

I. PROJECT IDENTIFICATION

PROJECT TITLE
 Food Waste/Sanitation Cost Benefit Methodology 3/11/76

APPENDIX ATTACHED
 YES NO bp

PROJECT NO. (M.O. 1025.2)
 931-11-510-867

RECIPIENT (specify)
 COUNTRY _____
 REGIONAL _____ INTERREGIONAL TAB

LIFE OF PROJECT
 BEGINS FY 1971
 ENDS FY 1978

SUBMISSION
 ORIGINAL Dec-1970
 REV. NO. 3/5978
 OASD/ODSA NO. 2959

II. FUNDING (\$000) AND MAN MONTHS (MM) REQUIREMENTS

A. FUNDING BY FISCAL YEAR	B. TOTAL \$	C. PERSONNEL		D. PARTICIPANTS		E. COMMODITIES \$	F. OTHER COSTS \$	G. PASA/CONTR.		H. LOCAL EXCHANGE CURRENCY RATE: \$ US _____ (U.S. OWNED)		
		(1) \$	(2) MM	(1) \$	(2) MM			(1) \$	(2) MM	(1) U.S. GRANT LOAN	(2) COOP COUNTRY (A) JOINT (B) BUDGET	
1. PRIOR THRU ACTUAL FY	1,218	716	1203			67	435	1,218	1203			
2. OPRN FY 76	300	174	290			9	117	300	290			
3. BUDGET 77 FY	585	340	582			8	237	585	582			
4. BUDGET +1 FY 78	232	139	235			10	83	232	235			
5. BUDGET +2 FY												
6. BUDGET +3 FY												
7. ALL SUBQ. FY												
8. GRAND TOTAL	2,335	1,369	2310			94	872	2,335	2310			

9. OTHER DONOR CONTRIBUTIONS

(A) NAME OF DONOR	(B) KIND OF GOODS/SERVICES	(C) AMOUNT
University of North Carolina	Services and Computer time	\$42,000
Government of Guatemala	Services, Facilities and Construction	\$60,000

III. ORIGINATING OFFICE CLEARANCE

1. DRAFTER TA/H, <u>J. Stockard, M.D.</u>	TITLE Project Officer	DATE 3/10/76
2. CLEARANCE OFFICER TA/H, <u>L.N. Howard, M.D.</u>	TITLE Director, TA/H	DATE 3/10/76

IV. PROJECT AUTHORIZATION

1. CONDITIONS OF APPROVAL

This Project Paper Revision 2 provides an interim extension of eight months to permit an external review of the project prior to consideration of a further 25 month funding extension. Funding is approved only for FY 76.

Ref. Action Memorandum for the Deputy Administrator, dated March 12, 1976

2. CLEARANCES

BUR/OFF.	SIGNATURE	DATE	BUR/OFF	SIGNATURE	DATE
TA/PPU	<u>Carl R. Fritz</u>		PPC/DPRE	<u>Arthur Handly</u>	
LA/DR	<u>Robert Simpson</u>	<u>3/11/76</u>	AA/PPC	<u>Philip Birnbaum</u>	<u>3/22/76</u>

3. APPROVAL AAs OR OFFICE DIRECTORS

SIGNATURE <u>Curtis Ferrar</u>	DATE <u>3/11/76</u>
TITLE Assistant Administrator, AA/TA	

4. APPROVAL AAs (See M.O. 1025.1 VI C)

SIGNATURE <u>John E. Murray</u>	DATE <u>3/11/76</u>
TITLE Deputy Administrator, A/AID	

imp. 2

MAR 17 5 27 PM '76

EXECUTIVE SECRETARIAT

MAR 17 1976

ACTION MEMORANDUM FOR THE DEPUTY ADMINISTRATOR

THRU: ES

FROM: AA/TA, Curt *CF* Farrar

Problem: An informal commitment is required to assure the University of North Carolina that subcontract costs of INCAP local employees in Guatemala will be reimbursed from March 19, 1976 until the date of the contract extension or termination if the attached memorandum is disapproved.

Discussion: The attached memorandum, requesting approval of an eight-month interim funding extension of the Food Waste/Sanitation Cost Benefit Methodology project, has been submitted for your consideration. Since the submission of this memorandum, we have been informed by the contractor, the University of North Carolina, that commitment to the subcontractor (INCAP) is required by March 19, or INCAP will have to terminate local employees in Guatemala.

We had anticipated that the processing of the required documents to extend UNC's contract would be completed by the expiration date of March 31, 1976. We had not taken into account INCAP's needs for funding of local employees prior to that date. We, therefore, need an informal commitment to provide UNC evidence that at least another 30 days of project funding will be provided.

Recommendation: That you approve an informal commitment to the University of North Carolina that funds, not to exceed \$35,000, will be provided for the INCAP subcontract without a lapse in coverage pending contract revision to reflect your decision on extension or termination.

Attachment:

Action Memorandum from Farrar to Murphy, dated March 12, 1976.

Approval: *[Signature]*

Disapproval: _____

Date: 3/18/76

Clearances:

GC:CLGladson *[Signature]*

GC/TFHA:ARRichstein *[Signature]*
3/18/76

for ecmsl.
TA/HJUNewman:TA/PPU:EC:McLeod:js:3/17/76 *ecmsl.*

ACTION MEMORANDUM FOR THE DEPUTY ADMINISTRATOR

MAR 12 1976

THRU: ES

THRU: AA/PPC, Mr. Philip Birnbaum

FROM: AA/TA, Curtis Farrar *cf*

**SUBJECT: Food Waste/Sanitation Cost Benefit Methodology Project
Extension**

Problem: An eight month interim funding extension is requested, from March 31, 1976 through November 30, 1976, for the Food Waste/Sanitation Cost Benefit Methodology project to allow time for an external evaluation prior to consideration of revision and further extension, from November 30, 1976 to December 31, 1978, of this project.

Discussion: This project is field testing a methodology for determining the cost effectiveness of a community potable water supply, improved waste disposal and sanitation education in reducing food waste attributable to intestinal malabsorption. The prime contractor is the University of North Carolina (UNC), which is implementing the major portion of the activity through a subcontract with the Nutrition Institute of Central America and Panama (INCAP). The site of the field testing is in Guatemala. The Government of Guatemala has actively participated in site selection, provided a water reservoir, water intake mains and the primary water distribution system in the test community. Two rural Guatemalan communities are the subjects of the field trial. Of these, one has been improved with respect to the environmental sanitation measures being tested and the other is an unaltered control community. All inputs that are expected to be required for accomplishment of the projects purpose - piped potable water to individual homes, installation of latrines and provision of health education - are either now in place or in process of being installed.

In FY 1969, AID approved a pre-project authorization and contracted with the University of North Carolina to develop and field test the methodology. The project was designed in four phases. Phase I, called for literature review and development of a methodology which has been completed (funded in FY 69); Phase II, field testing in Guatemala for three years (funded in FY 71); Phase III, a workshop to review the results of the pilot study; and Phase IV, consideration of future application of a modified methodology in another LDC.

In June 1972, the current Project Paper (PROP) was approved providing FY 1972 funding and approving conditionally, subject to the findings of an external review team, the redesign of Phase II to incorporate provision and testing of nutrient supplements (Food for Peace Title II commodities) in both the test and control villages. The revision extended the life of the project through FY 1977 and funding through FY 1975, and increased the total cost to \$1,153,000. Funding for the final two years was to be provided through PROP amendment. The external review team findings (February 1973) supported the project, concluding that provided the timetable for sanitary works was adhered to strictly and efforts to affect individual sanitary behavior were successful, the project would be likely to produce useful measurements of the degree to which food wastage via malabsorption is affected by sanitary measures.

During the period 1972-1975, the project operations, impeded by a series of unusual events, fell considerably behind schedule and unanticipated increases in cost resulted in actual obligations totalling \$1,218,000. This represented only a 6% increase for the approved project period but has substantial implications for the remaining period through project completion.

Progress was interrupted when a falling tree demolished the testing laboratory; and the key technician in the nitrogen testing laboratory died of a heart attack. The laboratory had to be rebuilt and a new key technician oriented to the job. Completion of installation of the treated water supply was delayed about six months, from June 1973 to January 1974. This was due partially to honoring the Government of Guatemala's request for a dedication ceremony to be held in September 1973, and subsequently to the failure of the U.S. suppliers to provide proper connections for the chlorination of the system. The villages have been slow to accept the use of latrines; and additional health educators have been needed.

Funding costs for completion of the project have increased substantially not only because of the delays but also because of unanticipated requirements. In 1972, when the project began it is doubtful that anyone would have foreseen the 50% inflationary increases in Guatemala, increased travel costs, the U.S. dollar devaluation and the two United Nations salary increases for the INCAP staff, all of which have contributed to the increased cost of the project.

Increased requirements for data management and analysis have added to delays and higher cost.

A new, and as yet unassessed, disruption to project activities is the recent earthquake in Guatemala. While the site of the project lies outside the earthquake area, INCAP in Guatemala City has reportedly sustained damage to its laboratories. The extent that INCAP personnel working on the project might be called upon to help their families and people in other areas and the limitation on commodities and transportation is not likely to be known for some while.

In the last annual internal evaluation, (PAR dated May 1975) the review team recommended a revision and extension of the project to December 1978 (funding through FY 1978) with a modified implementation schedule in view of the delays the project had experienced, a deletion of the nutrient supplement from future planning because of the unavailability of P.L. 480 Title II commodities, and additional funding. The evaluation team concluded that the project continues to be regarded as being technically feasible and the work plan to be appropriate for accomplishment of the project purpose.

In the FY 77 ABS review a proposed revision and three year extension to complete the project was considered. This would add \$1,117,000 to the previous cost of the project for a total of \$2,335,000. The FY 77 Congressional Presentation includes \$435,000 in FY 76 and \$450,000 in FY 77 for the proposed revised project.

A draft project paper (PP) has been prepared and reviewed within TAB. A number of issues have been proposed for further review. These include the need to reconsider the major assumptions made at the outset in light of experience accumulated to date, whether a simplified model for expressing relationship between sanitary interventions and cost benefits from reduction in food malabsorption is realistic and practical, and whether the project could be terminated at an earlier date and lower cost and still achieve scientifically acceptable, albeit more modest, results.

The outcome of these discussions was general agreement that this was an appropriate time for another external review prior to further revision or extension. To accommodate the outside review, the PP revision and approval process, I am requesting your approval of an eight month interim extension of the present PROP at the current level of activity. Based on FY 1975 obligations an eight month extension would require \$280,000 at the rate of \$35,000 per month or roughly \$300,000 including funds for the external review. The contract with the University of North Carolina, which expires March 31, 1976, would then be extended to November 30, 1976.

Funds for this project are included in the "Environmental Health" Grant Activity Data Sheet, p. 41 of the FY 76 CP Interregional Book.

