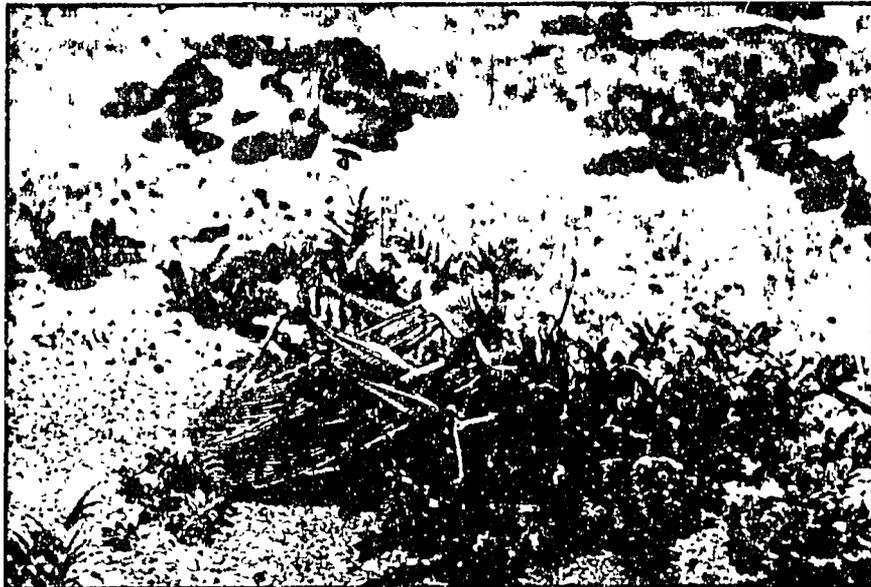


**SCOPING SESSION REPORT**

**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT EMERGENCY  
YEMEN LOCUST CONTROL PROGRAM**



*NE/DR/ENR*  
**JULY 9, 1993**



U.S. AGENCY FOR  
INTERNATIONAL  
DEVELOPMENT

July 9, 1993

**MEMORANDUM**

**TO:** NE/DR/PI, John Balis  
Senior Agricultural Officer

**FROM:** NE/DR/ENR, Gilbert S. Jackson *GSJ*  
Environmental Coordinator

**SUBJECT:** Environmental Scoping Statement for Yemen  
Locust Control Program

This memorandum is in response to your submission of the Scoping Statement for the Yemen Emergency Locust Control Program, as required in 22 CFR 216.3 (a)(4)(ii) and (b)(1)(i-v), which requests my review and approval.

Thus, all requirements per 22 CFR 216 have been satisfactorily completed, including a successful Scoping Session and the submission of a comprehensive Scoping Statement for the upcoming Supplemental Environmental Assessment (SEA).

I, therefore, approve your Scoping Statement in order that you may proceed in a timely manner with the preparation of the required SEA.

July 9, 1993

**MEMORANDUM**

**TO:** NE/DR/ENR: Gilbert S. Jackson  
**FROM:** NE/DR/PI: John S. Balis  
**SUBJECT:** Environmental Scoping Statement for Yemen Emergency  
Locust Control Program

The Scoping Statement for the draft Supplemental Environmental Assessment (SEA) for the Yemen Emergency Locust Control Program, per NE Bureau policy and requirements inferred from 22 CFR 216, is hereby submitted for your review and approval, pursuant to 22 CFR 216.3 (a) (4) (ii) and (b) (1) (i-v).

In this respect, it has been A.I.D. policy to "ensure that the environmental consequences of A.I.D.-financed activities are identified and considered by A.I.D. and the host country prior to a final decision to proceed and that appropriate environmental safeguards are adopted."

As an initial component of the assessment process, a Scoping Session (SS) was held on July 1, 1993, at NE/DR. The purpose of the SS was to inform and elicit commentary from interested and knowledgeable parties and experts of the proposed scope of the program's SEA and to solicit their assistance in identifying any significant environmental issues relating to the intended project.

To that end, a Scoping Session report<sup>t</sup> was prepared and is appended. The report summarizes and documents issues and concerns raised during the scoping session. The most important conclusions of the SS included a) summer breeding is beginning in Yemen and the swarms are close to becoming gregarious, b) North African nations are clamoring for pro-active control across the Sahel, c) ground-truth verification is strongly urged using an on-scene evaluator, and d) the draft SEA should delineate a detailed list of items to be procured.

I, therefore, recommend that you approve this Scoping Statement in order that the preparation of the requisite SEA may proceed expeditiously.

Attachments

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## 1.0 INTRODUCTION

The U.S. Agency for International Development (USAID) Near East Bureau's Mission in Yemen, responding to U.S. Ambassador Arthur Hughes' declaration of a state of disaster in Yemen due to a very serious locust outbreak, has pledged up to \$250,000 in USAID support to help ameliorate the situation. In that respect, NE/DR/ENR is in the process of preparing a Supplemental Environmental Assessment (SEA) to cover the Emergency Assistance Program for Locust Control in Yemen. While AID's environmental regulation 22 CFR 216 does not directly apply to projects under emergency conditions where pesticides are to be employed (216.3(2)(i)(a)), the NE Bureau, as a matter of policy, is requiring that a SEA be prepared and, hence, this Scoping Session was held on July 1, 1993, among interested and knowledgeable parties in order to discuss potential environmental impacts of the proposed actions to be utilized (and also to eliminate minor environmental impacts from the list to be assembled).

## 2.0 DESCRIPTION OF THE LOCUST CONTROL PROGRAM IN YEMEN

The Government of Yemen (GOY) has requested assistance from the international donor community, including USAID, to deal with the desert locust outbreak emergency. The Ministry of Agriculture and Water Resources (MAWR) has mobilized its limited capabilities, which to this date have not been sufficient to control the outbreak. Currently, MAWR ground capabilities are inadequate to successfully conduct the large-scale operations required. Therefore, to mitigate and control this infestation effectively, the GOY is requesting from the donor community: 50 tons of pesticide (fenitrothion), safety equipment, logistical equipment, aircraft rental and flying hours, rental vehicles, aircraft fuel, and technical assistance. Specifically, the GOY is asking the U.S. for a donation of up to \$275,000 in emergency assistance to procure: 10,000 liters of pesticide, 90 aircraft flying hours, 100 sets of lightweight protective clothing, operating expenses, fuel and logistical support.

## 3.0 PRELIMINARY FINDINGS

According to Alan Showler, AFR/ONI/TPPI, the "cradle of the locust plague" is represented by the area encompassing Eritrea, Northern Sudan, Ethiopia, Somalia and Yemen. Locust species of interest include both the desert (*Schistocerca gregaria*) and the African migratory (*Locusta migratoria*). Locusts are considered solitary or sparse during post-drought conditions when there is limited food and the population density is

low. They are gregarious when in swarms with population densities of 40-80 million/km<sup>2</sup> and cover an area over 1000 square kilometers. Egg pods are usually deposited in sandy soil and adults can travel up to 100 km/day. Adults can consume vegetation at the rate of up to 2 grams/day - locust.

During the plague of 1986-89, 28 countries were invaded and the devastation and crop loss were enormous because:

- unpreparedness
- remoteness
- regional organizations in disrepair
- wars (in Eritrea and Sudan)

More than \$350 million was spent by donors alone in the Sahelian area.

The following AID-approved pesticides were used: carbaryl, chlorpyrifos, malathion, diazinon, fenitrothion, lambda-cyhalothrin, propoxur and dichlorvos.

Strategic control involves keeping the locusts in remission in the solitarious state (in other words, attack the swarms before they become gregarious). If this option is not effectively employed, the self-perpetuating swarms breeding in key mountainous areas will cycle in two major directions (east and west).

FAO constantly speaks about summer breeding -- in Yemen, now, the summer breeding period is starting.

The environmental aftermath of the 1986-89 infestation included:

- overstocks of excess pesticides
- storage problems including deteriorating drums and maintenance and redrumming costs
- drum disposal
- donor environmental studies

## 4.0 RESULTS OF SCOPING SESSION

(Appendix A contains the Attendees List and Appendix B outlines the Meeting Agenda.)

The significant issues raised and explored during the Scoping Session concerned:

- How the SEA if conducted is important
- FAO managed the pesticide applications in 1987
- Morocco recently donated 50,000 liters of malathion to Sudan
- Tunisia will pledge 50,000 liters of pesticides to FAO for use in desert locust affected countries (recent cable: Tunis 05594, 30 June 1993)
- North African nations clamoring for proactive control across the Sahel
- Ground - truth verification strongly urged using an on-scene evaluator
- Draft SEA should delineate the breakdown of what is to be procured using NE Bureau funds

The scoping session was attended by 11 individuals representing EPA-Pesticide Programs, NE/DR/ENR, NE/ENA, NE/DR/PI, AFR/ONI/TPPI, FHA/OFDA and CDIE/OI.

Future Needs:

- NEEM (or similarly effective botanical-repellant)
- Microbials
- Economic thresholds
- Alternative pesticides (shorter half-life, less toxic to the environment and humans)
- Crop loss assessments
- Forecasting
- Strategic control

**Appendix C contains the Abbreviated Minutes of the Meeting and Commentary from Participants.**

**Appendix D contains a Draft Outline for the Supplementary Environmental Assessment (SEA).**

**Appendix E contains Notes concerning a meeting between NE/DR and OFDA to discuss the Yemen locust outbreak, and an EPA Office of Pesticides and Toxic Substances memorandum on malathion uses/registration status.**



## APPENDIX B

### SCOPING SESSION AGENDA July 1, 1993

1. Welcome, Introductions and Opening Remarks<sup>1</sup>.  
(Gil Jackson)
2. Why are we having a Scoping Session<sup>2</sup>?  
(Gil Jackson-Paul des Rosiers)
  - a. USAID Environmental Procedures (22 CFR 216)
  - b. Exemptions: 22 CFR 216.2 (b) (ii)
  - c. Exceptions: 22 CFR 216.3 (b) (2) (i) (a)
  - d. Definitions and scope of The Programmatic Environmental Assessment (PEA) (March 1989)
  - e. Definition and scope of Supplemental Environmental Assessment (SEA)
3. Background and Current Status (Alex Segarra)
  - a. Overview of the current locust situation<sup>3</sup>  
(Dr. Allan Showler AFR/ONI/TPPI)
  - b. Present proposal and requests from the host country  
(Alex Segarra)
4. Environmental Considerations (Alex Segarra)
  - a. Issues identified by the Asia/NE locust control PEA
  - b. Study methods and identified concerns
  - c. Preliminary findings and observations
5. Questions and Comments from the floor (1 question or comment per person)- G. Jackson/P. des Rosiers
6. Summary remarks- G. Jackson

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<sup>1</sup> Recording & technical support by CDIE (Rebecca Latorraca).

<sup>2</sup> See handouts for proper citations.

<sup>3</sup> Lessons learned from the 1986/87 locust plague will also be touched upon.

## **APPENDIX C**

### **Abbreviated Minutes of the Meeting and Commentary from the Participants**

#### **SCOPING SESSION: LOCUST SITUATION IN YEMEN**

##### **I. Welcome -- Gil Jackson, NE/DR Environmental Coordinator**

The purpose of the session is to demonstrate that A.I.D.'s Near East Bureau can move expeditiously in responding to emergency situations such as the locust infestation in Yemen.

##### **II. Regulations -- Paul desRosiers, NE/DR/ENR**

Brief discussion of applicable parts of 22CFR 216, A.I.D.'s environmental regulation.

##### **III. Background and Current Status -- Alex Segarra, NE/DP and Alan Showler, AFR/ONI**

###### **A. Overview of the current situation<sup>1</sup> -- Alan Showler**

###### Current Situation 1992 - 1993

Alan Showler, who recently returned from Eritrea, spoke about the implications of Northeast Africa's situation where locust activity has continued since August 1992. To date, Eritrea, Sudan and Yemen have suffered only a few outbreaks with Yemen's December 1992 through February 1993 flare-up recently renewing itself. Currently, Sudan's condition is stable and North Eritrea and the Red Sea Hills are not in a crisis situation.

Still, the present locust activity does parallel the plague of 1986-89. The railway line heading east out of Addis Ababa closed due to an abundance of locusts on the rails. Showler suggested that eventually swarms may sweep across the Red Sea due to aeolian movement, although currently there is no evidence to support this theory.

Eleven or twelve Supplementary Environmental Assessments (SEAs) have been done in North Africa where it was discovered that the locusts were moving from Somalia to Ethiopia. In Eritrea, the remote areas are not readily accessible due to land mines still in place from the recent civil war. Moreover, in North Africa and Yemen, the locusts appear to be in a semi-gregarious state, meaning that adult locusts are concentrated but

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<sup>1</sup> Plague vs. outbreak: A plague is a cyclical, self-perpetuating process whereby the creatures breed in key areas, while moving around those areas. In this case, Eritrea and Ethiopia is the point of genesis. According to Steedman Broole, locust infestations are sporadic rather than cyclical.

Locusts are edible and can be used as a source of protein. In Algeria, locusts are also used in medicine for diabetics. However, once treated with pesticides, there is a potential health problem to people who eat them. Further, since the pesticides employed are cholinesterase inhibitors, human health effects are a real concern.

If locusts are deactivated, we will know that we are successful by the lack of gregarious locusts; in other words, they will be scattered rather than in swarms.

Locust concentration is measured by the total number of locusts per square kilometer.

#### **IV. SEA Environmental Considerations -- Alex Segarra**

A.I.D.'s PEA has 38 Recommendations with 8 Priorities which include:

- IPM
- Boundaries
- Pesticide inventory
- Pesticide surplus

The SEA under preparation addresses Agency concerns for the:

- Environment
- Users
- Population at large

The Yemen SEA will be written in Washington based on FAO's responses to A.I.D. questions which were submitted to FAO Yemen on June 29, 1993.

#### Issues

*Protective measures:* There is a concern with item #4 of the SEA which discusses protective measures and monitoring of pesticide exposure levels for people working in pesticide operations. The EPA pesticide representative, Janice Jensen, who was in Yemen during the previous outbreak, noted that in 1987, by the time the pesticides had arrived from Europe, the active ingredients had settled to the bottom of the drums due to exposure to climatic changes during transportation. No protective equipment or disposal systems were used and people were seen stirring pesticides with their arms. The FAO response memo claiming safety measures are in place may not be completely accurate.

Alex Segarra noted that training is part of the SEA but Alan Showler recommended that A.I.D. needs someone in situ to monitor pesticide use and personal safety.

*Funding:* A.I.D. has recommended spending up to \$250,000 in the locust control effort. The \$250,000 will come from Yemen's DA deob funds but OFDA may lend the money first and later the Mission will transfer funds to OFDA. OFDA's policy is not to use A.I.D. funds to purchase vehicles.

not yet swarming.

In February, proactive measures were taken with the FAO coordinating \$2 million funding, with over \$1 million of that spent in Eritrea and Sudan. Based on reports from USAID/Sana'a and the FAO, we have determined that Yemen needs the following:

4 x 4 vehicles to reach remote areas;

Pesticides - Sana'a and Aden have only 4000 litres each (20 barrels of pesticide covers 16,000 hectares).

### The 1986-1988 Locust Situation

Before 1986-87, North Africa suffered a drought, followed in 1986 and 1987 by extensive, prolonged rainfall. When the locust swarms first appeared, they were not treated. By 1986 and 1987, the locusts, which travelled by summers' westerly prevailing winds, had infested most of North Africa, with Morocco being especially hard hit.

Although the plague was expected to last approximately 11 years, it ended after only 3-4 years due to the following factors:

- windstorms were so strong that they swept huge swarms westward across the Atlantic as far as the U.S. Virgin Islands;
- a cold, North African winter froze swarms in the Atlas Mountains;
- the North Africans zealously controlled the swarms in Morocco, Algeria and Tunisia with donor support of more than \$300 million;
- the overall climatic and vegetative conditions across the Sahel changed.

The current circumstances parallel those of the late 1980s; however, this time we are more prepared to deal with them. Furthermore, the conclusion of Eritrea's war in the late 1980s will make monitoring locust activity easier, though more difficult in Sudan and Mali due to their present political situations.

A.I.D. and its Moroccan counterpart have determined that, in order to gain strategic control, the locust populations must be stabilized before they become gregarious, the point at which we are now. This method has not been tried before. Additionally, A.I.D. has urged FAO to utilize its plan for locust prevention in East Africa.

### Responses to Questions

Summer breeding will last through August. There is no breeding season per se as locusts breed depending on age of cohorts.

The average life span of a locust is generally one year.

It was stated that we would need cost breakdown information from FAO in the SEA; however, Alex Segarra commented that it is not required as a part of the environmental report. Alan Showler responded that the lawyer for the Africa Bureau needed an outline of purchases/procurement, so a cost breakdown was needed. The first time the papers were submitted, they took nine weeks to get approved by the lawyer with OFDA; only two weeks the second time. Clearance should be obtained through the General Counsel.

OFDA's representative, Mary-Rita Zeleke stated that the funding as outlined is not definite. OFDA will probably agree to provide funds but needs to look at internal systems. The initial \$25,000, requested by Yemen's U.S. Ambassador, is definitely acceptable, but the \$250,000 is still in question. Also, OFDA has not determine how the funds transfer and repayment will work.

*Pesticide Types:* Janice Jensen, from the EPA noted that Fenitrothion was recommended by FAO. The U.S. banned Dieldrin although it is probably the best product. We are required to use only EPA-approved pesticides.

*Desk SEA:* Alan Showler stated that the Africa Bureau has done only on-site SEAs where they have spent approximately two weeks. In the past, he has been called to the carpet because he did not go to Yemen for an SEA. However, Gil Jackson noted that the SEA simply emphasizes the bureau's responsibility and the bureau is not legally required to prepare one. For now, because we are in an emergency situation, we will accept FAO's assessment of the locust infestation in order to complete a draft SEA by July 12. The completed draft SEA will be subject to follow up at a later date.

## V. Summary Recommendations

- The NE Bureau should proceed expeditiously with the preparation of a draft SEA based upon field-generated information provided by FAO-Yemen, which is required by the 1989 PEA for locust control in the Near East.
- On-site monitoring is necessary to protect both the environment and the applicators' health.

## APPENDIX D

### DRAFT OUTLINE FOR SEA

#### PREFACE

#### LIST OF ACRONYMS AND ABBREVIATIONS

#### 1.0 EXECUTIVE SUMMARY

#### 2.0 PURPOSE AND PROCEDURES

- 2.1 Background
- 2.2 Current Proposal
- 2.3 Drafting Procedure
- 2.4 Previous Assessments
- 2.5 Environmental Procedures
- 2.6 A.I.D. Regulations & Policies

#### 3.0 LOCUST SITUATION IN YEMEN

- 3.1 Crop Loss Assessment
- 3.2 Locust Management
- 3.3 Pesticide
- 3.4 Pesticide Management

#### 4.0 ENVIRONMENT

- 4.1 Yemen - Environmental Profile
- 4.2 Restricted Habitats

#### 5.0 RECOMMENDATIONS & CONCLUSIONS

#### 6.0 REFERENCES

- APPENDIX A. LIST OF PREPARERS/CONTACTS
- APPENDIX B. RELEVANT INFORMATION
- APPENDIX C. ANALYSIS OF PEA RECOMMENDATIONS

**APPENDIX E**

**General Information**

UNCLASSIFIED  
AGENCY FOR INT'L DEV.  
TELECOMMUNICATIONS CENTER

INCOMING  
TELEGRAM

PAGE 01 TUNIS 05790 080912Z 9964 056034 AID0016  
ACTION AID-00

ACTION OFFICE NEDR-09  
INFO AFEA-04 AFSW-06 AFDP-06 RDPO-01 AFPE-02 BIFA-01 POSP-01  
POID-01 GC-01 GCAF-02 GCAN-02 RDAA-01 OFDA-02 FHAA-01  
STAG-02 ENGY-02 STFN-02 AMAD-01 NENA-03 NEAA-03 EUAA-02  
POCE-01 LARR-01 /057 A0 08/0929Z

INFO LOG-00 AF-00 AGRE-00 CIAE-00 DODE-00 EB-00 EUR-00  
FDRE-01 IO-19 NEA-00 OES-09 1RSE-00 /034W  
-----D45CIA 080924Z /38

R 080844Z JUL 93  
FM AMEMBASSY TUNIS  
TO SECSTATE WASHDC 1690  
INFO AMEMBASSY RABAT  
AMEMBASSY ALGIERS  
AMEMBASSY NOUAKCHOTT  
AMEMBASSY ADDIS ABABA  
AMEMBASSY ROME

UNCLAS TUNIS 05790

AIDAC FOR NE DR PI, JOHN BALIS

ROME FOR FODAG

E.O. 12356, N/A  
SUBJECT LOCUST REPORT NO 6

1 AT THE REQUEST OF TUNISIAN MINISTRY OF AGRICULTURE USAID STAFF SALAH MAHJOUR MET ON JULY 6, 1993 WITH MR. NAZIL MAHJOUR GENERAL SECRETARY OF THE COMMISSION DE LUTTE CONTRE LE CRIQUET PELEPIN EN AFRIQUE DU NORD OUEST (CLCPANO) (THE COMMISSION OF CONTROL OF DESERT LOCUST IN NORTH WESTERN AFRICA) ESTABLISHED UNDER THE UNION OF

ARAB MAGHREB STATES (HEADQUARTERS IN ALGIERS) OPERATING UNDER FAO. THE MEETING TOOK PLACE IN PRESENCE OF MR. HASKAOUI ZAIDI, HEAD OF CROP PROTECTION SERVICE AT TUNISIAN MINISTRY OF AGRICULTURE. MR. NAZIL MAHJOUR WAS VISITING TUNIS TO DISCUSS PRESENT LOCUST SITUATION AND ITS FUTURE POTENTIAL EFFECTS ON TUNIS, AS WELL AS THE OTHER MAGHREB COUNTRIES. HE IS URGING MAGHREB STATES TO DONATE INSECTICIDES AND OTHER RESOURCES TO COMBAT DESERT LOCUST IN PRESENTLY INFESTED COUNTRIES, ESPECIALLY SUDAN, ERITREA, ETHIOPIA AND EVEN WHERE LARGE SWARMS CONTINUE TO BE LOCATED AND MEANS TO CONTROL THEM ARE INSUFFICIENT. HE LIKE DR. A. SHAYLER (AS INDICATED IN ASMAR 000330) FEELS THAT MAGHREB COUNTRIES INCLUDING TUNISIA STAND TO DIRECTLY BENEFIT FROM SUCCESSFUL LOCUST CONTROL ACTIONS NOT ONLY IN ERITREA BUT IN ETHIOPIA, SUDAN AND YEMEN AS WELL.

2 MR. NAZIL MAHJOUR INDICATED THAT GOT HAS PLEDGED 60 000 LITERS OF PESTICIDES TO THE CLCPANO FOR USE WHEREVER THEY THINK IT IS APPROPRIATE. HOWEVER THE PROBLEM HE IS FACING IS THE TRANSPORT OF THE PESTICIDES TO THE INFESTED COUNTRIES AS NEITHER CLCPANO NOR FAO HAVE RESOURCES TO COVER TRANSPORT COSTS.

3 AS USAID TUNIS HAS NO FUNDS TO COVER SUCH COSTS, WE WOULD LIKE TO ASK OFDA TO CONSIDER PROVIDING RESOURCES TO FAO TO FUND TRANSPORT COSTS AND OR MAKE OTHER ARRANGEMENTS THAT WILL ENABLE EFFECTIVE USE OF THE TUNISIAN DONATED INSECTICIDES.

4 PLEASE ADVISE MCCARTHY

UNCLASSIFIED

16

Marc W.  
John B.

## MEETING NOTES

WITH: OFDA Personnel<sup>1</sup>, *Ref*  
BY: Alex Segarra, Paul desRosiers & Thomas M. Olson *DMO*  
RE: Yemen Locust Situation  
DATE: June 30, 1993  
PURPOSE: To clarify locust situation in Yemen and USAID response  
OUTCOMES:

1. OFDA wants an estimated itemized budget along with the expected contributions by each donor.
2. OFDA wants to know the mechanics and the time frame for "reimbursing" the "borrowed" funds from OFDA. They expressed concern that, if the funds were not replenished by the end of the fiscal year, OFDA "would have to 'eat' it" out of their own budget, an option they do not find pleasing.
3. OFDA does not want to be in the "bug business." After the Locust Disasters in 1986-1989, OFDA decided (apparently with the help of Congress) that Locusts are a "development problem" and should be dealt with through integrated pest management programs and projects, NOT through disaster relief. OFDA noted that the Africa Bureau has such a program and wanted to know what NE was doing along this line.
4. In response to #3 above, Olson asked directly, "Does this mean OFDA is not going to advance the \$250,000 that the Yemen Mission is asking for?"
5. Dayton Maxwell reassured us that this decision had not yet been made, and affirmed that OFDA was going to give \$25,000 to Yemen in response to the Ambassador's request in a recent cable (see #6 below). It was clear to NE/DR representatives, however, that OFDA would rather NOT get involved in any locust activity.
6. Olson cleared a draft cable to Yemen establishing an administrative reservation of \$25,000 to be used by USAID/Yemen as a contribution to FAO for the locust emergency. This is a "standard boilerplate response" to the Ambassador's request for \$25,000.

U:\NEDRPIE\DOCS\OFDAMEET.TMO July 2, 1993

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<sup>1</sup>OFDA did not introduce any of their people to NE/DR at the meeting. Dayton Maxwell was the chairman and after the meeting we got the card of Raymond Dionne, who asked Olson to clear the cable. OFDA phoned NE/DR at 3:55 pm for the 4:00 meeting.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PESTICIDES AND TOXIC  
SUBSTANCES

JUN 15 1992

CERTIFIED MAIL

Dear Registrant:

This letter is a follow-up to our February 26, 1991 letter in which we revoked your Generic Data Exemption (GDE) for certain uses which were not being supported for the chemical malathion. In that letter, you were required, within a specified time period to either (1) commit to generate data to support the dropped uses for malathion, or (2) submit revised labeling to remove the unsupported uses from the labeling within a specified time frame.

Since that February, 1991 letter, certain activities have occurred which could affect your malathion product registration status. The Malathion Reregistration Task Force (comprised of Cheminova Agro A/S and American Cyanamid Company) ceased to exist at the end of 1991 as a result of Cyanamid's sale of its malathion business to Cheminova. Cheminova recommitted to support some of the dropped uses, and the Interregional Research Project No. 4 (IR-4) (a minor use data gathering organization sponsored by USDA) committed to generate residue data to support many of the other dropped uses. Two other interested parties, the Gowal Company and the Malathion Reregistration Coalition (a third party reregistration coalition consisting of malathion formulators and distributors) have committed to support certain other dropped uses. For your information, I have attached a listing of all the uses that are currently being supported for the chemical malathion (Attachment I), as well as a list of the unsupported uses (Attachment II).

If your label still contains unsupported uses, you will need to file an application for amended registration to remove those uses. Your application must be filed within sixty (60) days of receipt of this letter, and it must comply with the provisions of PR Notice 91-1, which specifies procedures for voluntarily

requesting deletion of approved uses from registered labels. Failure to do so will result in a Notice of Intent to Suspend for your product. Any registrant wishing to add crops/sites not on their current registered label will need to submit formal application and satisfy data compensation requirements. In some cases, no additional data will be needed, but this will be on a case-by-case basis.

Your amended application packages must be directed to Robert Forrest, Product Manager (14), Registration Division, with a courtesy copy to us. The address to which you will send your amended application packages is:

MALATHION  
Document Processing Desk (H7504C)  
U.S. Environmental Protection Agency  
401 M Street  
Washington, DC 20460

If you have questions regarding this letter, please contact the Review Manager for this chemical, Joanne Edwards. She may be reached at (703) 308-8066.

Sincerely,

A handwritten signature in black ink, appearing to read 'Daniel M. Barolo', with a long horizontal flourish extending to the left.

Daniel M. Barolo, Director  
Special Review and  
Reregistration Division

## ATTACHMENT II

### USES NOT BEING SUPPORTED FOR MALATHION

**Terrestrial Food Use:** almonds, filberts, soybeans, peanuts, plums (fresh prunes), pineapples, safflower seed

**Greenhouse Food Use:** beets, celery, cole crops (including broccoli, cabbage, kale, mustard greens and turnips), melons, peas, potatoes, radish, spinach, squash, summer squash and watercress

**Aquatic Food Use:** cranberry

**Terrestrial Non-food Use:** tobacco (including transplant beds)

**Forestry Use:** forest trees (including douglas fir, eastern pine, hemlock, larch, pines, red pine, spruce, and true fir) [Christmas tree plantations falls under the terrestrial non-food use pattern; a forestry field dissipation study is not required to support a christmas tree plantation use.]

**Indoor Use:** stored commodity treatment for almonds, field or garden seeds, grapes (raisins), peanuts, rice, sorghum, sunflower; bagged citrus pulp, and cattle feed concentrate blocks (non-medicated), pet and domestic animal uses for beef cattle, cats, chickens, dairy cattle (lactating and non-lactating), dogs, ducks, geese, goats, hogs, horses, (including ponies), pigeons, sheep and turkeys; animal premise uses for dairy and livestock barns, stables and pens, feed rooms, poultry houses, manure plies, kennels, rabbits on wire, beef cattle feed lots and holding pens, cat and dog sleeping quarters, poultry houses; human clothing (woolens and other fabrics), mattresses; and commercial and industrial uses for bagged flour, cereal processing plants, edible and inedible commercial establishments, dry milk processing plants, edible and inedible eating establishments, edible and inedible food processing plants, packaged cereals, pet foods and feed stuff

**The following formulations are not being supported for any terrestrial food use, for any greenhouse food use or any stored grain commodity treatment:**

Dust (D)

Wettable Powder (WP)

Ready-to-Use (RTU) (except as noted in Attachment I)

Soluble Concentrate/Liquid (SC/L)

Ultra-Low-Volume (ULV) (except as noted in Attachment I)

(the only exceptions are that IR-4 is supporting a 50% WP on the small fruits and berry group; Gowan is supporting a 5 D formulation on dates, and the CPDA intends to support homeowner use of a WP formulation on apples, quince and pears.

<u>CROPS DEFENDED</u>	<u>SUPPORTS</u>
mango	
melon*	melon, pumpkin, watermelon
watermelon*	supplement melon data
mushroom (greenhouse use)	
okra	
papaya	
passion fruit	
peppermint	
spearmint	
strawberry	
walnut	pecan
watercress	

\* This is back-up data in case the Malathion Registration Coalition experiences difficulties.

#### **USES SUPPORTED BY OTHER INTERESTED PARTIES**

The Gowan Company has committed to generate data to support an 8EC formulation on asparagus, sugar beets and tops and ~~carrots~~ and a 5% dust formulation on dates. The Chemical Producers and Distributors Association (CPDA), representing the Malathion Coalition, intends to support the use of malathion (EC and WP formulations) on apples, pears and quince under a homeowner use label only, and an EC formulation on melons, pumpkins and watermelon for both home garden and commercial use. CPDA's proposal is under Agency review.

## ATTACHMENT I

### USES SUPPORTED BY CHEMINOVA

#### Terrestrial Food and Aquatic Food Uses (57% Emulsifiable Concentrate (EC) Formulation)

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<u>CROPS DEFENDED</u>	<u>WILL ALSO SUPPORT</u>
alfalfa*, clover*	Will supports entire Non-grass Animal Feeds Group: includes lespedeza, lupine, trefoil, vetch
corn (field and sweet)* grain sorghum* rice*, wheat*	Supports Entire Cereal Grains Group: includes barley, oats, rye
oranges	grapefruit, kumquats, lemons, limes and tangerines
lettuce (head, leaf)	endive
bulb, green onions	garlic, shallots and leeks
blueberries*	currants and gooseberries
cucumbers	squash
tomatoes	eggplant
bell pepper	
avocado	
cherries (sweet and tart)*	
cottonseed**	
beans (dry and succulent)*	
grapes	
grasses/pasture/rangeland*	
strawberry (excluding soil incorporated)	
white potato	

\* In addition to the EC formulation, the ultra-low volume (ULV) formulation is being supported.

\*\* The 57% EC, ULV and ready-to-use (RTU) formulations are being supported.

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**Terrestrial Non-Food:** ornamental flowering plants, ornamental lawns and turf, ornamental nursery stock, ornamental woody plants, pine seed orchards and uncultivated non-agricultural areas, christmas tree plantations

**Aquatic Non-Food:** intermittently flooded areas, irrigation systems and sewage systems

**Domestic and Non-Domestic Outdoor:** Outdoor domestic dwellings, wide area and general outdoor treatment (for flying insects), around commercial and industrial buildings, around agricultural buildings; outdoor garbage cans, compost/compost piles, garbage dumps, and cull fruit and vegetable dumps

**Greenhouse Food:** (limited to 57% EC formulation): Beans, corn, cucumber, eggplant, endive, lettuce, onion, pepper and tomato

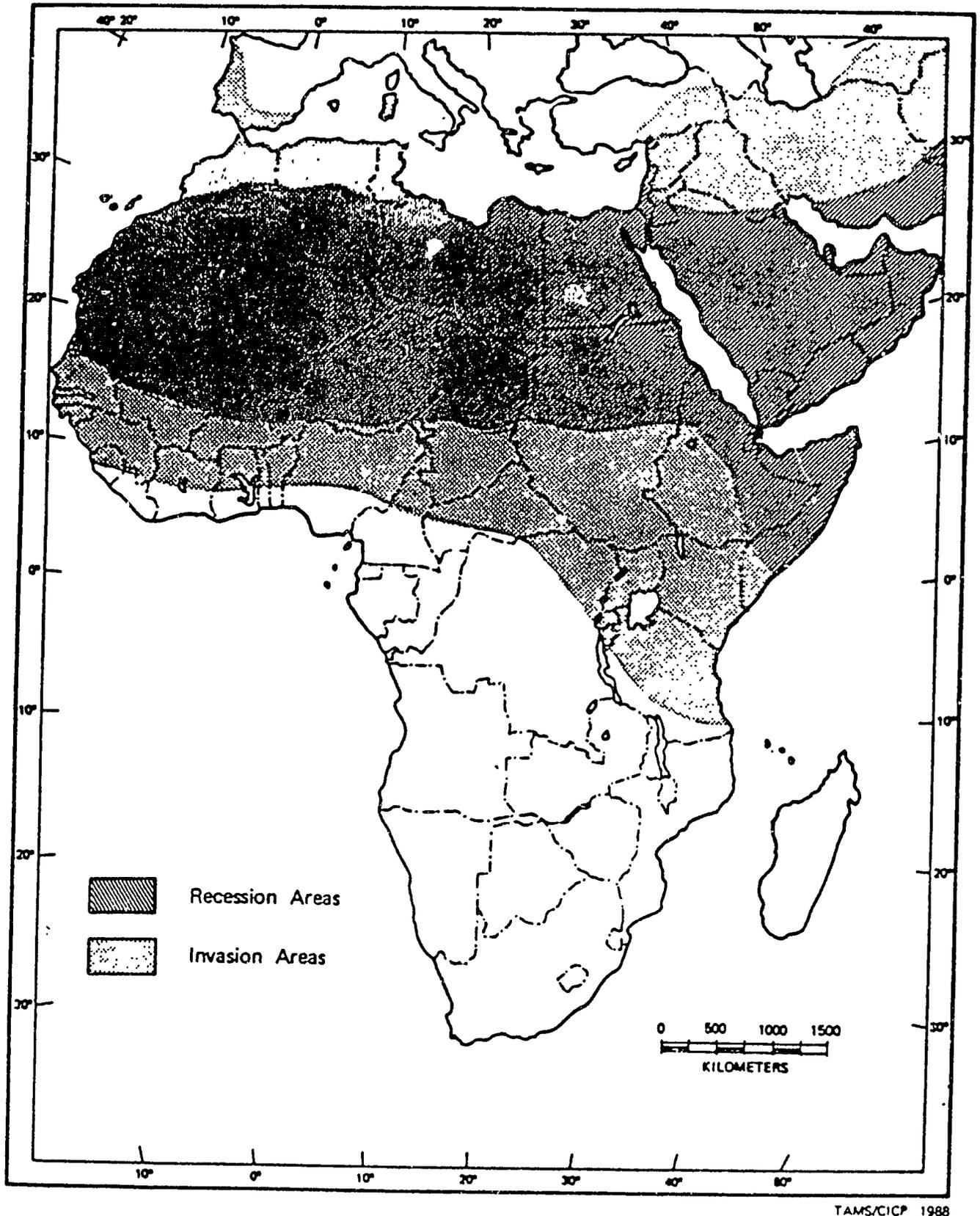
**Greenhouse Non-Food:** Epcot display crops and ornamental crops

**Indoor:** (limited to <sup>6% Duse</sup> ~~57%~~ EC formulation): Stored commodity treatment on corn, barley, oats, rye, and wheat  
+ 57% EC treatment of facilities before grain goes into storage

#### USES SUPPORTED BY IR-4

(57% Emulsifiable Concentrate and 50 Wettable Powder formulations in the small fruits and berry group (blackberry and strawberry); other uses limited to the 57% formulation only)

<u>CROPS DEFENDED</u>	<u>SUPPORTS</u>
peach	nectarine
apricot	
turnip	beet, horseradish, salsify, sweet potato, parsnip, radish, rutabaga
blackberry	boysenberry, currant, dewberry, gooseberry, loganberry, supplement blackberry data
raspberry	
broccoli, cabbage, mustard greens	Entire Brassica Leafy Vegetables Group: includes brussels sprouts, cauliflower, kale, kohlrabi
collards	(to supplement Brassica group)
spinach, celery	Cheminova is supporting lettuce. The three combined should support the entire leafy vegetable group, which includes dandelion, parsley, swiss chard
pea	
lentil	supplement pea data
chayote	
chestnut	
fig	
flax	
garland chrysanthemum	
guava	
hops	
macadamia	



TAMS/CICP 1988

Figure 1. Invasion and recession areas of the Desert Locust  
 Source: Waloff, 1976