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联合国  
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Food  
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Agriculture  
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of  
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United  
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Organisation  
des  
Nations  
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pour  
l'alimentation  
et  
l'agriculture

Organización  
de las  
Naciones  
Unidas  
para la  
Agricultura  
y la  
Alimentación

## DESERT LOCUST CONTROL COMMITTEE

### Thirty-eighth Session

Rome, 11-15 September 2006

### REPORT ON THE TECHNICAL GROUP WORKSHOP, MAY 2004 (Agenda Item 11)

#### 1. INTRODUCTION

This working paper was prepared by a member of the DLCC Technical Group, L. McCulloch. The DLCC may wish to (1) adopt the report of the last meeting of the DLCC Technical Group and (2) determine how to address the follow-up to the various recommendations.

#### 2. REPORT ON THE TECHNICAL GROUP WORKSHOP ON CONTINGENCY PLANNING FOR DESERT LOCUST CONTROL, MAY 2004, NOUAKCHOTT, MAURITANIA

##### Background

1. The Workshop on Contingency Planning for Desert Locust Control was organized by FAO following on from a recommendation by the 37<sup>th</sup> session of the Desert Locust Control Committee (DLCC).
2. The workshop was held in Nouakchott, Mauritania from 2 to 7 May 2004. Participants included representatives from national locust organizations in the Central, Western and South West Asia regions, FAO Headquarters and regional staff, three members of the Desert Locust Technical Group (DLTG) and the FAO consultant (Dr Symmons).

##### Objectives

3. The aim of the workshop was to assist countries in the formulation of contingency plans, to evaluate different control tactics, and examine the use of contingency planning as a tool to assist in mobilizing resources in the short time frames dictated by an emergency situation.

##### Contingency Planning

4. FAO indicated that advance warning of a Desert Locust outbreak was likely to be less than a month, for upsurges around 3 months whilst for plagues advance warning of up to 6 months was possible. These short time frames highlighted the need to have well developed contingency plans that could be activated quickly when a locust emergency developed.

5. Using the models developed for the workshop, contingency plans were examined separately for the Outbreak, Upsurge and Plague stages respectively. For each stage, participants attempted to determine the resources that would be required for control, to consider how these resources would be utilized and how the resources could be supplied within the often limited time period available
6. The level of resources (e.g. pesticides, vehicles and aircraft) for the outbreak, upsurge and plague stages was estimated by participants providing input data to an excel spreadsheet (“model”). Using this data the resources required, based on the input data and a number of assumptions contained within the excel spreadsheet, were calculated.
7. There was significant variance between participants in estimating some input parameters required by the exercises. For example, the time to search and delineate a target “block” for control. Similarly, for the outbreak stage, a critical estimate was the rate of success in detecting and controlling small patches/aggregations of hoppers. As there was no field data on this parameter a simulation exercise was undertaken to estimate this parameter.
8. Given that a number of the parameters required for the exercise impact to some degree on estimating requirements for planning purposes, individual countries and FAO should consider collecting this type of field data to enable more accurate planning estimates to be made.
9. The *outbreak* exercise generated significant debate since the results suggested that control measures would have a limited impact on reducing an outbreak population. This generated considerable debate on the validity of some of the assumed parameters used in the exercise.
10. There was a general consensus that *outbreak* control would normally only involve ground control of locusts with most of the control effort being directed at the nymphal stages.
11. The resources required to undertake *outbreak* control could be classified as significant, the likely “limiting” factor was likely to be the number of ground teams that could be mobilized.
12. Most, but not all, locust-affected countries indicated that they had sufficient national resources to undertake control of *outbreak* populations without the need to request external assistance.
13. A few locust-affected countries may only be able to undertake *outbreak* control with external assistance. This lack of immediately available resources could result in no, or only limited, control being undertaken.
14. The results of the *upsurge* scenario indicated that the resources required for *upsurge* control would be substantial and generally beyond the normal means of most locust-affected countries without external assistance.
15. In the early stages of an *upsurge* it was considered likely that there would be heavy reliance on ground control of bands with aerial control required in the later stages of the upsurge.
16. The results of the exercises indicated that the resources to control a Desert Locust *plague* population in the nymphal stages are substantial even when the vast majority of the population occurs in bands. Whilst the level of resources greatly reduces if control were only to be carried out against swarms, this was not seen as a feasible strategy in respect of flying swarms.
17. Similarly, the resources needed to detect and define nymphal targets by ground search in a *plague* are large. Detection of such targets by air would prove to be more resource efficient but most participants did not consider this to be feasible or feasible only under very particular conditions.
18. It was considered that barrier treatment of bands by both ground and air potentially offered effective and cost efficient control in a late upsurge and/or plague situations. However, additional large-scale trials using products such as fipronil and IGRs would need to be conducted to establish efficacy and to determine effective barrier application methods.
19. The elements of a contingency plan were also discussed by workshop participants. In addition to specifying additional resources it was also suggested that contingency plans also detail the various actions required to mobilize additional national and external assistance and information on the control systems/techniques to be used.

20. In addition to the exercises, presentations were made on contingency planning by several locust-affected countries and by FAO staff from the Western and Central Regions

#### **Immediate issues**

21. Due to the serious Desert Locust upsurge at the time of the workshop a number of issues of immediate concern to participants and also of relevance to contingency planning were discussed at the workshop.
22. These issues included resource mobilization, resource utilization and strengthening of existing structures for emergency response.

#### **Recommendations**

23. The Workshop report made a number of recommendations. In addition to several recommendations on contingency planning the report also contained a series of recommendations concerning the immediate issues at the time in terms of the planning and response to the major Desert Locust upsurge that was in progress in the region in May 2004.
24. In terms of contingency planning, it was recommended that:
- a. Follow up action should include an annual workshop and more comprehensive in-country backstopping should be accorded a high priority by FAO;
  - b. Contingency plans need to consider donor requirements;
  - c. The FAO Locust and Migratory Pests Group should develop its own contingency plans for responding to Desert Locust emergencies;
  - d. FAO (the Locust and Migratory Pests Group and regional commissions) should ensure databases on assistance provided and control resources available in affected countries are maintained;
  - e. Affected countries should provide details of on how available national (control) resources will be utilized including control systems and techniques.
25. The report also recommended that advantage be taken of the presence (in 2004) of major Desert Locust populations to undertake research in a number of areas including:
- a. Estimating the extent of hopper infestations;
  - b. Pesticide trials;
  - c. Applied research on the feasibility of aerial spraying of flying swarms;
  - d. Applied research on the detection of hopper bands by aerial survey;
  - e. Determining the proportion of hopper bands treated and the proportion not treated in target areas; and
  - f. Evaluating the efficacy of control measures.