLALAV Council of Ministers - 1993) which is presently supported by Canada. In 1994, aerial and ground surveys were undertaken in Mauritania and Senegal where nine national teams, three Sahelian teams and two survey/control aircraft were operating. OCLALAV also combined training and research activities in collaboration with the Locustox project and with PRIFAS.

83. Although **IRLCO-CSA** is mainly responsible for Red Locust, the Organization has a vested interest in the effective management of locusts in general. The IRLCO-CSA also controls other locust species in its Member Countries, primarily the African Migratory Locust and the Brown Locust. The main strategy of the Organization since its inception in 1949 is preventive control. The organization carries out national training and research in order to improve its operational capabilities. The organization maintains a fleet of aircraft at its headquarters in Zambia. Additional countries have shown interest in joining IRLCO-CSA and efforts are in progress to finalise these arrangements. Member countries are making their best efforts to meet their financial commitments to the organization.

84. Donors were requested to examine those project proposals that have been prepared by regional organizations for possible support.

85. The Committee noted the fruitful cooperation which exists between OCLALAV and CLCPANO and the intention of these two organizations and their member countries to strengthen collaboration. FAO welcomed a proposal to organise a joint meeting (which it will finance and organize) of the countries of West Africa and North West Africa in order to define a common control strategy and at the same time examine the restructurisation of the existing organisms in this region.

19. INTERNATIONAL TRUST FUND 9161: CONTRIBUTIONS, EXPENDITURES AND WORKPLAN FOR 95/96

86. The Secretariat presented a statement on the annual budget and accounts for the period 1992-1994 (Appendix VIII) and a proposed workplan for 1995/96 (Appendix IX) which was adopted unanimously by the meeting.

87. The meeting suggested that donors might eventually consider making regular contributions either as part of the existing Trust Fund or in a separate trust fund. The Committee requested the member countries to pay as soon as possible their outstanding contributions to the Trust Fund. The meeting recommended that FAO strengthen its support to Regional Organizations for training and information.

20. OTHER BUSINESS

88. The Secretariat presented a brief overview on the newly developed geographic information system (SWARMS) at FAO Headquarters. This system will be used to better manage locust and environmental data from the field and is expected to enhance the ability of

FAO locust forecasters to analyse locust and weather data. In this way the Organization should be able to provide improved forecasts and warnings to affected countries and donors. It was emphasised that the system relies on detailed survey reports that must be quickly transmitted to FAO from affected countries. As telecommunication facilities improve, SWARMS could be part of a larger network of information exchange between affected countries and FAO.

21. DATE AND PLACE OF THE NEXT SESSION

89. The Committee agreed that the next session of the DLCC would be held at FAO Headquarters in Rome at a date to be determined by the Director-General of FAO. If the locust situation warrants it, the next session should be held in 1996; otherwise, future sessions of the DLCC should be held every two years.

22. ADOPTION

90. Following discussions, the report of the 33rd session was adopted by the session.

23. ACKNOWLEDGEMENTS

91. The participants thanked FAO for the excellent organisation of the 33rd Session and expressed their satisfaction with the documents presented and the worthwhile discussions which took place.

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DESERT LOCUST CONTROL MEASURES

Since the beginning of the Desert Locust upsurge in late 1992 to the end of December 1994, a total of 4,053,256 ha have been treated in the following countries:

Saudi Arabia	1,705,992
Mauritania	910,487
Pakistan	316,979
India	311,372
Sudan	281,065
Senegal	253,074
Yemen	156,650
Morocco	41,337
Eritrea	27,570
Egypt	20,400
Algeria	15,694
Oman	10,900
Ethiopia	800
Somalia	300
Guinea Conakry	232
Niger	217
Guinea Bissau	70
I.R. Iran	55
Chad	47
Cape Verde	30
Gambia	15

Despite overall success of control measures there is a continuing need to improve the existing application methods and associated safety measures to minimise potential adverse environmental and human safety risks.

A recent review of the responses to the recent upsurge has indicated that improved monitoring of pesticide for safety and effectiveness and more detailed campaign reports should be regarded as a priority.

Locust survey and control potential - West Africa, North-West Africa and Eastern Africa

Description	Pesticides											HA COVERAGE (1,000)				Vehicles																
	ULV (1,000 litres)											EC (1,000 l.)				Dust (1,000 kg)				Bait (kg)	2-Wheel drive	4-Wheel drive	2 Ton trucks	5 Ton trucks	Umogs	TOTAL						
	Bendiocarb 20%	Chlorpyrifos 45%	Chlorpyrifos 25%	Delamethrin 25%	Delamethrin 12.5%	Diazinon 90%	Fenitrothion 100%	Fenitrothion 96%	Fenitrothion 50%	Karate 4%	Malathion 96%	Others	TOTAL ULV	Diazinon 60%	Fenitrothion 50%	TOTAL EC (with others)	Bendiocarb 1%	Propoxur 2%	TOTAL DUST (with others)													
Country																																
Burkina F.																																
Chad						2.0																										
Mali																																
Mauritania																																
Niger																																
Senegal																																
Algeria																																
Lybia																																
Morocco																																
Tunisia																																
Djibouti																																
Eritrea																																
Ethiopia																																
Kenya																																
Sudan																																
Tanzania																																
Uganda																																
DLCO-EA																																

(cf. Near - East table)

Locust survey and control potential - West Africa, North-West Africa and Eastern Africa

Description	Radios				GPS	ULV Sprayers				Aircraft			Personnel							
	mobile		fixed			Aircraft mounted	Vehicle mounted	ENS	Knapsack	Hand-held	non-ULV sprayers	Survey	Survey + Control	Helicopter	TOTAL	Technical	Non-technical	TOTAL		
	Codan	Icom	Pyc	Yaesu															others	TOTAL MOBILE
<u>Country</u>																				
Burkina F.																				
Chad	29					3	3	35	1			9	1	1500				9	48	57
Mali																				
Mauritania																				
Niger																				
Senegal																				
Algeria																				
Lybia	30		7					37	30	15	45	5	40	50	100	15	available if necessary	30	50	80
Morocco																				
Tunisia																				
Djibouti																				
Eritrea																				
Ethiopia																				
Kenya																				
Sudan																				
Tanzania																				
Uganda																				
DLCO-EA																				

(cf. Near - East table)

Locust survey and control potential - Near East & South-West Asia

Description	Radios						GPS	ULV Sprayers				Aircraft			Personnel							
	mobile			fixed				Aircraft mounted	Vehicle mounted	ENS	Hand-held	non-ULV sprayers	Survey	Survey + Control	Helicopter	TOTAL	Technical	Non-technical	TOTAL			
	Codan	Icom	Pyc	Yacsu	others	TOTAL MOBILE														Codan	Icom	Pyc
Country																						
Bahrain																						
Egypt	2						3	3	24			30	2	30	1500				183	681	864	
Iraq												16	2	13	49	78	1021	3			17	17
Jordan												4	2	5	30				24	112	136	2
Kuwait	2												2	1	20			18	30	35	65	
Lebanon													2									
Oman												2	>2	18	4	60	72			29	50	79
Qatar													2	8	17	53			18	43	61	
Saudi Ar.													2	30	150				100	200	300	
Sudan	1	9	60				4	15	18			37	>2	12	60	87	369	1910	400	2000	2400	
Syria	14	6	6					16				16	2	139	18	31	2300	1271	69	138	207	
UAE													2		14	30			30	41		
Yemen												36	>2	11	7		16		36	16	52	
Afghanistan																						
India																						
Iran																						
Pakistan	11											41	10	23	55		2215		364	76	540	

APPENDIX IV

ASSISTANCE PROVIDED TO COUNTRIES AND REGIONAL ORGANIZATIONS

Details of assistance provided through FAO and FAO donor funded projects are set out hereunder. The estimated cost of assistance provided under these projects was approximately US\$ 21 million.

I. FAO - ECLO Projects for the Desert Locust Emergency in 1993/1994 (list)

<u>Recipient</u>	<u>Project Symbol</u>	<u>Budget in US\$</u>
<u>Eastern Africa</u>		
Inter-regional	ECLO/INT/030/SWE	914,913
Eritrea, Ethiopia	ECLO/RAF/031/USA	1,000,000
Ethiopia	ECLO/ETH/030/SWE	177,582
Sudan	ECLO/SUD/030/UK	143,500
Sudan	ECLO/SUD/031/USA	472,000 ¹
Sudan	ECLO/SUD/032/IFA	284,495
Sudan	ECLO/SUD/033/NET	239,200
Sudan	ECLO/SUD/034/EEC	130,120
Sudan	ECLO/SUD/035/SWE	121,692
SUB-TOTAL		3,483,502
<u>Near East</u>		
Yemen	ECLO/YEM/030/USA	275,000
SUB-TOTAL		275,000
<u>North & West Africa</u>		
Africa	ECLO/RAF/032/USA	1,400,000
Africa, Asia	GCP/RAF/189/JPN ²	390,295
Inter-regional	ECLO/INT/031/UK	1,802,680
Inter-regional	ECLO/INT/034/FRA	153,717
Inter-regional	ECLO/INT/006/FRA	267,894
Inter-regional	ECLO/INT/033/NET	971,588
Inter-regional	GCP/INT/603/USA	240,000 ³
Inter-regional	ECLO/INT/036/USA	288,000 ⁴
North-West Africa	ECLO/RAF/037/OPF	200,000
North-West Africa	ECLO/INT/035/AFB	1,000,000 ⁵
Senegal, Mauritania	ECLO/RAF/033/CAN	382,791
Senegal, Mauritania	ECLO/RAF/034/NOR	133,067
Senegal	GCP/SEN/041/NET	3,359,280 ⁶
West Africa	ECLO/RAF/035/EEC	853,933
West Africa	ECLO/RAF/036/LUX	280,000
SUB-TOTAL		11,723,245

¹ Initial budget was US\$ 760,000. In December 1994 the Donor agreed to use balance left in the project of US\$ 288,000 for other countries in the region. This amount was then transferred to project ECLO/INT/036/USA (see above).

² Including US\$ 100,000 for 1995 (allocation for ECLO activities only)

³ Including Eastern Africa

⁴ See footnote no. 1

⁵ Approved in December 1994

⁶ Approved in September 1994

~~Regional Asia/West~~
Africa

ECLO/RAS/030/USA

750,000

SUB-TOTAL

750,000

FAO Headquarters

ECLO

ECLO/INT/032/USA

150,000

ECLO

GCP/RAF/579/FRA

418,000

SUB-TOTAL

568,000

SUB-TOTAL ECLO PROJECTS (28)

16,799,747

SUB-TOTAL TCP PROJECTS (24)

4,433,000

GRAND-TOTAL

21,232,747
=====

Bilateral assistance was estimated by FAO to be approximately \$US30 million.

II.

TCP PROJECTS FOR DESERT LOCUST EMERGENCY IN 1993/94

<u>North Africa</u>	<u>Project Symbol</u>	<u>Budget in US\$</u>
Algeria	TCP/ALG/2357	150,000
Morocco	TCP/MOR/2355	300,000
<u>West Africa</u>		
Chad	TCP/CHD/2354	70,000
Gambia	TCP/GAM/4451	60,000
Mali	TCP/MLI/1358	100,000
Mauritania	TCP/MAU/1354	300,000
	TCP/MAU/2357	300,000
	TCP/MAU/4451	290,000
Niger	TCP/NER/2356	100,000
Senegal	TCP/SEN/2354	350,000
	TCP/SEN/4451	400,000
<u>Eastern Africa</u>		
Djibouti	TCP/DJI/2351	57,000
Ethiopia	TCP/ETH/4454 (Armyworm)	250,000
Eritrea	TCP/ERI/4453	125,000
	TCP/RAF/2372	190,000
	TCP/RAF/2375	300,000
Namibia	TCP/NAM/2252	86,000
Somalia	TCP/SOM/2359	50,000
Sudan	TCP/SUD/1358	170,000
Tanzania	TCP/URT/4451 (Red Loc.)	193,000
<u>Near East</u>		
Yemen	TCP/YEM/1355	312,000
	TCP/YEM/4452	80,000
<u>Asia</u>		
India	TCP/IND/2359	100,000
Pakistan	TCP/PAK/2358	100,000
	-----	-----
TOTAL	24 Projects	4,433,000

DESERT LOCUST TECHNICAL GROUP**Third Session****Rome, Italy, 11-13 January 1995****REPORT****1) Opening of the Session**

The session was opened by Mr. Van der Graaff, Chief, Plant Protection Service, who welcomed the members of the Group. He underlined the importance of the proposed agenda and stressed the need to deal with some of the agenda items in great detail.

He underscored the role of the Technical Group and the mandate entrusted to it by the DLCC, and wished the Group every success in its deliberations.

The outgoing Chairman, Mr. Y. Ashour, also extended a warm welcome to the participants and invited them to put forward concrete proposals for the subsequent 33rd Session of the DLCC, which was particularly important in view of the substantive nature of its proposed agenda.

2) Election of Chairman and Vice-Chairman

Mr. M. Shafi was elected Chairman and Mr. L. Soumaré Vice-Chairman. FAO provided the Secretariat services.

The following persons participated:

Members: Y. Ashour
T. Benhalima
L. Soumaré
M. Shafi
A. Karrar (with apologies for absence)

FAO officials: N.A. Van der Graaff
A. Hafraoui
H. Niggemann
M. de Montaigne
K. Cressman
B. Zelazny
M. Mahjoub
M. Taher

3) Adoption of the Agenda

The following agenda was adopted:

1. Opening of the Session
2. Election of Chairman and Vice-Chairman
3. Adoption of the Agenda
4. Election of the Drafting Committee
5. Review of the information system
6. Existing control potential
7. Follow-up to recommendations of the 32nd Session of the DLCC
8. Preventive control strategies (EMPRES, reorganization of the Desert Locust control regional structures)
9. Desert Locust research activities

10. Environmental aspects of Desert Locust control
11. Obsolete pesticides
12. Training
13. Trust Fund 9161: contributions, expenditures, plan of work 95/96
14. Agenda of the 33rd Session of the DLCC
15. Criteria for Technical Group membership
16. Matters to be examined at the next Technical Group session
17. Date and place of the next session
18. Adoption of the report

4) Election of the Drafting Committee

The Drafting Committee was made up of Mr. Ben Halima, Mr. Soumaré and the Secretariat.

5) Review of the Desert Locust information and forecasting system

This item was introduced by the Secretariat, which emphasized the importance of information for reliable forecasting.

With a view to harmonizing and simplifying information gathering and transmittal, the Secretariat presented a summary table of all the required field information and suggested that the same format be used by all countries.

The Technical Group examined and refined the table, which will be submitted to the DLCC for adoption.

However, the Group stressed that if individual countries are to be able to gather and relay information properly, national Desert Locust control structures need to be sufficiently staffed and resourced, and able to employ new technologies that will enhance information quality.

6) Existing control potential

The Group felt that detailed inventories of available means should be resumed in individual countries and organizations so that FAO could assess the control potential more accurately, at least once a year, and put this potential to better use. The Secretariat would ask the DLCC member countries to send the appropriate data to Rome.

7) Follow-up to the recommendations of the 32nd Session of the DLCC

The Technical Group welcomed the manner in which this agenda item had been presented.

The Group noted that most of the recommendations had been put into effect. It also learnt of the Secretariat's difficulties in implementing some of the recommendations and urged perseverance.

8) Preventive control strategies (Emergency Prevention System (EMPRES) for Transboundary Animal and Plant Pests and Diseases, reorganization of the Desert Locust control regional structures)

Following examination of the documents¹ presented by the Secretariat on the EMPRES programme and its six objectives, the Technical Group stressed the relevance of establishing a preventive control strategy in the Central Region. It indicated, however, that this strategy should be rapidly extended to the two other regions affected by the Desert Locust.

The Technical Group noted that the documents in question amounted to a general programme that needed to be urgently broken down into a plan of work for effective preventive control in the Central Region.

¹ Background paper, Resolution of the 106th Session of the FAO Council, Report of formulation mission I and II, Donor meeting, Report of Cairo Workshop

It also indicated that the programme's administrative structures needed to be as light and transparent as possible, and should be based on existing capacities.

The Technical Group was pleased to note that FAO would provide financial assistance for this programme and hoped that sufficient additional financial support would be forthcoming from donors and the countries concerned.

The Technical Group called for a review of the organization of the structures coordinating and implementing Desert Locust control so that realization of the global preventive control strategy could be facilitated.

9) Research activities

The Technical Group was informed of the various research activities under way in the different regions.

In this connection, it noted:

- a wide dispersal of effort
- a duplication of research
- a lack of coordination among the various partners
- research in non-priority topic areas

While in favour of promoting Desert Locust research at all times, the Technical Group suggested that FAO should resume responsibility for coordinating research efforts, closely involving the countries and regional commissions and organizations.

It also proposed that the field research stations be revitalized to ensure their continuity.

10) Environmental aspects of Desert Locust control

The Group reviewed current studies on assessing the risks to human health and the environment of using pesticides for Desert Locust control, focusing particularly on the studies carried out under the Locustox project in Senegal.

Given that research findings cannot be extrapolated, the Technical Group suggested that similar studies be conducted in other affected countries and regions.

It also proposed that training in environmental protection and safe pesticide use be stepped up.

11) Obsolete pesticides

The Technical Group again concluded that the problem of obsolete pesticides posed a serious threat to the environment and human health. It suggested that the DLCC reiterated the recommendation it had made on this subject at its 32nd Session (Chapter XIV, para. 70 to 76).

Given the considerable importance attached by countries to this matter, the Technical Group suggested that the attention of FAO's governing bodies be drawn to this serious problem.

12) Training

The Technical Group noted that the two fellowships under Trust Fund 9161 for the Western and Central Regions had not been used. It requested that these be awarded for the 1995-1996 academic year.

It also suggested that a third fellowship be made available for the Eastern Region of the Desert Locust invasion area for the same period.

The Technical Group called for the organization of inter-regional and specific training courses.

13) Trust Fund 9161: contributions, expenditures, plan of work 95/96

PLAN OF WORK 95/96

Budgetary proposal for the year 95/96 for examination by the DLCC Technical Group.

Based on approval of an annual budget of US\$ 206 000 and a current balance of US\$ 518 000, the following plan of work and budget is envisaged for the year 95/96:

	Budget 95 US\$	Budget 96 US\$
1) 3 fellowships starting summer 95	30 000	75 000
3 fellowships 96		
2) Publication and distribution of The Desert Locust Bulletin	20 000	20 000
Financial assistance to regional commissions/and organizations for fax		
3) Translation/publication of Desert Locust Guidelines	10 000	
4) Desert Locust surveys in core areas	40 000	35 000
5) Cost of DLCC 95 meeting	20 000	
6) Training	20 000	10 000
7) DLCC 95/96 Technical Group	15 000	25 000
8) Expert technical meetings	15 000	15 000
9) Non-allocated balance	10 000	
	-----	-----
Total	180 000	180 000
FAO service costs 13%	23 400	23 400
	-----	-----
	203 400	203 400
Non-allocated balance	2 600	2 600
	-----	-----
Total budget	206 000	206 000
9) Reserve fund (emergency)		100 000

N.B.

- 1) The above budget is based on the present annual budget approved by the Committee amounting to US\$ 206 000. Implementation of the budget is conditional upon the money being available in the Trust Fund. The present sum of US\$ 518 000 is sufficient to cover the budget for 95 and 96, including a reserve appropriation of US\$ 100 000 exclusively for emergency situations.
- 2) Further contributions should be received during the course of 95/96, to add to the sum currently available. The Committee should therefore charge the FAO Secretariat to increase budget expenditure to reflect incremental sums received. Additional funds should be used in the following areas, in descending order of priority:
 - 1 - Technical assistance (consultations)
 - 2 - Control and survey equipment

14) Criteria for Technical Group membership

After discussion and examination of its mandate as determined by the DLCC, the Technical Group proposed the following amendments:

- 1) That Group members be chosen on the basis of individual ability and expertise.
- 2) That membership be as geographically representative as possible.
- 3) That the regional commissions and organizations be associated with the Technical Group as observers.
- 4) That the Technical Group be permanent unless the DLCC considers that its membership needs to be modified.

15) Agenda of the 33rd Session of the DLCC

The following agenda was agreed:

- 1) Opening of the Session
- 2) Election of Chairman and Vice-Chairman
- 3) Adoption of the Agenda
- 4) Election of the Drafting Committee
- 5) The Desert Locust situation from October 1992 to January 1995
 - (a) The Desert Locust
 - (b) Other species
- 6) Control measures
- 7) Examination of existing control potential
- 8) Assistance provided to countries and regional organizations
- 9) Reports of the Desert Locust Technical Group
- 10) Follow-up to the recommendations of the 32nd Session
- 11) Emergency Prevention System (EMPRES) for the Desert Locust
- 12) Preventive control strategy
- 13) Research activities
- 14) Environmental aspects of Desert Locust control
- 15) Obsolete and expired pesticides
- 16) Training
- 17) Status of regional locust commissions and organizations, and recommendation follow-up
 - (a) Near East Commission
 - (b) Northwest Africa Commission
 - (c) Southwest Asia Commission
 - (d) DLCO-EA
 - (e) OCLALAV
 - (f) IRLCO-CSA
- 18) Trust Fund 9161: contributions, expenditures and plan of work 1995-1996
- 19) Any other business
- 20) Date and place of next session
- 21) Adoption of report

16) Matters to be examined at the next Technical Group session

The Technical Group would like to use its meeting time to look closely into certain features of the Desert Locust problem as suggested by the DLCC, the Secretariat or determined by itself.

The Technical Group suggests that the following topic areas be examined at its next meeting:

- Strategy
- Reorganization of regional structures
- Information

The Technical Group asks that the Secretariat provide the relevant documentation in good time.

17) Date and place of the next meeting of the Technical Group

The next Technical Group meeting will depend on the date of the next DLCC session. The Group, which is supposed to meet twice a year, requests that the Secretariat make the necessary arrangements.

18) Adoption of report

This report was adopted unanimously and will be submitted to the next session of the DLCC for appraisal and approval.

PROCEEDINGS OF THE SECOND MEETING OF THE DESERT LOCUST TECHNICAL GROUP

FAO, Rome

13-17 September 1993

1. INTRODUCTION

In accordance with the recommendations of the 32nd meeting of the FAO Desert Locust Control Committee (DLCC), the second meeting of the Desert Locust Technical Group was held at FAO Headquarters, Rome from 13-17 September 1993.

The meeting was opened by Mr Thami Benhalima, the Chairman of the first meeting of the Technical Group, who welcomed all those present.

Mr N. Van der Graaff, Chief, Plant Protection Service, welcomed the participants on behalf of the Director-General of FAO and drew their attention to the seriousness of the current Desert Locust situation. He also emphasised the importance of the agenda items for this meeting and invited the participants to examine thoroughly the Desert Locust problem in order to formulate proposals for medium and long-term strategies.

Participants

The following persons attended this meeting:

- Members: Y. Ashour. (Saudi Arabia)
T. Benhalima (Morocco)
A.M. Karrar (DLCO-EA)
L. Soumaré (OCLALAV)
M. Shafi (Pakistan) (with apologies for absence)
- FAO officials: N.A. Van der Graaff
A. Hafraoui
H. Niggemann
M. de Montaigne
B. Zelazny
N. Mahjoub
M. Taher
L. McCulloch (FAO Consultant)
- Observer: T. Abate (SAC)

II. AGENDA

The following agenda was adopted:

1. Opening Statement (FAO)
2. Election of officers
3. Desert Locust situation and outlook
4. Emergency Actions taken by FAO
5. Assistance provided
6. Strategies for longer term Desert Locust Control
 - (a) West Africa/North-West Africa
 - (b) Central Region
 - (c) DLCC Donor Trust Fund
7. Desert Locust Training
 - (a) General
 - (b) Proposals
 - (c) Funding
8. Desert Locust Research
 - (a) General
 - (b) Research Planning
 - (c) Research funding
9. Obsolete and expired pesticides
10. Environmental Matters
11. Preparation of agenda for DLCC
12. Other Matters arising from 32nd Session of DLCC
13. Any other Business
14. Date and place of next meeting

III. ELECTION OF OFFICERS

Mr Yacoub Ashour was elected Chairman of the meeting of the Technical Group. FAO provided the Secretariat services. The Drafting Committee comprised all the members present at the meeting.

IV. SUMMARY OF DISCUSSIONS

1. Desert Locust Situation and Outlook

The Secretariat presented a summary on the present Desert Locust situation, which all the participants considered to be of great concern.

There were still substantial infestations of Desert Locust in the summer breeding areas in Pakistan and India. Despite large-scale ground and aerial control operations, many late instar hopper bands and

immature swarms were an increasing threat to crops in the Punjab and Sind provinces of Pakistan and in the districts of Jaisalmer, Bikaner and Barmer of Rajasthan in India.

Due to the favourable ecological conditions, some of these swarms were expected to breed at the end of September in the areas that are still green while others might move in the coming weeks towards the winter-spring breeding areas of Baluchistan in Pakistan, and in Iran, and perhaps to other such areas in the Arabian Peninsula.

In Mauritania, late instar hopper bands present between Kiffa and Tidjikja had already begun to form immature swarms. These swarms would probably move west and northwest, to Brakna and Trarza and towards the north of the country where the ecological conditions were improving following the recent rains. A few swarms might reach southwestern Morocco. It was also possible that there were outbreaks in other areas that had not yet been surveyed.

Ground control operations were continuing, and aerial control operations were expected to begin soon.

In Niger and Mali, the ecological conditions seemed to be unfavourable in the breeding areas except those lying to the south and southeast of Ménaka (Mali) and between Tahoua, Tassara and In-Gall (Niger).

In Chad, the situation was apparently calm.

In Sudan, late instar hopper bands had been found in northern Kordofan. Others were probably present in North Darfur. Although ground and aerial control operations were currently taking place, swarms might move eastwards to the winter-spring breeding areas, along the Red Sea Coast.

In Somalia, Eritrea and in Ethiopia, the Desert Locust situation was not fully understood and needed to be better evaluated, not only in view of immediate intervention but also with regard to the general development of the situation in the region during the coming months.

In other regions in the invasion area, the Desert Locust situation seemed to be calm

The Technical Group was concerned about the worsening Desert Locust situation despite the measures adopted at various levels. It attributed this worsening situation to the inadequacy, if not to the total lack of information received from the field. The reasons for this were:

- inadequate survey facilities;
- impossibility of access to certain areas where the Desert Locust is active;
- inadequate means of communication;
- difficulties encountered by consultants in accomplishing their work properly because of the lack of the foregoing facilities.

In order to overcome these inadequacies, the Technical Group recommended strengthening the national and regional structures responsible for controlling the Desert Locust (cf. control strategies).

2. Emergency measures taken by FAO

Since the resurgence of Desert Locust activities at the end of 1992, FAO had taken a number of emergency measures of which the main ones have been:

- The re-establishment by the Director-General of FAO of the Emergency Centre for Locust Operation (ECLO);
- A briefing meeting held on 14 January 1993 for the countries in the Central Region to draw up a plan of work;

- Donor meetings held on 1 March 1993 and 23 July 1993;
- Appeal of the Director-General of FAO to the international donor community;
- Press releases to inform international public opinion;
- Implementation of TCP projects (Eritrea, Ethiopia, Mali, Mauritania, Niger, Pakistan, India, Somalia, Sudan, Chad and Yemen);
- Participation and support for operations conducted within the framework of bilateral aid;
- Implementation of regional and inter-regional projects to establish greater flexibility of the resources supplied by these projects;
- An *ad hoc* technical meeting in Tunis for the countries of the Sahel and the Maghreb to draw up emergency and medium-term plans of action;
- Strengthening OF ECLO's administrative personnel.

The following points emerged from the discussion on this issue:

- The technical group noted that despite the importance of these measures taken by FAO, not only had the Desert Locust situation not been brought under control but it was continuing to develop dangerously. It felt that this was due to:
 - a lack of accurate information on the scale of the infestations and delays in transmitting the information; this had caused chronic time lag between the survey operations and the control operations;
 - control measures were being implemented partially and not comprehensively (lack of fuel or per diem, etc.);
 - financing systems were slow;
 - the affected countries did not express their needs realistically.

In the light of the foregoing, the Technical Group deemed that it was necessary to deal with the locust problem comprehensively, considering all the aspects that contribute towards keeping the locust populations at a low level (survey, circulating information, control measures, training, research, protecting the environment, etc.).

3. Aid supplied

The Technical Group was briefed on the renewed interest on the part of donors, which at FAO's request had mobilised substantial funds (US\$ 7 million) to deal with this new outbreak. In the same context, FAO had financed numerous TCP projects under its Regular Programme.

It was emphasised that donors attribute importance to the rapid and flexible use of funds. Donors have also expressed their interest in financing preventive control strategies.

The Technical Group expressed its satisfaction with the substantial funds received and the new attitude of the donors towards this strategy. It urged that everything be done in order to ensure that the field operations were carried through with due diligence.

In order to meet this need, one of the solutions mentioned was to set up "banks" of control facilities (pesticides, flying hours, equipment...).

4. Long term control strategies

The Secretariat recalled the various phases in the Desert Locust Preventive Control Project for West and Northwest Africa and the difficulties encountered in obtaining funding.

Following the present upsurge which started in the Central Region and in view of the role which this Region has always played in the spread of locust plagues, donors were particularly interested in setting up a preventive control project in this region.

The Technical Group believed this approach on the part of the donors to be positive. However, because of the interdependent nature of the breeding areas in the three regions making up the Desert Locust-invasion area (the eastern, central and western regions), the Technical Group felt that the most durable solution to the Desert Locust problem was to carry out preventive operations in all three regions. This made it necessary to design a comprehensive programme comprising regional projects that take account of specific features of each region.

In view of the complexity of this task, it was to be hoped that this programme would be accomplished within the framework of a consultancy. The document would then be submitted to the Technical Group for its appraisal.

Once adopted by the DLCC, this programme would be executed in terms of priorities and financial availability.

To ensure appropriate and ongoing financing, the Technical Group supported the idea of setting up a trust fund of donors and other Member States of the DLCC specifically to control the Desert Locust.

5. Training

The Secretariat recalled the various short-term training activities carried out by FAO over the past two years and those scheduled for the future (projects, GCP/INT/517/BEL; GCP/RAF/189/JPN).

Within the framework of the DLCC recommendations regarding training, FAO briefed the meeting on the measures adopted to identify the countries' training requirements.

The Technical Group noted that because this meeting had been postponed, it had not been possible to implement the recommendation of the 32nd meeting of the DLCC relating to the provision of high-level fellowships from 1993 onwards, to be funded from the Trust Fund 9161.

The Group requested FAO to finance two fellowships from this trust fund, one for the Western region and one for the Central region by 1994 at the latest. It proposed providing a third fellowship out of the same fund for the Eastern region. It should be noted that the Trust Fund 9161 must not, under any circumstances, finance more than three fellowships at the same time. The fellowships will be awarded to the various regions in accordance with the criteria to be drawn up by the Technical Group and submitted for approval to the DLCC.

6. Research

A detailed report on Desert Locust research activities was presented by the Representative of SAC and by the Secretary of SAC.

The four projects approved by SAC and currently being implemented were summarised. The financial difficulties of UNDP, which might affect the funding of other projects by this body, were also highlighted.

The SAC representatives also referred to a draft project proposal relating to the development of Desert Locust forecasting (RAMOSE).

The Technical Group asked that the draft projects for research approved by SAC be submitted to it for its appraisal before being approved by DLCC.

Senior meetings:
To incorporate more closely national and regional skills in research programmes, the Technical Group requested that these skills be surveyed and the capacities evaluated. Furthermore, the national and regional entities responsible for Desert Locust control should be regularly informed about research projects to be carried out in their areas of activity.

While taking account of the recommendations of the FAO International Workshop on Research and Planning for Desert Locust Control (Marrakech, 24-28 May 1993), the Technical Group requested that a research development plan be drafted to improve research coordination and consequently rationalise the funding allocated to these activities by various sources.

7. Obsolete pesticides

FAO informed the participants that a project for obsolete pesticides financed by the Netherlands was currently being implemented. Its objectives were:

- to draw up an inventory of obsolete pesticides in countries;
- to examine destruction methods in order to establish the most appropriate ones;
- to prevent the stockpiling of obsolete pesticides;
- to introduce pilot operations for destruction of pesticides;
- to establish a multi-donor plan for safe disposal;
- to set up a working group on obsolete pesticides;
- to contemplate reformulating expired products if necessary.

The Technical Group emphasised the relevance of a project of this kind and expressed the hope that the scheduled activities would be given priority in the regions most seriously affected by this problem.

The Technical Group hoped that the project would provide urgent solutions, such as decanting the pesticides stored in damaged drums into new high quality drums.

8. Environment

The Secretariat informed the participants on the progress made with the Locustox project and requested that the documents relating to the project and its performance be transmitted to the countries for information. The Secretariat also noted the progress made with a French project in Burkina Faso dealing with the same subject and it was considered useful to collect more detailed information on this project.

9. Agenda for the next meeting of the DLCC

The Technical Group examined the agenda for the next meeting of the DLCC and decided on the following agenda:

1. Opening of the Session
2. Election of the Chairman and Vice-Chairman
3. Adoption of the agenda
4. Election of the Drafting Committee
5. The Desert Locust situation from October 1992 to October 1994
 - (a) The Desert Locust
 - (b) Other species

6. Control measures
7. Examination of existing control potential
8. Follow-up to the recommendations of the 32nd meeting of DLCC
- 9 Assistance provided to countries and regional organizations
10. Preventive control strategy
11. Report by the Technical Group on the Desert Locust
12. Research activities
13. Environmental aspects of Desert Locust control
14. Obsolete and expired pesticides
15. Training
16. Status of regional locust commissions and organizations, and follow-up of recommendations made at their annual meetings
 - (a) Near East Commission
 - (b) Northwest Africa Commission
 - (c) Southeast Asia
 - (d) DLCO-EA
 - (e) OCLALAV
 - (f) IRLCO-CSA
17. International Trust Fund 9161: contributions and expenditures
18. Any other business
19. Date and place of the next meeting
20. Adoption of the report

The Group also suggested that FAO should examine the possibility of convening the 33rd Session of DLCC in June 1994.

10. Follow-up of the recommendations of the 32nd Session of the DLCC

Because of the heavy workload resulting from the Desert Locust resurgence the Secretariat had not been able to prepare a comprehensive document on the follow-up of the recommendations of the 32nd Session of the DLCC. The Technical Group decided to defer examination of this item to its next meeting.

11. 9161 trust fund

In accordance with the recommendation of DLCC (para 89 of the Report of the 32nd Session of the DLCC) the Secretariat prepared an outline budget for Trust Fund 9161 for the periods 1993/94 and 1994/95.

The Technical Group examined the proposed budget and made the following remarks:

- a detailed programme of work needed to be drafted for all the budget items;
- this programme had to be drafted in accordance with the terms of reference of the Trust Fund 9161;
- only two fellowships should be financed until such time as DLCC take a decision regarding the third fellowship proposed for the Eastern region.

On the one hand, the question of the contributions of the DLCC Member States which do not contribute to the Trust Fund 9161 was raised and discussed, as well as the problem of the arrears which, for some countries, date back over 10 years.

This situation is harmful to the attainment of the objectives of the fund and deterring other countries from applying to participate in the fund.

In this connection, the Technical Group requested FAO to do a study of the measures capable of remedying this situation and to report back to the next session of the DLCC.

With regard to the donors' contribution (DLCC Member States and others) to a trust fund, whether it was the 9161 fund or a parallel fund, it was agreed that a programme of work should be drawn up and submitted to the next meeting of the Technical Group, listing the permanent activities.

12. Date and place of the next meeting of the Technical Group

The Technical Group proposed holding its next meeting in Rome during the week prior to the 33rd session of the DLCC.

Vote of thanks

At the end of the meeting, the participants attending the meeting expressed their sincere thanks to FAO for all the facilities placed at their disposal, which had enabled them to hold a successful meeting.

Death of Dr. Rafik SKAF

The participants at the meeting of the Desert Locust Technical Group were saddened to hear the news of the death of Dr. Rafik SKAF, and extended their deepest sympathies to his family.

Revised mandate and composition of the Technical Group of the DLCC.

I. The revised terms of reference of the Technical Group

1. Analyse and advise on specific issues as identified by the DLCC.
2. Review and report on progress in carrying out the recommendations of the DLCC.
3. Advise the Secretariat on the agenda for future meetings of the DLCC.

II. Criteria for Technical Group Membership

1. The Technical Group members be chosen on the basis of their individual ability, expertise, and experience.
2. The membership among locust affected countries should include as wide a range of geographic experience and interest in locust issues as possible.
3. The membership of the Technical Group will be expanded by three members from the donor countries.
4. The regional commissions and organizations be associated with the Technical Group as observers.

III. Duration of the Technical Group

The Technical Group is permanent and half of its members will be changed, every two years. It is suggested as well, that the Committee convene normally once each year.

IV. Composition of the Technical Group

The Committee suggested that the Technical Group will be composed of five members from the affected countries and three donor countries.



	1	2	3	4	5	6
1. LOCATION	1-1 survey stop					
	1-2 date					
	1-3 name					
	1-4 latitude (°N)					
	1-5 longitude (°E or W)					
	1-6 area (ha)					
	1-7 topography					
2. PRESENCE	2-1 present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2-2 absent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. APPEARANCE	3-1 solitary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3-2 transients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3-3 gregarious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. BEHAVIOUR	4-1 copulating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4-2 laying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4-3 hatching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4-4 settled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4-5 flying (direction & time passing overhead)					
	4-6 flying (height & width)					
5. MATURITY	5-1 instar or fledgling (1 2 3 4 5 6 F)					
	5-2 immature adult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5-3 mature adult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. DENSITY & SIZE	6-1 hoppers/m ² or bush					
	6-2 adults/transect or ha					
	6-3 band density (Low Medium Dense) & size (m ²)					
	6-4 swarm density (Low Medium Dense) & size (km ²)					
7. ECOLOGY	7-1 date of last rain					
	7-2 rain amount (Low Moderate High)					
	7-3 vegetation (dry, greening, green, drying)					
	7-4 vegetation density (Low Medium Dense)					
	7-5 soil moisture (wet, dry)					
8. CONTROL	8-1 pesticide name & formulation					
	8-2 application rate (l/ha)					
	8-3 quantity (l)					
	8-4 area treated (ha)					
	8-5 ground or air					
	8-6 estimated % kill					
9. COMMENTS						

prepared by _____

date _____

DIRECTIONS FOR USE

When to use

This form should be used during Desert Locust recession, upsurges and plagues to report results of surveys and control operations. This form should also be used to report survey results in which no locusts were found.

How to use

The results of the first survey stop should be recorded in the first column, the second stop in the second column and so on.

Location

survey stop
date
name
latitude
longitude
area
topography

the number of the stop (1st = 1, 2nd = 2, etc)
day, month, year
local name of location or wadi (? = name unknown)
degrees, minutes, seconds (if using GPS) North
degrees, minutes, seconds (if using GPS) West or East
estimated area of survey at the survey stop in hectares (this could be based on the estimated area of green vegetation at the site)
at and near the site (mountains, sand dunes, plains, etc.)

Presence

present
absent

(check the appropriate box)
any stage of locusts are present
no locusts were seen or are present

Appearance

solitary
transients
gregarious

(check the appropriate box)
adults: brownish; hoppers: green
adults: brownish-pinkish or brownish-yellowish; hoppers: green/black
adults: pink or yellow; hoppers: black or yellow/black

Behaviour

Check the appropriate box if adults are seen copulating, laying or settled and if hoppers are seen hatching.

If adults or swarms are seen flying, note the direction they are flying FROM and TO, the time (hours, minutes) that they look to pass overhead, the estimated height of flight (in metres) and the estimated width of the swarm (in metres or km).

Maturity

instar or fledgling
immature adult
mature adult

record which instars (1,2,3,4,5,6) and fledglings (F) are present.
if brownish, brown/pinkish or pink adults are present, check box.
if brownish, brown/yellowish or yellow adults are present, check box.

Density

hoppers/m² or bush
adults/transsect or ha
band
swarm

examine at least ten samples of 1 m² each or ten bushes and record the lowest and highest number seen in one sample.
count the number of adults in a foot transect of about 250-400 m long by one metre wide (and indicate the length of the foot transect) or estimate the number of adults per hectare.
write L for low density, M for medium or H for high;
indicate the estimated size of band in m².
write L for low density, M for medium or H for high;
indicate the estimated size of swarm in km².

Ecology

date of last rain
rain amount
vegetation
vegetation density
soil moisture

day, month, year if you know the exact date; otherwise, estimate (i.e. 2 days, 3 months, etc), or ? if unknown.
number of millimeters if you know the exact amount; otherwise, estimate: write L for low (1-20 mm), M for moderate (21-50 mm), or H for heavy (50+ mm), or ? if unknown.
note if the vegetation is generally dry, becoming green, already green or becoming dry.
estimate if the general vegetation density is L for low, M for medium or D for dense.
wet = if the soil is moisture to about 10 cm; otherwise indicate dry.

Control

pesticide name
formulation
application rate
quantity
area treated
ground or air
estimated % kill

you can abbreviate, for example MAL for Malathion, FEN for fenitrothion, etc.
ULV, EC, dust or bait
the rate used per hectare
the amount of pesticide used in litres or kg.
hectares
indicate if ground or aerial control
estimate the number of locusts killed out of 100

Comments

Use this section to indicate important information that could not be written above. You could for example indicate if there were more of one type of locusts present than another type (such as more transients than solitary or more fifth instar hoppers than second). Or you could indicate if crops are present. Or you could indicate what the ecology is between survey stops. Or you could indicate unconfirmed reports from nomads, etc.

How to use this form by radio

This form can be used to transmit information by radio or telephone. You can refer to each section by the appropriate number. For example, "1-5-1 = 1,2,3" indicates that first, second and third instar hoppers were seen at survey stop number one (1 = survey stop number one, 5 = maturity section, 1 = instar or fledgling, 1,2,3 = hopper instars).

What to do with this form after completion

The information on this form should be transmitted from the field to the National headquarters by telephone or radio. The officer (or radio operator) at the National headquarters should complete this form and send it by facsimile to FAO HQ and if possible to the appropriate FAO Regional Locust Commission. The officer should keep a copy for his records.

Questions and problems

If you have any questions and problems or require additional forms, please contact the Forecasting Office at FAO Headquarters:

telephone: (39) 6-522-52420 (English/Arabic), 522-54578 (French/English)
fax: (39) 6-522-55271 (attn: Cressman / de Montaigne)

INTERNATIONAL TRUST FUND 9161

Financial Report

1. The above Trust Fund was established by the Director-General of FAO following the recommendations of the Ninth Session of the Desert Locust Control Committee. The Director-General, as Administrator of the Trust Fund, consults with the Desert Locust Control Committee which is responsible for the general policy guidance of the Trust Fund; the Committee also reviews the annual budget and receives financial reports from FAO.

Budget, Statement of Accounts for 1992, 1993 and Provision of Accounts for 1994 and 1995

2. The annual budget of the Trust Fund is shown in Appendix A, together with the final accounts for 1992 and 1993. The accounts for 1994 and 1995 are provisional.

3. The total expenditures in 1992 and 1993 remained substantially below the approved annual budget of US\$ 206,000. This is mainly due to the last Desert Locust emergency campaign during 1993 and 1994 which shifted the financial sources rather to emergency projects than to the Trust Fund of the Commission. In this context it has however to be highlighted that the Trust Fund contributed to the Desert Locust monitoring activities as a complementary funding source. Furthermore, it was often the immediate availability of the Trust Fund resources which allowed the timely implementation of the assistance which was then followed and integrated by emergency funds.

The provisional low expenditures incurred during 1994, amounting to US\$ 45,767 reflect the emphasis put on activities funded from emergency projects and the priority given to the general programme on emergency activities until mid-1994.

Consequently, the cash availability under the Trust Fund continued to increase reaching the present provisional amount of US\$ 521.553.

Budget and Accounts for 1992, 1993, 1994 and 1995(Provisional)

4. A breakdown of expenditures incurred during 1992 and 1993 and the provisional expenses until the end of January 1995 are also given in Appendix B.

Workplan for 1995 and 1996

5. The Committee is invited to deliberate about the workplan for activities to be implemented under this Trust Fund for 1995 and 1996 and approve the related budget which should not exceed the present cash balance of US\$ 521.553

Contributions

6. The scale of Government contributions to the Trust Fund is given in Appendix C. Details of outstanding contributions as of 31 December 1994 are given in Appendix D.

Desert Locust Control Committee

International Trust Fund 9161

Budget and Statement of Accounts (in US\$)

Final Expenditures for the years 1992 and 1993
Expenditures and Outstanding Financial Commitments for the year 1994

RECEIPTS	Approved Annual Budget	Budget Year 1992	Budget Year 1993	Budget Year 1994
Balance brought forward from previous year		385,154	393,203.28	394,230.28
Contributions from member countries ¹	207,300	119,794	153,461.45	205,350.21
TOTAL	<u>207,300</u>	<u>504,948</u>	<u>546,664.73</u>	<u>599,580.49</u>
EXPENDITURES				
1100 Intern. Exp. & Consultants	35,000	16,488	46,573.16	10,831.70
1300 Admin. Assist.	5,000	7,680	16,428.47	-
2000 Duty Travel	23,000	46,517	46,930.80	3,961.46
3000 Contracts	20,000	3,200	-	-
4000 Gen. Op. Exp.	5,000	15,097	18,564.79	26,137.48
5000 Exp. Equipment	10,000	300	-220.00	-
6000 Non-Exp. Equip.	35,000	6,716	5,267.83	-
8000 Training	50,000	2,890	1,352.61	-
9100 Project Servicing Costs (13%)	23,790	12,856	17,536.69	4,837.10
TOTAL Expenditure	<u>206,790</u>	<u>111,744</u>	<u>152,434.35</u>	<u>45,767.74</u>
Unallocated Balance	510	393,203.28	394,230.28	553,812.75

¹ Including interests

Desert Locust Control Committee

International Trust Fund 9161

Final Expenditures for the years 1992 and 1993
(in US\$)

	1992	1993
1100 <u>International Experts & Consultants</u>		
- Locust Consultant, FAO HQ, Sept-Oct. 92	10,448	
- Author's contract for the preparation of documents on the locust situation in North-West Africa	6,000	
- Locust Consultant, Chad and Sahelian region August 1993		23,156.64
- Locust Consultant, Mauritania, August 1993		10,604.15
- Locust Consultant, Mali, August-October 1993		9,812.37
- Locust Consultant, Somalia, June-July 1993		3,000.00
Sub-total	16,488	46,573.16
1300 <u>Administrative Support Personnel</u>		
- Interpreters (DL Technical Group 1992)	7,055	
- Messenger (Remote Sensing Meeting, May 1992)	234	
- Overtime (Working Group on DL, Rome, February 1992)	61	
- Messenger (DL Technical Group, 1992)	330	
- Technical Group Meeting, September 1993:		
. Overtime		36.45
. Messengers		392.02
. Interpreters		16,000.00
Sub-total	7,680	16,428.47
2000 <u>Duty Travel</u>		
- Working Group on DL Preventive Control Project Rome, September 1992 (travel Secretary Commission for North-West Africa)	2,438	-306.36
- Recovery travel costs 1991	-1,110	-84.00
- Training of Tunisian laboratory technician at Varian, Belgium	2,374	
- Working Group on Desert Locust, Rome, February 92	14,210	-333.00
- Visit of Locust Expert (UK) to FAO HQ to finalize Atlas on Desert Locust Habitat	8,750	
- Desert Locust survey in northern Mauritania, May 92	8,069	-1,525.44
- Meeting on Desert Locust Preventive Control Project Rome, September 1992	11,786	-842.56
- Travel of Secretary of Near East Commission to FAO HQ for technical discussions, September 1993		2,440.00
- Mission to Mauritania for DL survey		1,696.00
- Duty travel to Cairo for Near East Commission Meeting (HQ staff)		1,390.83
- Duty travel to Agadir for Meeting of Executive Committee of North-West Africa Commission		2,299.50
- Maghreb Task Force, Mauritania (6 participants)		14,905.83
- Meeting of the Desert Locust Technical Group, Rome, September 1993		13,520.00
- Maghreb Task Force, Mali, August 1993		13,770.00
Sub-total	46,517	46,930.80

	1992	1993
3000	<u>Contracts</u>	
-	Letter of agreement with Agrhymet, Niger for the provision of greenness maps	3,200
	Sub-total	3,200
4000	<u>General Operating Expenses</u>	
-	Communication costs	1,444
-	Publication of report on technical meeting on DL	933
-	Publication of technical report on pesticide stocks	1,391
-	Publication of DLCC report, October 1992	4,476
-	Hospitality costs, DL Technical Group, February 1992	274
-	Costs for the transmission of the OCLALAV Bulletin to the Sahelian countries	3,345
-	Purchase of tyres	2,798
-	Bank charges	295
-	Miscellaneous	141
-	Recovery interpretation costs 1993	-1,272.00
-	Translation into French of working papers for Donor meeting (July 1993)	2,164.40
-	Translation into French of Desert Locust Guidelines	709.70
-	Publication of report of DL Technical Group, September 1993	1,082.70
-	Recovery publication costs 1992	-133.96
-	Hospitality costs, meeting of DL Technical Group, September 1993	500.00
-	General operating costs Locust Consultant Mission (Chad)	5,705.84
-	General operating costs DL Campaign, Mauritania, 1993	9,767.50
-	Miscellaneous	40.61
	Sub-Total	18,564.79
5000	<u>Expendable Equipment</u>	
-	Office supplies	300
-	Miscellaneous	-300.00
	Sub-Total	80.00
		-220.00
6000	<u>Non-Expendable Equipment</u>	
-	Purchase of NOAA satellite data for FAO HQ	7,000
-	Recovery (purchase of transceivers for Tunisia, 91)	-1,450
-	Purchase of computer equipment (FAO HQ)	1,080
-	Shipping costs	86
-	Purchase of BURL MDD System (FAO HQ)	6,205.94
	Sub-Total	5,267.83
8000	<u>Training</u>	
-	Training fees for Tunisian technician	2,800
-	Maghreb Task Force, Mauritania	90
-	Ethiopian participant in DL Emergency Meeting, Cairo, January 1994	-90.39
	Sub-Total	1,443.00
		1,352.61
9000	<u>Project Servicing Costs (13%)</u>	
		12,856
		17,536.69
	GRAND-TOTAL	152,434.35
		111,744

Desert Locust Control Committee

International Trust Fund 9161

Provisional Expenditures for 1994 (as at 16 January 1995)
(in US\$)

1994

1100	<u>International Experts & Consultants</u>	
-	Remote Sensing Officer, FAO HQ	10,937.93
-	Recovery Locust Consultant (Mauritania)	-1,876.23
-	Locust Consultant (Somalia)	1,770.00
	Sub-Total	<u>10,831.70</u>
2000	<u>Duty Travel</u>	
-	Discussions with Government of Tunisia on pesticide emergency (January 1994)	2,986.45
-	DL Survey Mauritania, February 1994	838.00
-	Travel of Legal Officer to 19th Session of North-West Africa Commission, Tripoli, October 1994	1,304.45
-	Travel HQ staff to Morocco, 1993	208.12
-	Recovery travel to Mauritania, 1993	-83.60
-	Desert Locust survey & control mission, Mauritania	553.23
-	Attendance of OCLALAV Representative at the 19th Session of the North-West Africa Commission, Tripoli, October 1994	3,269.00
-	Recovery costs of Maghreb Task Force, Mauritania (1993)	-2,756.96
-	Recovery costs of Desert Locust Technical Group (1993)	-2,357.23
	Sub-Total	<u>3,961.46</u>
4000	<u>General Operating Expenses</u>	
-	Publication costs	100.00
-	Desert Locust Bulletin	454.00
-	Desert Locust Guidelines	4,636.00
-	Publication of Desert Locust Bulletin	3,704.00
-	Hospitality Costs (DL Technical Group, January 1995)	500.00
-	Recovery hospitality costs DL Technical Group (September 1993)	-405.71
-	General Operating Expenses Algerian team (Mauritania)	16,043.29
-	Locust equipment (Niger)	935.90
-	Photos	150.00
-	Videocassettes	20.00
	Sub-Total	<u>26,137.48</u>
9100	<u>Project Servicing Costs (13%)</u>	4,837.10
	GRAND-TOTAL	<u>45,767.74²</u>
	Unallocated balance	<u>553,812.75</u>

² Including Commitments and Pre-Commitments

Desert Locust Control Committee

International Trust Fund 9161

Provisional Expenditures & Commitments for 1995 (as at 16 January 1995)
(in US\$)

1995

1300 Administrative Support Personnel

-	Desert Locust Technical Group, January 1995:	
.	Messenger	220.96

2000 Duty Travel

-	Desert Locust Technical Group, January 1995:	
.	Mission costs of participants	13,860.00
.	Attendance of Secretary, North-West Africa Commission (including DLCC)	2,939.00
.	Attendance of Secretary, Near-East Commission (including DLCC)	3,739.00
-	Attendance of CTA, Project GCP/SEN/041/NET, at DLCC meeting (DSA only)	1,700.00
-	Sub-total	<u>22,238.00</u>

4000 General Operating Expenses

-	Desert Locust Technical Group, January 1995	
.	Interpreters	9,600.00
.	Hospitality costs	200.00
-	Sub-total	<u>9,800.00</u>
-	Provisional Total	<u>32,258.96</u>
-	Provisional Balance	<u>521,553.79</u>

**SCALE OF GOVERNMENT CONTRIBUTIONS TO THE
INTERNATIONAL DESERT LOCUST TRUST FUND
No. 9161 (MTF/INT/008/MUL)**

<u>COUNTRY</u>	<u>SCALE (US\$)</u>
Afghanistan	3,480.00
Algeria	7,700.00
Bahrain	920.00
Cameroon	2,780.00
Chad	3,520.00
Djibouti	1,120.00
Egypt	5,740.00
Ethiopia	4,320.00
Gambia	2,420.00
Ghana	3,280.00
India	20,000.00
Iran	20,000.00
Iraq	7,440.00
Jordan	3,420.00
Kenya	3,580.00
Lebanon	3,060.00
Libya	10,640.00
Mali	3,600.00
Mauritania	2,900.00
Morocco	5,360.00
Niger	3,760.00
Nigeria	8,940.00
Oman	2,100.00
Pakistan	6,520.00
Qatar	1,760.00
Saudi Arabia	20,000.00
Senegal	3,520.00
Somalia	3,500.00
Sudan	3,980.00
Syria	4,520.00
Tunisia	4,460.00
Turkey	14,480.00
Uganda	3,380.00
United Arab Emirates	4,600.00
Yemen	6,500.00
TOTAL	207,300.00 =====

TRUST FUND No. 9161.00 – MTF/INT/008/MUL –
Inter-Regional Desert Locust Control Project

Status of Contribution as at 31 December 1994 (Provisional)
(expressed in US\$)

Member Governments	Outstanding 31/12/1993	Contribution * for 1994/1995	Received up to 31/12/1994	Outstanding 31/12/1994
AFGHANISTAN	6,960.00	3,480.00	0.00	10,440.00
ALGERIA	0.00	7,700.00	7,700.00	0.00
BAHRAIN	15.00	920.00	920.00	15.00
CAMEROON	25,467.00	2,780.00	0.00	28,247.00
CHAD	51,320.00	3,520.00	0.00	54,840.00
EGYPT	5,740.00	5,740.00	5,726.00	5,754.00
ETHIOPIA	48,740.94	4,320.00	53,060.94	0.00
FRANCE (DJIBOUTI)	14,420.00	1,120.00	0.00	15,540.00
GAMBIA	26,620.00	2,420.00	0.00	29,040.00
GHANA	13,135.00	3,280.00	0.00	16,415.00
INDIA	70,000.00	20,000.00	39,963.01	50,036.99
IRAN	176,495.24	20,000.00	0.00	196,495.24
IRAQ	81,840.00	7,440.00	0.00	89,280.00
JORDAN	0.00	3,420.00	0.00	3,420.00
KENYA	40,454.41	3,580.00	0.00	44,034.41
LEBANON	11,477.90	3,060.00	0.00	14,537.90
LIBYA	78,120.00	10,640.00	0.00	88,760.00
MALI	22,813.00	3,600.00	0.00	26,413.00
MAURITANIA	43,525.09	2,900.00	0.00	46,425.09
MOROCCO	16,080.00	5,360.00	5,360.00	16,080.00
NIGER	43,160.00	3,760.00	0.00	46,920.00
NIGERIA	58,429.61	8,940.00	0.00	67,369.61
OMAN	6,300.00	2,100.00	0.00	8,400.00
PAKISTAN	6,520.00	6,520.00	6,520.00	6,520.00
QATAR	16,670.00	1,760.00	0.00	18,430.00
SAUDI ARABIA	20,000.00	20,000.00	20,000.00	20,000.00
SENEGAL	37,730.71	3,520.00	0.00	41,250.71
SOMALIA	37,774.77	3,500.00	0.00	41,274.77
SUDAN	17,225.70	3,980.00	0.00	21,205.70
SYRIAN ARAB REPUBLIC	55,750.00	4,520.00	40,791.88	19,478.12
TUNISIA	35,236.44	4,460.00	0.00	39,696.44
TURKEY	14,480.00	14,480.00	14,480.00	14,480.00
UGANDA	30,420.00	3,380.00	0.00	33,800.00
UNITED ARAB EMIRATES	23.80	4,600.00	4,600.00	23.80
YEMEN REPUBLIC	23,505.47	6,500.00	0.00	30,005.47

TOTALS	1,136,450.08	207,300.00	199,121.83	1,144,628.25
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* Fiscal Year begins in July

Yemen – consolidated o/s bal. 31/12/93

tot dr only

FTK 94 – 2035

INTERNATIONAL TRUST FUND 9161 - PROPOSED WORKPLAN

On the basis of the approved annual budget of US\$ 206,000 and the present estimated cash balance of US\$ 521,553, the Technical Group discussed the major activities to be included in the workplan and related budget for 1995/96.

The Technical Group expressed definite agreement on the following activities to be implemented under the Committee Trust Fund 9161:

- 1) High-Level Fellowship (3-4 years): for 2 fellows as of mid-autumn 1995 and 3 fellows from 1996 onwards.

The countries benefiting from these fellowships were already agreed upon by the previous Technical Group Meeting, i.e. by each of the regions concerned: North-West Africa, Near East and South-West Asia.

The cost estimate provided by the FAO Secretariat of US\$ 25,000 per fellow/year reflects the general cost estimate. This amount might need to be rectified (in this case lowered) as the actual fellowship costs might be considerably lower if training should be provided within the above-mentioned regions. The FAO secretariat proposes to provide a realistic cost estimate once the fellowship enrolment procedure has been finalised.

Furthermore, the FAO Secretariat has to bring to the attention of the DLCC the fact that an annual charge of SS 75,000 against the present budget of US\$ 206,000 represents such a high financial commitment over 3/4 years that could reduce any other activity of the Committee in case the annual contributions to the TF 9161 should not be paid regularly, or alternative funding arrangements should be decided.

Since the Technical Group did not reach an unanimous position on the funding arrangements of such an important financial commitment, the subject is referred to the attention and decision of the DLCC.

- 2) Desert Locust Information
The Technical Group agreed unanimously on the principle to contribute to the Desert Locust Information System from TF 9161 on a regular basis. The proposed annual contribution for the publication and distribution of the FAO Desert Locust Bulletin amounts to US\$ 20,000. Eventual financial support from the TF to the Regional Locust Commissions and Regional Organizations assisting in the Desert Locust Information System was discussed by the Technical Group but an unanimous position on the principle and related contribution was not reached. Therefore, this point is referred to the consideration and decision of the DLCC.
- 3) Desert Locust Guidelines
The FAO produced first set of Desert Locust Guidelines requires revision of the first edition/translation and distribution to interested countries. A contribution from the TF 9161 of US\$ 10,000 for 1995 was accepted by the Technical Group. However, it was stressed that the Guidelines should reflect the clearance of the DLCC before publication.
- 4) Desert Locust Survey
The Technical Group endorsed unanimously the principle of contributing to such surveys whenever they are of an inter-regional character, opposed to country/regional surveys, which are to be financed eventually by the respective regional Commissions. An amount of US\$ 40,000 was endorsed for 1995 and US\$ 35,000 for 1996.

- 5) **DLCC Meeting Cost**
While the FAO Regular Programme contributes mainly to the running costs of this meeting (interpreters/meeting facilities), the publication and distribution of the DLCC Working Papers in English, French and Arabic as well as the final report of the DLCC in English, French and Arabic are to be financed at least up to US\$ 20,000 per meeting from the TF 9161. The Technical Group endorsed proposal.
- 6) **Training Courses**
Training/Study Tours of an inter-regional character, opposed to the regional activities, should be arranged on a yearly and regular basis from the TF. The Technical Group proposed unanimously an amount of US S 20,000 in 1995 and an undetermined amount for 1996 in function of the actual funds available.
- 7) **DLCC Technical Group**
The Group agreed unanimously on the need for yearly meetings and interpretation facilities for these meetings. An amount of minimum US\$ 25,000 has to be budgeted for meetings of five participants and interpretation for three days at FAO Headquarters.
- 8) **Technical Experts Meetings**
The Group endorsed the need for such consultation meetings for which a yearly allocation of at least US\$ 15,000 should be reserved.
- 9) **Unallocated balance**
The FAO Secretariat includes an unallocated balance of US\$ 10,000 in the 1995 budget to either complement any of the above-mentioned activities or eventually identify an additional activity by the DLCC.
- 10) **Budget for 1996**
While the annual approved budget amounts to US\$ 206,000, the FAO Secretariat proposes to increase the budget for 1995 and /or 1996 in order to allow the implementation of activities not implemented during previous years or responding to an immediate emergency situation. In any case the yearly expenditure must never exceed the actual cash availability under the TF.
- 11) **Emergency Allocation**
In view of the exceptional circumstance that a cash availability of US\$ 521,553 is recorded under the TF, like at present, the Technical Group agreed to keep an amount of US\$ 100,000 as a reserve fund to respond immediately to any Desert Locust emergency situation while awaiting the availability of proper emergency funds.
- 12) **Additional Activities**
The Technical Group further agreed on the necessity to use the funds available beyond the annual budget of US\$ 206,000 for the following activities in order of priority:
 1. Technical Assistance (Consultancy)
 2. Survey/Control equipment
 3. Support to Desert Locust Research activities.

Proposed budget for 1995 and 1996 in US\$

	1995	1996
1. 3 fellowships starting September 1995 3 fellowships starting in 1996	30 000	75 000
2. D.L. Bulletin publication and distribution	20 000	20 000
3. D.L. Guidelines translation/publication cost	10 000	-
4. Desert Locust survey in selected areas/survey	40 000	35 000
5. DLCC meeting cost 1995	20 000	-
6. Training courses	20 000	10 000
7. DLCC Technical Group 1995	15 000	25 000
8. Technical Experts Meetings	15 000	15 000
9. Unallocated balance	10 000	-
Total	180 000	180 000
FAO Serv.cost 13%	23 400	23 400
	203 400	203 400
Unallocated balance	2 600	2 600
Total budget	206 000	206 000
9) Contingency/reserve fund (Emergency)		100 000

Note:

1) The above budget is based on the presently approved annual budget of the Committee of US \$ 206,000. The implementation of this budget can be assured only if the actual cash is available in the Trust Fund. Since presently the cash amounts to US \$ 521,553 the implementation of the budget for 1995 and 1996 is already funded, including the reserve allocation of US \$ 100,000 intended for emergency situations only.

2) In addition to the available present cash balance contributions are expected to be received over 1995 and 1996. The Committee should therefore authorise the FAO Secretariat to increase the annual budget on the basis of additional cash. These additional funds are to be spent on the following items in order of priority:

1. Technical assistance (consultancies)
2. Survey/control equipment
3. Support to Desert Locust research activities