

FD-AR-561



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July 30, 1993

Dr. Barry N. Heyman
Chief, Prevention, Mitigation & Preparedness
Office of U.S. Foreign Disaster Assistance
Food and Humanitarian Assistance Bureau
Washington, DC 20523-0008

Subject: LAMP Program Cooperative Agreement No. AOT-
2515-A-00-2125-00 between A.I.D. and the
World Environment Center (WEC)

Dear Barry,

The purpose of this letter is to forward five (5) copies of the Quarterly Progress Report for a "Program for Environmental Disaster Prevention, Mitigation and Preparedness in Developing Countries". The report describes activities initiated or completed during the period 1 April through 30 June 1993, plus activities in the planning stage for the next quarter and beyond. This Report is being submitted to you in fulfillment of the requirements of Section 1E.2.(c) of the subject Cooperative Agreement (CA).

If you have any questions or comments, please contact me.

Sincerely,

Richard M. Williams
Project Manager

cc:

Antony Marcil, WEC/NY
Jeffrey D. Bell, Grant Officer, Office of Procurement
PPC/CDIE/DI, Washington, DC 20523-1802 (2 copies)

The Office of U.S. Foreign Disaster Assistance (OFDA)

**PROGRAM FOR ENVIRONMENTAL DISASTER PREVENTION,
MITIGATION AND PREPAREDNESS IN DEVELOPING COUNTRIES**

QUARTERLY REPORT #3

Issued by:

World Environment Center (WEC)

July 30, 1993

Contents

A.	Program Description	1
B.	Overall LAMP Program Implementation Schedule .	2
C.	Implementation of the LAMP Program in Mexico . .	4
D.	Implementation of the LAMP Program in India . .	4
E.	Implementation of the LAMP Program in Thailand .	5
F.	Implementation of the LAMP Program in Indonesia .	6
G.	Miscellaneous Activities	7

Third Quarterly Report
on a Program for Environmental Disaster Mitigation
and Prevention in Developing Countries

A. Program Description

Utilizing approximately one-year's initial funding from the U.S.A.I.D.'s Office of Foreign Disaster Assistance (OFDA), the World Environment Center (WEC) has begun implementing prototype prevention and mitigation programs for environmental and man-made disasters and emergencies in high-risk urban centers in India, Mexico, Indonesia and Thailand. The objective of this five-year program is to reduce the incidence and impact of major industrial, hazardous materials transport or other technological accidents and disasters in selected locales in the target countries.

In India, the program is being managed by WEC in cooperation with the National Safety Council (NSC) of India. In Mexico, the program is managed by WEC through its office in Mexico City, in conjunction with the Ministry of Civil Protection, with whom WEC has signed a broad agreement for cooperation on industrial emergency preparedness activities. In Thailand and Indonesia, the programs are being managed through the local WEC office in each country.

At this phase in the implementation of local accident mitigation and prevention (LAMP) programs in each country, the following activities are being conducted or planned:

<u>Symbol</u>	<u>Activity</u>
XXXX	Pre-APELL Seminar/Workshop meetings in a particular country to plan one or more S/Ws at selected cities and industrial sites
YYYY	Pre-APELL Seminar/Workshop site check investigations to meet with local industry, government and community officials to define the agenda, schedule and participation at a proposed S/W in a particular city.
SSSS	Conduct APELL Seminar/Workshop at a particular site to promote the active involvement of all local segments in the formulation and activation of community preparedness plans.
AAAA	Assessment of chemical risks at a particular site and delineation of accident prevention measures.

. H.

- PPPP Evaluation of existing on-site and off-site industrial preparedness plans to respond to identified chemical risks.
- TTTT Training in emergency plan preparation and execution.
- MMMM Training in medical response to chemical emergencies.
- HHHH Hiring of emergency preparedness staff by local WEC office or LAMP affiliate in that country.
- DDDD Organize/oversee mock emergency drills to test the completeness and effectiveness of emergency response plans that have been formulated to counteract particular chemical risks and accident scenarios.
- EEEE Observe/participate in emergency preparedness training and mock emergency drills in the U.S. so as to gain greater understanding of the role of the community in assessing chemical risks and organizing emergency plans.
- RRRR Organize/coordinate training programs in industrial accident and loss prevention in chemical and process industries.
- CCCC Training in establishing chemical information centers, such as poison control centers, chemical transport emergency management (CHEMTREC) centers, etc.
- WWWW Organize/coordinate training programs in the handling of hazardous wastes.

B. Overall LAMP Program Implementation Schedule

An overall schedule (in four segments, I through IV) for implementing the LAMP Program in FYs 93 and 94 is attached. This LAMP program implementation schedule uses the symbols listed above to specify which activities will be initiated month-by-month in the various target countries. These represent the best estimates as to when individual pre-seminar/workshop meetings and site checks, full seminar/workshops, site risk assessments, and site plan assessments are being held. In addition, the dates for hiring local emergency preparedness staff in each country are indicated. Finally, estimated and

actual dates for conducting training courses in emergency planning and medical response to chemical emergencies are identified. These courses are being presented with the cooperation of EPA's Chemical Emergencies Preparedness and Prevention Office and CDC's Center for Environmental Health Division of Environmental Hazards and Health Effects. Similarly, proposed dates for conducting mock emergency drills at particular LAMP sites are indicated, along with estimated dates for implementing training in industrial accident and loss prevention. All training and mock drills are being scheduled by the local coordinating committee at each LAMP site, with WEC providing some technical assistance in organizing and evaluating the drill. It should be noted that activities already completed are indicated in bold letters.

In general, this last quarter has been devoted primarily to planning discrete activities and interventions that will be implemented in the next three to six months. As such, there were only a few centrally-planned activities implemented in this quarter. Instead, as the individual country reports will show, local LAMP staff in each country have been busy doing "spade-work" with industry and government associated with particular industrial estates, to prepare for a formal, defined LAMP activity drawn from the list above.

Train-the-trainer Seminar in U.S.

U.S. EPA is in the process of internationalizing its "Hazardous Materials Contingency Planning" course that has been taught for several years at the FEMA training center in Emmitsburg. The course has been recommissioned as the "Chemical Emergency Preparedness and Accident Prevention" course. EPA has offered to train U.S. and host-country LAMP personnel on how to teach the course. The course will use interactive training techniques to introduce several major topics in community emergency preparedness and accident prevention (e.g. setting up the emergency planning process, conducting a community hazards analysis, developing and testing an emergency plan, using process safety management to prevent accidents.)

For some months, EPA and WEC have been planning a 3 and 1/2 day seminar on the new course, to be followed by witnessing a mock emergency drill as organized by a U.S. Local Emergency Planning Committee (LEPC), a HAZMAT team demonstration and a CAMEO demonstration. These activities have been organized to take place from September 13 to 21. The participants to this train the trainer course will be the LAMP coordinators of WEC's country offices in Mexico, Thailand and Indonesia and a technical training officer from the National Safety Council of India. Following the above, three of the four will also participate in the International Process Safety Management Conference & Workshop in San Francisco from Sept. 22-24.

C. Implementation of the LAMP Program in Mexico

As stated in the Program Description above, the Lamp Program in Mexico is being implemented by the WEC Director in Mexico, in cooperation with the Ministry of Interior - Department of Civil Protection ("Gubernacion"). See the LAMP implementation plan issued in December 1992 for more details on the agreement with Gubernacion.

1. Progress in this Quarter

WEC/Mexico staff are now cooperating with the ministry of civil protection (Gubernacion), the Mexican chemical manufacturers' association (ANIQ), the Mexican national environmental protection agency (SEDESOL) and authorities in Coatzacoalcos to organize a local a community emergency response exercise in October. Approximately two days will be devoted to a planning workshop, during which time the responsibilities of local police, medical, fire, social service, communications, etc. roles will be defined, to be followed by a full-scale emergency exercise.

2. Planned LAMP Implementation Activities

Proposed APELL S/Ws and various other LAMP implementation activities are indicated on the master implementation schedule ("I.S.") attached. In the future, there are plans to train community representatives from Monterrey, Coatzacoalcos and Guadalajara in risk assessment, the formulation of emergency plans to respond to the risk, alternative plan evaluation and the organization of mock emergency drills to test the efficiency and completeness of emergency plans. The training materials are essentially those developed by U.S.EPA\CEPPO for their "Hazardous Materials Contingency Planning Course" and are presently used to train representatives from Local Emergency Planning Committees (LEPC's) in the U.S.

D. Implementation of the LAMP Program in India

As noted previously, the LAMP program is being implemented through the National Safety Council of India, which is headquartered in Bombay but has branches in each Indian State.

1. Progress in this Quarter

A consultant to WEC (C. Robert Young) traveled to Kanpur in early April, along with a representative of the National Safety Council. There they met with local industry, government and community representatives to plan the next APELL S/W. Prior to this travel, Mr. Young had been in New Delhi to represent LAMP at the I.L.O. World Congress in early April.

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2. Planned LAMP Implementation Activities

Presentations in India of CEP&AP Course - After the train the trainer course in the U.S. a three-member EPA team and a WEC official will be visiting India to give a field demonstration of the CEP&AP Course in Madras and Bombay cities from October 11-14 and October 18-21 respectively. The courses will be given to representatives of local Rotary Clubs, schools, hospitals, fire departments, etc., plus representatives of local industry and government. The course arrangements are being done by the National Safety Council of India which, afterwards, will present the same course in other cities and communities using their own trained staff.

A mock emergency drill will be organized in Madras by the Manali-Ennore Industries Association in early November, with the participation of a senior consultant provided by WEC. This has been indicated by "DDD" on the I.S.

Other tentative dates for proposed APELL S/W's and emergency preparedness, medical response and accident prevention training programs are identified on the I.S.

E. Implementation of the LAMP Program in Thailand

As stated in the Program Description, the Lamp Program in Thailand is being implemented by the WEC Office in Bangkok.

1. Progress in this Quarter

The LAMP Coordinator in Thailand has been working with industry officials at the Bangpoo and Map Ta Phut Industrial Estates to increase their awareness of sound industrial emergency preparedness at the plant level and industrial estate level. In response to his efforts, The Bangpoo Industry Club has set up a working group to identify training needs. At Map Ta Phut, several industrial plants are in the process of establishing an Industry Club to address issues of mutual concern, such as estate-wide emergency preparedness planning and standards for in-plant plans.

The various LAMP activities conducted to date (such as the CAMEO training, risk assessments and medical response seminars) have attracted the interest of USAID/Thailand in emergency preparedness programs. Accordingly, USAID has asked WEC/Thailand to introduce a pilot Chemtrec program, conduct training for Fire Inspectors and do Factory Fire Hazard Assessments. Furthermore, the Thai Pollution Control Department has asked WEC to submit a proposal for prevention of accidents in the Bangkok (Klong Toey) Port.

2. Planned LAMP Implementation Activities

The LAMP Coordinator for Thailand will participate in the "train the trainers" session for EPA's "Chemical Emergency Preparedness and Accident Prevention Course" and the mock emergency drill to be organized in September.

Other tentative dates for proposed APELL S/W's and emergency preparedness, medical response and accident prevention training programs are identified on I.S.

F. Implementation of the LAMP Program in Indonesia

As noted before, the Lamp Program in Indonesia is being implemented by the WEC Office in Jakarta, in cooperation with the Ministry of Population and Environment - Environmental Impact Management Agency (BAPEDAL).

1. Progress in this Quarter

On June 15, BAPEDAL wrote to UNEP to formally request that an APELL Seminar/Workshop be organized in Indonesia in Fall 1993. UNEP has responded by asking a series of questions about the intended site (no specific site was identified in the BAPEDAL letter).

During the past two months, the LAMP Coordinator for Indonesia has been meeting with local industry and government officials related to an industrial area between Jakarta and Bogor. The head of the local industrial association asked for WEC's assistance in helping the member firms organize an effective joint emergency response plan.

2. Planned LAMP Implementation Activities

The LAMP Coordinator for Indonesia will participate in the "train the trainers" session for EPA's "Hazardous Materials Contingency Planning Course" and the mock emergency drill to be organized in September.

Other tentative dates for proposed APELL S/W's and emergency preparedness, medical response and accident prevention training programs are identified on the I.S.

G. Miscellaneous Activities

Consistent with the stated objectives and goals of the program, WEC may undertake miscellaneous activities to prevent or mitigate technological accidents in other developing countries.

Q

The specific scope and budget for each activity are defined jointly by WEC and the OFDA Project Officer.

1. Progress in this Quarter

On April 2, 1993 a report on a hazardous materials assessment of Kingston, Jamaica was issued by two EPA experts (John Gustafson and Henry Hudson). They had previously visited Jamaica from February 27 to March 4, 1993 to review existing contingency plans for hazardous waste spills and chemical accidents and scope out a longer-term program for risk assessment and community-based emergency planning. This effort was done in cooperation with the Jamaica Office of Disaster Preparedness (ODP), the Jamaica Natural Resource Conservation Authority (NRCA) and the local representative of OFDA.

The EPA experts recommended that a chemical safety audit training program be organized to help the concerned Jamaican agencies mitigate the risk on near-by housing posed by chemical storage and processing facilities. This should be done before convening an APELL S/W to address these and other emergency preparedness concerns.

A WEC/DC staff member had visited San Jose, Costa Rica in late February to define terms for proposed legal investigations into appropriate laws and regulations for hazardous waste management in Costa Rica. As of 30 June, a contract was being negotiated with the environment and natural resources center (CEDERENA) to conduct the study, which is due to be completed in four to six months.

2. Planned LAMP Implementation Activities

Further efforts will be contingent on receiving firm commitments of new funding for this category of activity.

WEC LAMP PROGRAM IMPLEMENTATION SCHEDULE I
1992/93

COUNTRY/SITE	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR
THAILAND								
MTPhut		XXX			AAPP		HHH	
Bangpoo		XXX			AAPP		MMM MMM	
MEXICO					HHH			
Coatzl.	XXX							
Montrey.			XXX					
Guadlhr.						YYY		SSS
INDIA								
Madras		SSS						
Bombay		XXX					MMM	
Kanpur							MMM	
INDONESIA								
Lhoksmwe.							HHH	
Cilogan							XXX	
MISC. ACTIVITIES								
Brazil			SSS					
Jamaica							AAPP	
Costa Rica								SCT

LEGEND

XXX PRE SEMINAR/WORKSHOP MEETINGS (planned) (* = tentative) (actual)	SSS SEMINAR/WORKSHOP	SCT SCOUTING VISIT
YYY PRE SEMINAR/WORKSHOP SITE CHECK	PPP SITE PLAN ASSESSMENT	
AAA SITE RISK ASSESSMENT	MMM TRNG. IN MED. RESPNS. TO CHEM. EMERGENCIES.	
TTT TRAINING IN EMERGENCY PLANNING	HHH HIRING OF LOCAL EMERG. PREP. STAFF	
DDD MOCK EMERGENCY DRILL		

WEC LAMP PROGRAM IMPLEMENTATION SCHEDULE II
1993

COUNTRY/SITE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
THAILAND						TTEE		
MTPhut								TTT*
Bangpoo								TTT*
MEXICO						TTEE		
Coatzl.								
Montrey							SSS	
Guadlhr.								
INDIA						TTEE		
Madras								DDD
Bombay							TTT	
Kanpur		YYY					TTT	SSS*
INDONESIA						TTEE		
Lhoksmwe.								
Cilogan								
Bogor							AAPP*	
MISC. ACTIVITIES						AAPP*		
Jamaica		YYY						
Costa Rica								SSS*

LEGEND

XXX	PRE SEMINAR/WORKSHOP MEETINGS (planned) (* = tentative) (actual)	SCT	SCOUTING VISIT
YYY	PRE SEMINAR/WORKSHOP SITE CHECK	SSS	SEMINAR/WORKSHOP
AAA	SITE RISK ASSESSMENT	PPP	SITE PLAN ASSESSMENT
TTT	TRAINING IN EMERGENCY PLANNING	MMM	TRNG. IN MED. RESPNS. TO CHEM. EMERGENCIES.
DDD	MOCK EMERGENCY DRILL	HHH	HIRING OF LOCAL EMERG. PREP. STAFF
EEE	EMERGENCY EXERCISE TRAINING IN U.S.	RRR	TRAINING IN ACCIDENT PREVENTION

REVISED 7/29/93

WEC LAMP PROGRAM IMPLEMENTATION SCHEDULE III
1993/94

COUNTRY/SITE	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
THAILAND								
MTPhut		SSS*			DDD*			
Bangpoo		SSS*			DDD*		RRR*	RRR*
MEXICO								
Coatzl.	MMM*		TTT*			DDD*		RRR*
Montrey	MMM*		TTT*			DDD*		RRR*
Guadlhr.	MMM*		TTT*		SSS*		RRR*	RRR*
INDIA								
Madras					RRR*			
Bombay		SSS*			RRR*		DDD*	
Kanpur			DDD*		RRR*			
INDONESIA								
Cilogan		TTT*			MMM*		DDD*	RRR*
Bogor	TTT*				MMM*		DDD*	RRR*
MISC. ACTIVITIES								

LEGEND

XXX PRE SEMINAR/WORKSHOP MEETINGS (planned) (* = tentative) (actual)	SCT SCOUTING VISIT
YYY PRE SEMINAR/WORKSHOP SITE CHECK	SSS SEMINAR/WORKSHOP
AAA SITE RISK ASSESSMENT	PPP SITE PLAN ASSESSMENT
TTT TRAINING IN EMERGENCY PLANNING	MMM TRNG. IN MED. RESPNS. TO CHEM. EMERGENCIES.
DDD MOCK EMERGENCY DRILL	HHH HIRING OF LOCAL EMERG. PREP. STAFF
EEE EMERGENCY EXERCISE TRAINING IN U.S.	RRR TRAINING IN ACCIDENT PREVENTION

WEC LAMP PROGRAM IMPLEMENTATION SCHEDULE IV
1994/95

COUNTRY/SITE	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN
THAILAND		CCC*						
MTPhut				WWW*				
Bangpoo			WWW*					
MEXICO		CCC*						
Coatzl.			WWW*					
Montrey			WWW*					
Guadlhr.			WWW*					
INDIA		CCC*						
Madras								
Bombay								
Kanpur								
INDONESIA		CCC*						
Cilogan					WWW*			
Bogor					WWW*			
MISC. ACTIVITIES								

LEGEND

XXX PRE SEMINAR/WORKSHOP MEETINGS (planned) (* = tentative) (actual)	SCT SCOUTING VISIT
YYY PRE SEMINAR/WORKSHOP SITE CHECK	SSS SEMINAR/WORKSHOP
AAA SITE RISK ASSESSMENT	PPP SITE PLAN ASSESSMENT
TTT TRAINING IN EMERGENCY PLANNING	MMM TRNG. IN MED. RESPNS. TO CHEM. EMERGENCIES.
DDD MOCK EMERGENCY DRILL	HHH HIRING OF LOCAL EMERG. PREP. STAFF
EEE EMERGENCY EXERCISE TRAINING IN U.S.	RRR TRAINING IN ACCIDENT PREVENTION
CCC TRAINING IN CHEM. INFO. CTRS.	WWW TRAINING IN HAZARDOUS WASTE HANDLING

14