

(Formerly PD-AAL-99) ISN 1342

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS PART I		1. TRANSACTION CODE <input checked="" type="checkbox"/> A    A = ADD <input type="checkbox"/> C    C = CHANGE <input type="checkbox"/> D    D = DELETE	PAF 2. DOCUMENT CODE 5
3. COUNTRY/ENTITY DS/AGR/AP Type e. Program Development & Support		4. DOCUMENT REVISION NUMBER <input type="checkbox"/> 1 Amendment	
5. PROJECT NUMBER (7 digits) <input type="checkbox"/> 936-4109 <input type="checkbox"/>		6. BUREAU/OFFICE A. SYMBOL    B. CODE DSB <input type="checkbox"/> 10	
8. PROJECT APPROVAL DECISION <input checked="" type="checkbox"/> A    A = APPROVED <input type="checkbox"/> D    D = DISAPPROVED <input type="checkbox"/> DE   DE = DEAUTHORIZED		7. PROJECT TITLE (Maximum 40 characters) <input type="checkbox"/> Crop Production/Utilization-Tech.Asst	
9. EST. PERIOD OF IMPLEMENTATION YRS. <input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1    QTRS. <input type="checkbox"/> 1			

10. APPROVED BUDGET AID APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>81</u>		H. 2ND FY <u>82</u>		K. 3RD FY <u>83</u>	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) ARDN	129I	070	-	350	-	0	-	0	-
(2)									
(3)									
(4)									
TOTALS				350	-	0	-	0	-

A. APPROPRIATION	N. 4TH FY <u>84</u>		O. 5TH FY <u>85</u>		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED		
	Q. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	GRANT	LOAN	
(1) ARDN	0	-	0	-	350	-	1	-	
(2)									
(3)									
(4)									
TOTALS		0	-	0	-	350	-	81	

12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000)		13. FUNDS RESERVED FOR ALLOTMENT	
A. APPROPRIATION	B. ALLOTMENT REQUEST NO.	N/A	
(1) N/A	C. GRANT    D. LOAN	TYPED NAME (CHIEF, SECRETARY)	
(2)		SIGNATURE	
(3)		DATE	
(4)			
TOTALS			

14. SOURCE/ORIGIN OF GOODS AND SERVICES     000     541     LOCAL     OTHER \_\_\_\_\_

15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED

This amendment increases the total project costs from \$200,000 to \$350,000 in FY 81 Funds and extends the project by 3 months from July, 1982 to September 30, 1982.

FOR PFC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE	18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE
		MM DD YY		MM DD YY

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS  
Part II

ENTITY : Bureau for Development Support

PROJECT : Crop Production and Utilization - Technical Assistance

PROJECT NUMBER: 936-4109

I hereby authorize additional grant funds not to exceed \$150,000 for a previously approved PAF for a RSSA agreement and extend the project for three months from July 1, 1981 and end September 30, 1982. This amendment will also provide for a Postharvest Food Loss Specialist for DS/AGR/AP and for the revision and reprinting of the A.T.D. publication, "Handbook of Tropical and Subtropical Horticulture."

  
Bernard Chaonick  
Acting Assistant Administrator  
Bureau for Development Support

Date: 6/19/81

Clearances:

DS/AGR/AP, RT Jackson	<u>RTS</u>	Date: <u>5/26/81</u>
DS/AGR/AP, TMohe	<u>TM</u>	Date: <u>5/26/81</u>
DS/AGR, MZvnski	<u>MEM</u>	Date: <u>5/27/81</u>
DS/AGR, KMcDermott	<u>KB</u>	Date: <u>5/28/81</u>
DS/AGR, DRFiester	<u>DR</u>	Date: <u>Jun 19, 1981</u>
DS/PO, ASilver	<u>AS</u>	Date: <u>6/19/81</u>
DS/PO, AMorales		Date: _____

References:

Action Memo: Fiester to Babb, May 20, 1981 (Attached)  
Amendment to Project Statement and Additional Budget (Attached)  
Approved Action Memo: March 19, 1981 (Attached)  
Original Project Statement and Budget (Attached)

May 20, 1981

ACTION MEMORANDUM FOR THE ACTING ASSISTANT ADMINISTRATOR,  
BUREAU FOR DEVELOPMENT SUPPORT

FROM: DS/AGR, Donald R. Fiester

SUBJECT: Crop Production and Utilization Technical Assistance

Background: Your approval is required to amend a PAP which was originally approved May 5, 1981 for the establishment of a RSSA agreement with USDA. Your approval of this amendment will: (a) extend the project for three months from July 1, 1982 to September 30, 1982 for a total project period of 15 months beginning July 1, 1981 and ending September 30, 1982; (b) provide additional funding, not to exceed \$150,000 for an estimated total project cost of \$350,000; (c) provide for a Postharvest Food Loss Specialist for the Agricultural Production Division (DS/AGR/AP) and; (d) provide for the revision and reprinting of the A.I.D. publication, "Handbook of Tropical and Subtropical Agriculture."

Discussion: The Agricultural Production Division has a continuous need for a professional staff member to assist DS/AGR's postharvest food loss control program. DS/AGR/AP needs to have the capability to provide assistance as required by the Missions, host countries, and Regional Bureaus in the areas of research and technical assistance, project design, implementation and evaluation for the reduction and prevention of postharvest food losses.

There is a need to provide for the revision of the 1970 version of the A.I.D. publication, "Handbook of Tropical and Subtropical Agriculture." Since the last revision, there have been many new varieties of fruits and vegetables developed for the tropics and subtropics. Many of the crop protection chemicals are now obsolete, or no longer approved by the Environmental Protection Agency. Much new information has been made available by the national and international research centers. This handbook has been frequently requested by many people working in the tropics and subtropics. Supplies of the 1970 version are exhausted preventing A.I.D. from sharing this useful volume with USAID personnel, university and private contractors, researchers and extensionists, Peace Corps and other volunteers, missionaries, private enterprise employees and teachers. The revision of this handbook was approved March 21, 1980 however, the proposed contractor decided against revising the handbook (see Attached Action Memo dated February 29, 1980 and supporting documents).

Recommendation: I recommend that you indicate your approval of the amendment which will: (a) extend the project period three months for a total 15 month project period beginning July 1, 1981 and ending September 30, 1982; (b) increase the project cost \$150,000 for a total cost of \$350,000; (c) provide for a Postharvest Food Loss Specialist for DS/AGR/AP; and (d) provide for the revision of the described handbook, by signing the attached PAP.

024.

Attachments:

1. Approved Action Memo for Revision of Handbook, 2/29/80
2. Approved Action Memo March 19, 1981
3. Original Project Statement
4. Approved PAF May 5, 1981
5. Amendment to PAF
6. Action Memo, Fiester to Bahh, 5/20/81
7. Amendment to Project Statement and Budget

Clearances:

DS/AGR/AP, RJ Jackson: NJB/r Date: 5/26/81  
 DS/AGR/AP, Tyche: ALVES/r Date: 5/26/81 *5/27/81*  
 DS/AGR, RMcDermott: M. S. M. Date: 5/27/81  
 DS/AGR, DFiester: DFiester Date: June 19, 1981  
 DS/PO, ASilver: ASilver Date: 6/1/81  
 DS/PO, AMorales: AMorales Date: 6/1/81

DS/AGR/AP: RMcDermott: bw 5/20/81

AMENDMENT TO PROJECT STATEMENT

REIMBURSABLE SERVICES SUPPORT AGREEMENT (RSSA)  
AGENCY FOR INTERNATIONAL DEVELOPMENT (AID)  
U.S. DEPARTMENT OF AGRICULTURE (USDA)

CROP PRODUCTION AND UTILIZATION/TECHNICAL ASSISTANCE

PROJECT 936-4109

A. OBJECTIVES:

This amendment to the Crop Production and Utilization/Technical Assistance project to establish a RSSA will enable A.I.D. to draw upon the pool of USDA resources for assistance in crop production, utilization and conservation in specialty areas where very little direct-hire capability exists. This support is essential to the effectiveness of A.I.D. crop production and crop saving projects. USDA carries out broad programs in agricultural production and conservation on a continuing basis and maintains an extensive staff of professionals skilled in all aspects of crop production, utilization and conservation.

B. DESCRIPTION:

The services of the USDA expert requested by this amendment will strengthen, supplement and add to the existing technical skills of the professional staff in the Agriculture Production Division, Office of Agriculture, Bureau for Development Support, A.I.D. These services are urgently needed to adequately support the agricultural production and conservation programs planned and implemented in the developing countries by the Missions, Regional Bureaus and the DS/AGR/Agriculture Production Division.

C. ADDITIONAL SCOPE OF WORK:

In addition to the original project statement this amendment will provide for the revision of the 1970 version of the "Handbook of Tropical and Subtropical Horticulture" (Handbook) as directed by the Project Manager. The revision will include the compilation and photographing of material necessary for the revision. A.I.D. originally published this handbook in 1964. It has been revised and reprinted several times, the last reprint was done in 1970. The book has been very popular providing information to many people working in the tropics and subtropics: USAID personnel, university and private contractors, research and extensionists, Peace Corps and other volunteers, missionaries, private enterprise employees and teachers. The information in this book is found only in widely scattered publications and reports. Since the last revision, there have been many new varieties of fruits and vegetables developed for the tropics and subtropics. Many of the crop protection chemicals are now obsolete or no longer approved by the Environmental Protection Agency. Much new information on production methods and pest control has been made available by national and international research centers.

D. ADDITIONAL EXPERTISE REQUIRED:

The USDA will also provide for the following specialist:

Postharvest Food Loss Specialist (GS-14) from within the USDA to serve as a staff member of the Agriculture Production Division, Office of Agriculture, Bureau for Development Support, A.I.D. The Specialist will be responsible for identifying key problems relating to the reduction and prevention of postharvest food losses and for designing practical solutions to these problems; serve as senior professional for the entire Agency in dealing with postharvest losses; develop plans for improving postharvest conservation programs in developing countries; recommend specific projects to deal with the problems through technical assistance, education and research. The specialist will be the Agency's principal expert in dealing with policy and actions related to postharvest food conservation and food technology; will develop and propose programs, which will contribute to institution building and to training of developing country scientists in postharvest food loss control; provide leadership in developing cooperative programs in food conservation with other international donors; identify research needs related to postharvest food loss reduction; and collaborate and manage A.I.D. contractors working in areas of technical assistance and training for the reduction of food losses.

E. SUPERVISION AND GUIDANCE:

1. The Postharvest Food Loss Specialist will receive guidance from and consult with the Chief of the Agriculture Production Division and other professional staff with respect to broad A.I.D. policy directives in the area of development goals. The work of the Specialist will be reviewed in terms of fulfillment of broad program objectives and national foreign assistance goals and in terms of the achievement of high quality research/technical assistance programs which contribute to finding solutions to developing country problems of increasing agricultural production as well as the problem of minimizing the loss of crops after harvest.

2. The publication of the revised Handbook will be supervised by the Project Manager of DS/AGR/AP who will be responsible for approving and expediting all aspects of the revision and reprinting.

F. EVALUATION:

The A.I.D. requirement of annual evaluation will be implemented in January 1982. The Postharvest Food Loss Specialist will have frequent contact with DS/AGR staff who will provide evaluation periodically. This interaction will provide rapid adjustment in the scope of work to meet the needs of DS/AGR's operations.

G. REPORTS:

1. The RSSA Postharvest Food Loss Specialist will prepare memoranda from time to time as required on issues arising in the course of his/her duties. Documents will also be prepared relating to research and technical assistance projects in which the expert participates, and will report on the results of such projects.

H. SPECIAL PROVISIONS:

Any residual funds remaining on September 30, 1982 are to be carried forward into FY 83 in support of this project.

I. LOGISTIC SUPPORT:

Use of A.I.D. facilities is authorized as it is essential for the performances of the RSSA personnel.

J. BUDGET:

PROPOSED BUDGET FOR PROJECT EXTENSION  
PROJECT TITLE: CROP PRODUCTION TECHNICAL ASSISTANCE  
PROJECT NUMBER: 936-4109

<u>Staff Requirements</u>	<u>Grade</u>	<u>No. Months</u>	
1 Postharvest Food Loss Specialist	GS-14-5	12	
			<u>Funding Period</u>
			From: 7/ 1/81
			To: 9/30/82
BUDGET ITEMS			
I. Personnel Cost			
Staff Salaries			
GS-14-5 @ \$42,919.00			\$ 42,919.00
Personnel Benefits @ 9.5% of salaries			\$ 4,077.00
II. Travel and Transportation			\$ <u>30,000.00</u>
Subtotal Subject to OICD Overhead			\$ 76,966.00
III. OICD Overhead (18% of Budget)			\$ 13,859.00
IV. Revision and Reprinting of Handbook			\$ <u>59,175.00</u>
	Estimated Total		\$150,000.00

B. Bockett

February 29, 1980

ACTION MEMORANDUM FOR THE DEPUTY ASSISTANT ADMINISTRATOR FOR FOOD AND NUTRITION, BUREAU FOR DEVELOPMENT SUPPORT

FROM: DS/AGR, Ray Solem

Problem: To approve \$63,820 for FY 1980 to support the revision and reprinting of the outmoded "Handbook for Tropical and Subtropical Horticulture."

Background: Fruits and vegetables often provide the major source of vitamins and minerals in LDC diets as well as supplying, in many cases, major sources of carbohydrates, proteins and fats. Total production of calories per hectare per year of fruits and vegetables can be higher than for cereals. Many are short season crops that are adapted to intercropping and relay planting thus allowing very intensive use of land. These crops often require high inputs of labor and thus serve as a potential place for employment where surplus labor is available. When grown for both domestic and export markets, fruits and vegetables can provide higher income per hectare than nearly any other crop.

A.I.D. originally published this handbook in 1964. It has been revised and reprinted several times; the last reprint was done in 1970. The book has been very popular providing information to many people working in the tropics and subtropics: USAID personnel, university and private contractors, research and extensionists, Peace Corps and other volunteers, missionaries, private enterprise employees and teachers.

The information in this book is found only in widely scattered publications and reports. Since the last revision, there have been many new varieties of fruits and vegetables developed for the tropics and subtropics. Many of the crop protection chemicals are now obsolete or no longer approved by the Environmental Protection Agency. Much new information on production methods and pest control has been made available by national and international research centers.

After initial distribution by DS/AGR as stated below, DS/DIU is willing to store and distribute on demand 6,000 copies of this handbook in response to requests from LDCs.

Recommendation: (1) That you approve \$63,820 to support the revision and reprinting of the "Handbook of Tropical and Subtropical Horticulture". (2) That 10,000 copies be printed and distribution be approximately as follows:

<u>Distribution:</u>	<u>Quantity:</u>
Initial distribution to USAID Missions, AID/W Officers, International Organizations and Universities from DS/DIU mailing list:	4,000
Storage and Distribution on demand by DS/DIU:	6,000
4	TOTAL 10,000

(3) That Dr. E.T. Bullard, coauthor of the handbook be contracted to prepare a completely revised and updated version. It is expected that he could complete the manuscript by January 31, 1981. He plans to live in the Washington, D.C. area during the next two years so he would be close to national libraries and to this office. He plans to travel to several international and national research centers to learn the latest production methods, varieties, pest control practices and other important information.

DS/AGR/FCP will review the manuscript as sections are prepared to assure that the final copy submitted to A.I.D. is well written and includes appropriate subject material.

APPROVED: E.T. Bullard

DISAPPROVED:

DATE: 3.21.80

Attachments:

- 1. Outline for Revision of Handbook
- 2. Budget

Clearance:

- DS/AGR/FCP: JMyohe JMY Date: 3/5/80
- DS/AGR: KMByergo KMB Date: 3/4/80
- DS/AGR: MMozyński MM Date: 3/4/80
- DS/DIU: LAllen LAL Date: 3/7/80
- DS/PO: ASilver AS Date: 3/18/80
- DS/PO: EChapnick EC Date: 3/2/80

DS/AGR/FCP: DGrove:bw 2/29/80 Ext:235-1497

OUTLINE FOR THE REVISION OF THE "HANDBOOK  
OF TROPICAL AND SUBTROPICAL HORTICULTURE"

Preface

Acknowledgements

Chapter 1

2

3

Introduction

Soil and Climate

Fruit and Tree Crops

Acerola

Avocado

Banana and Plantain

Breadfruit

Cacao

Calamondin

Cashew

Casimiroa

Ceylon Gooseberry

Cherimoya

Chinese Gooseberry

Citrus Fruits

Coconut

Coffee

Custard Apple

Dates

Durian

Figs

Guava

Guava-Cattley

Ilama

Imbu

Kumquat

Loquat

Lychee

Macadamia

Mamey

Mamoncillo

Mango

Mangosteen

Naranyilla

Nutmeg-Mace

Oil Palm  
 Olives  
 Papaya  
 Passion Fruit  
 Pepper  
 Persimmon  
 Pineapple  
 Pomegranate  
 Rambutan  
 Roselle  
 Sapodilla  
 Sapote  
 Soursop - Guanabana  
 Star Apple  
 Sweetsop  
 Tea  
 Vanilla

## Chapter 4

5

Temperate Fruits grown in the  
 Tropics  
 Vegetable Crops

Artichoke  
 Asparagus  
 Beet  
 Broccoli  
 Cabbage  
 Carrot  
 Cauliflower  
 Celery  
 Chayote  
 Chinese Cabbage  
 Corn  
 Cucumbers  
 Eggplant  
 Muskmelon  
 Okra  
 Onion and Garlic  
 Pepper  
 Pumpkins, squash and  
 gourds  
 Radish  
 Tomato  
 Water Chestnut  
 Watermelon

## Chapter 5

## Chapter 6

## Greens and Salad Crops

Amaranth  
 Chard  
 Cress  
 Endive and Escarole  
 Lettuce  
 Mustards  
 Spinach  
 Miscellaneous

## Chapter 7

## Legumes

Broad Bean  
 Chick Pea  
 Dry Bean  
 Hyacinth Bean  
 Lima Bean  
 Mung Bean  
 Peas  
 Pigeon Pea  
 Snap Bean  
 Southern Pea  
 Soybean  
 Winged Bean

## Chapter 8

## Root and Tuber Crops

Arrowroot  
 Cassava  
 Potato  
 Sweet Potato  
 Taro and Dasheen  
 Yams

## Chapter 9

## Intercropping

## Chapter 10

## Disease and Nematode Control

## Chapter 11

## Weed Control

## Chapter 12

## Insect Control

## Chapter 13

## Seed and Plant Material

## Chapter 14

## Conversion Tables

Chapter 15	Production and Plant Spacing
Chapter 16	General References
Chapter 17	Sources for Additional Information
Index	

### Notes

The metric system will be used throughout the book.

Each crop section will include the following:

- a. Description
- b. Adaptation, Stress Tolerance and Distribution
- c. Food Value and Utilization
- d. Varieties
- e. Culture
- f. Harvesting, Handling and Storage
- e. References

## BUDGET

An estimated budget is given below. It is proposed that 50 percent be paid Dr. Bullard when the contract is signed and the balance when the completed manuscript is delivered to A.I.D.

Estimated BudgetPersonnel:

Writing and editing by E.T. Bullard, 180 days @ \$176	\$31,680
Secretarial services, 88 days @ \$80	7,040
Consultants, 30 days @ \$170	5,100

Commodities:

Rental of office equipment, supplies, materials, photographic work, stamps	9,000
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Other Costs:

Visas, FICA, telephone calls, miscellaneous	1,000
Travel and per diem *	10,000
TOTAL	<u>63,820</u>

\*Tentative plans call for three major trips. The first to Hawaii, Taiwan, Philippines, Indonesia, Malaysia, India, Sudan, Zaire, Nigeria, Italy (FAO in Rome). Approximately one month. The second to Puerto Rico, Brazil, Peru and Columbia. Approximately two weeks. The third to Florida, Oregon and Indiana. Approximately 9 days.

## memorandum

DATE: SEP. 5 1980

REPLY TO  
ATTN OF: CM/COD/AN, Morton Darwin *MD*SUBJECT: Proposed Effort by Dr. Ervin T. Bullard; PIO/T No. 3606640 *file*

TO: DS/AGR/AP, Dr. John M. Yohe

Attached is a copy of our letter of August 14, 1980, requesting necessary cost data from Dr. Bullard, and his response of September 1, 1980. Clearly, he does not wish to provide his derivation of the proposed cost of \$65,995 for performance of the work which you wanted him to do. I am therefore returning the PIO/T without action.

Attachments: a/s

2



Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

ERVIN T. BULLARD  
*Agriculture Consultant*  
13108 Wellford Drive • Beltsville, MD 20705  
Tel. (301) 572-7626

September 1, 1980

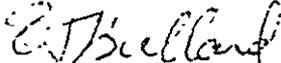
Mr. Morton Darvin, Contracting Officer  
Agriculture/Nutrition Branch  
Central Operations Division  
Office of Contract Management  
Agency for International Development  
Washington, D.C. 20523

Dear Mr. Darvin:

I received your letter of August 14, 1980 and after careful review of the information requested and the mode of payment I decided that it probably would be more economical and efficient for me to publish a publication on my own.

I plan to write a book that will assist the small farmers to produce fruits and vegetables economically under tropical and sub-tropical conditions. I will have it published by a commercial publishing company and if the U.S. Government wants to buy copies for the U.S.A.I.D. program they can buy them from the publisher. This will probably be more economical for the government and it will provide me with more time to work on the publication rather than spend a considerable amount of time trying to justify expenses and try to collect funds by submitting vouchers to the U.S. Government.

Sincerely yours,

  
Ervin T. Bullard

14 AUG 1980

Mr. Ervin T. Bullard  
R.D. #2 Forest Lake  
Winchester, New Hampshire 03479

Dear Mr. Bullard:

We received the copy of your proposal for the Revisions of the "Handbook of Tropical and Subtropical Horticulture." The data supplied is inadequate for proper evaluation. Please supply the following detailed breakdown of your cost proposal as required.

1. Writing and editing: a statement of your earnings for the past year to substantiate the daily rate of \$165.
2. Secretarial services: the basis for \$80 per day.
3. Consultants: justify their need, bio-data for those you intend to employ, substantiate daily rate of \$120. There is a math error in that 30 days at \$120 per day equals \$3,600, not \$5,100 as stated. Please correct this.
4. Commodities: Specify all items and show a cost breakdown. Substantiate the \$6,000 for rental.
5. Travel and per diem: Itemize locations and duration of stay and number of people involved.
6. Miscellaneous: This item is disallowed as it is assumed to be a contingency.
7. Terms of payment: Should we enter into a contract, it will provide for periodic reimbursement of costs incurred.

We will give your proposal further consideration upon receipt and evaluation of the above data.

Sincerely yours,  
~~799~~ Morton Darwin  
Morton Darwin  
Contracting Officer  
Agriculture/Nutrition Branch  
Central Operations Division  
Office of Contract Management

cc: DS/AGR/AP, J. Yohe

CM/COD/AN/RBender:cdd 8/14/80

## memorandum

DATE: June 4, 1980

REPLY TO  
ATTN OF: DS/AGR, Ray *R. W. Solem*

SUBJECT: Selection Memorandum: Justification for Noncompetitive Procurement - Pursuant to AIDPR 7.3.101.50(b)(1); Contract to be Performed by the Contractor in Person, Small Activity Special Project - Inputs - 931-1155, "Handbook for Tropical and Subtropical Horticulture"

To: SER/CM, Morton Darwin

Dr. Ervin T. Bullard has an outstanding capability to undertake the revision of the "Handbook of Tropical and Subtropical Horticulture" described in the attached PIO/T. He is immediately available to do the revision. Dr. Bullard and Mr. Ernest Mortensen were co-authors of the "Handbook" when it was first printed in 1964 and also for the subsequent revisions in 1968 and 1970. Dr. Bullard is certainly knowledgeable in all aspects of what is required to do the revision because of his past work on the "Handbook" and his being a Food and Agriculture Officer with A.I.D., retiring in 1979.

Mr. Mortensen retired from A.I.D. in 1969. An attempt was made, but failed, to contact him through his service record card in the PM/ERD files to ask him if he would consider being contracted to do the revision with or without Dr. Bullard. The service card showed no street address, but did show a town in Texas. The information operator had no such town listed.

We requested the names of minority individuals which the Office of Special Concerns of the Small and Disadvantaged Business Division considered qualified to revise the "Handbook". That office did not suggest any names.

We attempted to locate other individuals to revise the "Handbook". Our efforts included the following:

1. Dr. Carl Campbell, Professor of Horticulture, tropical and subtropical fruits, University of Florida was contacted by phone. He stated that he is acquainted with the "Handbook", but does not have time to do the revision; he is going on sabbatical to Honduras in November.
2. Dr. John Kelly, Professor of Horticulture, Michigan State University, stated by phone that he was presently working in co-authoring a textbook and would not be available for revision of the "Handbook".
3. Dr. James Soule, Professor of Horticulture, fruit crops, University of Florida, Gainesville, declined by phone, saying he had no time. He is teaching and writing a manual of horticultural morphology and a text on tropical fruit culture.

*Kathy Briggs*

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

DS/AGR gets constant requests from all over the world for copies of the "Handbook". The "Handbook" is outmoded and is in great need of revision. The Government Printing Office's supplies of the "Handbook" are depleted. They would like to reprint the "Handbook" but the printing plates were destroyed and we would prefer that it not be reprinted as it is now, because it is so outmoded.

It would take a contractor approximately a year to produce a manuscript for this revision. We hope to have the work begin as soon as possible. Dr. Bullard clearly has the capability to undertake this revision and we have not been able to find, nor is it likely that we could find, anyone better or equally qualified who is now available.

AID 1350-1 (10-79)	UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY AGENCY FOR INTERNATIONAL DEVELOPMENT	1. Cooperating Country DS Bureau <i>3606640</i>	Page 1 of 3 Pages
		2. PIO/T No. 931-1155- <i>3606640</i>	3. <input checked="" type="checkbox"/> Original or Amendment No. _____
		4. Project/Activity No. and Title Small Activity Special Project - Inputs - 931-1155 "Handbook for Tropical and Subtropical Horticulture"	
		PROJECT IMPLEMENTATION ORDER/TECHNICAL SERVICES	

DISTRIBUTION	5. Appropriation Symbol 72-1101021.3	6. Allotment Symbol and Charge 043-36-099-00-20-01
	7. Obligation Status <input checked="" type="checkbox"/> Administrative Reservation <input type="checkbox"/> Implementing Document	8. Project Assistance Completion Date (Mo., Day, Yr.) 12/31/81
	9. Authorized Agent AID/W	10. This PIO/T is in full conformance with PRO/AG Date <u>N/A</u>
	11a. Type of Action and Governing AID Handbook <input checked="" type="checkbox"/> AID Contract (HB 14) <input type="checkbox"/> PASA/RSSA (HB 12) <input type="checkbox"/> AID Grant (HB 13) <input type="checkbox"/> Other	11b. Contract/Grant/PASA/RSSA Reference Number (If this is an Amendment) <u>To be determined</u>

12. Estimated Financing (A detailed budget in support of column (2) is attached as attachment no. <u>1</u> )					
Maximum AID Financing	A. Dollars	(1) Previous Total -	(2) Increase \$63,820	(3) Decrease -	(4) Total to Date \$63,820
	B. U.S.-Owned Local Currency				

13. Mission References	14a. Instructions to Authorized Agent This PIO/T authorizes SER/CM/COD to negotiate a contract with Dr. Ervin T. Bullard to research and revise the "Handbook of Tropical and Subtropical Horticulture" in accordance with the attached Estimated Budget, Statement of Work, Tentative Table of Contents. The estimated total cost of the revision is \$63,820. -The term of contract will be July 31, 1980 to December 31, 1981.
	Article # Voucher Identification. In each instance of voucher (SF-1034), submission made by the contractor for payment hereunder, the following identification data will appear on the face of the voucher: Contract: To be determined. Project: 931-1155- Project Office: DS/AGR/AP:DRGrove
	14b. Address of Voucher Paying Office Office of Financial Management Agency for International Development, Washington, D.C. 20523

15. Clearances—Include typed name, office symbol, telephone number and date for all clearances.			
A. The project officer certifies that the specifications in the statement of work are technically adequate DS/AGR/AP:DRGrove <i>[Signature]</i>	Phone No. 235 1497	B. The statement of work lies within the purview of the initiating and approved agency programs DS/AGR:RSole <i>[Signature]</i>	Date 6/6/80
C. DS/AGR:SEngberg <i>[Signature]</i>	Date 6/6/80	D. Funds for <del>request</del> are available <b>FUNDS RESERVED BY</b> <i>[Signature]</i> <u>KT 2590</u> POSTED <u>6/10/80</u> SER/FM/CSD	
E. DS/PO:ASilver <i>[Signature]</i>	Date 6/9/80		

16. For the cooperating country: The terms and conditions set forth herein are hereby agreed to	17. For the Agency for International Development
Signature _____ Date _____	Signature <u>Kenneth Milow</u> Date <u>6/9/80</u>
Title _____	Title <u>Chief, Program Division, DS/PO</u>

AID 1350-1 (10-79)	1. Cooperating Country DS Bureau	2. PIO/T No. 931-1155-	Page 2 of 3 Pages
PIO/T	4. Project/Activity No. and Title Small Activity Special Project - Inputs - 931-1155 "Handbook for Tropical and Subtropical Horticulture"		

**SCOPE OF WORK**

18. THE SCOPE OF TECHNICAL SERVICES REQUIRED FOR THIS PROJECT ARE DESCRIBED IN ATTACHMENT NUMBER 2 HERETO ENTITLED "STATEMENT OF WORK".

**19. SPECIAL PROVISIONS**

- N/A A.  LANGUAGE REQUIREMENTS (SPECIFY) \_\_\_\_\_  
(IF MARKED, TESTING MUST BE ACCOMPLISHED BY AID TO ASSURE DESIRED LEVEL OF PROFICIENCY)
- N/A B.  ACCESS TO CLASSIFIED INFORMATION  WILL  WILL NOT BE REQUIRED BY TECHNICIAN(S).
- N/A C.  DUTY POST(S) AND DURATION OF TECHNICIANS' SERVICES AT POST(S) (MONTHS)
- N/A D.  DEPENDENTS  WILL  WILL NOT BE PERMITTED TO ACCOMPANY TECHNICIAN.
- N/A E.  WAIVER(S) HAVE BEEN APPROVED TO ALLOW THE PURCHASE OF THE FOLLOWING ITEM(S) (COPY OF APPROVED WAIVER IS ATTACHED)
- N/A F.  COOPERATING COUNTRY ACCEPTANCE OF THIS PROJECT (APPLICABLE TO AID/W PROJECTS ONLY)  
 HAS BEEN OBTAINED  HAS NOT BEEN OBTAINED  
 IS NOT APPLICABLE TO SERVICES REQUIRED BY PIO/T
- N/A G.  OTHER (SPECIFY)

Travel - Clearances: Prior to travel overseas by contractor, the contractor will acquire clearances from A.I.D. missions/representatives in the developing countries and the A.I.D. regional bureaus concerned. All travel, domestic and international under the contract must be approved by the A.I.D. project manager.

Fifty (50) percent will be paid to the contractor when the contract is signed and the balance will be paid when the completed manuscript is delivered to A.I.D.

**20. BACKGROUND INFORMATION (ADDITIONAL INFORMATION USEFUL TO AUTHORIZED AGENT)**

Copy of current handbook.

**21. SUMMARY OF ATTACHMENTS ACCOMPANY THE PIO/T (INDICATE ATTACHMENT NUMBER IN BLANK)**

- 1 DETAILED BUDGET IN SUPPORT OF INCREASED FUNDING (BLOCK 12)
- N/A  \_\_\_\_\_ EVALUATION CRITERIA FOR COMPETITIVE PROCUREMENT (BLOCK 14)
- 4 JUSTIFICATION FOR NON-COMPETITIVE PROCUREMENT (BLOCK 14)
- 2 STATEMENT OF WORK (BLOCK 18)
- N/A  \_\_\_\_\_ WAIVER(S) (BLOCK 19) (SPECIFY NUMBER)
- 3 Tentative Table of Contents  5 Action Memo

AID 1350-1  
(10-79)

1. Cooperating Country  
DS Bureau

2. PIO/T No.  
931-1155-

Page 3 of 3 Pages

PIO/T

4. Project/Activity No. and Title Small Activity Special Project - Inputs - 931-1155  
"Handbook for Tropical and Subtropical Horticulture"

22. Relationship of Contractor or Participating Agency to Cooperating Country and to AID

A. Relationships and Responsibilities

A.I.D. Administration through DS/AGR to Dr. Ervin T. Bullard

b. Contractor Liaison Official:

Dr. Ervin T. Bullard  
13108 Wellford Drive  
Beltsville, Maryland 20705  
(301)-572-7626

c. AID Liaison Officials

DS/AGR/AP, D.R. Grove  
Project Manager

DS/AGR/AP, J.M. Yohe  
Acting Chief

DS/AGR, R.R. Solem  
Acting Director

LOGISTIC SUPPORT

23. Provisions for Logistic Support

N/A

A. Specific Items (Insert "X" in applicable column at right. If entry needs qualification, insert asterisk and explain below in C. "Comments")

	IN KIND SUPPLIED BY		FROM LOCAL CURRENCY SUPPLIED BY		TO BE PROVIDED OR ARRANGED BY SUPPLIER
	AID	COOPERATING COUNTRY	AID	COOPERATING COUNTRY	
(1) Office Space					
(2) Office Equipment					
(3) Housing and Utilities					
(4) Furniture					
(5) Household Equipment (Stoves, Refrig., etc.)					
(6) Transportation in Cooperating Country					
(7) Transportation To and From Country					
(8) Interpreter Services/Secretarial					
(9) Medical Facilities					
(10) Vehicles (official)					
(11) Travel Arrangements/Tickets					
(OTHER SPECIFY)					
(12)					
(13)					
(14)					
(15)					

B. Additional Facilities Available From Other Sources

N/A

APO/FPO

PX

COMMISSARY

OTHER (Specify, e.g., duty free entry, tax exemption)

ESTIMATED BUDGET

PERSONNEL:

Writing and editing by E. T. Bullard, 179 days @ \$176	\$ 31,504
Secretarial services, 87 days @ \$80	6,960
Consultants, 29 days @ \$170	4,930

COMMODITIES:

Rental of office equipment, supplies, materials, photographic work, stamps	9,000
---	-------

OTHER COSTS:

Defense base insurance while contractor is overseas (38 days x \$176/day x .0714 insurance rate)	478
Visas, telephone calls, misc.	948
Travel and per diem*	10,000
<b>TOTAL</b>	<u>\$ 63,820</u>

\*Overseas: 27 days 1st trip  
11 days 2nd trip  
38 days overseas

STATEMENT OF WORK

Revision of the "Handbook of Tropical and Subtropical Horticulture"

A. In consideration of the compensation to be paid to the Contractor, the Contractor shall compile the necessary documentation and photographs to produce a manuscript of the complete revision of the "Handbook of Tropical and Subtropical Horticulture", hereafter referred to as the Handbook. The Contractor shall deliver the manuscript of the "Handbook", in the manner further described below, to the Agricultural Production Division, Office of Agriculture, Bureau for Development Support, Agency for International Development (DS/AGR/AP, A.I.D.).

B. To compile and photograph the material necessary for the revision of the "Handbook", the Contractor shall be responsible for arranging and executing the travel plans described below. These plans are tentative and major changes to them shall be made only upon mutual agreement of the Contractor and the Chief of DS/AGR/AP.

1. First trip of approximately one month to Hawaii, Taiwan, Philippines, Indonesia, Malaysia, India, Sudan, Zaire, Nigeria and FAO in Rome, Italy.
2. Second trip of approximately two weeks to Puerto Rico, Brazil, Peru, and Colombia.
3. Third trip of approximately nine days to Florida, Oregon, and Indiana.

C. In revising the 1970 version of the "Handbook", the Contractor shall be responsible for treating the subjects outlined in the "Tentative Table of Contents", hereafter referred to as the Table, especially, the Contractor shall be responsible to treat the following:

1. Addition or deletion of discussion of crops listed in the Table in Chapters 3-8, as compared with the 1970 version.
2. Inclusion of details on each crop listed in the Table to include the following:
  - a. Description
  - b. Adaptation, Stress Tolerance and Distribution
  - c. Food Value and Utilization
  - d. Cultivars, including ones newly developed
  - e. Culture
  - f. Harvesting, Handling and Storage

2

g. References

3. Addition or revision of chapters discussing pest prevention and control (Chapters 10-12), including newly developed Environmental Protection Agency (EPA) approved pesticides, and deleting those banned for use in the U.S. by the EPA.
4. Inclusion of lists of sources of plant and seed material (Chapter 13).
5. Use of metric measurements throughout the "Handbook".

D. Reports. The Contractor shall present the following documentation to the Chief of DS/AGR/AP for his approval, scheduled the following stated months after signing the contract:

- 1) One month - report stating any major changes in the Table.
- 2) Six months - report on the progress to date of the "Handbook" revision.
- 3) Twelve months - a typewritten, double-spaced draft of the manuscript of the "Handbook" revision and photographs to be used in the "Handbook".
- 4) Twelve to eighteen months - the manuscript in final draft, typewritten and double spaced and accompanying photographs.

TENTATIVE TABLE OF CONTENTS FOR THE REVISION OF  
THE HANDBOOK

Preface

Acknowledgements

Chapter 1 Introduction  
Chapter 2 Soil and Climate  
Chapter 3 Fruit and Tree Crops:

Acerola	Lychee
Avocado	Macadamia
Banana and Plantain	Mamey
Breadfruit	Mamoncillo
Cacao	Mango
Calamondin	Mangosteen
Cashew	Naranjilla
Casimiroa	Nutmeg-Mace
Ceylon Gooseberry	Oil Palm
Cherimoya	Olive
Chinese Gooseberry	Papaya
Citrus Fruits	Passion Fruit
Coconut	Pepper
Coffee	Persimmon
Custard Apple	Pineapple
Dates	Pomegranate
Durian	Rambutan
Figs	Roselle
Guava	Sapodilla
Guava-Cattley	Sapote
Ilama	Soursop - Guanabana
Imbu	Star Apple Sweetsop
Kumquat	Tea
Loquat	Vanilla

Chapter 4 Temperate Crops Grown in the Tropics and Sub-tropics  
Chapter 5 Vegetable Crops:

Artichoke	Cucumber
Asparagus	Eggplant
Beet	Muskmelon
Broccoli	Okra
Cabbage	Onion and Garlic
Carrot	Pepper
Cauliflower	Pumpkin, Squash and Gourd
Celery	Radish
Chayote	Tomato
Chinese Cabbage	Water Chestnut
Corn	Watermelon

Chapter 6 Greens and Salad Crops:

Amaranth	Lettuce
Chard	Mustard
Cress	Spinach
Endive and Escarole	Miscellaneous

Chapter 7 Legumes:

Broad Bean	Peas
Chick Pea	Pigeon Pea
Dry Bean	Snap Bean
Hyacinth Bean	Southern Pea
Lima Bean	Soybean
Mung Bean	Winged Bean

Chapter 8 Root and Tuber Crops:

Arrowroot	Sweet Potato
Cassava	Taro and Dasheen
Potato	Yam

Chapter 9	Intercropping
Chapter 10	Disease and Nematode Control
Chapter 11	Weed Control
Chapter 12	Insect Control
Chapter 13	Sources of Seed and Plant Material
Chapter 14	Conversion Tables
Chapter 15	Production and Plant Spacing
Chapter 16	General References
Chapter 17	Sources for Additional Information

Index

February 29, 1980

## ACTION MEMORANDUM FOR THE DEPUTY ASSISTANT ADMINISTRATOR FOR FOOD AND NUTRITION, BUREAU FOR DEVELOPMENT SUPPORT

FROM: DS/AGR, Ray. Solem

Problem: To approve \$63,820 for FY 1980 to support the revision and reprinting of the outmoded "Handbook for Tropical and Subtropical Horticulture." Small Activity (931-1155)

Background: Fruits and vegetables often provide the major source of vitamins and minerals in LDC diets as well as supplying, in many cases, major sources of carbohydrates, proteins and fats. Total production of calories per hectare per year of fruits and vegetables can be higher than for cereals. Many are short season crops that are adapted to intercropping and relay planting thus allowing very intensive use of land. These crops often require high inputs of labor and thus serve as a potential place for employment where surplus labor is available. When grown for both domestic and export markets, fruits and vegetables can provide higher income per hectare than nearly any other crop.

A.I.D. originally published this handbook in 1964. It has been revised and reprinted several times; the last reprint was done in 1970. The book has been very popular providing information to many people working in the tropics and subtropics: USAID personnel, university and private contractors, research and extensionists, Peace Corps and other volunteers, missionaries, private enterprise employees and teachers.

The information in this book is found only in widely scattered publications and reports. Since the last revision, there have been many new varieties of fruits and vegetables developed for the tropics and subtropics. Many of the crop protection chemicals are now obsolete or no longer approved by the Environmental Protection Agency. Much new information on production methods and pest control has been made available by national and international research centers.

After initial distribution by DS/AGR as stated below, DS/DIU is willing to store and distribute on demand 6,000 copies of this handbook in response to requests from LDCs.

Recommendation: (1) That you approve \$63,820 to support the revision and reprinting of the "Handbook of Tropical and Subtropical Horticulture". (2) That 10,000 copies be printed and distribution be approximately as follows:

<u>Distribution:</u>	<u>Quantity:</u>
Initial distribution to USAID Missions, AID/W Officers, International Organizations and Universities from DS/DIU mailing list:	4,000
Storage and Distribution on demand by DS/DIU:	<u>6,000</u>
TOTAL	10,000

(3) That Dr. E.T. Bullard, coauthor of the handbook be contracted to prepare a completely revised and updated version. It is expected that he could complete the manuscript by January 31, 1981. He plans to live in the Washington, D.C. area during the next two years so he would be close to national libraries and to this office. He plans to travel to several international and national research centers to learn the latest production methods, varieties, pest control practices and other important information.

DS/AGR/FCP will review the manuscript as sections are prepared to assure that the final copy submitted to A.I.D. is well written and includes appropriate subject material.

APPROVED: *E. T. Bullard*

DISAPPROVED: \_\_\_\_\_

DATE: 3.21.80

Clearance:

DS/AGR/FCP: JMyohe *JMyohe* Date: 3/5/80  
 DS/AGR: KMyergo *KMyergo* Date: 3/4/80  
 DS/AGR: MMyozynski *MMyozynski* Date: 3/4/80  
 DS/DIU: LAllen *LAllen* Date: 3/7/80  
 DS/PO: ASilver *ASilver* Date: 3/18/80  
 DS/PO: BChapnick *BChapnick* Date: 3.21.80

*D. Grove*  
 DS/AGR/FCP: DGrove:bw 2/29/80 Ext:235-1497

Worksheet

AID 1350-1X  
(1-78)

DEPARTMENT OF STATE  
AGENCY FOR  
INTERNATIONAL DEVELOPMENT

1. Cooperating Country  
DS Bureau

Page 1 of 1 Pages

PIO/T

PROJECT IMPLEMENTATION  
ORDER/TECHNICAL  
SERVICES

2. PIO/T No.  
931-1155 - 3606640

3.  Original or  
Amendment No. 1

4. Project/Activity No. and Title Small Activity  
"Handbook for Tropical Agriculture"  
931-1155

DISTRIBUTION

5. Appropriation Symbol  
72-1101021.3

6. Allotment Symbol and Charge  
043-36-099-00-20-01

7. Obligation Status

Administrative Reservation

Implementing Document

8. Project Assistance Completion Date  
(Mo., Day, Yr.)

N/A

9. Authorized Agent

AID/W

10. This PIO/T is in full conformance with PPO/AG

Date

11a. Type of Action and Governing AID Handbook

AID Contract  
(HB 14)

PASA/RSSA  
(HB 12)

AID Grant  
(HB 13)

Other

11b. Contract/Grant/PASA/RSSA  
Reference Number (if this is an  
Amendment)

N/A

12. Estimated Financing (A detailed budget in support of column (2) is attached as attachment no. \_\_\_\_\_)

Maximum AID Financing	A. Dollars	(1) Previous Total	(2) Increase	(3) Decrease	(4) Total to Date
		\$63,820			-\$63,820
	B. U.S.-Owned Local Currency				

13. Mission  
References

14a. Instructions to Authorized Agent

This PIO/T authorizes cancellation of Block 4 subject activity  
in its entirety.

NOTED

SER/FM/CSD

DATE

9/15/80

cc M. Mozynski (DS/AGR)

14a. Address of Voucher Paying Office

Financial Management  
USAID, Washington, D.C. 20523

15. Clearances—Include typed name, office symbol, telephone number and date for all clearances.

A. The project officer certifies that the specifications  
in the statement of work are technically accurate

DS/AGR:M. Mozynski

Phone No.

Date 9/5/80

B. The statement of work lies within the purview Date  
of the initiating and approved agency programs

C  
DS/PO:M. Egan

Date 9/5/80

D. Funds for the services requested are available

E. Date

16. For the cooperating country: The terms and conditions set forth herein  
are hereby agreed to

Signature N/A

Date

Title

17. For the Agency for International Development

Signature Kenneth A. Milow

Date 9/9/80

Title

Chief, DS/PO/PR

AID 1350-1  
(10-79)

UNITED STATES INTERNATIONAL  
DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR  
INTERNATIONAL DEVELOPMENT

1. Cooperating Country

DS Bureau

Page 1 of 2 Pages

PIO/T

PROJECT IMPLEMENTATION  
ORDER/TECHNICAL  
SERVICES

2. PIO/T No.

936-4109-3611459

3.  Original or  
Amendment No. 1

4. Project/Activity No. and Title (936-4109)

Crop Production/Utilization-  
Technical Assistance

DISTRIBUTION

5. Appropriation Symbol

72-1111021.3

6. Allotment Symbol and Charge

143-36-099-00-20-11

7. Obligation Status

Administrative Reservation

Implementing Document

8. Project Assistance Completion Date

(Mo., Day, Yr.) 9/30/82

9. Authorized Agent

AID/W

10. This PIO/T is in full conformance with PRO/AG

Date N/A

11a. Type of Action and Governing AID Handbook

AID Contract  
(HB 14)

PASA/RSSA  
(HB 12)

AID Grant  
(HB 13)

Other

11b. Contract/Grant/PASA/RSSA  
Reference Number (If this is an  
Amendment)

to be determined

12. Estimated Financing (A detailed budget in support of column (2) is attached as attachment no. 1)

Maximum AID Financing	A. Dollars	(1) Previous Total	(2) Increase	(3) Decrease	(4) Total to Date
		\$200,000	\$150,000	--	\$350,000
B. U.S.-Owned Local Currency					

13. Mission References

14a. Instructions to Authorized Agent  
This PIO/T (amendment #1) authorizes SER/CM/SOD to increase the budget, funding period and Scope-of-Work of the new RSSA being negotiated with the U. S. Department of Agriculture(USDA) for "Crop Production and Utilization-Technical Assistance" as outlined in the "original" PIO/T. An additional \$150,000 (see attachment #1 for a Revised Budget) is provided herein for the increased work to be performed as outlined in the attached Scope-of-Work. (see attachment #2). This PIO/T also extends the effective completion date of this RSSA from June 30, 1982 to September 30, 1982. All other conditions of this RSSA as outlined in the "original PIO/T" remain unchanged by this amendment.

See page 2 -

14b. Address of Voucher Paying Office

Office of Financial Management  
Agency for International Development, Washington, D. C. 20523

15. Clearances—Include typed name, office symbol, telephone number and date for all clearances.

A. The project officer certifies that the specifications in the statement of work are technically adequate

DS/AGR/AP:RJackson

DS/AGR/AP:JYone

DS/AGR/AP:SEngberg

DS/AGR:MMozynski

DS/AGR:KDeDermot

DS/PO: ASilver

Phone No.  
235 2318

Date  
6/25/81

Date  
6-24-81

Date  
6-25-81

Date  
7/1/81

B. The statement of work lies within the purview of the initiating and approved agency program

DS/AGR:D.Fiester

D. Funds for the services requested are available

FUNDS RESERVED BY

POSTED 7/7/81

SER/PM/CSD

16. For the cooperating country: The terms and conditions set forth herein are hereby agreed to

17. For the Agency for International Development

Signature

Date

Signature

Date

Title

Title

Mr. Kenneth Milow

Chief, Program Division, DS/PO

DS/PO CRITICAL FILE

DEPARTMENT OF STATE  
AGENCY FOR  
INTERNATIONAL DEVELOPMENT

Worksheet  Issuance

PAGE 2 OF 2 PAGES

CONTINUATION  
SHEET

- PIO/C  
 PIO/P  
 PIO/T  
 PA/PR

1. Cooperating Country

DS Bureau

2a. PIO Number  
936-4109

2b. Amendment  
 Original OR No. 1

3. Project Number and Title (936-4109)  
Crop Production/Utilization  
Technical Assistance

Indicate block  
numbers

Use this form to complete the information required in any block of a PIO/P, PIO/T or PA/PR. For PIO/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.

14a.

The approved funding level for this project/RSSA is \$350,000. The total amount of funds provided to this project/RSSA, including this PIO/T, is \$350,000.

Article # Voucher Identification. In each instance of voucher (SF1034) submission made by the contractor for payment hereunder, the following identification data will appear on the face of the voucher:

RSSA: to be determined  
Project 936-4109  
Project Office DS/AGR/AP:R.I.Jackson

This proposed RSSA amendment is exempt from provisions of circular A-76 because: (1) it is for the provision of technical assistance; and (2) the facilities and resources of the USDA are particularly or uniquely suitable for the technical assistance to be provided and are not competitive with private enterprise.

REVISED BUDGET

PROJECT TITLE: Crop Production and Utilization - Technical Assistance  
 PROJECT NUMBER: 936-4109  
 RSSA NUMBER: To be determined

COST ELEMENT	"Original"PIO/T FY 81 Funds	This PIO/T FY 81 Funds	Total FY 81 Funds
	FM: 7-1-81 TO: 6-30-82	FM: 7-1-81 TO: 9-30-82	FM: 7-1-81 TO: 9-30-82
Personnel Cost	\$106,500	\$42,919	\$149,419
Personnel Benefits	10,650	4,077	14,727
Travel	40,000	30,000	70,000
Training, Materials, Seminars, Workshops, In-Service Training	5,500	—	5,500
Printing and Related Costs, Including Publications	2,000	—	2,000
Miscellaneous Equipment	500	—	500
Negotiating Contingencies	2,350	—	2,350
Revision and Reprinting of Handbook	—	59,145	59,145
Overhead	32,500	13,859	46,359
<b>TOTAL</b>	<b>\$200,000</b>	<b>\$150,000</b>	<b>\$350,000</b>

SCOPE-OF-WORK-AMENDMENT

PROJECT TITLE: Crop Production and Utilization-Technical Assistance  
PROJECT NUMBER: 936-4109  
RSSA NUMBER: to be determined

A. OBJECTIVES:

This amendment to the Crop Production and Utilization/Technical Assistance project to establish a PSSA will enable A.I.D. to draw upon the pool of USDA resources for assistance in crop production, utilization and conservation in specialty areas where very little direct-hire capability exists. This support is essential to the effectiveness of A.I.D. crop production and crop saving projects. USDA carries out broad programs in agricultural production and conservation on a continuing basis and maintains an extensive staff of professionals skilled in all aspects of crop production, utilization and conservation.

B. DESCRIPTION:

The services of the USDA expert requested by this amendment will strengthen, supplement and add to the existing technical skills of the professional staff in the Agriculture Production Division, Office of Agriculture, Bureau for Development Support, A.I.D. These services are urgently needed to adequately support the agricultural production and conservation programs planned and implemented in the developing countries by the Missions, Regional Bureaus and the DS/AGR/Agriculture Production Division.

C. ADDITIONAL SCOPE OF WORK:

In addition to the original project statement this amendment will provide for the revision of the 1970 version of the "Handbook of Tropical and Subtropical Horticulture" (Handbook) as directed by the Project Manager. The revision will include the compilation and photographing of material necessary for the revision. A.I.D. originally published this handbook in 1964. It has been revised and reprinted several times, the last reprint was done in 1970. The book has been very popular providing information to many people working in the tropics and subtropics: USAID personnel, university and private contractors, research and extensionists, Peace Corps and other volunteers, missionaries, private enterprise employees and teachers. The information in this book is found only in widely scattered publications and reports. Since the last revision, there have been many new varieties of fruits and vegetables developed for the tropics and subtropics. Many of the crop protection chemicals are now obsolete or no longer approved by the Environmental Protection Agency. Much new information on production methods and pest control has been made available by national and international research centers.

D. ADDITIONAL EXPERTISE REQUIRED:

The USDA will also provide for the following specialist:

Postharvest Food Loss Specialist (GS-14) from within the USDA to serve as a staff member of the Agriculture Production Division, Office of Agriculture, Bureau for Development Support, A.I.D. The Specialist will be responsible for identifying key problems relating to the reduction and prevention of postharvest food losses and for designing practical solutions to these problems; serve as senior professional for the entire Agency in dealing with postharvest losses; develop plans for improving postharvest conservation programs in developing countries; recommend specific projects to deal with the problems through technical assistance, education and research. The specialist will be the Agency's principal expert in dealing with policy and actions related to postharvest food conservation and food technology; will develop and propose programs, which will contribute to institution building and to training of developing country scientists in postharvest food loss control; provide leadership in developing cooperative programs in food conservation with other international donors; identify research needs related to postharvest food loss reduction; and collaborate and manage A.I.D. contractors working in areas of technical assistance and training for the reduction of food losses.

E. SUPERVISION AND GUIDANCE:

1. The Postharvest Food Loss Specialist will receive guidance from and consult with the Chief of the Agriculture Production Division and other professional staff with respect to broad A.I.D. policy directives in the area of development goals. The work of the Specialist will be reviewed in terms of fulfillment of broad program objectives and national foreign assistance goals and in terms of the achievement of high quality research/technical assistance programs which contribute to finding solutions to developing country problems of increasing agricultural production as well as the problem of minimizing the loss of crops after harvest.

2. The publication of the revised Handbook will be supervised by the Project Manager of DS/AGR/AP who will be responsible for approving and expediting all aspects of the revision and reprinting.

F. EVALUATION:

The A.I.D. requirement of annual evaluation will be implemented in January 1982. The Postharvest Food Loss Specialist will have frequent contact with DS/AGR staff who will provide evaluation periodically. This interaction will provide rapid adjustment in the scope of work to meet the needs of DS/AGR's operations.

G. REPORTS:

1. The RSSA Postharvest Food Loss Specialist will prepare memoranda from time to time as required on issues arising in the course of his/her duties. Documents will also be prepared relating to research and technical assistance projects in which the expert participates, and will report on the results of such projects.

H. SPECIAL PROVISIONS:

Any residual funds remaining on September 30, 1982 are to be carried forward into FY 83 in support of this project.

I. LOGISTIC SUPPORT:

Use of A.I.D. facilities is authorized as it is essential for the performances of the RSSA personnel.

J. BUDGET:

PROPOSED BUDGET FOR PROJECT EXTENSION  
PROJECT TITLE: CROP PRODUCTION TECHNICAL ASSISTANCE  
PROJECT NUMBER: 936-4109

<u>Staff Requirements</u>	<u>Grade</u>	<u>No. Months</u>	
1 Postharvest Food Loss Specialist	GS-14-5	12	
BUDGET ITEMS			
			<u>Funding Period</u>
			From: 7/ 1/81
			To: 9/30/82
I. Personnel Cost			
Staff Salaries			
GS-14-5 @ \$42,919.00			\$ 42,919.00
Personnel Benefits @ 9.5% of salaries			\$ 4,077.00
II. Travel and Transportation			\$ <u>30,000.00</u>
Subtotal Subject to OICD Overhead			\$ 76,966.00
III. OICD Overhead (18% of Budget)			\$ 13,859.00
IV. Revision and Reprinting of Handbook			\$ <u>59,145.00</u>
		Estimated Total	\$150,000.00

AID 1350-1 (10-79)  PIO/T	UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY AGENCY FOR INTERNATIONAL DEVELOPMENT  PROJECT IMPLEMENTATION ORDER/TECHNICAL SERVICES	1. Cooperating Country DS BUREAU	Page 1 of 4 Pages
		2. PIO/T No. 936-4109-3611459	3. <input checked="" type="checkbox"/> Original or Amendment No. _____
		4. Project/Activity No. and Title (936-4109) Crop Production/Utilization - Technical Assistance	

DISTRIBUTION	5. Appropriation Symbol 72-1111021.3		6. Allotment Symbol and Charge 143-36-099-00-20-11	
	7. Obligation Status <input checked="" type="checkbox"/> Administrative Reservation <input type="checkbox"/> Implementing Document		8. Project Assistance Completion Date (Mo., Day, Yr.) 6/30/82	
	9. Authorized Agent AID/W		10. This PIO/T is in full conformance with PRO/AG Date _____ N/A	
	11a. Type of Action and Governing AID Handbook <input type="checkbox"/> AID Contract (HB 14) <input checked="" type="checkbox"/> PASA/RSSA (HB 12) <input type="checkbox"/> AID Grant (HB 13) <input type="checkbox"/> Other		11b. Contract/Grant/PASA/RSSA Reference Number (if this is an Amendment) <u>To be determined</u>	

12. Estimated Financing (A detailed budget in support of column (2) is attached as attachment no. 1)

Maximum AID Financing		(1) Previous Total	(2) Increase	(3) Decrease	(4) Total to Date
		A. Dollars	-	\$200,000	-
B. U.S.-Owned Local Currency					

13. Mission References

14a. Instructions to Authorized Agent This PIO/T authorizes SER/CM/SOD to negotiate a new RSSA (or PASA if appropriate) with the U.S. Department of Agriculture (USDA) for "Crop Production and Utilization - Technical Assistance". A total of \$200,000 is provided herein for the initial twelve (12) months (effective from July 1, 1981 to June 30, 1982) of the proposed RSSA (see Attachment 1 for the Budget). The scope/statement-of-work for this RSSA is outlined in Attachment #2.

The approved funding level for this project/RSSA is \$200,000. The total amount of funds provided to this project/RSSA, including this PIO/T, is \$200,000.

(Continued)

14b. Address of Voucher Paying Office  
Office of Financial Management  
Agency for International Development, Washington, D.C. 20523

15. Clearances—Include typed name, office symbol, telephone number and date for all clearances.

A. The project officer certifies that the specifications in the statement of work are technically adequate	Phone No. 235-2318	B. The statement of work fits within the purview of the initiating and approved scope programs	Date May 22, 1981
	Date 5/18/81		
DS/AGR/AP:RJ Jackson		D. Funds for the services requested are available	7/7/81
DS/AGR/AP:JMyohe	Date 5/15/81		
C. DS/AGR/AP:SEngberg		E. DS/AGR:KMcDermott	7/1/81
DS/AGR:Mozynski	Date 5/18/81		
DS/AGR:ASilver		17. For the Agency for International Development	

16. For the cooperating country: The terms and conditions set forth herein are hereby agreed to

Signature \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

Signature Kenneth A Milow Date 7/1/81  
Mr. Kenneth Milow  
Chief of the Program Division, DS/PO

DS/PO OFFICIAL FILE

AID 1350-1 (10-79)	1. Cooperating Country DS BUREAU	2. PIO/T No. 936-4109	Page 2 of 4 Pages
PIO/T	4. Project/Activity No. and Title (936-4109) Crop Production/Utilization - Technical Assistance		

**SCOPE OF WORK**

18. THE SCOPE OF TECHNICAL SERVICES REQUIRED FOR THIS PROJECT ARE DESCRIBED IN ATTACHMENT NUMBER 2 HERETO ENTITLED "STATEMENT OF WORK".

19. SPECIAL PROVISIONS

- N/A A.  LANGUAGE REQUIREMENTS (SPECIFY) \_\_\_\_\_  
(IF MARKED, TESTING MUST BE ACCOMPLISHED BY AID TO ASSURE DESIRED LEVEL OF PROFICIENCY)
- N/A B.  ACCESS TO CLASSIFIED INFORMATION  WILL  WILL NOT BE REQUIRED BY TECHNICIAN(S).
- C.  DUTY POST(S) AND DURATION OF TECHNICIANS' SERVICES AT POST(S) (MONTHS)  
USDA-Washington, D.C. for life of project RSSA
- D.  DEPENDENTS  WILL  WILL NOT BE PERMITTED TO ACCOMPANY TECHNICIAN.
- N/A E.  WAIVER(S) HAVE BEEN APPROVED TO ALLOW THE PURCHASE OF THE FOLLOWING ITEM(S) (COPY OF APPROVED WAIVER IS ATTACHED)
- N/A F.  COOPERATING COUNTRY ACCEPTANCE OF THIS PROJECT (APPLICABLE TO AID/W PROJECTS ONLY)  
 HAS BEEN OBTAINED  HAS NOT BEEN OBTAINED  
 IS NOT APPLICABLE TO SERVICES REQUIRED BY PIO/T
- N/A G.  OTHER (SPECIFY)

20. BACKGROUND INFORMATION (ADDITIONAL INFORMATION USEFUL TO AUTHORIZED AGENT)

N/A

21. SUMMARY OF ATTACHMENTS ACCOMPANY THE PIO/T (INDICATE ATTACHMENT NUMBER IN BLANK)

- 1 DETAILED BUDGET IN SUPPORT OF INCREASED FUNDING (BLOCK 12)
- N/A  \_\_\_\_\_ EVALUATION CRITERIA FOR COMPETITIVE PROCUREMENT (BLOCK 14)
- N/A  \_\_\_\_\_ JUSTIFICATION FOR NON-COMPETITIVE PROCUREMENT (BLOCK 14)
- 2 STATEMENT OF WORK (BLOCK 18)
- N/A  \_\_\_\_\_ WAIVER(S) (BLOCK 19) (SPECIFY NUMBER)

AID 1350-1 (10-79)	1. Cooperating Country DS BUREAU	2. PIO/T No. 936-4109	Page 3 of 4 Pages	
	4. Project/Activity No. and Title (936-4109) Crop Production/Utilization - Technical Assistance			

22. Relationship of Contractor or Participating Agency to Cooperating Country and to AID

A. Relationships and Responsibilities

The A.I.D. Administrator through DS/AGR to USDA

USDA

B. ~~USDA Liaison Official~~ Liaison Official

USDA-Hubert Hughes  
Telephone 235-2296

C. AID Liaison Officials

DS/AGR/AP: Robert I. Jackson - Project Manager  
DS/AGR/AP: John M. Yohe - Division Chief  
DS/AGR: Donald Fiester - Office Director

LOGISTIC SUPPORT

23. Provisions for Logistic Support	IN KIND SUPPLIED BY		FROM LOCAL CURRENCY SUPPLIED BY		TO BE PROVIDED OR ARRANGED BY SUPPLIER
	AID	COOPERATING COUNTRY	AID	COOPERATING COUNTRY	
A. Specific Items (Insert "X" in applicable column at right. If entry needs qualification, insert asterisk and explain below in C. "Comments")					
(1) Office Space					
(2) Office Equipment					
(3) Housing and Utilities					
(4) Furniture					
(5) Household Equipment (Stoves, Refrig., etc.)					
(6) Transportation in Cooperating Country					
(7) Transportation To and From Country					
(8) Interpreter Services/Secretarial					
(9) Medical Facilities					
(10) Vehicles (official)					
(11) Travel Arrangements/Tickets					
(OTHER SPECIFY)					
(12)					
(13)					
(14)					
(15)					

B. Additional Facilities Available From Other Sources N/A

APO/FPO

PX

COMMISSARY

OTHER (Specify, e.g., duty free entry, tax exemption)

CONTINUATION SHEET	UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY AGENCY FOR INTERNATIONAL DEVELOPMENT  <input type="checkbox"/> PIO/C <input type="checkbox"/> PIO/P <input checked="" type="checkbox"/> PIO/T <input type="checkbox"/> PA/PR	<input checked="" type="checkbox"/> Worksheet <input type="checkbox"/> Issuance	PAGE <u>4</u> OF <u>4</u> PAGES
		1. Cooperating Country DS BUREAU	
		2a. PIO Number 936-4109	2b. Amendment <input checked="" type="checkbox"/> Original OR No. _____
		3. Project Number and Title (936-4109) Crop Production/Utilization - Technical Assistance	

Indicate block numbers

Use this form to complete the information required in any block of a PIO/P, PIO/T or PA/PR. For PIO/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.

14a

This proposed RSSA/agreement is exempt from the provisions of Circular A-76 because:

(1) it is for the provision of technical assistance; and (2), the facilities and resources of the U.S. Department of Agriculture (USDA) are particularly or uniquely suitable for the technical assistance to be provided and are not competitive with private enterprise.

Article # Voucher Identification: In each instance of voucher (SF-1034) submission made by the contractor for payment hereunder, the following identification data will appear on the face of the voucher:

RSSA Number : To be determined  
 Project Number: 936-4109  
 Project Office: R.I. Jackson - DS/AER/AP

PROPOSED BUDGET

PROJECT TITLE: Crop Production and Utilization - Technical Assistance  
 PROJECT NUMBER: 936-4109  
 RSSA NUMBER: To be determined

COST ELEMENT	FY 81 Funds
	<u>Funding Period</u>
	FM: 7-1-81
	<u>TO: 6-30-82</u>
Personnel Cost (25 person months, approximately)	\$106,500
Personnel Benefits	10,650
Travel	40,000
Training, Materials, Seminars, Workshops In-Service Training	5,500
Printing and Related Costs, Including Publications	2,000
Miscellaneous Equipment	500
Negotiating Contingencies	2,350
Overhead	<u>32,500</u>
TOTAL	\$ 200,000

## STATEMENT OF WORK

PROJECT TITLE: Crop Production and Utilization - Technical Assistance  
PROJECT NUMBER: 936-4109  
RSSA NUMBER: To be determined

A. Summary:

This RSSA will enable A.I.D. to draw upon the resources of the USDA for assistance in cereal grain, grain legume and oil seed crop production where little direct hire capability within A.I.D. exists. The USDA has broad and comprehensive crop production and utilization research and extension activities and maintains an extensive staff of professionals who are experts in many aspects of crop production and utilization. Through this RSSA, A.I.D. will be able to utilize USDA experts within the staff power available and on an as-needed basis.

The services of USDA crop production specialists will strengthen technical skills of DS/AGR's Agricultural Production Division. These services are needed to develop a capability to support crop production and utilization programs planned and implemented in the LDCs by Missions, Regional Bureaus and DS/AGR/AP.

B. Project Objective:

The general objective of this project will be for the USDA to provide upon request, technical assistance to AID/W, the cooperating countries, and Missions for planning and implementing projects for increased production and improved utilization of cereal grain, grain legume and oil seed crops. This project will foster their production in LDCs as an economical and nutritious food for LDC populations, particularly for the urban and rural poor.

C. Scope-of-Work:

Tasks to be undertaken by personnel provided under this agreement include the following:

1. Develop a center of expertise for the transfer of professional and technical advice and assistance to other Bureaus and Offices within A.I.D., Missions and host countries on crop production and utilization.
2. Participate in evaluations of projects and give advice on technical sufficiency and appropriateness of projects.
3. Assist in the development of training materials and programs in LDCs and the U.S. to meet needs in host countries.
4. Provide for the preparation of publications on selected aspects of crop production and utilization.

5. Develop and maintain reference and other informational materials on the technical, economic, and managerial aspects of crop production programs and utilization.

6. Develop and carry out a program of in-country advisory and consulting services in crop production and utilization for LDCs and A.I.D.

D. Expertise Required:

Short-term experts will be provided to meet specialized requests from A.I.D./Regional Bureaus, overseas missions and DS/AGR/AP. The Project Manager will notify USDA of the requirements for TDY assignments. In collaboration with the Project Manager, the USDA will select experts and scientists for TDY assignments.

Short-term experts may include the following:

1. Agronomy: This area includes all cropping systems, genetic evaluation, and seed production of cereal grain, grain legumes, and oil seed crops.
2. Soils - Fertility and Chemistry: This area includes use of fertilizers, and the efficient utilization, recycling and conservation of the natural soil nutrient resources. It is also concerned with the nutrient cycling in alternative cropping systems under different management practices and varying soil-climatic environments.
3. Farm Equipment and Tillage: This area includes the art of development of systems for the use of draft animals and the development of improved animal-drawn implements for tillage and cultivation. It also includes the integration of mechanical power into the various systems of farming.
4. Pest Management: This area includes entomology, pathology, and other pests of cereal grains, grain legumes, and oil seed crops.
5. Crop Processing and Utilization: This area includes processing and utilization of the three classes of crops as economical and nutritious foods for LDC populations.

Specialists from several disciplines will apply their technical expertise to the solutions of A.I.D. identified LDC development problems. USDA will provide authoritative expertise from within USDA or outside USDA and other specialized assistance as recognized by A.I.D. and required for particular design and study efforts. These experts and scientists should possess a composite of the following attributes, qualifications and/or experience:

1. Professional and scientific stature to command respect and to work at peer levels with scientists in all areas of responsibility.

2. Professional experience as a professional agricultural specialist including organizational responsibility for planning and managing programs and projects.

3. Demonstrated ability to assess the soundness and economic feasibility of proposals for economic advancement in relation to conditions existing in specific countries.

4. Ability to deal successfully with senior government officials or scientists in recipient countries, as well as with representatives of other sponsoring agencies on policy issues of major importance to the development of programs.

E. Supervision and Guidance:

1. This project will be supervised by the Project Manager of DS/AGR/AP who will be responsible for approving and expediting all requests from Regional Bureaus, Missions, LDCs and others for technical assistance and services which include the following:

- a. technical assistance for crop production and utilization,
- b. training, workshops or seminars,
- c. publications.

2. USDA will appoint a qualified expert to supervise all activities initiated under this project and will be the primary liaison officer with the Project Manager of DS/AGR/AP.

F. Special Provisions/Conditions

1. Limitation of Assistance: The period of TDY technical services will be limited to 30 days per scientist or expert per request unless a longer period is specifically justified and authorized by the Project Manager.

2. Reports: The USDA will submit a complete Activity Report to DS/AGR/AP, and the pertinent Regional Bureau, Mission/LDC on each TDY, workshop or seminar, or other specific services/assistance requested within 60 days after completion of assistance/service. Interim summary reports will be provided sooner, even prior to departure from the LDC, when necessary and requested.

An Annual Report will be submitted within 60 days after completion of each 12 month budget period. Five copies are to be provided to DS/AGR/AP. This report shall contain, but not be limited to the following:

- a. Summary of technical services by Regional Bureaus, Missions/LDCs.
- b. Training programs including workshops/seminars conducted including location and number of participants in each.
- c. List of publications and reports prepared.
- d. List of staff and time each devoted to project activities.
- e. Other publications will be used to disseminate information as requested and deemed appropriate by the DS/AGR/AP Project Manager.
- f. The USDA shall submit three copies of all reports listed as being a product of the RSSA (administrative, progress, final, and technical reports, etc.) to the Documentation Coordinator, DS/DIU, Agency for International Development, Washington, D.C. 20523, or his designee. Such reports shall include a title page showing the title of the report, project title as set forth in this contract and the contract number. One copy of each report shall be clearly typed or printed on white paper so that it may be photographed to produce a micro-film master. Technical reports shall be accompanied by an author-prepared abstract.

3. Project Evaluation: The A.I.D. requirement of an annual evaluation will be implemented within 30 days prior to the completion of each 12 month budget period. The technical assistance and services will be evaluated in terms of the results produced as compared to the implementing instructions provided.

4. Travel of RSSA Employees: The travel of RSSA employees will be included in the annual/quarterly travel plans of DS/AGR in order to assess the total travel requirements of the Office and to assure that each Division is covered at all times. All requests for international travel of RSSA employees stationed in DS/AGR will be initiated by a memorandum to the parent agency signed by the Deputy Director, DS/AGR or his designee and cleared by the appropriate Division Chief. All other travel under the RSSA/PASA will be initiated by a written request signed by the Division Chief and cleared by the appropriate project manager.