

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT DATA SHEET	1. TRANSACTION CODE <input type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete	Amendment Number 1	DOCUMENT CODE 3
2. COUNTRY/ENTITY CARIBBEAN REGIONAL (RDO/C)	3. PROJECT NUMBER 538-0068		
4. BUREAU/OFFICE LAC	5. PROJECT TITLE (maximum 40 characters) CARIBBEAN AGRICULTURAL EXTENSION II		
6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 06 30 89	7. ESTIMATED DATE OF OBLIGATION (Under "B:" below, enter 1, 2, 3, or 4) A. Initial FY 82 B. Quarter 4 C. Final FY 89		

8. COSTS (\$000 OR EQUIVALENT \$1 =)						
A. FUNDING SOURCE	FIRST FY 82			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	(2,172)	(-)	(2,172)	(11,000)	(-)	(11,000)
(Loan)	(-)	(-)	(-)	(-)	(-)	(-)
Other U.S.						
1.						
2.						
Host Country					2,715	2,715
Other Donor(s)						
TOTALS	2,172	-	2,172	11,000	2,715	13,715

9. SCHEDULE OF AID FUNDING (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) FN	210	012		5,930		1,280		11,000	
(2)									
(3)									
(4)									
TOTALS				5,930		1,280		11,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)	11. SECONDARY PURPOSE CODE
12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each) A. Code B. Amount	

13. PROJECT PURPOSE (maximum 480 characters)

To increase the effectiveness of national public and private sector extension systems in six Eastern Caribbean states. To improve the long-term effectiveness of the University of the West Indies to backstop and support national extension services.

14. SCHEDULED EVALUATIONS Interim MM YY MM YY Final MM YY 07 85 11 88	15. SOURCE/ORIGIN OF GOODS AND SERVICES <input checked="" type="checkbox"/> 000 <input type="checkbox"/> 941 <input checked="" type="checkbox"/> Local <input type="checkbox"/> Other (Specify)
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16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)

This is the first amendment of the Caribbean Agriculture Extension Project, Phase II Number 538-0068. This amendment increases the funding by \$5,000,000 and extends the PACD by 35 months in order to reinforce improvements and emphasize new thrusts that will contribute more directly to increased productivity of farmers and greater adoption of identified appropriate technologies for higher profits.

17. APPROVED BY	Signature Title Mission Director	18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION Date Signed MM DD YY 07 02 86
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PROJECT AUTHORIZATION

AMENDMENT NUMBER THREE

NAME OF PROJECT : CARIBBEAN AGRICULTURAL EXTENSION PROJECT II

NUMBER OF PROJECT : 538-0068

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, the Caribbean Agricultural Extension Project for the Caribbean Region was authorized on August 9, 1982, and further amended on January 24, 1984 and June 1, 1984. That authorization is hereby amended as follows:

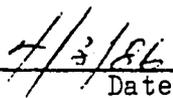
- a. The first paragraph is deleted and the following substituted in lieu thereof.

"Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Caribbean Agricultural Extension II Project for the Caribbean Region involving planned obligations of not to exceed \$11,000,000 in grant funds subject to the availability of funds in accordance with the AID OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the project is eighty-two months from the date of initial obligation."

- b. The authorization cited above remains in force except as hereby amended.



Robert K. Clark
Acting Director



Date

PROJECT PAPER AMENDMENT

Caribbean Agricultural Extension Project II

1986 - 1989

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PART I

I. SUMMARY AND RECOMMENDATIONS

A. RECOMMENDATIONS

The Agency for International Development, Regional Development Office/Caribbean (RDO/C) recommends the authorization of \$5,100,000 in grant funds to continue extension improvement activities under an amendment to Phase II of the Caribbean Agricultural Extension Project. The total cost of amended Phase II activities will amount to \$6,490,000 and will be implemented over a four year period. These continuation activities build on five years of collaborative effort undertaken by the University of the West Indies (UWI), Department of Agriculture Extension and the Midwest Universities Consortium for International Activities (MUCIA). Total AID resources provided under Phase II to date amount to \$5,930,000.

B. SUMMARY DESCRIPTION

The goal of the Caribbean Agricultural Extension Project is to improve the economic and social well-being of small farm households in the region. The project has two purposes. First, to increase the effectiveness of national public and private sector extension systems in bringing about farmer adoption of improved practices and appropriate technologies in seven Eastern Caribbean states; and second, to improve the long-term effectiveness of regional institutions to backstop and support national extension services as they become more farmer-oriented and market responsive.

Participating countries are Antigua, Dominica, Grenada, Montserrat, St. Kitts/Nevis, St. Lucia, and St. Vincent and the Grenadines. The primary focus of the regional backstopping is the Department of Agricultural Extension, especially its Regional Extension Communications Unit, and the Faculty of Agriculture at the University of the West Indies (UWI), through its Outreach Offices in the Leewards and the Windwards.

Phase I of the project undertook a detailed analysis of extension systems in each of the participating states. These analyses were used by National Extension Planning Committees to develop a National Extension Improvement Plan in each country. (Note: Project No. 538-0068, referred to here as CAEP II, is a discrete undertaking from CAEP I, No. 538-0017, such that CAEP II did not represent an amendment to CAEP I.)

At the beginning of Phase II, agricultural extension services throughout the Eastern Caribbean were seriously constrained in providing vital services to the small farmer due to a number of deficiencies: 1) organization and management systems within extension programs were characterized by poorly defined goals, conflicting lines of authority, insufficient incentives and unreliable program monitoring; 2) extension agents generally had limited training in general agriculture, small farmer cropping techniques and extension delivery methods; 3) delivery systems

were not organized to reach the greatest number of farmers; 4) extension systems had few mechanisms for accurately gauging farmers' needs, and field agents lacked mobility, and essential tools and equipment for maximum impact; 5) linkages between agricultural research and extension were inadequate and 6) regional supporting services for extension systems were small, poorly organized, loosely coordinated and lacked resources for identifying and responding to common needs of individual extension services.

The project has realized significant achievements to date in removing these constraints. Quarterly progress reports and the External Evaluation Report document the success of the project in bringing about organizational and programmatic changes in National Extension Services. The highlights of these successes are outlined in the Executive Summary of the External Evaluation Report and include the following: 1) functioning National Extension Planning Committees have been established in all countries; 2) farmer education has become the primary function and focus of National Extension Services virtually eliminating regulatory functions and significantly reducing service functions; 3) an annual program development and planning cycle has been introduced into the National Extension Services making extension programs more coherent, focused, and aimed at identified priorities for agricultural development; 4) work plans and job descriptions have been introduced to make extension agents more focused and effective; 5) supervision of extension staff has increased and become more effective; 6) National Extension Communications Units have been established and equipped, with staff trained in communications methods; 7) organizational structures have been clarified and streamlined; and 8) a regular program of in-service training has been established focusing on agricultural development priorities.

Regional agricultural leaders met in November, 1984, to consider the progress of the project. The group agreed the project has been successful in improving the effectiveness of National Extension Systems by introducing organizational changes, management improvements, and planning procedures. While these changes are real and significant, they are also fragile. Institutionalizing these changes on a long-term basis requires reinforcement. Therefore, the Regional Agricultural Extension Coordinating Committee has requested AID to extend the project with special emphasis on increasing impact at the farmer level, more effective mass communications, and compatibility between extension methods and particular local circumstances.

In short, while much has been accomplished in the past two years, much remains to be done to further strengthen national and regional extension services and to institutionalize those changes that have already occurred. The justification for amending and extending this project is that these improvements can be reinforced by continuing some activities while giving increased attention to new thrusts which will contribute more directly to increased productivity of farmers and greater adoption of identified appropriate technologies for higher profits.

The continuation activities will institutionalize and extend changes initiated by the project to remove identified constraints and enhance the organizational effectiveness of the National Extension Services

to bring about farmer adoption of improved practices and appropriate technologies. These changes need to be reinforced by continuing technical assistance for institution building while giving increased attention to new thrusts at the frontline level where technology transfer really occurs. Major project activities during the next four years will include: (1) institutionalizing effective national extension systems including increased private sector and farmer involvement in national agricultural planning and priority setting; (2) demonstrating a farming systems approach at the district level with components that are innovative in the Caribbean; (3) upgrading the technical competence and professionalism of extension agents through multiple training mechanisms including more practical and relevant national vocational agriculture training; (4) institutionalizing meaningful linkages between extension, research and marketing at regional and national levels; (5) increasing frontline extension agent mobility through an innovative vehicle loan scheme; and (6) increasing regional and national mass communications effectiveness. The project will support extension of appropriate technologies that are location specific so that there is compatibility between extension methods and particular district conditions. Evaluation will be impact on farmers.

C. FINANCIAL SUMMARY

	<u>(Thousand U.S. Dollars)</u>		
	<u>AID</u>	<u>UWI</u>	<u>Host Countries</u>
Staff Support	1,973	360	150
Travel	614	10	10
Equipment	245	-	-
Equipment Operation and Maintenance	3	-	265
Diploma Training	719	75	375
Other Direct Costs	207	45	85
Evaluation	125	5	10
Indirect Costs	1,214	-	-
TOTAL	5,100	495	895

D. IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

The implementing agencies will be MUCIA, Lincoln University, and UWI. AID will renegotiate and amend the current direct contract with MUCIA, who will have direct responsibility for all continuing and amended Phase II activities. MUCIA was chosen as the collaborating U.S. institution under Title XII procedures to assist AID develop and implement

Phase I and II of the project. MUCIA will subcontract with Lincoln University for short-term technical assistance and with UWI for the provision of selected project activities.

The UWI subcontract will covenant that the next UWI Faculty of Agriculture proposed triennial budget beginning in 1988 will include UWI funds to sustain the Leewards Outreach position and the Department of Agricultural Extension Communications Coordinator.

PART II

II. BACKGROUND

A. REVIEW OF PHASE I FROM MARCH 31, 1980 - JUNE 30, 1982

On the 31st March, 1980, the University of the West Indies entered into an Agreement with the United States Agency for International Development to carry out Phase I of the Caribbean Agricultural Extension Project (CAEP). The CAEP has been jointly administered under the leadership of the UWI Department of Agricultural Extension and the Midwest Universities Consortium for International Activities (MUCIA) consisting of seven major American Universities (University of Illinois, Indiana University, Michigan State University, University of Minnesota, Ohio State University, University of Iowa, and University of Wisconsin).

Phase I of the Project was designated as a period of analysis and planning to accurately identify the activities and resources required to improve the effectiveness of national extension services. Phase I activities and accomplishments are described in detail in the Phase Project Paper.

B. REVIEW OF PHASE II FROM AUGUST 9, 1982 - JULY 31, 1985.

On August 9, 1982, RDO/C authorized Phase II of the Caribbean Agricultural Extension Project. Project activities have focused on (1) supporting implementation of national extension improvement plans; (2) building national extension communication units; (3) increasing regional backstopping for national units through UWI and CARDI; and (4) increasing the impact of extension on farmers.

1. Institutionalizing Organizational and Programmatic Changes

Quarterly project reports and the external evaluation report document the success of the project in bringing about organizational and programmatic changes to strengthen national extension services. The highlights of these successes are outlined in the executive summary of the External Evaluation Report and include the following:

- (1) functioning National Extension Planning Committees have been established in all countries, and provide an important mechanism for private sector and farmer influence on the setting of extension priorities and agricultural policies;
- (2) farmer education has become the primary function and focus of national extension services virtually eliminating regulatory functions and significantly reducing service functions;
- (3) an annual program development and planning cycle has been introduced into the national extension services making extension programs more coherent, focused, and aimed at identified priorities for agricultural development;

- (4) work plans and job descriptions have been introduced to make extension agents more focused and effective;
- (5) supervision of extension staff has increased and become more effective;
- (6) national extension communications units have been established and equipped, with staff trained in communications methods;
- (7) organizational structures have been clarified and streamlined; and
- (8) a regular program of in-service training has been established focused on agricultural development priorities.

The CAEP professional outreach staff have worked closely with extension staff in participating countries to bring about these changes. The precise nature and extent of these changes varies from country to country as described in the External Evaluation Report sections on detailed country changes. These changes were the primary focus of Phase II activities in the Project Paper sections aimed at strengthening national extension services.

A primary thrust of continuing activities would be the full institutionalization of these changes.

While these changes are real and significant, they are also fragile. The ground work for these changes was laid during the planning phase (Phase I) of the project, 1980-82, and implementation of these changes began early in 1983 when Phase II became operational. But, national extension staff still have limited experience in actually using program development processes and planning approaches as a basis for extension work. CAEP professional outreach staff will continue to work with senior extension officials to make sure that these changes are fully institutionalized on a long-term and self-sustaining basis.

2. National Communications Units

Each participating country except Montserrat has a national extension communications unit. Montserrat has chosen to have a communications unit for the entire Ministry of Agriculture, rather than just extension. The following changes have occurred in national extension communications efforts as a result of the project:

- (1) full-time extension communications positions have been placed in the extension organizations in the Windwards and Antigua;
- (2) job descriptions for extension communications officers have been written making it clear that their primary responsibility is extension mass media;
- (3) all national extension communications units are now fully equipped with basic print, audio-visual, photography, and tape recording equipment;

(4) all national extension communications units have a communications vehicle;

(5) all national extension communications officers have received communications training from CAEP, including 5 participants in the UWI Diploma in Extension program and an annual two week in-service; and

(6) a network of national communications units has been created, linked to and through the UWI Regional Extension Communications Unit, that permits shared production and dissemination of communications materials.

Below are achievements of individual countries in extension communications:

Production from National Communications Units

Antigua: Staff here aired a 10-week program series on one radio station and plans are being made to implement a weekly, 30 minute program beginning August 11. There are also plans for a daily 5-minute program. A newsletter was produced every two months and efforts are being made to expand to publishing monthly. Some 500 copies are produced of each edition. Staff produced two brochures and have three more in the planning stages. They publish the department newsletter, INNEWS, on a regular basis and reproduced a report by J.A. Spence entitled "Cotton". Efforts are also being made to establish a pool of slides.

Dominica: Department staff produced two farm exhibits last year and participated in other private exhibitions. They produced a daily radio program in Creole and a weekly English farm magazine program. Staff also shot agriculture related slides and used them in seminars and teaching workshops. The following Fact Sheets were produced by staff last year: Using Pesticides; Cabbage Growing; Passion Fruit Growing; Growing String Beans; Pat Chouli Growing; Controlling Cabbage Caterpillar; Slug Control, Citrus Weevils; Raising Carrots.

Grenada: The unit hosted a weekly farm radio program and last year shot approximately 60 slides for use by agriculture agents in training farmers. The department produced more in the print area, but accurate information was not possible to obtain on what was produced.

Montserrat: Montserrat does not have a communications outreach per se but has agricultural extension officers performing that function on a part-time basis. They produce a weekly radio program that is aired twice during the week. They also provided communications support for the 4-H achievement days, showed slide sets to relevant groups and cooperated with St. Kitts/Nevis and Antigua on some vegetable production pamphlets. They have been trying to get a newsletter started but have had some difficulties because of lack of funds. However, they are attempting to "bootleg" the first edition and have done some planning on it.

St. Kitts/Nevis: Staff here conduct a weekly radio program and produce a newsletter, "Agri-Scope", on a quarterly basis. Agricultural articles are produced for newspapers on a regular basis and the staff

produced one bulletin on Tick Eradication.

St. Lucia: The communications office staff regularly produces press releases on activities of agriculture department researchers and staff. They produced an exhibit for the World Food Day show at the Central Library and conducted 20 film presentations to different districts prior to World Food Day. Staff also produced one bulletin on cocoa production and has story boarded two slide sets -- one on tree crops and one on banana production. In addition, staff members produce and host a weekly farm radio magazine type program and a daily radio farm program -- three days (a.m.) in Patois and two days (p.m.) in English. Also staff members produced five bi-monthly issues of the "St. Lucian Farmer" Newsletter/Magazine.

St. Vincent: Staff produced two daily programs of five minutes each. One airs in the early morning and one at mid-morning. They also produce a weekly half-hour program aired on Thursdays. Staff produce a news letter every other month and provide weekly articles for newspapers. They also complete on slide/tape series and produced 12 fact sheets. Proper library facilities are also be established.

It should be noted here that the information provided for the national units represents highlights of what was produced during the past year. This is, therefore, not an exhaustive list. CAEP communications and outreach staff will work to more fully integrate communication units and national extension programs of work during continuation activities.

3. Regional Backstopping

At the regional level CAEP has worked to increase support for national extension units. Quarterly project reports and the External Evaluation document the following accomplishments at the regional level:

- (1) the Regional Extension Communications Unit (RECU) in the Department of Agricultural Extension at the University of the West Indies has been fully equipped and organized as a production unit. RECU has begun producing fact sheets, extension bulletins, radio programs, slide-tape sets, and an improved quarterly regional newsletter;
- (2) a Caribbean Agricultural Extension Manual has been designed as a looseleaf notebook to be put in the hands of all extension staff as a major resource;
- (3) the Regional Agricultural Extension Coordinating Committee (RAECC) has had two regional meetings (3 days each) with major participation in project design and evaluation, including adoption of policy recommendations for individual countries;
- (4) the Technical Joint Action Committee (TJAC) has met 2-3 times a year to coordinate research and extension efforts;
- (5) the UWI Diploma in Extension has operated for two full years graduating 16 participants, 13 of whom were supported by

U.S.AID, and one-fourth of whom were from private sector extension organizations. This innovative program has had a major impact on UWI's thinking about the need to provide practical Diploma level programs for continuing adult professional education;

- (6) the Women and Development Unit of UWI has been involved in regional and national extension training;
- (7) a major program of sub-regional and regional in-service training has been implemented with a central theme each year. The first year the theme was Extension Program Development. The second year the theme was Soil and Water Conservation and Management;
- (8) a major review of agricultural vocational technical education was completed and new linkages were initiated between national vocational technical institutes and national extension services;
- (9) a regional program for recognizing Excellence in Extension has been established with both national and regional recognition of outstanding contributions to extension; and
- (10) close linkages have been established between the CARDI Farming Systems Project and CAEP with mutual support and common direction.

4. Farmer Impact

The External Evaluation of the project completed in August, 1984, found evidence that the extension services are in fact assisting farmers to use improved technology, to increase production, and to achieve more cost effective farm management and marketing. Extension's impact on farming practices and incomes were documented through in-depth case studies of 15 farmers in 3 islands. The evaluators summarized the impact of extension on farmers by citing seven major categories of effect: 1) diversification into new crops and animals; 2) improved product quality; 3) greater use of fertilizers and pesticides; 4) improved land cultivation, spacing, and planting material; 5) improved marketing; 6) development of women's role in farming; and 7) establishment of linkages to other services, including credit.

It is RDO/C's intention to further focus and intensify extension's activities toward exactly these kinds of impacts. While RDO/C is pleased with the evaluation evidence gathered after only 24 month of project operations, we are not satisfied. Future efforts will sharpen extension focus on priority high impact commodity promotion and priority district development target areas. In particular, RDO/C envisions operational extension programs that are more directly supportive of AID funded production/marketing activities proposed in our FY 86/90 action plan.

C. HIGHLIGHTS OF UNIQUE IMPROVEMENTS IN PARTICIPATING COUNTRIES

While there have been common patterns of accomplishment throughout the Region and among participating countries as described in the preceding sections, there have also been major accomplishments which are unique to each country in keeping with each country's National Extension Improvement Plan. This section highlights accomplishments in individual participating countries.

1. Antigua

At the beginning of Phase II the Antigua Extension Service constituted the worst case in the Caribbean of mixing regulatory, service and educational functions. Regulatory functions have now been completely separated from the Agricultural Extension Service in Antigua and service functions have been significantly reduced. Antigua has established a National Communications Unit with an officer in charge trained in the UWI Diploma in Extension program. The chief extension officer in Antigua has participated in considerable administrative training including three weeks at the Minnesota Extension Summer School.

2. Dominica

At the beginning of Phase II the Dominica Agricultural Extension Service was primarily involved in service activities. Educational efforts have now been established as the primary function and purpose of extension in Dominica. This has involved participation by a very active National Agriculture Committee and establishing new job descriptions and work plans at all level of extension in Dominica with an emphasis on education and technology transfer to farmers. Dominica has implemented a performance-oriented personnel evaluation system for extension.

The National Vocational Technical School in Dominica has undertaken a major curriculum revision with the assistance of CAEP which includes closer collaboration with and greater service to extension. Dominica extension has also begun working with private marketing organizations. CAEP helped bring together various private sector and extension groups concerned about marketing, e.g., "Farmer to Market, Ltd.," the Dominica Hucksters Association, French Technical Cooperation, and district extension staff to devise more effective ways of gathering and disseminating marketing information.

3. Grenada

Following the period of political instability in Grenada the Agricultural Extension Service is undertaking a major reorganization with diminution of the importance of state farms and the reduction of Extension's involvement in state farming. The National Agriculture Committee is very active in Grenada and communication technicians have been trained to operate the now fully equipped National Communications Unit. The island of Carriacou has received special attention in the project because of its agricultural potential and because the extension officer with responsibility for Carriacou has been particularly enthusiastic about greater realization of Carriacou's agricultural potential. He participated

in the Minnesota Extension Summer School in 1985.

District Agriculture Committees have also been organized in Grenada.

4. Montserrat

Montserrat Extension has developed the most comprehensive record keeping system for farmers in the Caribbean. Nearly 90% of farms are covered in the record keeping system which monitors planting and production of all major crops. The extension service is then able to provide accurate information to farmers and government officials about likely production levels and marketing possibilities. This system is helping focus extension efforts on areas where there are market opportunities while reducing the likelihood of market saturation.

5. St. Kitts/Nevis

While this is one country, it is made up of two islands. CAEP experience has been that the agricultural extension situation in these two islands is so different that separate programs of work have been established for each island. There are only a few extension agents on each island so CAEP activities have focused on training, both in-service training and Diploma training.

On Nevis all agricultural officers have been furnished with motorcycles through the project. In St. Kitts a new agricultural communications unit has been established with a communications officer assigned to the unit half-time.

6. St. Lucia

In St. Lucia CAEP has worked with both the National Extension Service and with WINBAN. Communications equipment, including a printing press, have been provided to WINBAN and the National Extension Communications office has been fully equipped, including a communications vehicle. St. Lucia's Extension Service has been undergoing major reorganization with northern and southern regions established for greater administrative decentralization. St. Lucia has had an active program of in-service training and has had four participants in the Diploma in Extension courses at UWI, more than any other country. St. Lucia has the best trained field staff in the Caribbean, but has been hampered by political and personnel difficulties at the senior level.

7. St. Vincent and the Grenadines

St. Vincent has fully implemented the first vehicle loan scheme for agricultural agents in the Caribbean. That program has become the envy of other islands. Eleven frontline and district officers have purchased vehicles under the St. Vincent Loan Scheme making the St. Vincent Agricultural Service among the most mobile in the Caribbean.

With project support St. Vincent has established an active National Communications Unit and has undertaken a major livestock

improvement campaign. St. Vincent has also been an active participant in CAEP-supported in-service training including the Chief Extension Officer's participation in the Minnesota Extension Summer School in 1984. St. Vincent has a very active National Agriculture Committee, excellent leadership at senior levels, and new District Agriculture Committees.

* * * * *

While CAEP is a regional effort, CAEP staff work particularly hard at being sensitive to national variations and uniquenesses. The accomplishments of CAEP in Phase II represent a blend of regional accomplishments and national achievements. This is in keeping with the purpose of CAEP to provide regional backstopping in support of the improvement of National Extension Services.

In 1984 all participating countries completed new national extension improvement plans. CAEP staff have analyzed those plans and taken them into consideration in preparing this proposal for continuation activities.

D. HIGHLIGHTS OF PRIVATE SECTOR EXTENSION SUPPORT AND DEVELOPMENT

CAEP II has worked with both national extension services and private sector extension organizations. These efforts fall into three categories: farmers' organizations with extension staff; commodity associations; and private voluntary organizations. CAEP activities with these groups in Phase II have included, and will continue to include, the following efforts in keeping with the June 10, 1985, memorandum from the U.S.AID Administrator on "A.I.D. Support for Agricultural Extension" which emphasizes the potential for the local private sector in agricultural extension:

(1) Extension agents in private sector organization have been included in all national and regional CAEP in-service training.

(2) The UWI Diploma in Extension has included three private sector extension agents, i.e. 23% of the island participants in the Diploma program have been from the private sector.

(3) CAEP has furnished equipment to private sector organizations; especially mass communications equipment and technical manuals (The Caribbean Extension Manual).

(4) The private sector actively participates in all national agricultural planning committees, and in the Regional Agricultural Extension Coordinating Committee. Indeed, these committees have become a major vehicle for private sector input into government extension and agricultural policy-making and decision-making. By these means CAEP has institutionalized private sector and farmer involvement in national agricultural planning through more effective and broad-based National Planning Committees, especially involvement in establishing research and extension priorities while supporting reduction of governmental constraints to production and marketing.

(5) CAEP staff have worked to build support linkages and bridge coordination gaps between national and private sector extension activities.

- a. In Dominica 9 commodity association extension staff and two field officers in the Dominica Farmers Union have participated with national extension staff in CAEP programs.
- b. In St. Vincent the Farmers Union has one extension agent who has participated in CAEP activities, and the Organization for Rural Development (ORD) has been heavily involved in all aspects of CAEP.
- c. Five extension staff in the Belize Agricultural Society and two in the Belize Sugar Growers Association have been a part of CAEP training.
- d. In St. Lucia, WINBAN has worked closely with CAEP, especially the WINBAN Communications Unit. For example, CAEP produced a slide/tape show module on field packing of bananas for WINBAN.

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In summary, CAEP II has laid a strong foundation for private sector extension support and development. CAEP has been particularly instrumental in bringing PVOs, farmer organizations, and commodity groups into the mainstream of national agricultural development decision-making and policy dialogue.

E. THE EXTENSION DEVELOPMENT PROCESS, THE AID STRATEGIC PLAN, AND THE RDO/C ACTION PLAN

1. The Extension Development Process

The original Phase II Project Proposal presented a conceptual framework for CAEP showing an ideal extension model and contrasting it with the situation in the Caribbean and expected stages of development of the national extension systems. That framework remains relevant in that it emphasizes how extension should facilitate coordination of public and private sector interests in determining agricultural policy. With regard to technical matters, effective extension involves collaboration and integration of various agriculture related efforts including research, vocational technical education, and marketing. The efforts of extension are aimed at creating skilled, knowledgeable farmers making wise decisions, using resources efficiently, and farming profitably.

CAEP I and II have focused attention in the Caribbean on these characteristics of effective extension. The Excellence in Extension program, the policy dialogue in the Regional Agricultural Extension Coordinating Committee, discussions in National Planning Committees, CAEP training sessions, and the Caribbean Agricultural Extension Manual (especially the section on program development) have all emphasized the elements of an effective extension program such that there now exists a widespread consensus within the Caribbean agricultural community about

those characteristics. They are:

- (1) Extension should be primarily involved in agricultural technology development and transfer as an educational process.
- (2) Effective extension facilitates a two-way flow of communication where information about farmer needs and interests are passed up to agricultural researchers, educators and policymakers while information from researchers, policymakers and educators gets passed back down through extension to farmers.
- (3) Effective extension adapts technology to location-specific requirements for the effective application of improved agricultural methods in the context of specific farm conditions and needs.
- (4) Effective extension programs are integrated and coordinated such that a variety of methods are used together in focused campaigns on targeted audiences with mass communications supporting field agent work with groups and individuals based on providing farmers with accurate and reliable research knowledge and technology.
- (5) Extension programs should be developed collaboratively with farmers, researchers, agricultural businesses, and policymakers so as to integrate development efforts in the agricultural sector.
- (6) Effective extension programs are planned such that the individual efforts of specific agents combine into a larger whole which constitutes a coherent agricultural campaign within a district.
- (7) Extension should be appropriately trained, appropriately equipped, mobile so that they can carry technology to the farms where farmers are working, and well supervised in implementing a written plan of work based on explicit agricultural and extension priorities.
- (8) Effective extension is focused on the farm family unit and is sensitive to gender division of labor, farm family income flows, labor availability, and cultural norms.

While there is now widespread consensus among extension professionals that these are desirable characteristics for an extension service, it is important to note that at the beginning of CAEP I no such consensus existed in the Caribbean. Extension was primarily a bureaucratic and civil service arm used to enforce Ministry of Agriculture regulations and provide direct services to farmers in support of political agendas within the Ministry. Little was expected of extension agents and they responded by doing little. They were largely untrained, unsupervised, and unrewarded. They worked without job descriptions, without plans of work, and without a clear idea of what they were to accomplish. There was no

consistent accountability and few opportunities for advancement or recognition. Status differences and lack of training contributed to keeping extension agents away from farmer fields, a situation that was aggravated by lack of equipment, lack of transportation, and lack of a coherent program of education for working with farmers.

As the External Evaluation of CAEP demonstrates, these conditions have been substantially improved and a major factor in those improvements has been a new, widely shared view of what extension can and ought to be. Before elaborating on future directions for CAEP in institutionalizing these changes and further increasing the effectiveness of technology transfer in the Caribbean, it will be helpful to review the ways in which CAEP manifests AID's four basic programmatic components and supports the AID strategic plan.

2. AID Strategic Plan Priorities and CAEP

One of the five priority problems on which AID has decided to focus its efforts is "inadequate income growth." CAEP is aimed at increasing income growth through a more productive and efficient agriculture.

CAEP manifests elements consistent with all four basic programmatic components of AID.

- (1) Technology Transfer is a central feature of CAEP. Through improved linkages between extension and research, through a farming systems approach to research and extension, through improved training of extension officers, and through identification of location-specific appropriate technologies, extension is deeply involved in technology transfer aimed at improving the productivity and efficiencies of Caribbean farm operations. In particular, CAEP has built, and will strengthen, a regional agricultural communications network through which information about agricultural technology and management practices can be shared and widely disseminated through a variety of mass media.
- (2) Institutional Development and Training are key components of CAEP. CAEP has worked to strengthen the institutional capacity of the University of the West Indies to support national extension services; CAEP has identified ways of improving vocational technical training for extension agents at both middle management levels and for frontline extension agents; and CAEP has developed viable and functioning agricultural policy and advisory committees at the district, national and regional levels to facilitate direct participation in agricultural decision-making by those who are affected by such decisions. These are critical institutional development processes. CAEP has also strengthened national communications units and created a Regional Extension Communications Unit.
- (3) Policy Dialogue is also a central feature of CAEP. As noted above, CAEP has been heavily involved in discussions with

national leaders about the appropriate roles for extension and ways of increasing extension effectiveness. This has included discussions about removing policy constraints to both extension effectiveness and agricultural development. For example, this policy dialogue has resulted in removing duty on vehicles used by agricultural extension agents in four Caribbean countries. Such duty and taxes have been a major policy constraint limiting extension mobility. CAEP has also been involved in policy dialogue aimed at and resulting in a less politicized and more performance-oriented extension service. Through National Agriculture Committees and the Regional Agricultural Extension Coordinating Committee CAEP has facilitated policy dialogue on building a market-driven agriculture free of artificial constraints that limit farmer incentives for production and productivity. In June, 1985, CAEP brought together national policy-makers, permanent secretaries, and chief technical officers for a policy dialogue on strengthening national committees. The white paper from that session includes major policy process recommendations.

- (4) Private Sector Reliance has been a central theme of CAEP. As noted in section D of this background presentation, CAEP has been heavily involved in supporting private sector extension and in developing opportunities for greater integration of private and public sector interests. CAEP is working with private individuals involved in marketing and with the associations involved in the private sector aimed at increasing market viability to provide better information to farmers about market potential and to provide better information through private sector marketing agents about agricultural production potential.

* * * * *

In summary, CAEP manifests all four programmatic components of AID in focusing on one of AID's central priorities -- inadequate income growth.

3. CAEP and the RDO/C Action Plan and Regional Development Strategy

CAEP is one of the regional supporting services for RDO/C's "High Impact Agricultural Development Cluster". As a support service CAEP will help orient National Extension Services to complement interventions in specific crop lines or agricultural processes as they are identified in the high impact agricultural marketing and production projects undertaken by AID in participating countries. As AID support directs resources at locating and linking U.S. private agribusiness firms, distribution channels, buyers of specialized agricultural products and middle men, to profitable opportunities on the seven islands, extension agents will be able to support introduction of viable new cash crop opportunities. Extension has a central role to play in supporting high impact agricultural projects by helping identify farmers to participate in such projects, transferring technology to farmers for production of new cash crops, and providing information to purchasers about production potential and to

farmers about marketing potential.

The specific contributions of CAEP to the high impact agricultural cluster projects will be as follows:

*** IDENTIFYING HIGH IMPACT AGRICULTURAL OPPORTUNITIES

CAEP has established a network of people, institutions and processes that will be a source of ideas for high impact agricultural projects. The extension demonstration districts will be especially useful in this regard, as will national agriculture committees.

*** BUILDING SUPPORT FOR SMALL FARMER PARTICIPATION IN HIGH IMPACT AGRICULTURAL EFFORTS

CAEP's farmer-based decision-making processes, extension connections, and policy dialogue processes are excellent vehicles for introducing high impact agricultural projects in sensitive and effective ways that will build support and enthusiasm for farmer participation.

*** TRANSFERRING HIGH IMPACT AGRICULTURAL TECHNOLOGY TO SMALL FARMERS

The extension systems of training, mass communications, and farmer groups are key mechanisms for transferring the necessary technology of high impact agricultural production to small producers.

*** PROVIDING A SYSTEMS FRAMEWORK FOR HIGH IMPACT AGRICULTURE

The commodity-oriented approach of the high impact agricultural cluster has the greatest chance of success if approached within the framework of local farming systems. CAEP and CARDI, through farming systems work supported by U.S.AID, will be able to advise on system constraints and opportunities to be taken into account in implementing effective high impact agriculture cluster projects. For example, if there are unusual labor constraints related to production of a particular commodity, extension staff would be able to advise on the consequences of those labor constraints for farmer adoption of the new production techniques and participation in producing the desired commodity.

CAEP staff members are fully briefed on the high impact agricultural development cluster within the Regional Development Strategy of AID's RDD/C Action Plan, and are prepared to work in support of the introduction of viable agricultural commodities for which there are identified markets. The High Impact Agricultural Cluster contractor will be involved in the CAEP evaluation.

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With this background, the next section presents the purposes, expected outputs, and planned activities of CAEP II for the period January, 1986 through June, 1989, the period covered by this Project Paper Amendment.

PART III

III. CONTINUATION OF THE SECOND PHASE OF THE CARIBBEAN AGRICULTURAL EXTENSION PROJECT (CAEP)

A. GOAL AND PURPOSES

The overall goal of the CAEP is to improve the economic and social well-being of small farm households within the region through an increase in the value of agricultural production, increased productivity, and generation of agricultural employment. The small farmers' main link with more efficient production practices, more appropriate technologies, credit and marketing opportunities, new products, and with agricultural development in general, is the village level or frontline extension worker.

The two purposes of the Caribbean Agricultural Extension Project therefore are to: 1) increase the effectiveness of national extension systems, public and private, within the seven countries served by this project; and 2) increase the effectiveness of selected regional institutions which backstop and support national extension services. In particular, the project aims at increasing the efficiency of frontline extension workers in meeting the development needs of small farmers, creating administrative and organizational changes to support field agents, and providing critical back-up support (e.g. research linkages, technical education, training, marketing intelligence, and mass communications) to facilitate achievement of required increased efficiency. Strengthening the outreach capability of the UWI Faculty of Agriculture, especially the Regional Extension Communications Unit of the Department of Agricultural Extension, and building stronger extension linkages with CARDI and other research organizations, will permit continuing and increased technical support for national extension services over the long-term.

B. EXPECTED OUTPUTS

The following outputs are expected during the amended three year project life from 1986 through June 30, 1989:

1. More Productive Farmers

- a. Farm family income will increase by an average of \$30 per year (thus making the project cost effective; see the project economic analysis, section III-E).
- b. Thirty farm families in each of five demonstration districts (150 farm families) will have adopted new technologies and/or management practices leading to a 10% increase in income.
- c. Twenty farm families in each of the other 24 extension districts (480 farm families) will have adopted new technologies and/or management practices leading to a 5%

increase in income.

- d. A group of farm families on whom extension has had high impact will exist (items a and b above) as a nucleus from which new technologies can be transferred to additional farmers and farm families.
- e. Farmers will have increased knowledge from accurate technical information obtained through extension fact sheets, newsletters, and radio programs.
- f. Farmers will have high expectations of extension -- demanding a competent, useful, informed and farmer-oriented extension service.

2. Effective Frontline Extension Agents

- a. Frontline extension agents will have increased competence and technical skill due to a minimum of 48 hours a year of in-service training.
- b. Frontline agents will have a meaningful plan of work and will follow that plan of work; they will know what to do, when to do it, how to do it..., and they will do it.
- c. Extension agents will have increased knowledge from the Caribbean Agricultural Extension Manual (including 200 new fact sheets on matters of technical importance) and training based on the manual (item 2-a).
- d. There will be increased morale and more positive attitudes among frontline agents.
- e. Extension agents will have better and more productive work habits.
- f. Greater mobility among agents through vehicles obtained for extension use via the loan program:
 - 16 in Dominica
 - 8 in Antigua
 - 4 in Nevis
 - 3 more in St. Vincent

3. More Effective National Extension Services

There will be:

- a. a fully institutionalized and active national agriculture committee in each country providing guidance to and evaluation of extension services with significant private sector input;
- b. eight annual extension program workplans each year - one for

each country and Nevis, to guide and direct national extension efforts at implementing national plans;

- c. effective coordination and involvement between private sector extension services (commodity associations, farmers' groups, PVOs) and national extension services so that both public and private services are working towards similar goals and objectives;
- d. effective linkages established between each CARDI National Team and the respective National Extension Service;
- e. job descriptions and individual agent workplans used as a basis for personnel evaluation on an annual basis;
- f. higher quality supervision of field staff by district officers;
- g. an integrated and planned program of in-service training each year based on explicit agricultural development and extension priorities;
- h. Increased managerial and organizational effectiveness of UWI Diploma in Extension graduates, an increase in managerial expertise at senior levels of both public and private extension organizations; and
- i. An increase of more than 50% in contacts with targeted farmers due to use of a group approach and greater mobility from project vehicles and loan program vehicles.

4. Demonstration Extension Districts

There will be:

- a. five exemplary extension districts, one in each of five countries (Antigua, Dominica, Grenada, St. Lucia, and St. Vincent), demonstrating how an effective and efficient extension system can operate at the district level;
- b. an integrated, high impact agricultural campaign in each demonstration extension district derived from a farming systems problem identification approach and using farm management principles in work with farmers;
- c. knowledge of how to effectively manage an integrated, high impact extension campaign at the district level for dissemination to other districts.

5. Effective National Communication Units

There will be:

- a. national extension newsletters published at least quarterly

with distribution to at least 10% of all commercial farm households; (Newsletters will focus on agricultural production techniques, not "gossip" about people in agriculture);

- b. five knowledgeable and effective national communications unit senior officers with an annual program of work supporting national extension priorities;
- c. production or adaptation of at least three slide programs a year on technical topics of importance to local farmers by national communications units with support from RECU;
- d. regular agricultural, production-oriented radio programs of high quality in all countries, and evaluation of audience impact.
- e. The quality, appropriateness, and technical impact of radio programs will also be substantially increased and RECU will distribute to all countries seven editions of "Ag Reports" each year, a one hour tape of radio segments to support and enhance national extension mass communications efforts.
- f. There will be a national excellence extension program fully institutionalized to recognize and reward outstanding extension agents.

6. Effective Regional Backstopping and Support

There will be:

- a. increased backstopping capability of UWI to support national extension units in communications and extension methodology;
- b. two UWI outreach offices established and functioning in the region, one in the Windwards and one in the Leewards, providing meaningful support to national extension services with staff funded by UWI on a continuing, sustainable basis;
- c. an influential Regional Agricultural Extension Coordinating Committee (RAECC) organized to provide direction to CAEP and to monitor its success;
- d. a UWI Diploma in Extension institutionalized as an ongoing, sustainable and permanent program in the Faculty of Agriculture;
- e. the Technical Joint Action Committee evolved into a sustainable regional research and extension network for collaboration and mutual assistance;
- f. a Regional Excellence in Extension program to recognize and reward outstanding national extension agents;

- g. coordination among national vocational technical agricultural institutions to...
 - i. increase standardization of agricultural offerings,
 - ii. adopt standards of quality, and
 - iii. increase support of and linkages to national extension services;
- h. a fully functioning Regional Extension Communications Unit in the Department of Agricultural Extension at the University of the West Indies producing...
 - i. seven (7) editions of "Ag Reports" radio programs each year;
 - ii. seven (7) slide sets each year on priority topics;
 - iii. four (4) editions of the Quarterly Newsletter more oriented to extension agent and farmer needs;
 - iv. one technical bulletin per year;
 - v. fifty (50) fact sheets per year for widespread distribution and addition to the Caribbean Agricultural Extension Manual; and
 - vi. an annual two weeks communications workshop for national communications officers.
- i. a RAECC policy position on a well-defined, practical and effective role for extension in marketing based on a marketing policy dialogue and systematic information on extension's role in marketing gathered by CAEP.
- j. a regional professional association of extension agents.

C. END OF PROJECT STATUS

1. Context for Increased Effectiveness at End of Project

To understand the impact of CAEP by the end of the project, it is helpful to review the situation of frontline extension agents at the beginning of Phase II since the primary purpose of the CAEP is to increase the effectiveness of national extension systems. The typical junior field agent had no formal agricultural training. He was not sure what he was supposed to do. He had had no orientation to his job. He had no job description or workplan to follow. He had no demonstration equipment, no

materials to give to farmers, no communications program, and no means of transportation. He visited one or two farmers a day, asked how things were going, and passed on whatever information had been handed down to him about government agricultural policies, regulations, and projects. He was viewed as a government bureaucrat who got paid too much, even at a salary of \$300 a month. His morale was low, his professional identity was nil, and he felt no real support from his superiors.

Now, three years later, this situation has substantially changed. Ministers of Agriculture are saying positive and supportive things about extension. The Excellence in Extension program has recognized and rewarded outstanding agents, while providing positive role models for others. All junior staff, as well as middle and senior level staff, have participated in extensive in-service technical training each year. All field staff have basic demonstration equipment. Through their district offices frontline agents have access to transportation to conduct field demonstrations. Each agent has a concrete, operational workplan to follow. This workplan sets expectations for meeting with farmer groups to advise on specific agricultural subjects. He has a schedule of activities to follow and a list of tasks to accomplish. He basically knows what he is supposed to do, and why. He knows his farmers. He is supervised by a district officer who holds regular staff meetings. The district officer has received training in supervision and program development aimed at enhancing the effectiveness of frontline field staff.

Both the junior agents and district officers are backed up by a national communications unit. National agricultural newsletters and fact sheets are available for distribution to farmers on major production topics. Radio programs are geared to seasonal production cycles and produced to backstop extension agents in the field.

National agriculture committees in each country are meeting regularly to review extension priorities and, with important private sector input, maintaining pressure to make extension ever more productive. CEOs and CADs have received direct training and support for the first time through CAEP senior management workshops. These workshops focus on the role of senior management in supporting and enhancing frontline extension agent effectiveness.

Yet, while much has been accomplished in the past three years, much remains to be done to further strengthen national extension services and to institutionalize those changes that have already occurred in order to further increase the effectiveness of frontline extension agents where technology transfer really occurs. The changes introduced are new and fragile. These changes constitute fundamentally different attitudes, knowledge, behaviors, expectations, and roles. The process of institution building has thus far involved new structures, forming a consensus about what an effective extension service can and should be, and laying an institutional foundation that will fully support and reinforce new attitudes, knowledge, behaviors, expectations, and roles.

There are several interrelated processes involved in more fully institutionalizing changes already initiated. The role, functions, and terms of reference for national agriculture committees need further

clarification based upon the experiences of the past two years. In several countries the national planning committees are not yet self-sustaining, and their place within the agricultural development process is still ambiguous. Annual plans of work need to be more closely linked to budget cycles and budget requests. The linkages between research and extension are still in their formulative stages. Some service duties are still included in extension responsibilities even though there is agreement that extension agents should not be involved in those duties, for example, supervising plant propagation. Other responsibilities are excluded from job descriptions even though a part of extension work, e.g., working with youth groups. Some extension staff don't understand the difference between work plans and job descriptions, and procedures need to be established for reviewing and revising job descriptions. Supervision needs to be more closely tied to job descriptions, and some supervisory reports are not being done even though required. Better utilization of routine extension reports needs work. The frequency and purpose of in-service training needs review based on the experiences of the last two years. Good records of in-service training have not been kept in some cases, and responsibility for in-service training is still ambiguous in some countries. With regard to extension methods, increased group meetings are occurring, but the quality of those group meetings are often in doubt. Thus, additional training in group methods needs to take place to improve the quality of group techniques. The production activities and communications focus of national communications units needs to be more closely tied to annual extension work plans. Transportation problems remain critical for many frontline extension staff.

The commitment to attack these problems is reflected in the expected outcomes of the project. Given this context, the next sections describe "End of Project Status" in four major areas:

- Increased Farmer Knowledge and Practice/Adoption of Appropriate Technologies leading to Higher Incomes
- Increased Effectiveness of Frontline Extension Agents
- Fully Institutionalized Changes in National Extension Services
- Effective Regional Backstopping

2. Farmers -- End of Project Status

At the end of the project farmers will be more productive because they will be more knowledgeable and will have adopted more appropriate technologies and better management practices. Farmers will be demonstrably more positive about and supportive of extension because EXTENSION WILL BE FARMER-ORIENTED AND MARKET-DRIVEN.

3. Frontline Extension Agents -- End of Project Status

At the end of the project frontline extension agents will have internalized more productive work habits, greater professionalism, and farmer-oriented attitudes which include a commitment to genuinely improving the economic and social welfare of farm families. Agents will have

accurate, relevant technical knowledge to support implementation of concrete work plans aimed at specific target audiences for adoption of identified appropriate technologies, management techniques, and marketable crops. Agents will be using a variety of extension methods based on the needs of local farmers as identified in farming systems/farm management analyses. All agents will conduct field demonstrations -- both method and result demonstrations; they will use group methods, audio-visual materials, and farmer networks; and they will do one-to-one follow-up as appropriate.

4. National Extension Systems -- End of Project Status

National agriculture committees will be fully and effectively functioning as an institutionalized part of the agricultural development process. The private sector will play a major part in the deliberations and activities of national agriculture committees. The efforts of public and private sector extension agents will be more fully integrated, coordinated, and mutually reinforcing.

The extension service will have fully institutionalized an annual program development and planning cycle. Individual agent plans of work will be based on clearly articulated national extension priorities. Each country will have a formal plan for annual in-service training based on annual priorities and the annual program of work. The national communications units will produce materials in support of extension priorities and the in-service training programs.

National vocational-technical training institutions will provide formal training for new agents. This will be followed by formal, planned orientation into the extension service including a period of apprenticeship under an effective extension officer. There will be close cooperation between vocational technical institutions and extension. If Antigua has no national voc-tech training, then linkages to the Windward Islands voc-tech institutions will be established.

National research efforts, including but not limited to CARDI national teams, will be more fully involved in backstopping extension, especially at the district level where farming systems analyses have been conducted involving both researchers and extension specialists.

Extension will be able to provide timely and accurate marketing information to farmers and assist in identifying market opportunities.

In short, the changes already initiated by CAEP will be fully institutionalized by the end of the project.

5. Regional Backstopping -- End of Project Status

The Department of Agricultural Extension of the UWI Faculty of Agriculture will have significantly expanded its outreach capability to support and backstop national extension services. Two outreach offices will be firmly established and staffed by UWI extension professionals, one serving the Windwards and one serving the Leewards. These outreach offices will be fully institutionalized in UWI and financially supported by UWI at the end of the project. They will directly support national extension

activities in in-service training and communications programs, and serve as a vital link between the UWI Faculty of Agriculture and the LDCs in the region. This link will provide a two way flow of information and personnel between UWI and the field to enhance and backstop local extension initiatives and to provide feedback into the UWI system to ensure relevant research and educational efforts which address real problems facing the LDCs.

For the first time, then, there will be a formal, institutionalized structure for linking research to extension in a meaningful way. This means that the quality of technical information available to farmers will be increased in both the short-run and the long-run. This linkage through national agriculture committees will be supported by the coordinating activities of the Technical Joint Action Committee at the Regional Level. This means that at the end of the project, CARDI, CARDATS, and UWI senior staff will be meeting regularly to coordinate and integrate their efforts. This will increase the backstopping available to national systems.

The Regional Extension Communications Unit (RECU) will be fully institutionalized in the Department of Agricultural Extension at the University of the West Indies. RECU will be a production unit with an overall production director/coordinator fully in charge. An annual production program will be followed in support of regional priorities and the needs of national communications units. RECU will be in regular contact with staff in national communications units and will conduct an annual two week program of technical training for communications technicians from national units.

The UWI Diploma in Extension will be a fully institutionalized, highly effective training program for middle managers in extension. The program will be perceived by national extension services and participating extension staff as rigorous, relevant, practical, and meaningful such that it is an honor to attend and the Diploma is respected by national governments and extension colleagues.

As a result of these regional accomplishments UWI will be perceived as -- and will be -- more relevant to and supportive of national agricultural development in the Caribbean.

6. U.S.AID Support to Caribbean Extension - End of Project Status

By the end of CAEP II RDO/C will have provided ten years of support to Eastern Caribbean extension. At the end of the project, RDO/C will have fulfilled its strategic plan commitment to strengthening national extension services and regional backstopping for extension.

U.S.AID will not support further long-term technical assistance in support of extension in the region. RDO/C will encourage UWI to undertake new initiatives with support from other donors where appropriate, but U.S.AID support for extension through a major project will be ended given the expected accomplishments and outcomes of CAEP II.

D. PROJECT ACTIVITIES AND INPUTS TO ADDRESS CONSTRAINTS AND ACHIEVE OUTCOMES

Four major activities will be carried out during Phase II of the Caribbean Agricultural Extension Project to achieve the desired outputs outline above:

- 1) institutionalize effective national extension systems; 2) demonstrate effective extension work at the district level; 3) increase extension mass communications effectiveness; and 4) institutionalize integrated and meaningful linkages between parts of the agricultural development process.

These activities are described in detail below along with necessary inputs required to carry out each activity.

1. Institutionalize Effective National Extension Systems

Earlier sections on background (Part II) and the context for end of project status (Part III-C-1) have described changes already brought about in national extension systems. A primary focus of continuation activities will be fully institutionalizing these changes.

The consistent external stimulus of CAEP professional staff has been a major factor in bringing about changes in national extension services. CAEP professional staff visit each country regularly to remind, persuade, train, assist, cajole, pressure, encourage, support, and otherwise do what is necessary to keep the process moving forward. It is clear that without continued external stimulation and support many of the changes that have been brought about in this short time period will fall away before they become routinized and institutionalized. Thus, the major focus of these continuing activities will be on the institutionalization of changes aimed at strengthening the effectiveness of national extension services to increase agricultural productivity.

a. Technical Assistance

Long-term and short-term technical assistance staff are required to work on an ongoing basis to support and facilitate institutionalization of national extension plans, programs, and effective management.

(1) Long-Term Assistance

The role of long-term professionals in Phase II is directed at removing constraints in the national systems and is sensitive to the need to avoid making these systems highly dependent on external assistance. Mobilizing existing resources and building on the existing knowledge base are more effective in building an internally sustainable development process than infusing a large amount of external resources. The long-term technical assistance provided under the project will be a joint effort between UWI and MUCIA.

Three UWI professional staff will work with national extension services to carry out project activities and direct UWI outreach efforts.

The UWI Project Director will be based in Dominica to coordinate activities throughout the Eastern Caribbean. One UWI professional will be based in each UWI outreach office: Antigua (for the Leewards) and St. Lucia (for the Windwards). AID funds will support the positions in Dominica and the Leewards, while UWI supports the St. Lucia permanent outreach post.

The Faculty of Agriculture has pledged to seek funding from UWI's budget to permanently fund the Leeward professional after Phase II. The long-term sustainability of the Leewards Outreach post is a key issue in continuation activities. Permanent UWI funding for the Leewards position was included in the UWI triennial budget presented to University officials in 1985. In June, 1985, the University committee on budgets turned down the request for permanent funding because of the severe shortage of funds at UWI. While this decision was disappointing, recent organizational changes in UWI and the depressed state of the Trinidadian economy were major contributing factors in this decision. In retrospect, CAEP staff and members of the Faculty of Agriculture at UWI did not do as much as they might have to make the case for this position. While CAEP focused on building support for the position within the Faculty of Agriculture, little groundwork was laid in the wider University community for this important decision. In preparing for the next budgeting cycle in 1988, CAEP will work closely with the Faculty of Agriculture to build a solid foundation within the wider University community and among Ministers of Education for the OECS countries to make the Leewards position a permanent post. In the interim, continuation of this position is critical to meeting the objectives and attaining the outcomes of the project. The Regional Agricultural Extension Coordinating Committee adopted a resolution at its November, 1984, meeting in St. Kitts urging UWI and Ministers of Education to make the Leewards post permanent. However, there was not sufficient time following that meeting to influence the UWI budgetary process which was already well underway. Given the experience in this current budget cycle, and better able now to make the case for a permanent post, CAEP staff and the Faculty of Agriculture will use this period of continued support to make sure that everything possible is done to create a permanent UWI outreach post for the Leewards in Antigua.

MUCIA will provide two long-term outreach staff for approximately three years each during Phase II continuation activities: One professional will be stationed in Dominica and the other in St. Lucia. The Team Leader will be an experienced extension professional capable of providing technical assistance and training in each country in support of project objectives. The MUCIA professional in Dominica will be the MUCIA Team Leader and will work closely with the UWI Project Director of the project team of professionals in the islands. The MUCIA position in St. Lucia will be a farming systems specialist to support Farming Systems Demonstration Districts. That position will be described more fully in the section on Demonstration Districts.

The MUCIA professional in Dominica will work throughout the Eastern Caribbean to support project activities and, in particular, will provide backstopping support and assistance to UWI professionals in Antigua and St. Lucia as they work to develop more effective national extension systems. They will give special attention to organizing training and support systems for frontline extension workers, and to establishing extension programs

aimed directly at increasing the productivity of small farmers. Specifically, outreach professional staff will:

- (a) support and monitor implementation of national extension improvement plans;
- (b) coordinate project activities in each country and regionally;
- (c) assist in establishing each country's annual work program, including attention to organizational development, training needs and production priorities which will focus extension agent's individual workplans;
- (d) help establish a closer link between research and extension at both national and regional levels;
- (e) assist national extension information units to become more effective;
- (f) support and coach extension supervisors in working effectively with frontline agents, especially in making extension performance-oriented and farmer-focused;
- (g) facilitate coordination between national vocational technical agricultural institutes and extension;
- (h) work to make extension more effective in supporting marketing;
- (i) increase the influence, viability, sustainability, and effectiveness of national agriculture committees.
- (j) work to build institutionalized and sustainable linkages between private sector and national extension units; and
- (k) support increased professionalism among extension staff by institutionalizing the Excellence in Extension program in each country and helping develop a regional association of extension personnel.

Given the special new emphasis being placed on increasing the effectiveness of frontline extension agents, outreach professionals will spend much more time working with district and frontline agents. This work will focus on using group methods effectively, using farm management approaches in working with individual farmers, and, where appropriate, helping frontline agents more effectively target youth.

Outreach staff will play facilitative, organizing, and supportive roles by working through other people to actually carry out project activities. Outreach staff, for example, will be more involved in helping to organize and arrange trainers for in-service workshops than in actually conducting workshops regularly in all participating countries. The impact of outreach staff will be most often felt through national and regional agriculture professionals who are not directly financed by the project.

The first task CAEP outreach professional staff will perform in each country will be to meet with the National Agriculture Committee which developed the National Extension Improvement Plan to review the resources available through other sources, including government funds, and resources needed to implement various aspects of national plans. National Agriculture Committees consist of farmer representatives, private sector representatives, agricultural professionals, and Ministry staff (including the Chief Extension Officer). The National committees are an important mechanism for private sector and farmer input into national agricultural policies, particularly establishing extension, research and marketing priorities. The National Agriculture Committees are also a mechanism for working to remove political, economic and bureaucratic constraints. Continuation activities will include strengthening private sector involvement in National Agriculture Committees, clarifying terms of reference for National Agriculture Committee operations, and training Agriculture Committees in how to fulfill their functions. As part of the process of more fully institutionalizing National Agriculture Committees in the agricultural development process, CAEP staff will review this CAEP continuation plan with National Agriculture Committees and discuss expected outcomes and the role of National Agriculture Committees in helping achieve those outcomes within each participating country.

The CAEP Outreach professional will then meet with the Chief Extension officer, and extension staff and others involved in agricultural development to similarly review proposed CAEP continuation activities and objectives. The original Project Paper for Phase II of CAEP was circulated to Chief Agricultural officers and Chief Extension officers, but very few others ever saw the full CAEP plan. This has contributed to confusion among many extension staff and National Agriculture Committees about just what CAEP is attempting to accomplish. While CAEP outreach staff have explained the purposes of CAEP in every forum possible, this time an edited version of this continuation plan for CAEP will be produced in sufficient copies to be distributed to all National Agriculture Committee members in all participating countries, to all Senior Extension officers, and a copy made available in every extension district. In addition, all members of RAEC will receive copies as will key people in regional organizations associated with extension, e.g., CARDI, national vocational technical schools, CARDATS, farmer organizations, commodity associations and private voluntary organizations. Because this plan holds out a vision for what extension can be and should be in the Caribbean, and because a wide variety and broad range of people and institutions are necessary for realization of project outcomes, widespread circulation of relevant portions of the CAEP plan will contribute to institutionalization of this extension vision throughout the Caribbean. This is part of the Policy Dialogue component of CAEP.

CAEP professional staff will meet monthly to review project progress. As national programs develop, outreach staff will coordinate backstopping requirements for all national programs. By reviewing various national programs, MUCIA/UWI will be able to determine where and when various short-term technical assistance consultants will be needed. Requests for backstopping assistance will be coordinated with CARDI, CARDATS, WINBAN, and other regional institutions.

(2) Short-Term Technical Assistance

The UWI Department of Agricultural Extension has long utilized regional agricultural professionals to assist in conducting the Department's annual two-week in-service workshops in the Leewards and Windwards. For one and two day assignments of this nature the Department provides transportation and expenses, but no honorarium. This practice has been and will be continued under Phase II to make optimal use of limited resources, and to ensure that backstopping technical assistance is affordable beyond the life of the project.

The Caribbean has a reservoir of technical expertise that can be called on to support extension programs. CAEP will continue working to build solid and lasting linkages between extension and agricultural professionals in regional institutions, so that technical backstopping can occur in a timely fashion, on an ongoing basis. These professionals will support clearly defined programs of work instead of presenting technical advice on an ad hoc basis.

In addition to drawing on regional expertise, MUCIA and Lincoln University will provide short-term technical assistance in specialist areas including farming systems, vocational technical education, integrated pest management, soil and water conservation, horticulture, farm management, and agricultural extension. The technical specialists will be secured principally to develop and present sub-regional workshops in the Leewards and Windwards for which the project would fund participant costs. The technical experts would then arrange a schedule of follow-up visits to individual countries to provide further assistance.

Examples of short-term technical assistance provided by CAEP from 1983 through June, 1986, will illustrate the diverse substantive and specialist contributions of CAEP in support of national extension efforts. (The list below does not include the contributions of less than one week by many Caribbean specialists.)

TABLE I

PREVIOUS CAEP SHORT-TERM TECHNICAL ASSISTANCE

Caribbean and MUCIA Short-Term Technical Assistance	Number of Persons Involved	Person Months
Extension Program Development and Management	4	2-1/2
Supervision and Administration	3	2
Extension Methods	26*	10
Soil and Water Conservation and Management	3	5
Vocational Technical Education	2	4
Livestock Management	1	1/2
Horticulture	1*	1/2
4-H	1*	1
Photography	1*	3
Communications	5	5
Farm Management	4	3
Extension Advisory Committees	1	1
Citrus and Plant Propagation	1	2
Finance	1	1/2
Evaluation	4	8
Women and Development	4*	3

TOTALS: 16 Substantive Specialties	58** specialists	51 person months

*Salaries contributed by MUCIA institutions, not paid by CAEP or U.S.AID.

**Four people provided assistance in more than one specialty area.

b. Training

Training is needed at several levels. Frontline field staff need basic training in agriculture and extension methods. Middle level staff (district officers) need management and supervisory training. Senior staff need professional post-graduate training and extension. There is also a need for ongoing, in-service, technical training and sub-regional training workshops. Each national extension improvement plan identifies country specific training needs and includes requests to support formal training in diploma programs. All national plans also include a post in the national extension service to coordinate and facilitate training. Obviously, no project can attempt to satisfy all training needs required. Therefore, formal training under CAEP will concentrate on upgrading the human resources directly responsible for delivery of assistance to the small farmer, and institutionalizing on-going in-service training in national extension systems for both private sector and national extension agents. Especially important will be training in problem identification, farm management extension approaches, and skill in analyzing individual farm situations.

CAEP will further work to create a system of in-service training that builds on identified skill and knowledge needs of frontline agents--with their participation. Decisions on in-service training should not be all top-down.

A description of each type of proposed training follows.

(1) UWI Diploma in Extension

Under CAEP the Department of Agriculture Extension, UWI, has developed and implemented a one year Diploma in Extension Program. This program was developed in response to long-standing requests from national governments for training opportunities for experienced staff. Governments have long argued that university degree training takes too long, is too expensive, and is not sufficiently oriented to LDC agricultural needs. The one year Diploma in Extension has been aimed to be especially useful to experienced district officers and extension information/training officers.

The CAEP External Evaluation included interviews with first year Diploma participants and a review of the entire program. Based on the evaluation findings and an internal Departmental review, the second year program was revised to be more practical and field oriented. Courses have been made less academic and more case oriented. The case method takes students through realistic analyses based on actual Caribbean experiences. Students in the Diploma learn analytical skills that make it possible for them to bring an empirical perspective to the processes of needs assessment, planning, program development, and project evaluation. These skills are critical management and project development skills for Diploma participants because they will have on-going responsibility in their careers for analyzing development needs and designing projects to meet local needs. It is critical that they bring an empirical rather than a purely ideological perspective to such assignments. This means that they are skilled in situation analysis, institutional analysis, and community analysis with basic grounding in practical empirical methods. Their field

projects, which are the centerpiece of the Diploma program, are directly aimed at building these skills.

On the basis of the CAEP External Evaluation, UWI Department of Agricultural Extension staff have introduced improvements in both the organization and content of the five courses of the Diploma Program, including changes in classroom instruction and laboratory sessions. For instance, the course on Community Analysis and Project Development, offered in Term I, now provides a comprehensive introduction to practical research methods as a means by which participants' field projects are designed. Instruction is provided for both community-type and evaluation studies. The approval of the field project proposal is not granted until after examinations for Term I are concluded and often require students to work through the Christmas vacation. A specific six to eight-week period is allocated for field project data collection in the participant's home country. CAEP Outreach staff supervise field projects during the second term. Then an early return to campus before the third term has been found to be beneficial for the analysis and write-up of project reports. The third term includes a seminar in which participants present and critique field projects.

The Extension Principles course enables a wide use of Caribbean case-study material for exercises on program planning and execution. The Extension Manual, in preparation, provides teaching material which acquaints these middle-management professionals with the resource-material that will be a normal reference source for all field staff.

The Communications course now emphasizes practical training in the use of radio and slides, since all equipment has been received and the audio-recording studio is fully functional.

In the Current Issues seminar, participants learn about farming systems. This was considered beneficial so as to facilitate close working relationships by course participants on return to their countries with CARDI personnel. In addition, the Faculty's own concern with a "systems approach" is meant to provide a common perspective between researchers and middle-managers in the extension systems of the Region. Attention to farming systems will be maintained in the years ahead. The course also emphasizes a comparative analysis of "extension organization and management" in situations such as the land-grant U.S. institutions, Canada's experience, as well as reflective assessments by CAEP Outreach Staff, with a view to building a Caribbean "model" of extension. Private sector and government extension systems are discussed and compared. One-fourth of the Diploma graduates have been from private sector extension organizations.

With the second year's experience, the Diploma program has become more skills-oriented, comprehensive, and practical enabling participants to acquire new skills in the areas of (a) mass communication techniques; (b) extension program planning; (c) situation and needs analysis for farmers and rural communities; and (d) organizational and management techniques. The specific training for the field project exercise enables participants to acquire the ability to view a practical problem-situation, adequately research it, and on the basis of the analysis, put forward possible

solutions. This is extremely valuable for the agriculture sector in the Region.

From its inception, the Diploma program was designed not exclusively for agricultural extension officers but also for those whose skills and experiences could be marshalled and enhanced to serve the development of the rural sector as a whole - in commodity organizations, farmers' groups, small agricultural enterprises, nutrition programs, adult education and community development workers.

For the coming academic year, 15 applicants have indicated interest, of whom seven (7) are nominees from governments and commodity organizations, eligible for consideration as recipients of a CAEP Scholarship. One applicant is from a farmers' organization. From among these nominees, two do not satisfy the necessary academic requirements.

Table II below summarizes participation in the Diploma program for the first two years (1983/4 and 1984/5).

TABLE II

UWI Diploma in Extension, 1983-5

Country	Participant Name and Position	Field Project
<u>1983/4 Class</u>		
Antigua	Elloy De Freitas, Agricultural Officer	A History of the Antigua and Barbuda Annual Plot-to-Plot Competition (PTPC) (1954-1983) and an Evaluation of the Education and Other Aspects of of the 1983 PTPC.
Dominica	Michael P. Didier, Banana Development Officer, DBGA	A Study of the New Front-Line Extension Component of the Dominica Banana Growers' Association.
Dominica	Urban Zamore, Senior Agricultural Assistant	Situational Analysis and Programme Development of the Vegetable Producing Area of Grand Savanne in Dominica.
Grenada	Denise Peters, Information Officer	Extension Officers' Perceptions of Agricultural Radio Programme in Grenada.
St. Kitts/Nevis	Elvin Bailey, Extension Agricultural Officer	Improving Fruit and Vegetable Quality Standards for the

		Tourist Sector in St. Kitts-Nevis.
St. Lucia	T.R. Theobalds, WINBAN Communications Officer	Comparative Effectiveness of Selected Extension Communication Techniques on Levels of Knowledge Among Banana Growers in St. Lucia.
St. Lucia	Kerde M. Severin, Information Officer	The Influence of Subsidies on Adoption Behaviour of Some Selected Crops in St. Lucia.
St. Vincent and the Grenadines	Conrad Sayers, Information Officer	Youth Perceptions of Agriculture in St. Vincent and Implications for Extension and Communication Strategies.
Trinidad and Tobago	Susan Ramlakhan, UWI	Mastitis in the State Lands Dairy Farms of Carlsen Field.

1984/85 Class

Belize	Francisco Tzul, District Agricultural Officer	Towards Effective Use of Extension Methods by Extension Officers in Belize.
Dominica	Peter Carbon, Banana Development Officer, DBGA	Some Constraints to Banana Production in the Wesley District - Dominica.
St. Lucia	George Alcee, District Supervisor	Role of Farm Women in Agricultural Extension Programming and Execution.
St. Lucia	Rufus Leandre, District Supervisor	A Study of Farmers Participation in the Tree Crop Diversification Programme in the Central Agricultural District-St. Lucia.
St. Vincent and the Grenadines	Lennie Adams, District Supervisor	A Review of Richmond Vale Estate and Its Effects on the Chateaubelier Community in St. Vincent and the Grenadines.
Trinidad	Elbert Johnson, Agricultural Officer	Paramin - A Rural Agricultural Community in North-West: Trinidad.
Trinidad	Richard Lewis, UWI	An Evaluation of Citrus Rehab Farmer Education.

The field research projects from the first year have had a significant degree of impact as findings have been discussed and recommendations, in some instances, have been implemented. For example, the "situation analysis" of the Grand Sovanne district in Dominica is being used for the planning of agricultural production activities and implementing extension education programs with farmers' groups. The evaluation of the subsidies component of the Tree Crop Diversification Project in Saint Lucia provided supporting evidence for the termination of subsidies. The Communications Officer at WINBAN has used data from his field project in determining the relative advantages of various communication strategies. Work programs for subsequent years in both Grenada and St. Vincent/the Grenadines have relied on information from the field research projects conducted by Diploma participants from these countries. The development of work-log analysis in the project by the Banana Development Officer from Dominica has become instrumental in assessing the performance of field staff in introducing the field packing method for bananas. This has had a positive effect on reducing losses of fruit from small farmers, thereby improving economic returns and enlarging the quantities of exported fruit. It is too early to know the impact of second year projects, but findings are under review in all participating countries.

There is no comparable opportunity for providing intensive training to senior extension officers in the Caribbean. Moreover, the model for this program has had a major impact on the University of the West Indies and the thinking for the Faculty of Agriculture at the University of the West Indies in their support for this new kind of training at the University level.

The AID cost per participant will be approximately \$20,000. Under the project AID grant funds will finance two-thirds of the tuition costs for each student, amounting to approximately \$7,200 per student, in addition to all maintenance costs, travel, room, board and fees. UWI has agreed to fund one-third of the tuition costs, for each student, amounting to approximately \$4,100. UWI is committed to maintaining the Diploma Program beyond the life of the project and therefore has agreed to continue the one-third subsidy for tuition costs so that islands will be better able to afford the program when AID funded activities end.

The cost of the Diploma course, while high, compares favorably to similar training in the United States. A comparison of training costs indicates the similar U.S. training would cost approximately \$20,000 - \$22,000 per student per year.

In summary, CAEP proposes to include in its continuing efforts scholarship support for five participants per year in the Diploma in Extension program. Three years of such support is included in this continuation plan.

(2) In-Service Training

Short-term, in-service training in participating countries has become much more regular, frequent, and systematic, but still needs to be more clearly focused on the priorities of annual extension plans and agricultural development. CAEP Outreach staff will continue to work to improve national in-service programs.

In addition, CAEP will support and sponsor regional, sub-regional and national in-service sessions in support of CAEP objectives. These sessions are described below.

(a) Training in the Caribbean Agricultural Extension Manual

CAEP plans to integrate regional communications output with regional in-service training. A major priority in regional communications production is the Caribbean Agricultural Extension Manual. The first section of that manual will be program development materials which outline the annual extension planning process. While substantial training has already taken place in program development, the completion of the program development section of the manual will be an occasion for reviewing the training. A one day in-service training session will be held in each country to review the program development section of the manual. That session will be conducted by CAEP Outreach Professionals. This process illustrates a basic principle that will be rigorously pursued in all CAEP undertakings, namely, that the dissemination of materials will be accompanied by specific in-service training to review those materials and make sure that Extension staff know how to use those materials optimally. Experience indicates that if materials are simply disseminated they are likely to be underutilized, misunderstood, or simply put aside. Thus, a major focus of CAEP in-service training during the continuation phase will be supporting the release of regional communications materials.

(b) Fact Sheets

In a similar vein, as fact sheets in major topic areas are produced sub-regional workshops will be held in the Windwards and the Leewards to disseminate and review the use of those fact sheets. The Regional Extension Communications Unit (RECU) during the next year will produce sets of fact sheets on pests and diseases, tree crops, and small livestock. In-service training sessions will accompany the distribution of those sets of fact sheets as they are incorporated into the Caribbean Agricultural Extension Manual.

(c) Extension Bulletins

Another opportunity for in-service training will be the release of major extension bulletins by the Regional Extension Communications Unit. Two such major bulletins are in the final stages of production. One is a major bulletin on soil and water conservation which grew out of technical assistance and in-service training in 1984. The release of that bulletin will be an occasion for a new round of one day workshops to reinforce the principles and practices of soil and water conservation and management.

A second major bulletin is in the final stages of production on Citrus Production. The release of that bulletin will also be accompanied by in-service sessions organized and sponsored by CAEP.

(d) Annual In-Service Sub-Regional Workshops

CAEP will continue to support the Department of Agricultural Extension Annual Sub-regional Workshops in the Windwards and the Leewards. These workshops are two week refresher courses covering a variety of technical topics and extension methods.

(e) CAO/CEO Workshops

A major success of CAEP has been bringing together Chief Extension Officers and Chief Agricultural Officers for Senior Management Training. No other opportunity exists in the Caribbean for such training. These one day sessions have included training in supervision, modern management principles, time management, and planning. A particularly interesting session in November, 1984, involved an exercise in which CEOs and CAO could safely share perceptions about each other's roles and responsibilities. This dialogue was very helpful in dealing with some of the tensions inevitable in CAO/CEO relationship. Review of the program development manual has also been a part of these sessions.

During continuation activities CAEP will continue to sponsor at least one such session each year.

(f) Excellence in Extension Workshop

Each year CAEP will organize and support a three day workshop for the extension agents selected for their outstanding work by national agriculture committees. The workshop will focus on ways of increasing professionalism and excellence in extension. Agents make presentations on their own programs of work and extension achievements. They also have an opportunity to visit selected agricultural efforts in Trinidad. Finally, one of the agents is selected by his colleagues to represent the group at RAECC and the Annual Minnesota Extension Conference. The Annual Excellence in Extension workshops will be continued throughout CAEP-II.

(3) Minnesota Extension Summer School and USDA Courses

In 1984 and 1985 CAEP supported participation in the Minnesota Extension Summer School and USDA courses. In 1984 two Chief Extension Officers, one Chief Agricultural Officer, and two UWI staff participated in administration, supervision, evaluation, and data analysis courses in Minnesota. In 1985 one CAO, one CEO, one district officer, and UWI Outreach professional participated in Minnesota Extension Summer School. CAEP has also been able to support participation in two USDA courses and two Farming Systems Conferences.

This continuation plan includes funds for five participants from the Caribbean each year at the Minnesota Extension Summer School, three participants per year in USDA courses, and two participants per year in the Minnesota Annual Conference and Farming Systems Conference.

c. Vehicle Loan Program

Lack of mobility among extension agents was a major constraint identified in Phase I of CAEP. To address that constraint, CAEP studied alternative ways of providing vehicles to extension agents. When governments own vehicles used by agents, those vehicles tend to be poorly maintained and driven with less than desirable care. Moreover, ownership of vehicles can become a major drain on government finances, adding significantly to recurring costs.

Alternatively, where extension agents own their own vehicles, but those vehicles are used for extension work, and they are reimbursed for extension use of their personal vehicles, CAEP found that extension agents were careful in using and maintaining their vehicles. Moreover, individual ownership removes from government the costs of vehicle maintenance and replacement.

CAEP began in Phase I discussing with governments the possibility of providing loans to extension staff to purchase vehicles. The principles of the loan scheme were negotiated as follows:

- (1) vehicles must be duty free;
- (2) vehicles must be purchased for use in extension work;
- (3) upon leaving the extension system, loans must be fully repaid by departing agents;
- (4) a commercial bank would administer the plan; and
- (5) individual agents would own the vehicle.

CAEP proposed that U.S.AID fund a revolving loan scheme. RDO/C would provide an initial amount (e.g., \$75,000) to set up the loan program in a country, then repayments would be used to fund new loans on a revolving basis. MUCIA would implement the loan program by assisting in negotiating a memorandum of agreement between the Ministry of Agriculture and a commercial bank. Funds would then be placed directly in the bank once U.S.AID had approved the memorandum of agreement.

On March 13, 1984, the RDO/C Regional Legal Advisor provided the RDO/C Mission Director with a written opinion that the proposed loan scheme was administratively feasible and legal given U.S.AID and U.S. government regulations. On that basis the first loan program has been established in St. Vincent.

The St. Vincent Loan Program for extension vehicles has received a great deal of attention among extension officers in the region. The loan scheme was discussed extensively by delegates to Third General meeting of the Regional Agricultural Extension Coordinating Committee (RAECC), and that group recommended that the primary mechanism that CAEP should advance to help solve the critical transportation problems of extension agents

should be establishing additional loan schemes.

The St. Vincent loan program includes duty free purchase of personal vehicles by extension agents at commercial loan rates from a private bank for use in extension. The duty free provision was quite controversial, but the St. Vincent precedent is now being emulated by Dominica, Grenada, Antigua, and St. Kitts/Nevis. This is a prime example of policy dialogue at work. The St. Vincent vehicle loan program has supported purchase of 11 vehicles to date; paybacks will permit the purchase of 2 more vehicles each year.

Grenada will support its loan program with non-U.S.AID development funds. This continuation plan calls for funding loan programs in Antigua, Dominica and St. Kitts/Nevis. The Dominica situation is illustrative of the economics of the vehicle loan program.

TABLE III

PROPOSED DOMINICA VEHICLE LOAN PROGRAM

Cost of Suitable Vehicle	\$20,000 EC
Down Payment	<u>2,000 EC</u>
Loan Outstanding	\$18,000 EC
Average Annual Interest	\$ 2,250 EC
Monthly Payments	\$ 337.50 per month
Insurance	100.00 per month
Gas and Oil	100.00 per month
Repairs	<u>50.00</u> per month
Total Monthly Vehicle Costs	\$ 587.50 EC
Payback Resources:	
Basic Government Traveling Allowance	\$ 258.00 per month
Mileage Reimbursement	<u>360.00</u> per month
Total Reimbursements	\$ 618.00 (junior officers)

Financial Summary

Monthly Amount Due	Monthly Allowances/Reimbursement
\$587.50	\$618 - \$738 (senior officers)

* * * * *

A. Dominica Extension Officers Who have Expressed a Desire for a Vehicle Loan

1. Frontline Agents	13
Northeast	3
East	3
South	4
Central	2
Northwest	1
2. Senior Officers	10
Total Possible	23

B. Loan Capacity with Initial Grant of \$85,000US -- 11
2 additional loans a year with revolving scheme

It took over a year to work out the administrative and legal arrangements for the St. Vincent Vehicle Loan Program. With that work done, new loan programs in Antigua (\$35,000), Dominica (\$75,000), and St. Kitts/Nevis (\$15,000) should be operational in 1986.

2. Demonstrate Effective Extension Work at the District Level

CAEP has helped build a consensus about what constitutes effective extension in the Caribbean. The next steps are (1) to demonstrate what an effective extension program at the district level would actually involve and (2) to document the impact of effective district extension work. The mechanism for achieving these new objectives is to establish in each participating country a demonstration extension district which uses a farming systems approach in problem identification and a farm management approach in working with farm families.

A district typically consists of three frontline extension agents supervised by one district officer, i.e., a total of four extension staff serving a specific geographical area. The Windward Islands typically have four to six districts. Antigua has three districts, while the islands of Montserrat, St. Kitts and Nevis each constitute the equivalent of a single district. CAEP professional outreach staff will work intensively with the extension staff in the selected districts to fully implement a viable, effective extension program.

The participants in the Third General Meeting of the Regional Agricultural Extension Coordinating Committee in St. Kitts (November, 1984) specifically requested and recommended that CAEP focus on one district in each country to demonstrate what an effective extension program should look like, especially when a farming systems approach is used in problem identification or needs assessment, and when farm management principles are

used in working with individual farm families. While CAEP professional outreach staff would focus special attention on these select demonstration districts, all districts in participating countries would be encouraged to undertake these approaches and the efforts aimed at the demonstration districts would be expected to have an impact on all the districts in a country. However, CAEP will focus its efforts and attention on only one district per country. Targeting CAEP efforts on specific select districts will channel limited resources for maximum impact and increase the likelihood that the potential of effective extension programs can be demonstrated and realized.

CAEP professional outreach staff will work with the extension staff in the demonstration districts to implement a complete and effective program development process. That process would include several components outlined below.

(1) A district extension advisory committee composed of farmers and others with interest in and influence over agricultural development in the district will be created to work with extension staff and advise them on extension programs.

(2) The first step in effective extension program development is to conduct a needs assessment, sondeo, "rapid reconnaissance survey", or an initial baseline assessment of farmer needs and problems in the district. The terminology varies, but the idea is to systematically gather information, especially information from farmers about their experiences and perceptions, as a basis for identifying problems, opportunities and priorities in the district. This is done by an interdisciplinary team of agricultural scientists, extension specialists, social scientists, and district extension staff. This will serve the purposes of collecting baseline evaluation data, identifying farmer needs, and identifying appropriate technologies and management practices with potential for increasing productivity of farmers in the district. This assessment is then a basis for developing extension programs within the district.

The interdisciplinary team will take a farming systems approach to problem and opportunities identification. This means looking at a variety of factors which affect farm productivity and small farmer income including: the whole farm operation and the farm as a household unit; labor practices and availability; multiple cropping and livestock sub-systems; production constraints and possibilities; cultural considerations; the policy context; and market factors. The results of this analysis may generate ideas for agricultural research or high impact agricultural commodity projects, but the primary purpose is to identify extension priorities for a district extension campaign.

(3) Using the baseline needs assessment information, and with the involvement of the district advisory committee, the district extension officers will develop their specific work plans aimed at making small farmers more effective managers of their limited resources. Of particular importance is the introduction of location-specific production practices and appropriate technologies with real market potential.

(4) District level supervision would be made more effective as CAEP

works with the district officer to focus district meetings and supervisory activities on the specific work plans of the agents in that district.

(5) CAEP staff would also work with district staff to identify other resources in the district, including other government programs as well as non-government projects and people who can be mobilized and used to support extension efforts.

(6) CAEP staff would work with district and senior extension staff to make sure that sufficient backstopping linkages and mechanisms were in place at the national level to support the needs of the district programs. In particular, the national communications units would need to be involved in the district planning exercise so that the production activities of the communications unit would support the district's efforts.

(7) CAEP professional outreach staff would work with national staff and short-term technical assistance personnel to develop farm management materials specifically aimed at the level and scope of operations in Caribbean extension districts. The demonstration districts will feature extension farm management as a basis for working with individual farm families. This means the extension agent helps the farm family analyze its whole farm operation with attention to cash flow, the costs of inputs, return on investment, and alternative farm profit opportunities. The small farmer is viewed as a resource manager and small enterprise decisionmaker capable of considering alternative investment strategies and consequences, including risk-reward analyses. Extension agents will be trained to use this approach and provided with materials to support extension farm management work. The demonstration districts will be exemplars of practical extension farm management in operation.

(8) At the end of two years of demonstration district operation, a second farmer assessment survey would be conducted to evaluate and document changes in agricultural productivity during the two years of project activities in that district. Using these evaluation results and the experience of working in the districts, CAEP professional outreach staff would develop two new sections of the Caribbean Agricultural Extension Manual. One section will feature how to use a farming systems perspective in conducting a district needs assessment to identify farmer problems and set extension priorities. The second section will focus on how to apply farm management principles in frontline Caribbean extension work. These two sections will be related to and incorporated into the overall extension program development process.

The linkage between farming systems as a problem identification framework and farm management as a framework for working with individual farm families is that extension farm management processes are applied within the context of the whole farm operation and the understandings generated from the farming systems analysis. In both developing materials and conducting in-service training, CAEP efforts in farm management and farming systems would be coordinated with efforts of the CARDI Farming Systems project and the National CARDI Team.

For the demonstration districts to succeed, the districts must be selected with some care. The following criteria will be used for selecting

demonstration extension districts:

1. Extension personnel in the district must want to participate in this effort.
2. The district must be fully staffed.
3. The frontline extension officers in the district must live in their target areas.
4. The district officer must have at least a Diploma of Agriculture (e.g. ECIAF or JSA).
5. The frontline officers must all be in permanent posts. (Many positions in the countries continue to be filled by temporary staff because of insufficient permanent budget allocations for extension or because of lack of qualified people able to fill the positions.)
6. The district officer should live in the district.
7. The district should not be a major focus for the efforts of CARDATS, the French Technical Cooperation, or some similar effort. (CARDI efforts in the district would be viewed as a plus and would not be inconsistent with testing and evaluating the demonstration district approach.)
8. The district officer, at a minimum, must have transportation.
9. The focus on that District is consistent with the country's agricultural plans and priorities.
10. The National Agricultural Committee will be involved in selecting the demonstration district in each country.

Several aspects of the Farmings Systems Demonstration Districts are innovative in the Caribbean. These innovative characteristics are in keeping with the principles enunciated in the U.S.AID Administrator's statement on "A.I.D. Support for Agricultural Extension" (June 10, 1985). These innovative components are:

- (1) integrating research and extension at the frontline district level where technology transfer to farmers really takes place;
- (2) focusing interdisciplinary team problem-solving assessments at the district level in support of extension;
- (3) organizing a coherent district extension campaign based on a farming systems analysis;
- (4) making location-specific appropriate technologies and management practices the basis of the district campaign;

- (5) paying special attention to marketing constraints and opportunities from a farming systems perspective;
- (6) working with farmers as profit-oriented resource managers through farm management methods;
- (7) building in meaningful evaluation of district impact; and
- (8) high visibility and support for frontline efforts focused on performance and positive recognition for achievements.

The demonstration districts are the centerpiece of new activities in the CAEP II continuation plan. The next sections describe the inputs necessary to realize the expected outcomes of the demonstration district thrust.

(1) Long-term Technical Assistance

To coordinate the demonstration district effort a MUCIA long-term professional will be posted to St. Lucia. The MUCIA professional will be an extension farm management specialist. The St. Lucia location will permit close collaboration with the CARDI Farming Systems Project and will permit the Windwards Outreach Professional, Dr. Dunstan Campbell, to benefit from the extension farm management expertise of the MUCIA extension specialist. This person must be an experienced extension farm management specialist capable of providing leadership and direction in organizing the initial farming systems analyses and subsequent extension farm management activities in each demonstration district. The MUCIA farming systems specialist will have responsibility for assembling and helping train interdisciplinary farming systems problem identification teams for each demonstration district. He or she will also provide extension farm management training in workshops throughout the region as well as develop appropriate farming systems and farm management materials for the Caribbean Agricultural Extension Manual including fact sheets and bulletins. The MUCIA extension farm management specialist will teach the farm management section of the Diploma in Extension course and will work closely with CARDI to integrate CAEP and CARDI farming systems efforts.

The MUCIA extension farm management specialist will be part of the Eastern Caribbean CAEP team and will participate in the monthly team meetings. This person will have special responsibilities to work with UWI outreach professionals to become competent in supporting extension farm management efforts on an ongoing basis.

(2) Short-Term Technical Assistance

A key aspect of the farming systems approach is an initial interdisciplinary assessment aimed at identifying problems and opportunities. The interdisciplinary team should include agricultural scientists, social scientists, national researchers and national extension staff from the district in which the analysis takes place. Since the demonstration districts are aimed at creating a farming systems framework and understanding at the district level, it is desirable to include

scientists on the interdisciplinary assessment team from those major regional organizations which have responsibilities for agricultural development in the Caribbean.

Short-term technical assistance will be necessary to assemble these teams and train them to work in each demonstration district. Five such teams would be assembled for two weeks each, one for each of the Windwards, and Antigua.

A typical interdisciplinary farming systems team would consist of the following: an agricultural scientist from the Faculty of Agriculture of the University of the West Indies; a CARDI regional or national team scientist; a MUCIA farm management, farming systems, home economist, social scientist, or Extension specialist; and a Lincoln University agricultural or social scientist. A member of the CAEP staff would also participate in each team.

It is important to note that this CAEP effort is not an attempt to duplicate CARDI farming systems analyses. The interdisciplinary whole farm constraints analysis to be done in each district is directed at providing a solid knowledge base for extension work in the district. Extension staff would not use this analysis for research or on-farm trials. Rather, this assessment would be used to set extension priorities.

Team members would assemble in the district for team building and designing the initial assessment. Each team member would then conduct the assessment by interviewing individual farmers in the district accompanied by a local Extension officer. Four to five pairs of interviewers working for a week should be able to interview at least 30 farm family members on different farms in a district. Following the interviews and review of other data available in the district, the team would work with the local Extension officers to identify major constraints, new opportunities, appropriate technologies, and appropriate management practices for introduction in a district campaign. In preparation for the details of such a campaign additional specialist assistance may be necessary. Research needs would be passed on to CARDI and Ministry officials.

The Interdisciplinary Whole Farm Assessment Team would prepare a written report as a background document for the District Extension Campaign. The MUCIA extension farm management specialist and CAEP Outreach Professionals will then work with the district staff and advisory committee to plan the details of the campaign and follow through on implementation, including building in concrete and measurable evaluation data.

CAEP would need 10 to 12 months of short-term technical assistance to support this activity. Teams would be reassembled two years after the initial assessment to review progress made in the district and work with Extension problem to assess future possibilities.

b. Training

As support for introducing a farming systems perspective into extension problem identification and priority setting, CAEP will offer a one week Farmings Systems workshop for UWI Faculty in Trinidad prior to the

initiation of District Interdisciplinary Whole Farm Team assessments. This will prepare a cadre of UWI Faculty who can participate in such assessments. It will also enlarge the pool of agricultural scientists available for work with the University of Florida Farming Systems Support Project supported by U.S.AID. CARDI, FSSP, and the MUCIA Farming Systems Specialists would collaborate in planning and conducting this workshop.

Prior to offering this workshop, the first district level farming systems assessment would take place in Antigua in order to generate examples and data from a specific Caribbean district for use in the UWI Farming Systems workshop. An advanced UWI Farming Systems workshop would be offered in subsequent years to increase the capability of UWI to backstop Farming Systems efforts in the Caribbean and to more fully integrate CARDI and UWI researchers in support of Farming Systems Research and Extension.

Extension farm management workshops will be offered nationally and sub-regionally. The MUCIA extension farm management specialist will organize and help conduct these workshops.

In both farming systems and farm management training, CAEP will emphasize that the farming systems approach provides a framework for identifying and understanding the whole farm in the context of markets, policies, household dynamics, and production sub-systems while farm management provides a way of working with individual farm families to make agricultural production and resource management decision within the context of that larger farming system. While conceptually and operationally different, farming systems and farm management approaches complement each other in a comprehensive and effective extension program.

3. Institutionalizing Effective Extension Communications Units Nationally and Regionally

The AID Administrator's statement on "A.I.D. Support for Agricultural Extension" emphasizes mass media and communications approaches as part of a diversified extension package. CAEP has made major progress in developing effective national and regional communications units to support extension. This section will present the new workplan for extension communications during CAEP II continuation activities. Inputs needed to support those activities will then be presented.

The Regional Extension Communications Unit (RECU) at UWI has been developed into an operating production unit over the past two years. With equipment in place and the June, 1985, addition of a communications coordinator, RECU is expanding its communication objectives for the project. Because of the staffing addition, RECU is currently undergoing some reorganization. Short run plans for the remainder of 1985 are now in place, and long term goals have been set. The June, 1985, arrival of a new MUCIA Communications Specialist has provided new impetus to RECU as he has worked collaboratively with the new UWI Communications Coordinator to reorganize RECU and develop an ambitious, but doable, production program.

During the past year RECU has produced the following:

Radio: Three editions of "Agricultural Reports" have been completed. The first edition was produced in November, 1984 and two editions were produced in April and May of 1985. The features on each edition are being used in support of radio programming in participating countries. Topics covered are presented in Table IV on the next page.

TABLE IV

Topics Featured in Ag-Reports Radio Tape Service

November, 1984 edition:

Soil and Water Management Problems in the Caribbean	Time 4:13
Quarantine Measures Aid Pest Control in the Region	Time 3:50
High Quality Planting Material for Higher Yielding Crops	Time 2:58
Producing Strong Healthy Seedlings to Start Crops Off Well	Time 3:50
"Thumb Rules" for Safe Pesticide Use	Time 4:30

April/May, 1985 editions:

Proper Yam Storage on Caribbean Farms	Time 7:00
Tips on Saving Top Soil	Time 4:23
Safe Use of Pesticides on the Farm	Time 3:48
Crop Protection Important	Time 6:02
Pigeon Peas a Good Crop to Grow in the Caribbean	Time 6:33
Legumes Can Play an Important Role in Caribbean Cropping Systems	Time 7:15
Sheep Production Holds Great Potential in the Caribbean	Time 6:21
Farmers Should Strongly Consider Planting Tree Crops	Time 7:58
Tips on Producing and Using Forages	Time 5:53
Pest Control in Crops	Time 5:50
Farmers Should Consider Raising Rabbits	Time 7:24
Tips on Dairy Cattle Management for Small Farms	Time 6:26
Making the Best Use of Locally Produced Feed for Dairy Cattle	Time 2:15
Producing Dwarf Pigeon Peas as a Source of Protein	Time 6:23
Bariana Growers Should Consider Raising Livestock	Time 4:00
Advantages and Disadvantages of Growing Vegetables	Time 8:03

Photography, Audio/Visuals: Approximately 90 photographs were taken for use in four exhibitions -- the RAECC meeting in St. Kitts; the UWI/Government of Trinidad & Tobago Field Day; the Farm Tech '85 Agricultural Exhibition in Kingston, Jamaica; and the Ministry of Agriculture Exhibition in Trinidad. Three slide sets were also produced this past year. Topics included Soil and Water Conservation, the Budding of Citrus, and the CAEP Project.

Printing/Publications: Following is a complete list of publications produced this past year, arranged according to type:

1. Quarterly Publications: Four Editions of the Extension Newsletter.

2. Fact Sheets: Eleven Fact Sheets were produced on poultry. Topics included Breeds of Poultry, Common Viral Diseases, Common Bacterial Diseases, The Cage System of Poultry Housing, Nutrient Requirements, Coccidiosis, The Deep Litter System of Poultry Housing, Feeding Poultry, General Management Practices, Recordkeeping for the Poultry Producer, Recordkeeping for the Egg Producer.

Five Fact Sheets have been researched, written and edited on soil and water conservation and are now in the printing stage. The topics include: Factors Affecting Accelerated Soil Eroding in the Caribbean; Why Conserve Soil and Water; Control of Splash, Sheet and Rill Erosion by Physical and Engineering Measures, Gully Erosion: Some Control Measures.

3. Leaflets: Six were completed in cooperation with the Leewards Outreach Office, CARDI and the Department of Agriculture. They included: "Producing Cabbage in the Leeward Island"; "Making an A Frame--A Simple Tool for Contour Designs"; "A Guide to Producing Peas and Beans in the Leeward Islands"; "Producing Tomatoes in the Leeward Islands"; "A Guide to Producing Carrots in the Leeward Islands"; "A Guide to Insect Pest Control in Root Crops and Vegetables in the Leeward Islands."

4. Bulletins: Two bulletins were produced this past year: "Harvesting, Handling and Storage of Yams"; and "Growing Cowpeas in the Caribbean."

5. Other Design & Printing: The department produced a 65 page manuscript of abstracts of UWI Graduate Students' Research in Agriculture. In addition, staff designed and printed certificates for all training courses, in-service training reports, and hand-outs for in-service training courses.

UWI Department Reorganization: With the addition of Neil Paul, Communication Coordinator for RECU, some basic reorganization of the Department of Agricultural Extension was undertaken in July. The new organization structure is shown in Diagram I.

As shown in the diagram, all communications support staff now report directly to Mr. Paul, who in turn must report to Dr. Gomes. Faculty members will consult with Mr. Paul concerning work they wish to give to communication staff and Mr. Paul will assign the work to appropriate staff. Long-range planning will be carried out by the department management committee, which consists of Dr. Gomes, Dr. Seepersad, Mr. Dolly and Mr. Paul. A team approach is being emphasized. Final decisions concerning long-range plans will not be made until discussion with the staff. Short-term planning will be conducted by Mr. Paul and the communication staff as part of newly initiated, weekly meetings. As shown in Diagram I, each staff member has back-up support to take up slack during periods of vacation, illness, short-term training courses, etc. Staff support people

work with all staff members in completing tasks.

A major focus of CAEP continuation activities will be fully institutionalizing this new system and making it highly productive.

Future RECU Production Priorities

For 1985 CAEP has selected three primary technical areas of concentration for all communications media. These areas include pests and diseases, tree crops, and small livestock. In addition, RECU will complete work on soil and water conservation and management.

Radio: Content of the radio tape service programs will relate to the preceding priority areas, with emphasis placed on directing messages at groups who are normally not reached through other media. In particular, emphasis will be placed on aiming messages at small farmers, women and youth. RECU plans to double its output of radio tapes services editions during 1985. Six editions will be produced, with the primary focus on tree crops, pests and diseases, and livestock. The radio tape service will be mailed directly to national communications officers, who in turn will use them in their own radio programs. Following is the 1985 production schedule for the radio tape service.

August:	Citrus production
October:	Cocoa and avocado production
December:	Mango and exotic fruit production (Note: Topic areas for the above include such things as growing requirements, pruning fertilizing, weed control, pests, diseases, harvesting, storage, marketing.)
February:	Diseases and pests of carrots, maize, ground nuts, onions, sweet potatoes, sweet peppers
April:	Sheep production in the Caribbean
June:	Goat and swine production in the Caribbean (Note: Topic are for goat, sheep and swine include such things as breeds, housing, external diseases, internal diseases, feeding/nutrition, recordkeeping, marketing.)

In addition to the topics mentioned above, the staff will produce radio programs targeted directly at youth and women. Each tape will contain programs dealing with home management, youth groups, nutrition and family living.

Photography, Audio Visuals: The photography unit will continue to produce photographs to accompany news releases and will provide photographs for use in national exhibits. In addition, the unit will be responsible for completing six slide sets in 1985, or twice as many as were produced in 1984. The ultimate audience for slide sets consists of farmers in participating countries. Twenty copies of the sets will be distributed to National Communications Office staff, who will review them to insure they are appropriate for their respective countries. The communications officers will make them available to Extension Officers as reference material. After adapting the slide sets for local conditions, the officers will use the slide sets as training material at farmer meetings. Each set will consist of several parts which can be used in total or in one or more

parts. Scripts will be provided with each slide set for use by Extension Officers. Following is the slide set production schedule:

August: Complete slide set on soil and water management
October: Complete slide set on citrus production
March: Complete slide set on disease and pests of
vegetables (i.e. Cauliflower, Maize, Ground Nuts
and Onions, Sweet Peppers)
December: Complete slide sets on exotic fruits
May: Complete slide sets on sheep and rabbit production
June: Complete slide sets on rice production

The slide set on rabbit production is being produced to complement the bulletins produced by CARDI and other governmental units that are being made available to CAEP countries. A new rice production slide set is also being made available to CAEP countries; it is being undertaken because several relevant slides have already been taken by the RECU photographer and the set can complement already existing printed materials. The rest of the slide sets are being produced to complement the other communication materials being produced by the unit this year.

Publications: The publications produced by RECU are directed at national extension officers. National communications unit personnel localize the materials for distribution in their own countries. The agricultural extension officers use the materials as references and for teaching at farmer meetings. Many of the publications are also distributed directly to farmers by extension officers who are in the best position to know which farmers can make effective use of them. The distribution breakdown for each publication is as follows:

50 copies to national communications units
250 copies to extension officers
50 copies to UWI Faculty Members
100 copies to Technical Colleges and other schools
1,500 copies to selected farmers
100 copies for RECU Office

In 1985 RECU staff will produce the Quarterly Extension Newsletter and will also produce 48 Fact Sheets, nearly three times the amount produced in 1984. Fact Sheets are to be emphasized because they can focus in some depth on a single topic. They will put into designated sections of the Caribbean Agricultural Extension Manual which is now in preparation. The manual will eventually become a complete loose leaf reference book for extension officers on all aspects of crop and livestock production. Since single topics are addressed in each fact sheet, later updating will be faster and less expensive than if the same things had to be done to bulletins or other more lengthy publications.

Following is the Fact Sheet and publication schedule:

Due July, 1985 -Print latest edition of Extension Newsletter
Complete editing and print Extension Planning
Manual

Due August, 1985 -Print completed fact sheets on water conservation

1. Why conserve soil and water
 2. Factors affecting accelerated soil erosion in the Caribbean
 3. Control of Splash, sheet and rill erosion by residue and crop management
 4. Control of Splash, sheet and rill erosion by physical and engineering measures
 5. Gully erosion: Some control measures
- Complete editing and print manual on Extension Planning

Due September -Soil and Water Conservation
-Complete editing and print bulletin on growing citrus in the Caribbean
-Print latest edition of Quarterly Newsletter

1. Planning and building terraces
2. Starting grass barriers to build terraces
3. The value of forests in soil and water conservation

Citrus

1. Establishment of orchards (land preparation, spacing and lining and planting)
2. Pruning and fertilizing
3. Weed control
4. Pests and diseases
5. Harvesting and storage

Cocoa

1. Requirements for growing
2. Varieties

Due November - Cocoa (continued)
- Print latest edition of Quarterly Newsletter

3. Establishing cocoa
4. Pruning and fertilizing
5. Weed control
6. Pests and diseases
7. Harvesting and storage

Avocado

1. Requirements for growing
2. Varieties

Due January, 1986 - Avocado (continued)

3. Establishing avocado
4. Pruning and fertilizing
5. Weed control
6. Pests and diseases
7. Harvesting and storage

Due February, 1986 - Print latest edition of Quarterly Newsletter

Due March, 1986 - Mangoes

1. Requirements
2. Varieties
3. Establishing mangoes
4. Pruning and fertilizing
5. Weed control
6. Pests and diseases
7. Harvesting and storage

Exotics

1. General information on types and potential of exotic fruits
2. Breadfruit

Due May, 1986 - Exotics (continued)

- Print latest edition of Quarterly Newsletter

3. Custard and sugar apple
4. Macadamia nut

Pests and Diseases

1. Sweet potatoes
2. Sweet peppers
3. Gourds and pumpkins
4. Cauliflower
5. Maize
6. Groundnuts
7. Onions

Due June, 1986 - Small Livestock

1. Sheep
2. Housing
3. External diseases
4. Internal diseases
5. Feeding and nutrition
6. Recordkeeping
7. Breeding
8. Castration

Department Policy on Outside Printing

The RECU will continue to maintain a close working relationship with UWI Faculty and staff. As in past years, the unit must produce materials in support of University programs in agriculture. This support is critical to maintaining a good working relationship with faculty members who are the primary source for all the information produced by RECU staff. However, production of RECU materials will take first priority in all

cases. Other faculty will have to ask well in advance for printing and other support so that this work can be completed during slower periods.

Other RECU Activities

RECU will begin building an evaluative research effort into its communication activities. In fact, the Department of Agricultural Extension at the University of the West Indies is already undertaking general leadership in the recent UWI Faculty adoption in principle of a research and evaluation monitoring unit. Evaluation of communicated materials in such areas as comprehension, use and impact are important in assisting the departments long-range planning. Dr. Meiller, MUCIA Communications Specialist, will work with Department faculty in instituting an evaluation research program. The first project will be a readership survey of the Extension Newsletter.

RECU staff have also met with the Trinidad and Tobago Department of Agriculture Communications Officers and have been given permission to review all slide sets and publications produced by the Trinidad and Tobago Unit, with the idea of adapting the information for distribution to participating CAEP countries. This type of cooperation will be extensively explored over the next year.

* * * * *

The work of CAEP II thus far has prepared a solid foundation for a highly productive and effective extension communications effort in the Caribbean. Equipment is in place; the RECU has been reorganized and appropriately staffed; and strong linkages have been built between RECU and the national extension communication units. As the 1985 RECU plan of work illustrates, the extension communications effort is at a critical take-off point. To demonstrate what "taking off" will mean, the 1986 to 1989 production goals are presented below.

1986/87

Radio

7 editions of Ag Reports
Radio support for UWI events

Audio Visuals

7 slide sets
Photo support for field days
Photo support for UWI events

Publications

4 editions of Quarterly Newsletter
50 Fact Sheets
1 Bulletin
Print support of UWI activities

Communications Workshop - Technical Writing

1987/88

Radio

8 editions of Ag Reports
Radio support for UWI events

Audio Visuals

7 Slide sets
Photo support for field days
Photo support for UWI events

Publications

52 Fact Sheets
1 Bulletin
4 editions of Quarterly Newsletter
Print support for UWI activities

Communications Workshop - Graphics and Design

1988/89

Radio

8 editions of Ag Reports
Radio support for UWI events

Audio Visuals

8 Slide sets
Photo support for field days
Photo support for UWI events

Publications

4 editions of Quarterly Newsletter
56 Fact Sheets
1 Bulletin
Print Support for UWI events

Communications Workshop - Advanced Radio Techniques

* * * * *

This is clearly an ambitious plan in keeping with the great challenges of extension improvement and agricultural development in the

Caribbean. Thus, the next three years will focus on realizing the full potential of the groundwork prepared to date and fully institutionalizing RECU and national units.

The next sections describe the inputs needed to achieve these production goals and project outputs.

a. Technical Assistance

(1) Long-Term Technical Assistance

The appointment of a communications coordinator for the Regional Agricultural Extension Communications Unit in the Department of Agricultural Extension at UWI was made following a Short-term Technical Assistance Report from Communications Specialist Gail McClure of the University of Minnesota in October, 1984. The original Project Paper did not foresee the need for the Production Coordinator in RECU. However, subsequent analysis made it clear that the production functions in a communications unit were different from the work that could be expected of regular departmental faculty. Thus, CAEP altered its budgetary allocations in order to support bringing on board a productions communications coordinator.

The late appointment of this position means that it was not included in the new UWI triennial budget request for 1986-1988. Moreover, the initial period of work will be a period of training and learning for the Communications Coordinator with support from the MUCIA Communications Specialist. Thus, CAEP proposes to use U.S.AID funds to support the position of UWI RECU Communications Coordinator through the next triennium. The Department of Agricultural Extension at UWI is committed to maintaining this position and will include the position in its next budget. The ambitious production program of the Unit simply can not move forward without this position.

To establish and maintain effective management and production practices in RECU, a MUCIA communications specialist will work in Trinidad through 1988. This long-term technical assistance position will be filled by an experienced, senior MUCIA Communications Specialist like Professor Larry Meiller who took up the assignment in Trinidad in June, 1985. The experience of a MUCIA communications specialist is particularly valuable in identifying and eliminating potential bottlenecks in production. Neil Paul, the new UWI Communications Coordinator, is enthusiastic and experienced in communications production, but has minimal management and administrative experience. Thus, the MUCIA communications specialist will work with the UWI communications coordinator to establish sound management practices and an effective production unit.

The MUCIA communications specialist will also assist in teaching the Diploma in Extension at UWI and in providing technical assistance in backstopping to National Communication Units.

In addition, CAEP proposes to support two part-time technical writing positions for the next two years to remove the backlog of materials ready for production in the Caribbean Agricultural Extension Manual. The

next two years of CAEP represent a particularly intensive effort to produce major portions of the Caribbean Agricultural Extension Manual. The major bottleneck at this point is writing and editing. The project has currently been supporting a graduate student and a technical assistant to help in writing fact sheets. They have accumulated a set of materials which are ready for final writing, editing and production. To maintain the full potential of RECU, and to maximize output in the next two years, CAEP proposes to continue support for these technical writing positions -- a half time graduate assistant and an 80% time technical writer.

(b) Short-Term Technical Assistance

To support particular production activities and training, CAEP proposes to provide six months of short-term technical assistance over the three years of the project. For example, two weeks of short-term technical assistance will be used in September, 1985, to offer a technical writing workshop for CARDI and UWI scientists. Gail McClure of the University of Minnesota and Larry Meiller, the MUCIA Communications Specialist, will work together to offer this training program in scientific translation of materials for popular consumption through Extension Fact Sheets.

Short-term technical assistance will also be used for the Annual Communications Technicians Workshop held in Trinidad each year. The MUCIA Communications Specialist will assist in teaching these courses and workshops in their areas of specialization and expertise.

(c) Training

CAEP through RECU will offer two major workshops each year. These workshops were described briefly in the preceding section. They are: (1) an annual two week communications technicians workshop for national communications officers on special topics, e.g., radio, graphics, photography, etc., and (2) an annual technical writing workshop to train agricultural scientists to prepare fact sheets for extension. This workshop will be directed at CARDI, UWI, and CARDATS staff.

In addition the MUCIA communications specialist will assist in teaching the communications course in the Diploma in Extension sequence.

(d) Equipment

A major bottleneck in the current production system in RECU is the reliance on a single composer. Unlike modern word processing equipment, the composer is a labor intensive machine that takes a great deal of time to use for print production. Given the reorganization of RECU and the ambitious print production outlined in this plan, CAEP proposes to furnish the Department of Agricultural Extension and RECU with one IBM Personal Computer, letter quality printer, and appropriate software. RECU staff will receive training in the use of this equipment. The IBM PC will also be particularly helpful in maintaining, updating and editing the extensive Quarterly Newsletter mailing list. The IBM PC can also be used to support data analysis in Diploma of Extension field projects and communication evaluation studies.

4. Institutionalize Integrated and Meaningful Linkages Between Parts of the Agricultural Development Process

The extension development process at its best is in part an integrating process -- becoming a focal point at the farmer level for the contributions of agricultural research, vocational technical education, and marketing. The original Project Paper showed this process visually as a brick archway in which each brick represents one part of the structure. CAEP II is working to cement those bricks into a solid structure. In so doing, CAEP II continuation activities will focus on integrating three critical parts of the agricultural development process: (a) research; (b) vocational technical education; and (c) marketing. Each of these is discussed below, as well as continuation of the Regional Agricultural Extension Coordinating Committee (RAECC).

a. Research and Extension -- The Critical Linkage

The purpose of extension is to "extend" applied agricultural research knowledge and appropriate technologies to farmers. In order for extension to fulfill this purpose it must have solid linkages to agricultural research organizations. These linkages need to be more firmly established at both the national and regional levels.

The National Linkage

There are currently three major sources of research information at the national level: CARDI national teams; CARDATS teams; and research staff in Ministries of Agriculture. In the past, linkages between research and extension have tended to be informal, haphazard, and based entirely on a few interpersonal relationships. Under CAEP II these linkages have become more solid and institutionalized, but these linkages remain fragile and underdeveloped.

In all countries, CARDI and CARDATS team members participate in National Planning Committees. As part of the task of developing an annual work plan, a small working group of each national committee was to be established to review research activities and findings relevant to extension. This working group (e.g. Director of Extension, CARDI team leader, Ministry Research officer, and CARDATS team leader) was to establish a list of problems being experienced by farmers that needed research attention. This group would also make sure that researchers working in the country were included as key presenters and participants in the country's in-service program for the year.

Only in Dominica, St. Vincent and Belize did these research sub-committees of the national planning committees become operational in a meaningful way. The External Evaluation of CAEP observes that CARDI national teams work largely independently of public policy-making and national planning processes.

The continuation activities of CAEP will include institutionalizing national agricultural planning committees, including making the national committees a vital forum for discussing and establishing national research priorities in collaboration with agricultural scientists in the country.

More directly, the demonstration districts will be a primary mechanism for linking research and extension. By using a farming systems approach at the district level as part of the extension program development process, researchers and extension staff will collaborate together in the situation analysis, in problem identification, and in developing a cohesive extension campaign in the district to transfer and adapt appropriate technologies and management practices to increase farmers' productivity.

The Regional Linkages

In order for national research teams to work actively with national extension systems, the staff of national teams (e.g. CARDI, CARDATS) must have a mandate from their regional superiors to engage in these activities. Moreover, there has been a need to increase collaboration in and coordination of extension and research efforts within the region. To provide a concrete mechanism for guaranteeing that this critical linkage between research and extension was established, CAEP II established a Technical Joint Action Committee.

The Technical Joint Action Committee consists of:

- (1) Caribbean Agricultural Extension Project - 2 members
- (2) CARDI - 2 representatives
- (3) CARDATS - 1 representative
- (4) UWI Faculty Research Advisory Committee - (FRAC)
- (5) French Technical Cooperation - 1 representative

This Technical Joint Action Committee has met at least biannually at a meeting organized and funded by the project to:

- (1) review and coordinate agricultural extension, communications, and information dissemination programs;
- (2) identify and share information about major agricultural technological developments and/or recommendations that have emerged since the last meeting that are deserving of special extension activities;
- (3) review and share publications and publication plans;
- (4) review and share training opportunities and plans;
- (5) identify major technical areas needing research attention; and
- (6) make recommendations to their respective organizations for joint or collaborative activities.

This process has led to a request from agricultural researchers for CAEP to sponsor and conduct a technical writing workshop to train

scientists how to write for popular dissemination of research findings. The first workshop will be in September, 1985, at RECU. This will become an annual CAEP event under this PP Amendment.

Increasingly, the research-extension linkage at the regional level will focus on mass communications as RECU becomes fully productive. As the Technical Joint Action Committee identifies research knowledge that should be disseminated to farmers, RECU communications staff will develop appropriate materials for use with frontline extension staff and farmers. Outreach staff will use these materials in sub-regional and national training sessions for extension agents. The linkage between national communication units and RECU will facilitate the appropriate dissemination and adaptation of regional research. In the next three years RECU will promote the dissemination of existing knowledge already available to improve production practices. - Technology exists in a backlog of research findings that have not been effectively disseminated, and is manifest in the actual practices and profits of each country's most successful small farmers. For example, use of improved varieties of plants, more appropriate spacing and better weed control would substantially raise productivity if practiced by small farmers. There is a message now ready to be extended, even as ongoing research holds the promise of new findings to make Caribbean agriculture more productive over time.

b. Strengthening Linkages Between National Vocational-
Technical Training Institutions and Extension

A major problem at the frontline in extension continues to be the lack of technically trained personnel. The Phase II project paper provided two kinds of training support: formal, long-term training and short-term, in-service training. This amendment proposes a major change in how CAEP supports frontline long-term technical training.

The short-term, in-service training in participating countries has become much more regular, frequent, and systematic, but still needs to be more clearly focused on the priorities of annual extension plans and agricultural development. The long-term, formal training scholarships to ECIAP have not been fully used because of an insufficient number of extension staff who have the minimum qualifications required for entrance to ECIAP. This is a problem which was not anticipated in the original project paper. In addition, ECIAP appears to be very unstable financially and organizationally at this point in time, and does not provide a solid basis for long-term extension training in the region. Thus, CAEP proposes shifting the formal, long-term training emphasis for frontline agents from ECIAP to support for the development of viable national vocational-technical agricultural education programs in the Windward Islands and possibly Antigua.

In October and November, 1984, Professor Don Meaders of Michigan State University conducted a needs assessment of agricultural education in the participating countries. His reports on a country by country basis provide a thorough assessment of the current state of formal agricultural training in the participating countries. He has also had extensive experience with ECIAP. Based on his report, it appears to us that creating

a new regional agricultural education institution for frontline extension training would be so expensive as to be inherently unstable and would constitute a major drain on the resources of the host country. Therefore, CAEP proposes to work to establish more solid national level voc-tech agricultural training and to provide mechanisms for linking those national programs together for purposes of regional coordination and accreditation.

In particular, formal agricultural education and training at the national level needs to be more closely linked to extension programs and extension priorities. With the division of responsibility between Ministries of Education and Ministries of Agriculture, there has been little to no coordination of extension and agricultural education efforts in the past. CAEP proposes to work in each country to build such linkages. Moreover, through short-term technical assistance and minimal program support resources, CAEP proposes to engage in the following agricultural education activities as part of continuing efforts in Phase II:

1. CAEP will organize a workshop on improving formal agricultural education for frontline extension agents. This workshop will include key people from each of the national agricultural education institutions in the Windward Islands and Antigua, senior extension staff and agricultural officers from participating countries, and regional experts on agricultural education. Professor Don Meaders and CAEP staff would host and plan the agenda for this three day meeting which would be aimed at coordinating the development of agricultural education programs in the participating countries, establishing ongoing linkages among those programs, and identifying ways of sharing resources, particularly staff resources available within the region.
2. Particular emphasis at the workshop would be placed on the linkages between extension programs and agricultural education efforts. Beyond the conference, CAEP would work to solidify those linkages, including greater attention to orientation for new extension agents and a system of in-service training that would build on formal agricultural training that could be received in specific countries.
3. CAEP proposes including in continuing activities sufficient resources to provide short-term technical assistance in the development of viable national agricultural education programs, particularly with regard to organization and curriculum. These national training institutions need to be strengthened to better prepare students for agribusiness employment, teaching agricultural courses in public schools, as well as Ministry of Agriculture work. By generally strengthening the technical agricultural training in these institutes, the quality of recruits available to extension will be significantly enhanced.
4. CAEP proposes to include within its continuing activities sufficient resources to provide minimal equipment to the agricultural education facilities (e.g. mimeograph machines

and audio-visual equipment) partly as a carrot for regional coordination and closer collaboration with extension, and partly as a way of strengthening those educational programs for extension purposes.

5. Since the Windward Islands already have some type of formal agricultural training underway, particular attention will be paid to exploring options for the Leeward Islands.

Given these efforts, CAEP requests no new funds for scholarships to ECIAF.

c. The Extension -- Marketing Linkage

Virtually every discussion of agricultural development focuses on the problem of marketing. At all three meetings of the Regional Agricultural Extension Coordinating Committee there has been considerable discussion of the need for extension to take a closer look at marketing problems. Farmer representatives have been particularly adamant on this point. CAEP staff have reviewed with extension staff in participating countries ways of addressing the marketing problem from an extension point of view. Under continuing project activities CAEP proposes to become more directly involved in certain specific aspects of marketing.

First, CAEP will work with marketing intelligence officers in participating countries to identify their current activities and investigate ways of increasing the linkages between marketing intelligence and extension. Currently, the linkages between marketing intelligence activities and extension is weak. In particular, extension can play a role through its national communications unit in disseminating marketing information. Extension staff also play a role in gathering marketing information. CAEP proposes to bring together marketing intelligence officers and senior extension staff in a workshop to review the linkages that ought to be in place and discuss ways for better coordination and cooperation between the marketing intelligence arms of Ministries of Agriculture and agricultural extension services. CAEP would provide short-term technical assistance and travel support for this effort.

Second, CAEP will work to build linkages between national marketing agents, hucksters associations, CATCO (Caribbean Agricultural Trading Company), and extension. This effort has already met with considerable success in Dominica (see p. 8).

Third, CAEP proposes to produce extension materials related to postharvest handling of agricultural products and to provide training to extension staff in postharvest technology. One of the most significant contributions extension can make to improved marketing is in postharvest technology. Through fact sheets, training, slide/tape presentations, radio productions, and packaging knowledge about postharvest technology, CAEP can build a regional resource for use in participating countries to improve the postharvest handling of agricultural products and thereby improve marketing efficiencies.

d. Regional Agricultural Extension Coordinating Committee (RAECC)

The Regional Agricultural Extension Coordinating Committee is made up of Chief Agricultural Officers, Chief Extension Officers, farmer representatives, private sector organizations, representatives of international funding organizations and development agencies, and CAEP staff. RAECC has met three times during the life of the project, once in Phase I (November, 1980), at the beginning of Phase II (April, 1983), and in November, 1984, to review the External Evaluation and make recommendations for future project activities. These sessions have been extremely productive in providing direction and support to the Caribbean Agricultural Extension Project. Under continuation funds, a fourth general meeting of RAECC would occur in April, 1986, and a fifth meeting in November, 1987. A final project review meeting of RAECC would be held in April, 1989, dedicated to addressing the future of extension in the Caribbean.

RAECC is an important vehicle for a regional policy dialogue on agricultural extension -- and the relationship between extension and other actors in the agricultural development process. More specifically, RAECC has been the forum for building a regional consensus about how agricultural extension should be and could be strengthened through CAEP. RAECC thus provides direction to CAEP and evaluates CAEP performance in contributing to regional and national agricultural development goals.

E. COMMENTS ON ORIGINAL ECONOMIC ANALYSIS

For the most part, the economic analysis initially prepared for the project remains valid. According to that analysis, in order for the project to be cost effective, the project would have to reap benefits -- as measured by increases in farm income -- of roughly \$1.1 million a year by the time the project was fully implemented. This suggests that since there are roughly a total of 50,000 small farm families in the states to be served by the project, incomes would have to increase on average \$15 a year per small farm family, or \$30 a year for half the farm families in the region, etc. Consequently, the project's economic viability ultimately rests on the "reasonableness" of these projected increases in income. RDC/C feels that these projections are reasonable and hence that on economic grounds the project is viable, with the following revision. Since an additional \$5 million is being added for an additional three years, incomes would have to increase an average of \$30 per year for the new inputs to yield economic benefits.

Another basis for looking at the economic significance of the project is to consider the fact that extension services represent a substantial recurring cost to Caribbean countries. CAEP is aimed at making those recurring costs a meaningful investment in agricultural development. The data which follow illustrate this line of economic reasoning. For example, agricultural Ministries account for 4% to 6% of total national recurring government costs. Within these Ministries, extension services account for 13% (Nevis) to 82% (Antigua) of the Department of Agriculture's budget. In Dominica, which represents the middle range, 5.72% of all recurring government costs for 1984/5 were for the Ministry of Agriculture,

Lands, Fisheries, and Cooperatives. The Department of Agriculture Budget was \$2,099,020 EC, or about half the total Ministry budget. Of this amount, 52.7% was allocated to extension, an annual investment of \$411,479 U.S. One major purpose of CAEP is to make this recurring cost productive.

F. WOMEN AND AGRICULTURAL DEVELOPMENT

One of the original objectives of CAEP I was to involve women actively and fully in extension policies and programs. Reflecting this concern, a new focus on farm families as a target group has emerged in National Extension Systems as reflected in the goals and objectives contained in National Extension Improvement Plans. This new focus is reflected in training inputs at all levels.

In particular, Project staff will continue to emphasize that it is important for extension staff NOT to assume that:

1. the man is usually or always the principal farmer;
2. the man controls decisionmaking on the farm;
3. there is a ready or easy transfer of knowledge or practices between family members, for example, between male and female or young and old; and
4. because a woman says she is a "housewife", that she is not also a principal farmer and farm decisionmaker.

The above cautions were included in the report of a workshop on "The Economic Role of Women in Small-Scale Agriculture" convened jointly by the Women and Development Unit (WAND) of UWI and the MUCIA Women in Development (WID) group. This workshop was held during the early period of Phase I, and Project professionals participated extensively in the discussions along with representatives from public and private agricultural organizations in St. Lucia.

With the summer, 1985, meeting in Nairobi closing the U.N. Decade for Women, it is particularly appropriate that CAEP continue to support sensitivity to gender issues. This sensitivity was the focus of an evaluation by U.S.AID CDIE/PPC early in 1985. CAEP was found to be unusual in the seriousness with which the spirit of the Percy amendment has been observed in practice.

Two of the sixteen UWI Diploma in Extension participants have been women (13%). The 1984 Excellence in Extension Officer for St. Lucia was Mary Louis; she was chosen by the other six Excellence officers to represent the entire Region. The University of the West Indies Women in Development Unit (WAND) has actively participated in CAEP teaching and policy dialogue sessions.

WAND and WID will continue to provide inputs into Project activities in Phase II concentrating in the following areas:

1. WAND staff will present a two week segment of the UWI Extension Diploma Course in the third term addressing women in agricultural development;

2. WAND will participate in the annual sub-regional extension workshops and appropriate in-service training courses in individual countries;
3. WAND and WID will be invited to contribute to extension materials prepared by RECU, and specific sections of the manual on Extension in the Caribbean will include sections reviewed by WAND/WID dealing with Women in Agriculture; and
4. WAND will continue to be a participant in the Regional Agricultural Extension Coordinating Committee.

CAEP will continue to actively recruit and involve women in the Diploma course, in all in-service training, and in the Excellence in Extension program. Women farmers participate in national and district agriculture committees. MUCIA, UWI, and Lincoln University short-term technical assistance personnel have, and will, include women. Ten percent of the short-term technical assistance thus far has been provided by women, and two of the four external evaluators were women.

In short, CAEP takes the Percy Amendment seriously.

G. COLLABORATIVE INVOLVEMENT OF AN 1890 INSTITUTION

Lincoln University is the 1890 collaborating institution with the University of Minnesota for Title XII purposes. Dr. Gloria Robinson of Lincoln, an evaluation specialist, participated in the November, 1984, RAECC meeting in St. Kitts to lay the foundation for adding Lincoln to CAEP II as a collaborating institution for technical assistance. Lincoln has a well-established small farm program with a variety of faculty who can provide short-term TA under CAEP II continuation activities. Dr. Colin Weir, Director of International Programs at Lincoln, is fully informed of CAEP and will be the CAEP II coordinator. At least 10% of CAEP II short-term TA will come from Lincoln University faculty and staff.

PART IV

IV. IMPLEMENTATION PLAN

A. MANAGEMENT ARRANGEMENTS

To implement Phase II continuation activities, RDO/C proposes to amend the existing direct contract with MUCIA. MUCIA, therefore will have the prime responsibility for the implementation of all activities under the project. It is anticipated that MUCIA will amend its existing sub-contract with UWI and add Lincoln University faculty for their participation in the project.

The sub-contract with UWI will entail the provision of: 1) outreach professionals in the Leewards, 2) UWI Diploma Training in Extension, and 3) the establishment and operation of the Regional Extension Communications Unit in Trinidad. The UWI subcontract will covenant that the next UWI Faculty of Agriculture triennial budget proposal beginning in 1988 will include UWI funds for the Leewards Outreach position and the Department of Agricultural Extension Communications Coordinator.

During Phase I MUCIA and UWI jointly established project management arrangements. A memorandum was developed by MUCIA and UWI detailing the overall project decision-making process as well as the relationship between UWI and MUCIA professionals in the field. These management procedures have continued to work well in Phase II. The UWI Project Director will remain overall Director of the Caribbean Agricultural Extension Project. MUCIA, through this project, will provide technical assistance and expertise to assist UWI and selected national governments in their extension improvement efforts. MUCIA cannot be effective, in the long run, without working closely with participating governments and UWI. Thus, the overall management approach remains a collaborative one. Decision-making will continue to be done on a consensus basis between the UWI Project Director and the MUCIA Team Leader. Where disputes arise, a project management team will be convened at the request of either the MUCIA Team Leader or the UWI Project Director. This team consists of the following five members: (1) UWI Project Director; (2) MUCIA Team Leader; (3) UWI Dean of the Faculty of Agriculture; (4) MUCIA Executive Director; and (5) AID Project Manager. The current contract called for this arrangement, but this conflict resolution committee never had to be convened. This is an indication of the extent to which the collaborative, consensus-based decision-making process between UWI and MUCIA has worked smoothly.

To handle the day to day implementation arrangements for the MUCIA contract, Phase II staff will include a Campus Coordinator. The Coordinator will be attached to the University of Minnesota, the lead institution, and will be directly responsible for backstopping all Phase II continuation activities. RDO/C feels this position is warranted because of the complexity of the activities proposed over the wide geographical area comprising the Eastern Caribbean, and because of the importance of recruiting, preparing and backstopping short-term technical assistance.

B. PROCUREMENT ARRANGEMENTS

MUCIA will handle the small amount of procurement through the lead university, the University of Minnesota. The University of Minnesota has a well staffed procurement office that is experienced in handling procurement for AID financed projects. The MUCIA Campus Coordinator will have major responsibility for overseeing the procurement process. All commodity procurement is scheduled to occur during the first continuation year of the project. MUCIA will also handle financial arrangements for the vehicle loan program.

PART V

V. EVALUATION PLAN

The external evaluation of Phase II used an approach known as "Utilization-Focused Evaluation". In July, 1985, CDIE/PPC/USAID held a staff workshop on this approach and found it consistent with the goal and purposes of U.S.AID project evaluation.

This approach involves an on-going collaborative arrangement between the external evaluation team, U.S.AID, and project staff. The members of the evaluation team will be chosen to represent the multiple stakeholder interests in the project -- U.S.AID, MUCIA, UWI, Lincoln University, and the participating countries. In addition, the U.S.AID high impact agricultural cluster project contractor will be involved in the evaluation. The evaluation will include the following activities and timelines.

- | | |
|--------------------------|---|
| November, 1985 | Evaluation Team Chair, Dr. Marvin Alkin, UCLA, to visit region to design evaluation and prepare a detailed plan. |
| January -
April, 1986 | Farming Systems Demonstration District Baseline Data from FSR teams. |
| April, 1986 | Evaluators participate in RA ECC which will focus on involving RA ECC representatives in the process of establishing evaluation criteria. |
| Summer, 1987 | Formative evaluation fieldwork |
| Summer, 1988 | Summative evaluation fieldwork with special emphasis on farmer impact in demonstration districts. |
| November, 1988 | Evaluation Report submitted to U.S.AID |
| April, 1989 | RA ECC Evaluation Meeting |

The external evaluation will involve at least the following data sources and indicators: substantial direct observations of project activities; interviews with extension staff and agricultural officials; a repeat administration of the extension needs assessment questionnaire used in the Phase I analysis and Phase II evaluation, the results of which provide baseline data on a number of important extension staff skills, behaviors, and attitudes; evaluations of conferences and training sessions; review of Project documents, periodic staff reports, and regional statistics; case studies carried out to evaluate impact of Project activities on farming behavior; and farmer production and income data in demonstration districts.

CAEP activities to date show a strong commitment to meaningful evaluation. CAEP is working to build evaluation into national extension and communications programs. Thus, CAEP takes seriously the responsibility to be a role model in evaluation.

PART VI

VI. SUMMARY FINANCIAL PLAN

The total cost of implementing Phase II activities is estimated to be \$6,490,000. AID will contribute a total of \$5,100,000 million in Grant funds. UWI will contribute \$495,000, while host countries are expected to contribute approximately \$895,000 for Project activities. Detailed budget estimates are attached.

A. AID FINANCIAL INPUTS

1. Staff Support (\$1,972,456)

AID Grant funds will support the full salary, benefits and allowances for three full-time MUCIA professionals assigned to the Project. These include thirty-three months of the MUCIA team leader, and thirty months each of the MUCIA Farming Systems Specialist and the Extension Communications Specialist assigned to UWI in Trinidad. Grant funds will also provide for up to twenty-seven months of short-term technical assistance to assist in national in-service training programs and regional workshops.

AID will finance the salary, benefits and allowances of the UWI Project Director in addition to the full costs of the UWI Communications Coordinator and the Leeward Islands Outreach Professional.

AID will also finance selected support staff including: a) one-half of a MUCIA Campus Coordinator's salary, in addition to the salary and benefits of a full-time secretary and half-time accountant to support the Campus Coordinator; b) administrative and support staff for the UWI Project Director; c) salaries for a graduate assistant and technical assistant assigned to UWI Communications unit; and d) clerical staff for outreach offices.

2. Travel and Transportation (\$613,777)

AID Grant funds will provide for Project related travel, per diem and transportation costs. Included in costs are: a) funds for travel and per diem of West Indian technicians who will be associated with and participating in national in-service training programs and regional workshops; and b) regional and in-country travel for Project related personnel.

3. Equipment (\$247,500)

AID grant funds will be used to purchase computer word processing equipment for the Regional Extension Communications Unit at UWI; audio-visual equipment for national vocation-technical training schools; and vehicle revolving loan programs in Dominica (\$75,000), Antigua (\$35,000), and Nevis (\$15,000).

4. Training (718,790)

AID funds are provided for up to fifteen one year scholarships to the UWI Diploma Course in Extension. Grant funds will provide for two-thirds of the tuition costs for UWI training, as well as appropriate maintenance costs, such as room, board and travel for all participants. Funds are also included for participants to the Minnesota Extension Summer School and USDA courses. Half (50%) of training funds is to support national and regional in-service training.

5. Other Direct Costs (\$147,125)

AID grant funds will be used to support certain Project related costs to be incurred by both MUCIA and UWI. For MUCIA these costs include: a) operating expenses related to MUCIA backstopping, and b) supplies for national communication units. For UWI these costs include: a) office supplies, and operating expenses for the Trinidad Project Office and sub-regional outreach offices, and b) supplies for UWI Communication units.

6. Evaluation (\$125,000)

AID will fund an external evaluation of Project activities. The evaluation plan includes short-term technical assistance from five evaluators.

7. Indirect Costs (\$1,213,618)

MUCIA overhead is calculated at 33% of off-campus and 45% of on-campus costs. UWI overhead is calculated at a rate of 61% of UWI staff costs. The UWI rate has been audited and established during Phase II.

B. UWI INPUTS

1. Professional Staff Support (\$360,000)

UWI will fund the full salary, benefits and allowance of the Windward program leader. UWI will also fund twenty-five percent of the salary and support costs of the UWI Project Co-Director in Trinidad after year one. UWI will assign a member of the Faculty of Agriculture to assist the Project Director one half-time to the Project. UWI will also fund short-term UWI backstopping necessary to carry out Project activities.

2. Travel and Transportation (\$10,000)

Estimate includes travel costs associated with UWI backstopping of Project activities to be borne by UWI.

3. Training (\$75,000)

UWI will fund one-third of the tuition costs associated with implementing its one-year Diploma Course in Extension.

4. Other Direct Costs (\$45,000)

UWI contributions here include costs of the UWI Newsletter during the life of the Project, and office space for all project activities in Trinidad.

C. HOST COUNTRY INPUTS

1. Staff Support (\$150,000)

Host countries will contribute the full cost of salaries of Ministry Officials in Project activities.

2. Travel and Transportation (\$10,000)

Host countries will fund the full cost of island travel costs associated with in-service training activities and traveling allowances for loan recipients in the vehicle loan program.

3. Training (\$375,000)

Host countries will fund the salaries of participants for in-service training and regional workshops, as well as the salaries of participants in formal training at UWI for the duration of their study.

4. Equipment Operation and Maintenance (\$265,000)

Host countries will fund the full cost of the operation and maintenance of Project related vehicles, and communication equipment.

5. Other Direct Costs (\$85,000)

Materials used in support of training, and project office space in the islands.

D. REPORTING UWI AND HOST COUNTRY CONTRIBUTIONS

The contributions of UWI and the participating countries will be regularly monitored. On an annual basis the nature and amount of these contributions will be submitted in writing to RDD/C by MUCIA.

E. AID OBLIGATION SCHEDULE

AID funded Project activities are programmed to occur according to the following timetable:

(Project Year - Thousand U.S. Dollars)

	Year 1	Year 2	Year 3	Year 4	Total
Expenditures	990	1,624	1,647	839	5,100

This schedule suggests the following obligation schedule.

(Thousand U.S. Dollars)

	FY 1985	FY 1987	FY 1988	FY 1989	Total
Obligations	1,396	1,630	1,445	629	5,100

CAEP II FINANCIAL PLAN - PROJECT ADMENDMENT

	YEAR 1 4/86-9/86 -----	YEAR 2 10/86-9/87 -----	YEAR 3 10/87-9/88 -----	YEAR 4 9/88-6/89 -----	TOTAL -----
I. STAFF SUPPORT	263,349	741,473	687,256	280,378	1,972,456
A. Professional Staff	198,049	568,113	513,896	167,708	1,447,766
1. NUCIA Long-term TA	110,135	267,007	250,085	70,737	697,964
2. NUCIA Short-term TA	27,846	119,932	89,424	27,846	265,048
3. UWI Long-term TA	60,068	181,174	174,387	69,125	484,754
B. Support Staff	65,300	173,360	173,360	112,670	524,690
1. NUCIA	20,100	82,960	82,960	62,220	248,240
2. UWI	45,200	90,400	90,400	50,450	276,450
II. TRAVEL	151,503	172,928	194,290	95,056	613,777
A. NUCIA	37,427	97,610	86,172	37,718	258,927
B. UWI	69,201	55,493	98,293	49,488	272,475
C. NUCIA Shipping	44,875	19,825	9,825	7,850	82,375
III. EQUIPMENT (NUCIA)	247,500	0	0	0	247,500
IV. TRAINING	95,660	215,685	222,485	184,960	718,790
A. NUCIA	10,700	13,400	13,400	9,800	47,300
B. UWI	84,960	202,285	209,085	175,160	671,490
V. OTHER DIRECT COSTS	19,000	49,150	48,650	30,325	147,125
A. NUCIA	8,500	28,150	27,650	14,575	78,875
B. UWI	10,500	21,000	21,000	15,750	68,250
VI. EVALUATION (NUCIA)	20,000	20,000	65,000	20,000	125,000
VII. INDIRECT COSTS	183,144	408,252	412,805	209,417	1,213,618
A. NUCIA	118,931	242,462	251,285	136,477	749,155
B. UWI	64,213	165,790	161,520	72,940	464,463
	-----	-----	-----	-----	-----
SUB-TOTAL NUCIA (I-VII)	646,014	891,346	875,801	387,223	2,800,384
SUB-TOTAL UWI (I-VII)	334,142	716,142	754,685	432,913	2,237,882
VIII. CONTINGENCIES					
A. NUCIA	6,460	8,913	8,758	9,185	33,316
B. UWI	3,342	7,116	7,547	10,413	28,418
	-----	-----	-----	-----	-----
NUCIA TOTALS	652,474	900,259	884,559	396,408	2,833,700
UWI TOTALS	337,484	723,258	762,232	443,326	2,266,300
	-----	-----	-----	-----	-----
CAEP TOTALS	*989,958	*1,623,517	*1,646,791	*839,734	*5,100,000
	*****	*****	*****	*****	*****

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I. STAFF SUPPORT

	1986 ----- (3 mo.)	1986-7 -----	1987-8 -----	1988-9 ----- (6 mo.)	TOTAL -----
A-1. MUCIA - Long-Term Professional Staff -----					
a) Salaries & Wages -----	62,500	150,000	137,500	37,500	387,500
Team Leader - Dominica	12,500	50,000	50,000	25,000	137,500
Communications Specialist - Trinidad	12,500	50,000	50,000	12,500 (3 mo.)	125,000
Farming Systems Specialist- Grenada	37,500 (9 mo.)	50,000	37,500	0	125,000
b) Fringe Benefits 28% of Salaries and Wages -----	17,500	42,000	38,500	10,500	108,500
c) Allowances -----	30,135	75,007	74,085	22,737	201,964
Education	500	500	500	500	2,000
Differential (10%)	6,250	15,000	15,000	5,000	41,250
Post Allowance	4,950	11,950	11,950	3,450	32,300
Foreign Transfer Allowance	200	400	0	0	600
Housing Allowances	16,800	43,200	43,200	12,800	116,000
Contingencies 5% (Changes in AID rates.)	1,435	3,957	3,435	987	9,814
TOTAL	\$110,135 =====	\$267,007 =====	\$250,085 =====	\$70,737 =====	\$697,964 =====

I. STAFF SUPPORT CONTINUED

27 Months Short-Term TA

	YEAR 1 ----- (3 mo.)	YEAR 2 ----- (12 mo.)	YEAR 3 ----- (9 mo.)	YEAR 4 ----- (3 mo.)	TOTAL -----
A-2. SHORT-TERM PROFESSIONAL STAFF -----					
a) Salaries (4,000 per month)	12,000	54,000	40,500	12,000	118,500
b) 10% Overseas Incentive	1,200	5,400	4,050	1,200	11,850
c) Fringe Benefits (28% of Salaries)	3,696	16,632	12,474	3,696	36,498
d) International Travel	1,600	6,000	4,500	1,600	13,700
e) Intra-regional Travel	350	1,400	900	350	3,000
f) Per Diem (100/day)	9,000	36,500	27,000	9,000	81,500
	-----	-----	-----	-----	-----
TOTAL	\$27,846 =====	\$119,932 =====	\$89,424 =====	\$27,846 =====	\$265,048 =====

I. STAFF SUPPORT CONTINUED

A-3. UWI	YEAR 1	YEAR 2	YEAR 3	YEAR 4	TOTAL
---	-----	-----	-----	-----	-----
	(6 mo.)			(9 mo.)	
a. SALARIES & WAGES	34,325	103,650	99,650	39,500	277,125
(Professional Long-Term Staff)	-----	-----	-----	-----	-----
Project Field Director	0	45,000	45,000	30,000	120,000
Communications Coordinator	10,000	20,000	18,000	0	48,000
Leewards Program Leader	13,000	26,000	24,000	0	63,000
Project Co-Director (Campus)	5,000	0	0	0	5,000
Technical Writer (80%)	6,325	12,650	12,650	9,500	41,125
	-----	-----	-----	-----	-----
b. Fringe Benefits	9,611	29,022	27,902	11,060	77,595
	-----	-----	-----	-----	-----
c. Allowances	16,132	48,715	46,835	18,565	130,247
	-----	-----	-----	-----	-----
TOTAL	\$60,068	\$181,387	\$174,387	\$69,125	\$484,967
	=====	=====	=====	=====	=====

I. STAFF SUPPORT CONTINUED

	YEAR 1 ----- (3 mo.)	YEAR 2 -----	YEAR 3 -----	YEAR 4 ----- (9 mo.)	TOTAL -----
B-1. MUCIA SUPPORT STAFF					
a. U.S. - Wages & Salaries	13,750	57,000	57,000	42,750	170,500
Campus Coordinator	6,500	28,000	28,000	21,000	83,500
Accountant (50%)	2,750	11,000	11,000	8,250	33,000
Secretary	4,500	18,000	18,000	13,500	54,000
b. Fringe Benefits (28% of Salaries)	3,850	15,960	15,960	11,970	47,740
c. Caribbean					
Dominica - Secretary	2,500	10,000	10,000	7,500	30,000
TOTAL	\$20,100 *****	\$82,960 *****	\$82,960 *****	\$62,220 *****	\$248,240 *****

I. STAFF SUPPORT CONTINUED

	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>TOTAL</u>
B-2. UWI SUPPORT STAFF					
a. Support at UWI	27,500	55,000	55,000	27,750	165,250
Administrative Assistant	10,500	21,000	21,000	15,750	68,250
Secretary/Steno.	9,000	18,000	18,000	12,000	57,000
Graduate Assistant in Communications Unit (50%)	8,000	16,000	16,000	0	40,000
b. Fringe Benefits	7,700	15,400	15,400	7,700	46,200
c. Host Country/Outreach Office Secretaries	10,000	20,000	20,000	15,000	65,000
Leeward (Antigua)	5,000	10,000	10,000	7,500	32,500
Windward (St. Lucia)	5,000	10,000	10,000	7,500	32,500
	-----	-----	-----	-----	-----
TOTAL	\$45,200	\$90,400	\$90,400	\$50,450	\$276,450
	*****	*****	*****	*****	*****

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II. TRAVEL - MUCIA

A. MUCIA TRAVEL SUMMARY*	YEAR 1	YEAR 2	YEAR 3	YEAR 4	TOTAL
-----	-----	-----	-----	-----	-----
1. Team Leader - Dominica	5,112	20,850	20,850	15,337	62,149
2. Communications Specialist - Trinidad	2,624	10,495	10,495	2,624	26,238
3. Farming Systems Specialist - Grenada	16,312	21,750	16,312	0	54,374
4. Backstopping	3,379	13,515	13,515	6,757	37,166
5. MUCIA Inspections	5,800	5,800	5,800	5,800	23,200
6. Short-term Technical Assistance Training in U.S.	1,200	1,200	1,200	1,200	4,800
7. MUCIA Field Agents to Demonstration Districts	0	18,000	18,000	0	36,000
8. Post Arrival/Departure Travel - Long-Term TA	3,000	6,000	0	6,000	15,000
 	-----	-----	-----	-----	-----
TOTAL	\$37,427	\$97,610	\$86,172	\$37,718	\$258,927
	*****	*****	*****	*****	*****

*The next three pages present the detailed calculation for each line item in this summary.

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II-A. TRAVEL CONTINUED (MUCIA)

DETAILS OF MUCIA REGIONAL TRAVEL

1. Team Leader - Dominica

3 trips per month to Region		
average airfare \$150 (11 months)		4,950
12 per diem days per month x \$90		11,880
3 Trinidad trips per year x \$300		900
12 per diem days per year x \$150		1,800
 Project Vehicle		 820
4,000 miles x .205		
 Repairs \$500 per year		 500

TOTAL		\$20,850 per year
		=====

2. Trinidad Communications Specialist

1 trip per month Eastern Caribbean		
average air fare \$250 x 11		2,750
 7 per diem days x 90 x 11		 6,930

TOTAL		\$9,680 per year
		=====

Local Travel (Project Vehicle in Trinidad)		
3,000 miles, .205 per mile		\$615
		=====

Maintenance/Repair Project Vehicle

YEAR 1	=	\$	200
YEAR 2	=		500
YEAR 3	=		500
YEAR 4	=		200

Sub-Totals:	YEAR 1	(3 months)	=	2,624
	YEAR 2		=	10,495
	YEAR 3		=	10,495
	YEAR 4	(3 months)	=	2,624

II. TRAVEL CONTINUED (MUCIA)

DETAILS OF MUCIA REGIONAL TRAVEL

3. Farming Systems Specialist - St. Lucia

3 trips per month to Region average airfare \$150	4,950
12 per diem days x \$90 per month (11 months)	11,880
2 Trinidad trips x \$150	300
10 Trinidad per diem days \$150	1,500
Project Vehicle 4,000 miles x .205	820
Maintenance/Repair Project Vehicle	500
Participation in domestic FSR/E meeting in U.S.	1,800

TOTAL	\$21,750 per year
	=====

4. MUCIA Backstopping

Campus Coordinator Travel to Caribbean	
- 4 times per year x \$1,500 airfare	6,000
- 30 per diem days x \$90	2,700
- 10 per diem days x \$150	1,500
Travel to MUCIA Board Meetings and MUCIA Campuses (recruiting, training TDY personnel)	1,500
Minnesota Mileage for Project \$3,000 x .205	615
Travel to Farming Systems Meetings	600
Evaluation Team Meeting in U.S.	800

TOTAL	\$13,715
	=====

5. MUCIA Inspections

2 trips per year	
- 1 Minnesota (air fare plus per diem)	2,900
- 1 MUCIA (air fare plus per diem)	2,900

TOTAL	\$5,800
	=====

II. TRAVEL CONTINUED (MUCIA)

DETAILS OF MUCIA REGIONAL TRAVEL

6. Short-term Technical Assistance Recruitment & Training in U.S./Inter-campus

3 x \$400

\$1,200

7. MUCIA Extension Field Staff - One Month in each of the four Farming Systems Demonstration Districts each year (Years 2 & 3)

Travel = \$1,500 x 4

6,000

Per diem = \$3,000 x 4

12,000

TOTAL

\$18,000

II-B. UWI TRAVEL

B. UWI Travel Summary* -----	YEAR 1 -----	YEAR 2 -----	YEAR 3 -----	YEAR 4 -----	TOTAL -----
1. St. Augustine, In-country	167	333	333	250	1,083
2. Windwards, In-country	2,000	3,690	3,690	2,000	11,380
3. Leewards, In-country	307	615	615	461	1,998
4. Trinidad to Region	5,160	10,320	10,320	5,160	30,960
5. Leewards to Region	8,952	17,905	17,905	8,952	53,714
6. Windwards to Region	9,215	18,430	18,430	9,215	55,290
7. Technical Joint Action Meeting	600	1,200	1,200	1,200	4,200
8. RA ECC	19,250	0	19,250	19,250	57,750
9. Staff Travel Caribbean to U.S.	0	3,000	3,000	3,000	9,000
10. Farming Systems Soudos	23,550	0	23,550	0	47,100
	-----	-----	-----	-----	-----
TOTAL	\$69,201	\$55,493	\$98,293	\$49,488	\$272,475
	=====	=====	=====	=====	=====

*The next three pages present the detailed calculations for each line item in this summary.

II-B. UWI TRAVEL CONTINUED

Regional Travel

4. UWI Trinidad Project Staff and Faculty

Two Eastern Caribbean trips per month 10,320 per year
- average air fare \$250
- 4 days per diem x \$90 each trip

5. Leeward

3 trips per month, average airfare \$125
12 per diem days x \$90 = \$1,200
\$1,445 per month x 11 = 16,005 per year

2 Trinidad trips each year
air fare \$350 x 2 = \$700
8 per diem days x \$150 x 2 = \$1,200 1,900 per year

TOTAL \$17,905 per year*
=====

6. Windward

3 trips per month, average air fare \$150
12 per diem days x \$90 = \$1,200
\$1,530 per month x 11 months = 16,830 per year

2 Trinidad trips each year
air fare \$200 x = \$400
8 days per diem x \$150 x 2 = \$1,200 1,600 per year

TOTAL \$18,430 per year*
=====

* 6 Months YEARS 1 & 4

II-B. UWI TRAVEL CONTINUED

BUDGET DETAILS FOR

TECHNICAL TRAINING WORKSHOPS AND REGIONAL ADVISORS (RAECC)

7. Technical Joint Action Committee Meetings

Travel and per diem for 3 participants
twice a year \$1,200

8. RAECC - 30 Eastern Caribbean Participants

- travel average \$225 x 30 6,750

- 4 per diem days x \$100 x 30 12,000

Support Costs 500

RAECC Total (YEARS 1 & 4) \$19,250

9. Travel from Caribbean to United States

One CAEP Staff to Minnesota Annual
Conference & Farming Systems Meeting
each October with Excellence in Extension \$3,000

10. Farming Systems Sondas, YEARS 1 & 3

- 5 countries, 2 weeks each
- 3 regional participants
- average air fare \$200 = \$600
- per diem, 13 days x \$90 = \$3,510
- vehicles = \$500

TOTAL 5 Countries

\$23,050

II-C. SHIPPING (MUCIA)

	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>TOTAL</u>
C. Shipping (MUCIA) -----					
1. Equipment (50% of Part III, A-B-C)	36,250				36,250
2. Supplies Purchased in U.S.	1,625	5,825	5,825	1,350	14,625
3. Household and Personal Effects MUCIA Staff	5,000	10,000		5,000	20,000
4. Storage Household Effects	2,000	4,000	4,000	1,500	11,500
	-----	-----	-----	-----	-----
TOTAL	\$44,875 =====	\$19,825 =====	\$9,825 =====	\$7,850 =====	\$82,375 =====

III. EQUIPMENT/VEHICLE LOANS (NUCIA)

	YEAR 1 -----
A. Regional Communications Unit ----- IBM Personal Computer Letter Quality Printer Protective Printing Case Software and Discs	\$7,500
B. NUCIA Project Vehicle - St. Lucia Farming Systems Position ----- (4 Wheel Drive)	\$15,000
C. Audio-Visual ----- Equipment for national vocational-technical institutes (mimeographs, slide projectors)	\$100,000
D. Vehicle Loans -----	
1. Dominica	\$75,000
2. Antigua	35,000
3. Nevis	15,000 -----
TOTAL	\$247,500 =====

IV. TRAINING SUMMARY*

	YEAR 1 -----	YEAR 2 -----	YEAR 3 -----	YEAR 4 -----	TOTAL -----
A. UWI Diploma	0	100,000	100,000	100,000	300,000
B. Minnesota Extension Summer School Travel					
1. MUCIA Tuition	3,600	3,600	3,600	0	10,800
2. UWI Travel	6,000	6,000	6,000	0	18,000
C. USDA Course Travel					
1. MUCIA	7,100	7,100	7,100	7,100	28,400
2. UWI	0	1,500	1,500	1,500	4,500
D. Excellence Officer to Minnesota Annual Conference					
1. MUCIA	0	2,700	2,700	2,700	8,100
2. UWI	0	3,000	3,000	3,000	9,000
E. Leeward Sub-Regional In-Service Training (UWI)	8,150	16,300	16,300	8,150	48,900
F. Windward Sub-Regional In-Service Training (UWI)	12,975	25,950	25,950	12,975	77,850
G. Annual Two-Week In-Service (UWI)	27,425	27,425	27,425	27,425	109,700
H. Marketing Workshops (UWI)	6,800	0	6,800	0	13,600
I. National Voc-Tech Workshops (UWI)	5,150	5,150	5,150	5,150	20,600
J. Annual Communications Technicians Workshop (UWI)	10,500	10,500	10,500	10,500	42,000
K. Excellence in Extension Workshop (UWI)	2,800	2,800	2,800	2,800	11,200
L. Annual CAO/CEO Workshop (UWI)	3,660	3,660	3,660	3,660	14,640
	-----	-----	-----	-----	-----
Sub-Total					
1. MUCIA	10,700	13,400	13,400	9,800	47,300
2. UWI	84,960	202,285	209,085	175,160	671,490
	-----	-----	-----	-----	-----
TOTAL	\$95,660	\$215,685	\$222,485	\$184,960	\$718,790
	*****	*****	*****	*****	*****

*The details of these line item calculations are contained on the next 5 pages.

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IV. TRAINING DETAILS

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	TOTAL
A. UWI Diploma in Extension	0	100,000	100,000	100,000	300,000
<p>\$20,000 per student includes 2/3 tuition, room and board, fieldwork, and 2 roundtrip air fares per person (including field work trip)</p>					
B. Minnesota Extension Summer School	9,600	9,600	9,600	0	28,800
4 participants each year					
1. Tuition, room & board (MUCIA)	3,600	3,600	3,500	0	10,800
2. Travel (UWI)	6,000	6,000	6,000	0	18,000
C. USDA Courses	8,600	8,600	8,600	8,600	34,400
1 participant per year					
1. Tuition (MUCIA)	2,600	2,600	2,600	2,600	10,400
2. Per diem (MUCIA)	4,500	4,500	4,500	4,500	18,000
3. Travel (UWI)	1,500	1,500	1,500	1,500	6,000
D. Participation in Minnesota Annual Conference and Farming Systems Conference	0	5,700	5,700	5,700	17,100
1 Excellence Officer and 1 Project staff person					
1. Conference costs (MUCIA)	0	600	600	600	1,800
2. Per diem (MUCIA)	0	2,100	2,100	2,100	6,300
3. Airfare (UWI)	0	3,000	3,000	3,000	9,000

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IV. TRAINING DETAILS CONTINUED

E. SUB-REGIONAL WORKSHOPS - TECHNICAL TRAINING FRONTLINE EXTENSION AGENTS

Leeward

20 travelling participants - average air fare \$75	1,500
Ten local participants travel	100
Per diem travelling participants - \$75 x 8 days x 20	12,000
Per diem local participants - \$30 x 8 days x 10	2,400
Support costs	300
TOTAL (UWI)	\$16,300 per year

F. Windwards

25 travelling participants - average air fare \$125	3,750
Twelve local participants travel	120
Per diem travelling participants - \$50 x 10 days x 25	18,750
Per diem local participants - \$30 x 12 x 8 days	2,880
Support costs	450
TOTAL (UWI)	\$25,950 per year

IV. TRAINING DETAIL^S CONTINUED

G. Annual Two Week In-Service Workshops

Leewards - 10 participants non-host countries

- Average air fare \$75 x 10	750
- \$75 per diem x 13 days x 10	9,750
- CAEP support costs to in-service	200

TOTAL	\$10,700
	=====

Windwards - 15 participants non-host countries

- Average airfare \$120 x 15	1,800
- \$75 per diem x 13 days x 15	14,625
- CAEP support costs	300

TOTAL	\$16,725
	=====

TOTAL (UWI)	\$27,425
	=====

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IV. TRAINING DETAILS CONTINUED

H. Marketing Intelligence and Extension - Marketing Officers, Farmer Representatives, and Extension

- Years 1 & 3	
- 20 participants	
- average air fare \$150	3,000
- 2 days per diem x \$90	3,600
Support Costs	200

TOTAL	\$6,800
	=====

I. Annual Workshop for Vocational Technical Agricultural Directors and CEOs - 15 participants

- average air fare \$150	2,250
- 2 days per diem x \$90	2,700
Support costs	200

TOTAL	\$5,150
	=====

J. Annual Communications Technicians Workshop, UWI

- 7 participants	
- average airfare \$200	1,400
- 13 days per diem x \$100	9,100

TOTAL	\$10,500
	=====

IV. TECHNICAL TRAINING CONTINUED

K. Excellence in Extension Regional Workshop

- 7 Participants x \$150 travel	1,050
- Trinidad per diem days: 2-1/2 x \$100	1,750

TOTAL	\$2,800
	=====

L. Annual CEO/CAO Workshop

- 12 participants x \$125 travel	1,500
- 2 days per diem x \$90 x 12	2,160

TOTAL	\$3,660
	=====

END OF TRAINING DETAILS

V-A. OTHER DIRECT COSTS - MUCIA

	YEAR 1 -----	YEAR 2 -----	YEAR 3 -----	YEAR 4 -----	TOTAL -----
A. Lead University Office'					
1. Telephone, cables, conference calls, mailings	1,500	4,500	4,500	3,375	13,875
2. Office supplies and expenses (campus)	500	2,500	2,500	2,000	7,500
3. Photocopying and printing (consultant briefings, seminars, technical communications, etc.)	1,500	3,500	3,500	3,000	11,500
B. Outreach Offices					
1. Operating supplies, mail and cables for field staff	1,250	3,000	3,000	2,000	9,250
C. MUCIA Production Support for TA and National Systems					
1. Support for Regional and National Communication Units - supplies, film, tape cassettes, A/V supplies for each country and Outreach offices	2,000	8,000	8,000	2,000	20,000
2. Communications production materials (from tape cassettes, slides, etc.)	750	1,750	1,250	500	4,250
3. Purchase of films, slides, etc. available commercially (for training & extension)	500	1,900	1,900	200	4,500
4. Workshops and technical assistance materials for MUCIA TDYs	500	3,000	3,000	1,500	8,000
	-----	-----	-----	-----	-----
TOTAL	\$8,500 =====	\$28,150 =====	\$27,650 =====	\$14,575 =====	\$78,875 =====

V-B. OTHER DIRECT COSTS - UWI

	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>TOTAL</u>
A. Office Supplies					
1. St. Augustine	2,500	5,000	5,000	3,750	16,250
2. Outreach Offices	3,000	6,000	6,000	4,500	19,500
 B. Communications Unit					
1. Production Costs (films, videotapes, training materials).	1,000	2,000	2,000	1,500	6,500
2. Purchase of films, slide tapes, etc. available elsewhere	500	1,000	1,000	750	3,250
3. Extension bulletins, manuals, posters, newsletters	2,000	4,000	4,000	3,000	13,000
 C. Telephone and Cables					
	1,500	3,000	3,000	2,250	9,750
 TOTAL	 \$10,500 =====	 \$21,000 =====	 \$21,000 =====	 \$15,750 =====	 \$68,250 =====

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VII-A. MUCIA INDIRECT COSTS

	<u>YEAR 1</u> -----	<u>YEAR 2</u> -----	<u>YEAR 3</u> -----	<u>YEAR 4</u> -----	<u>TOTAL</u> -----
1. MUCIA Indirect on MUCIA Costs -----					
a. Staff					
i. Off-campus (33%)	45,534	127,690	112,038	32,532	317,794
ii. On-campus (45%)	8,820	36,432	36,432	27,324	109,008
b. Travel	27,160	38,754	31,679	15,037	112,630
c. Equipment* (0%)	0	0	0	0	0
d. Training (33%)	3,531	4,422	4,422	3,234	15,609
e. Other Direct	3,825	12,668	12,442	6,559	35,494
f. Evaluation (33%)	6,600	6,600	21,450	6,600	41,250
	-----	-----	-----	-----	-----
Sub-Total	\$35,470	\$226,566	\$218,463	\$91,286	\$631,785
	-----	-----	-----	-----	-----
2. MUCIA Indirect on UWI Contract -----					
a. UWI Total	265,679	550,565	588,915	357,973	1,763,132
b. MUCIA Rate Applied to UWI Total (33%)	87,674	181,686	194,342	118,131	581,833
c. UWI Indirect Costs (61% of Staff Costs)	64,213	165,790	161,520	72,940	464,463
d. MUCIA Indirect on UWI Contract (b-c)	23,461	15,896	32,822	45,191	117,370
	-----	-----	-----	-----	-----
TOTAL (1-f + 2-d)	\$118,931	\$242,462	\$251,285	\$136,477	\$749,155
	-----	-----	-----	-----	-----

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VII-B. INDIRECT COSTS - UWI

Calculation Basis: 61% of Staff Support

	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>TOTAL</u>
<u>Basis</u>					
I-A-3	60,068	181,387	174,387	69,125	484,967
I-B-2	45,200	90,400	90,400	50,450	276,450
TOTAL	\$105,268	\$271,787	\$264,787	\$119,575	\$761,417
Indirect Costs (61% of Basis)	64,213	165,790	161,520	72,940	464,463

VIII. CONTINGENCIES

There are a number of uncertainties involved in budget calculations over a 4 year period. U.S.AID per diem and allowance rates can change; indirect cost rates and calculations change; fringe benefits change; inflation may be more than the 3% averaged into the line items; and there may be other unexpected expenses. It is prudent to allow for some contingencies at a modest level. Thus, this budget includes a 1% contingency calculation added to the MUCIA and UWI sub-totals for years 1,2, and 3. Given the greater uncertainties of the fourth year, a 2.4% contingency rate is used for the fourth year.

Contingency Calculations

BASIS OF CONTINGENCY CALCULATIONS -----	YEAR 1 -----	YEAR 2 -----	YEAR 3 -----	YEAR 4 -----	TOTAL -----
Sub-Total MUCIA (Items I-VII Summary Page)	646,014	891,346	875,801	387,223	\$2,800,384
Sub-Total UWI (Items I-VII Summary Page)	334,142	716,142	754,685	432,913	\$2,237,882
Contingencies (Line VIII on Summary Page)					
MUCIA	6,460	8,913	8,758	9,162	\$33,293
UWI	3,342	7,161	7,547	10,391	\$28,441