

5320061- (2)

UNCLASSIFIED

PD-AAF-463-81

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

199

JAMACIA
PROJECT PAPER
AGRICULTURAL PLANNING

LAC/DR-79-11

Project Number: 532-0061

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS PART I	1. TRANSACTION CODE <input type="checkbox"/> A A . ADD <input type="checkbox"/> C C . CHANGE <input type="checkbox"/> D D . DELETE	PAF 2. DOCUMENT CODE 5
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3. COUNTRY/ENTITY Jamaica	4. DOCUMENT REVISION NUMBER <input type="checkbox"/>
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5. PROJECT NUMBER (7 digits) [532-0061]	6. BUREAU/OFFICE A SYMBOL B. CODE LA [05]	7. PROJECT TITLE (Maximum 40 characters) [Agricultural Planning]
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8. PROJECT APPROVAL DECISION <input type="checkbox"/> A A . APPROVED <input type="checkbox"/> D D . DISAPPROVED <input type="checkbox"/> DE DE . DEAUTHORIZED	9. EST. PERIOD OF IMPLEMENTATION YRS. [0] [5] QTRS [1]
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10. APPROVED BUDGET AID APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 79		N. 2ND FY 80		K. 3RD FY 81	
		C GRANT	D LOAN	F GRANT	G LOAN	I GRANT	J. LOAN	L GRANT	M. LOAN
(1) FN	284	250		450		675		745	
(2)									
(3)									
(4)									
TOTALS				450		675		745	

A. APPROPRIATION	N. 4TH FY 82		Q. 5TH FY		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED		A. GRANT	B. LOAN
	D. GRANT	P. LOAN	R GRANT	S LOAN	T GRANT	U. LOAN	(ENTER APPROPRIATE CODE(S)) 1 - LIFE OF PROJECT 2 - INCREMENTAL LIFE OF PROJECT		2	
(1) FN	458				2,328					
(2)										
(3)										
(4)										
TOTALS	458				2,328		C. PROJECT FUNDING AUTHORIZED THRU		FY [8] [2]	

12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000)	allotted by FY 1979 advice 13. FUNDS RECEIVED FOR ALLOTMENT of Allotment No. 2 against Appropriation TYPED NAME (Char II, SER/FM/FSD) 72-1191021.3 SIGNATURE _____ DATE _____																				
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">A. APPROPRIATION</th> <th colspan="2">B. ALLOTMENT REQUEST NO.</th> </tr> <tr> <th>C GRANT</th> <th>D LOAN</th> </tr> <tr> <td>(1) FN</td> <td>450</td> <td></td> </tr> <tr> <td>(2)</td> <td></td> <td></td> </tr> <tr> <td>(3)</td> <td></td> <td></td> </tr> <tr> <td>(4)</td> <td></td> <td></td> </tr> <tr> <td>TOTALS</td> <td>450</td> <td></td> </tr> </table>	A. APPROPRIATION	B. ALLOTMENT REQUEST NO.		C GRANT	D LOAN	(1) FN	450		(2)			(3)			(4)			TOTALS	450		
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14. SOURCE/ORIGIN OF GOODS AND SERVICES	<input checked="" type="checkbox"/> 000 <input type="checkbox"/> 941 <input checked="" type="checkbox"/> LOCAL <input type="checkbox"/> OTHER _____
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15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED

FOR PFI/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE MM DD YY	18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE MM DD YY
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PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS PART II

Name of Country: Jamaica
Name of Project: Agricultural Planning
Number of Project: 532-0061

Pursuant to Part I, Chapter 1, Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize a Grant to the Government of Jamaica (the "Cooperating Country" "Grantee") of not to exceed Four Hundred and Fifty Thousand United States Dollars (\$450,000) the ("Authorized Amount") to help in financing certain foreign exchange and local currency costs of goods and services required for the project as described in the following sentence. The project consists of expanding the capability of the Ministry of Agriculture to manage the training of its personnel; to collect, analyze, and manage data; and to use this expanded capacity to plan for increased agricultural production and productivity (hereinafter referred to as the "Project"). The entire amount of the AID financing herein authorized for the project will be obligated when the Project Agreement is executed.

I approve the total level of AID appropriated funding planned for this project of not to exceed Two Million Three Hundred and Twenty Eight Thousand United States Dollars (\$2,328,000) Grant funded, including the funding authorized above, during the period FY 79 through FY 82. I approve further increments during that period of Grant funding up to \$1,578,000, subject to the availability of funds in accordance with AID allotment procedures.

I hereby authorize the initiation of negotiation and execution of the Project Agreement by the officer to whom such authority has been delegated in accordance with AID Regulations and Delegations of Authority subject to the following essential terms and major conditions; together with such other terms and conditions as AID may deem appropriate:

I Source and Origin of Goods and Services

Except for ocean shipping, goods and services financed by AID under the project shall have their source and origin in the United States or in the Cooperating Country, except as AID may otherwise agree in writing. Ocean shipping financed by AID under the Grant shall be procured in the U.S., except as AID may otherwise agree in writing.

II Conditions Precedent

(i) Prior to the first disbursement under the Grant, or to the issuance by AID of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to AID in form and substance satisfactory to AID a statement of the name of the person representing the Grantee, and of any additional representatives, together with a specimen signature of each person

specified in such statement.

(ii) Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement, other than to finance the technical assistance to develop the implementation schedule, the evaluation program, and the skill level needs assessment; the Grantee shall furnish in form and substance satisfactory to AID:

(a) Evidence that a project manager responsible for the monitoring and coordinating of the project functions within the Ministry of Agriculture has been designated;

(b) A time-phased implementation schedule for the technical assistance and training to be carried out during the first year of the project;

(c) Evidence that the Ministry of the Public Service approves of a salary structure which will make salaries, specifically in the area of data collection, processing and management, sufficient to attract and retain needed staff; and

(d) Evidence that the Ministry of the Public Service will create the new positions necessary for the project to meet its implementation goals and that the Ministry of Finance will provide the funding needed to cover the recurrent costs of such positions.

(iii) Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance automatic data processing equipment, the Grantee shall furnish in form and substance satisfactory to AID;

(a) Evidence that additional core capacity to facilitate Ministry of Agriculture application has been installed at the Central Data Processing Unit; and

(b) Evidence that a telephone cable, specifically for data transmission to connect the Ministry of Agriculture computer terminal with the Central Data Processing Unit, has been installed.

(iv) Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance training, the Grantee shall furnish in form and substance satisfactory to AID, a skill level needs assessment.

(v) Prior to any disbursement or the issuance of any commitment document under the Project Agreement, to finance trailbikes, the Grantee shall furnish to AID in form and substance satisfactory to AID, evidence that a Revolving Fund has been established to be used solely for the purchase of new trailbikes when necessary to facilitate project implementation.

(vi) Prior to any disbursement or the issuance of any commitment document under the Project Agreement, to finance technical assistance and training during the twelve-month periods commencing on October 1, 1980, 1981, 1982, and 1983 respectively, the Grantee shall furnish to AID, in form and substance satisfactory to AID, time-phased implementation schedules for each such twelve-month period, each based on the results of the annual evaluation of the project during the previous twelve-month period.

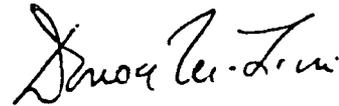
III Covenants

(i) The Grantee will agree to make budgetary allocations sufficient to compensate personnel who complete specialized training so that they will remain and function in their areas of specialization;

(ii) The Grantee will agree to establish a workable system of incentives as well as bonding to insure the return of trainees to Jamaica; and

(iii) The Grantee will insure that, prior to the initiation of individual training, trainees are committed to continue their employment with the appropriate ministry for a minimum of twice the length of time of training received.

Signature _____



Donor M. Lion
Director USAID/Jamaica

June 28, 1979

Clearances:

LAC/GC: Robert Meighan *RM*
AGR: H. Patrick Peterson *HP*
PROG: Henry Johnson *HJ*
CAP: Paul Wenger *PW*
A/DIR: Philip Schwab *PS*
CONT: Darrell Dolley *DD*

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT PAPER FACESHEET		1. TRANSACTION CODE <input type="checkbox"/> A ADD <input checked="" type="checkbox"/> C CHANGE <input type="checkbox"/> D DELETE		PP 2. DOCUMENT CODE 3
3. COUNTRY ENTITY Jamaica		4. DOCUMENT REVISION NUMBER <input type="checkbox"/>		
5. PROJECT NUMBER (7 digits) <input type="text" value="532-0061"/>		6. BUREAU OFFICE A SYMBOL: <input type="text" value="LA"/> B. CODE: <input type="text" value="05"/>		7. PROJECT TITLE (Maximum 40 characters) <input type="text" value="Agricultural Planning"/>
8. ESTIMATED FY OF PROJECT COMPLETION FY <input type="text" value="8"/> <input type="text" value="4"/>		9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY <input type="text" value="79"/> B. QUARTER <input type="text" value="3"/> C. FINAL FY <input type="text" value="82"/> (Enter 1, 2, 3, or 4)		

10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$1 -)						
A. FUNDING SOURCE	FIRST FY <u>79</u>			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL	300	150	450	2,000	328	2,328
IGRANT:	(300)	(150)	(450)	(2,000)	(328)	(2,328)
ILOAN:						
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST COUNTRY	-	300	300	-	3,014	3,014
OTHER DONOR(S)						
TOTALS	300	450	750	2,000	3,342	5,342

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>79</u>		H. 2ND FY <u>80</u>		K. 3RD FY <u>81</u>	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	284	250		450		675		745	
(2)									
(3)									
(4)									
TOTALS				450		675		745	

A. APPROPRIATION	N. 4TH FY <u>82</u>		O. 5TH FY _____		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULED <input type="text" value="0"/> <input type="text" value="8"/> <input type="text" value="8"/> <input type="text" value="2"/>
	Q. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1) FN	458				2,328		
(2)							
(3)							
(4)							
TOTALS		458			2,328		

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

1 NO
 2 YES

14. ORIGINATING OFFICE CLEARANCE		15. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W. DOCUMENTS. DATE OF DISTRIBUTION	
SIGNATURE <i>Donor M. Lion</i>		<input type="text" value="0"/> <input type="text" value="6"/> <input type="text" value="2"/> <input type="text" value="8"/> <input type="text" value="7"/> <input type="text" value="9"/>	
TITLE Donor M. Lion, Director USAID/Jamaica			
DATE SIGNED		<input type="text" value="0"/> <input type="text" value="8"/> <input type="text" value="8"/> <input type="text" value="2"/>	

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I. SUMMARY AND RECOMMENDATION

A. Recommendation

Based on findings during the period of study, reviews and analysis on improving the institutional capability of the Ministry of Agriculture (MOA) of the Government of Jamaica (GOJ) the following is submitted for USAID/Jamaica approval.

- GRANT US\$2,328,000

All dollar figures are U.S. dollars unless otherwise stated.

B. Project Description

1. Project Rationale

In 1973 the GOJ established several agricultural development goals, with emphasis on increased rural incomes and improved rural amenities and social infrastructure as a basis for raising the rural standard of living. The MOA submission to the GOJ Five-Year Plan (FY 1978 - 1982) acknowledged that a lack of growth in agriculture over the past decade has been a major cause of many present-day problems in Jamaica.

The 1978 Agricultural Sector Assessment Report "The Small Farmer in Jamaican Agriculture," found that "... a high proportion of small farmers are actively involved in commercial agriculture; ... the small farmer produces most of the nation's domestic food crops; ... that he contributed 25 per cent of the value of agricultural exports in 1977; ... (and) he owns most of the farm animals." However, the small farmer performs under numerous handicaps and receives smaller yields than do the larger growers.

The GOJ is aware of small farmer^{*} importance - they constitute 88 per cent of the nation's farmers - and has made sporadic attempts to increase their production. These attempts have been less than successful due to deficiencies in technical skills and administrative capability which hamper the MOA's capacity to identify, quantify and respond to small farmer needs. The MOA needs to know considerably more about this group than it does at present if successful planning based on adequate information and effective analysis is to be implemented in the rural sector. Additionally, the MOA should develop an in-house capacity for determination and management of agricultural sector training requirements.

* Small farmers are those with holdings of one to ten acres.

One of the primary objectives of the USAID/Jamaica is to help the GOJ analyze and respond to the problems of the small farmer. This agricultural planning project provides training, technical assistance and commodities to address deficiencies in:

- a. data collection and management;
- b. data and policy analysis;
- c. project evaluation, and
- d. training administration.

The improved capacity to produce and manage accurate and relevant data for policy analysis and project planning purposes will:

- a. provide the MOA with a cadre of skilled professionals capable of projectizing the agriculture sector portion of the Five-Year Plan so as to benefit the small-farm sub-sector;
- b. support MOA endeavors to decentralize project planning to the regional level;
- c. facilitate utilization of techniques transferred under the USAID/GOJ National Planning Project; and
- d. be coordinated with the German Volunteer Service attempt to introduce a system of small-farm accounting records.

The GOJ has determined that increasing the capacity of the MOA in training, planning, implementation and evaluation is necessary if further efforts to develop the agricultural sector are to be successful. A start was made with the April 1977 establishment of the Training Division and the Data Bank and Evaluation Division. The capabilities of these units are limited by the lack of sufficient number of well-trained personnel and the lack of equipment for efficient servicing of various client needs. This reduces the availability and timeliness of cropping, livestock, marketing and extension information. The Agricultural Planning Project is designed to correct these problems. The MOA recognizes these problems as major current bottlenecks to increased agricultural production for domestic consumption and for export. This recognition has been demonstrated by the MOA through (a) recent reorganizations designed to deal with these problems; (b) analysis and policy statements in the November 1973 GOJ Green Paper on the Agricultural Sector; and (c) the GOJ Five-Year Development Plan (1978 - 1982). This recognition facilitates GOJ assignment of the necessary material, human and financial resources, as outlined in this project paper, for accomplishment of the project sub-goals and purposes.

2. Grantee and Implementing Agencies

The grantee will be the Ministry of Finance, GOJ. The Project will be administered by the MOA. The leader of the Technical Assistance team will assist in project coordination and in directing the efficient flow and utilization of USAID resource inputs.

C. Program Components

The five-year project will expand the capability of the MOA to collect, analyze and manage data, and use this expanded capacity to plan for increased production and productivity. The Data Bank and Evaluation Unit and Training Unit of the MOA will play major roles in the timely execution of the project. Technical assistance, training and commodities will be spread over the life of the project and provided as stated under:

Training: Training opportunities will be provided for approximately 135 staff personnel of the MOA in-country, and 26 overseas in specialized areas. This training will range from data collection and management to systems analysis and computer programming, policy planning and implementation, training administration and management and evaluation methodology.

Technical Assistance: Eighty-seven person-months technical assistance will be provided over the first four years of the project. This assistance will be in the areas of management and training administration, evaluation methodology, policy planning and implementation, data collection and management. The technical assistance will be coordinated by a team leader.

Commodities: An integral part of the project is the provision of equipment (commodities), including computer hardware and accompanying software, training aids and transport for data collection.

D. Financial Summary

The total project costs are estimated to be \$5,341,400 of which AID will finance US\$2,327,700 and the GOJ US\$3,013,700. AID and GOJ funds will be allocated as follows: (all US\$000):

	AID	GOJ	TOTAL
Computer Wares	129.3	32.1	161.4
Ancillary Equipment	-	1.8	1.8
Training	682.7	8.3	691
Technical Assistance	674	-	674
Analyses and Evaluation	134	-	134
Personnel	-	1,603.8	1,603.8
Equipment	263.5	160	423.5
Operation & Maintenance	-	473	473
Contingency	188.5	227.9	416.4
Inflation	255.7	506.8	762.5
TOTAL	2,327.7	3,013.7	5,341.4

II PROJECT BACKGROUND

A. General Economic Overview

Portions of the Jamaican economy have long been oriented toward the export market. The "rum and molasses" trade with the United Kingdom in the 18th and 19th centuries became more diversified in the 20th century, both in products and purchasers; but, until the 1950s, Jamaica relied almost exclusively on the export earnings from its agricultural production (sugar, bananas, copra, cocoa, coffee, etc.).

In the 1950s, two new industries were discovered - bauxite mining and tourism - and the decade of the 1960s saw massive investments in bauxite, alumina, and tourist facilities. The mainstays of the economy in the late 1960s and early 1970s became (a) bauxite mining for export and local processing of bauxite for alumina and (2) the rapidly expanding tourist complexes on the north coast.

The development of these new industries altered the structure of the Jamaican economy and accelerated growth. There was a boom in the construction industry. A light manufacturing industry was developed and there was substantial expansion in the service sector. There was also a significant amount of government investment in infrastructure. A major rural-urban migration pattern was established. Urban areas became more crowded with accompanying social problems, given the lack of urban facilities. While more than 50% of the population remains in the agricultural sector, it accounts for a declining share of the gross domestic product. With inflation and new social welfare measures designed to provide minimum wages to farm laborers, the traditional plantation economy in the rural sector became less profitable and large land holders began to abandon their lands.

After beginning to deteriorate in 1973, the country's balance of payments position took a sharp turn for the worse in 1976 as a result of several developments, including the cessation of new investment into the mining and tourism industries and the increase in the price of oil and other import products. The terms of trade moved against Jamaica. Crime and violence discouraged tourism, as did exaggerated press reports of disturbances. Unemployment increased as a result of declining construction activity. To stem the rise in unemployment, the GOJ resorted to an expansionary fiscal policy, creating various youth and agricultural work programs. Excess liquidity in the economy created a high import demand which, left relatively unchecked until 1976, contributed to the deteriorating balance of payments position.

At the end of 1976, the economy was generally characterized by the following conditions:

1. Deteriorating balance of payments position;

2. Large fiscal deficits, offset by an inflationary monetary policy;
3. An unemployment rate estimated at between 22% and 24%;
4. Overconstruction of the tourist industry;
5. Underutilized agricultural capacity, caused by land abandonment and lack of investment.

Jamaica is currently undergoing a severe economic crisis, and short-run (two to three years) prospects for recovery are not bright despite a strong package of economic austerity measures instituted since January 1977 by the GOJ. The major problems include: (1) a severe balance of payments deficit accompanied by a rapidly growing negative net reserve position (currently estimated at about minus US\$275 million); (2) large fiscal deficits financed by the banking system which, in turn, brought about excess liquidity in the economy, a continued high demand for imported goods and a large balance of payments deficit; (3) lowered agricultural and industrial production; GDP, according to official figures, declined by 14% in real terms between 1972 and 1978, while the decline in real per capita GDP is about 22%; (4) sharp increases in unemployment, with the open unemployment rate (excluding underemployment) estimated to be as high as 24% of the labor force.

B. Rural Jamaica - Role of Agriculture

Agricultural Sector Performance: The performance of the agricultural sector has been disappointing in recent years. Basic infrastructure has been largely ignored; credit channels are cumbersome and not effective in reaching small farmers on a timely basis; and the marketing system rests largely upon a disjointed system of "higglers," commercial middlemen who reap much of the profit. Few incentives have been provided for the farmer, with the result that rural-urban migration has been accelerated (especially among the younger rural inhabitants newly entering the labor force), and idle land has been increasing to the point that an estimated one-third of potentially productive agricultural land is not under cultivation.

The agricultural sector plays an important role in the GOJ's strategy to revive the economy. In the Five-Year Plan for 1978-82, major emphasis is placed on making the country self-sufficient in foodstuffs to the extent possible and substituting, to the maximum extent, domestic for imported materials. The agricultural sector is to be assisted through provision of credit and reorganization of the marketing system. The Plan indicated that "the target is for agriculture to grow at 7-8% per annum. The programs in the agricultural sector plan indicate that this rate of growth is feasible provided the public sector makes a vigorous effort at project implementation and land reform; and the private sector (large and small farmers) responds

positively to price incentives, credit and other government supports. Growth will be led by export agriculture and domestic food crops, but substantial increases are also targeted for livestock, fishing and forestry."

Contribution to the Economy: Jamaica is an important importer of foodstuffs. In 1977, Jamaica imported J\$123.8 million in food, which constituted 16% of its total merchandise imports. While food imports have declined since 1975, this decline probably reflects the reduction in foreign exchange availability as much as an increase in basic food production. Given the country's climate and resource base, it should be able to reduce significantly its dependence on food imports. Moreover, the production of the major export crops - sugar, bananas, coffee and citrus - has either declined or stagnated in recent years.

Agriculture remains the principal employer in Jamaica. About 30% of the labor force is principally dependent on agriculture and related industries for a living. Because of the low productivity of the agricultural sector, the average annual GDP per worker employed in agriculture in October 1977 is estimated at J\$1,067, compared to an average of J\$2,241 per worker for the country as a whole.

C. Relationship to GOJ and AID Agricultural Development Strategy

The GOJ agricultural sector goals, contained in the GOJ's current Five-Year Plan, are to:

- produce food and raw materials to meet requirements for domestic food consumption at satisfactory nutritional levels;
- increase the number of agro-industries;
- expand exports while reducing dependence on imports.

AID supports these goals and Jamaica's other long-term objectives of reducing rural to urban migration and creating additional employment opportunities in rural areas.

It is, however, recognized that certain areas of weakness within the agricultural sector must be corrected if the goals mentioned earlier are to be achieved.

Based on the Agricultural Sector Assessment and other studies, the Country Development Strategy Statement states that, "Inadequate management capability within the MOA impacts negatively upon the total structure of the agricultural sector from policy to budgeting to project implementation." Furthermore, this inadequate

* Five-Year Development Plan, 1978-82, pages 2-3

institutional capability tends to slow the rate of disbursement of AID and other donor funds as well as limiting the capacity to absorb additional assistance. The Agricultural Planning Project is focused directly on MOA institutional capability, so that it will be better equipped to analyze and respond to changing problems of the small farmer, to ensure that productivity gains by small farmers are established and maintained and to develop technological innovations and policies in response to evolving conditions in the rural sector.

The Agricultural Planning Project results will also contribute an increased flow of data and analyses which will facilitate effective implementation of several other USAID/Jamaica - COJ development efforts currently underway, or in the planning stage, to improve performance in the Jamaican agricultural sector. These efforts include:

- a. The \$26 million Integrated Rural Development Project is improving farming and living conditions among hillside small farmers living in severely eroded watershed areas. Increased agricultural production data and analyses will assist this project.
- b. The \$2 million Inland Fisheries Development Project is constructing facilities and training personnel for ninety-three acres of fish ponds at two locations. Increased marketing and demand analysis information will assist in distribution of production.
- c. The \$6 million Fish Production Systems Development Project, a follow-on to project "b", will provide for increasing inland fish production throughout Jamaica. Improved quality and quantity in marketing information will be essential for effective project implementation.
- d. The Agricultural Marketing Project, now in the design stage. Efficient implementation of a marketing system is dependent on increased agricultural production and demand analysis information.

D. Other Donor Assistance

Major related projects presently on-going or anticipated by other agencies include:

1. Inter-American Development Bank: Jamaica Agricultural Research. This project has been developed to provide the MOA with greater research capability. The total program is approximately \$10 million and the program includes the building of two training and research centers at Bodles in St. Catherine and Montpelier in St. James.
2. Netherlands Government: This is a grant of some \$300,000 for the purpose of equipping and upgrading living facilities at the Canaan Training Center (\$202,000 for buildings and \$98,000 for furniture and motor vehicle).
3. German Volunteer Society: This is a technical assistance grant of four persons to serve at the regional level as Farm Records Analysts for two years. They will train agricultural officers in the establishment and maintenance of a system of on-farm records.
4. U.S. Bureau of Census: Through a PASA with USAID this project has provided approximately 24 person-months (\$143,000) of technical assistance to the MOA Data Bank and Evaluation Division for development of survey and project evaluation programs.

The GOJ establishment of decentralized project planning in the agricultural sector - one of the aspects supported by this project - is partially attributable to the success of the USAID/GOJ National Planning Project (FY 1977 - 1979). Through the National Planning Project, monthly profile preparation courses have been conducted for parish and regional personnel, demonstrating to MOA officials that project planning capability can be acquired by, and does exist in, regional and lower level personnel.

E. Project Development Committee

USAID/Jamaica

H. Patrick Peterson, Rural Development Officer
Kenneth C. Ellis, Asst. Rural Development Officer
W.L. (Bertie) Wilson, Agricultural Economist
Clark Joel, Economic Officer

AID/Washington

Mary Gast, SER/DM

Consultants

Paul D. Morris, Agricultural Project Planner
Winston Brown, IBM/Jamaica
Dr. Roger Hiemstra, Iowa State University
Dr. Eugene Doll, USDA
Beverley A. Carlson, U.S. Bureau of the Census
Robert Bartram, U.S. Bureau of the Census

Government of Jamaica

Roy Russell, Director of Data Bank and Evaluation Division, MOA
Leonard Henry, Acting Director of Training, MOA
Douglas Garel, Director of Planning & Policy Review, MOA
John Johnson, Deputy Director of Planning and Policy Review, MOA
Horace McMorris, Director of Central Data Processing Unit,
Ministry of Finance
Fred Zenny, Director of Production & Extension Division, MOA

Project Review Committee

Donor M. Lion, Mission Director
Philip R. Schwab, Deputy Director
H. Patrick Peterson, Rural Development Officer
Kenneth C. Ellis, Asst. Rural Development Officer
W.L. (Bertie) Wilson, Agricultural Economist
Paul Wenger, Capital Development Officer
Henry Johnson, Program Officer
Michael Bradley, Budget & Accounting Officer
Clark Joel, Economic Officer
Linda Haverberg, Health, Nutrition & Population Officer
Edward Baker, Asst. Capital Development Officer

Government of Jamaica

Roy Russell, Director of Data Bank & Evaluation Division, MOA
Leonard Henry, Acting Director of Training, MOA

Others

David Peacock, USAID/Guatemala
Jim Riordan, AID/Washington
Paul D. Morris, USDA

Studies/Analyses Utilized

1. "Report on the Training Needs and Capabilities of the Jamaican Ministry of Agriculture," December 1978, by Dr. Roger Hiemstra, Iowa State University, and Dr. Eugène Doll, (USDA).
2. Report of Mary E. Gast, SER/DM/DS-A, AID/W, December 8, 1978.
3. "The Small Farmer in Jamaican Agriculture: An Assessment of Constraints and Opportunities," November 1978, USDA Agricultural Assessment Team.
4. "Agricultural Development Strategy" - Ministry of Agriculture, Government of Jamaica - Green Paper, November 1973.
5. IBRD, "Current Economic Situation and Prospects for Jamaica" Report No. 967a-JM, March 8, 1976.
6. IBRD, "Current Economic Position and Prospects for Jamaica" Report No. 257a-JM, February 21, 1974.
7. "Ministry of Agriculture, Review and Organization" (Vol. II), Ministry of the Public Service.
8. "Economic Survey of Jamaica - 1972 - 1977."
9. GOJ, Five-Year Development Plan, Agricultural Sector, 1978 - 1982.
10. GOJ, Emergency Production Plan, April 28, 1977.

III PROJECT DESIGN

A. Rationale

One of the major problem areas faced by the GOJ in the achievement of its policy objective of improved standards of living through agricultural productivity has been the effective use of resources - capital, land and people. This includes the inability to move at a desired rate to improve institutional capability in the analysis, planning and implementation of projects and programs in order to cope with rapidly changing world economic conditions. This situation in turn emphasizes the timeliness and relevance of production and marketing information to the rural poor, the lack of which tends to lock them into a circle of low incomes and poor living standards.

It may be argued that the tendency over time has been toward institution building and training per se, and which has thus far failed to achieve the stated objective. This project assumes the absence of inter-relationships among needed segments of institutions that has been largely responsible for lack of effectiveness. The MOA has, since its inception, been engaged in research and dissemination of farming information. However, methodologies have varied widely and on an individual basis. To the extent that analytical procedures also tended to a wide degree of variation, the treatment of various areas has lacked the continuity of clearly defined bases of information intended to affect the end product.

For example, the questions of paucity and reliability have been raised from time to time in relation to production and marketing information. The response has been skepticism on the part of the farmers. This skepticism impacts on production, especially insofar as production is influenced by the ease with which the farmer thinks he will be able to market his crops.

The Jamaican agricultural experience has been a heritage of disparate capabilities, methodologies and interest groups which in most cases only served foreign economic, political and other interests. Since the mid 1960s, the country, through various administrations, has been attempting to focus on Jamaican development objectives within MOA as in other sectors. This process has not been devoid of trauma of one kind or another. The antecedent to the problem lies (as stated below) in the disparate nature of the institutional arrangements which should impact on agriculture. These arrangements operate with little or no knowledge or parallel developments in other areas. This has created an urgent need for a greater degree of coordination of needs and problem-solving approaches. One early first step is an analytical systems approach toward current and future data. This includes analysis and management of data in key areas as mentioned in the section of the project background dealing with the activities of the Training and Data Bank Units. It has, for instance, become apparent in the study of the MOA by Hiemstra/Doll, that the Training Unit of MOA needed a better sector orientation in order to make its activities more relevant to the sector need. This particularly is true in the case of personnel

requirements and training needs of the MOA.

On the other hand, it is apparent that there is a need to improve the Sector's planning capability. A look at the Five-Year Agricultural Development Plan will reinforce the need for a planning approach which will facilitate the smooth and timely implementation of the projects envisaged therein. To the extent that the lack of specialist training and information is manifested in the wide variety of production practices and subsequent low and varying levels of yields/outputs, it is the intent of this project to address these problems by the timely collection, analysis, storage and retrieval of data and an improved training capability, thereby placing the Ministry of Agriculture, in particular, in a position to use its capabilities in assisting to realize some of the goals of the GOJ Five-Year Agricultural Development Plan. Indeed, the timeliness of the project cannot be overstated as the exercise can be a vehicle for assistance in planning and streamlining the projects within the Five-Year Plan. This agricultural planning project has, therefore, taken into account the areas of seeming weakness in the MOA's system; i.e., training, policy and planning and data analysis and management. The project components described in Section IV illustrate the manner in which these weaknesses will be dealt with in order to improve the institutional capabilities of the MOA.

In 1973 the GOJ established several agricultural development goals which can be summarized as follows:

- To increase rural incomes and improve rural amenities and social infrastructure as a basis for raising the standard of living of the rural population;
- To ensure that all agricultural land is retained and utilized in as efficient a manner as possible;
- To create agro-industrial and small enterprise opportunities in rural areas to reduce the unequal distribution of capital and economic activity between rural and urban areas;
- To produce as much food and raw materials as is economically feasible to meet domestic food and nutrient requirements, to increase exports of traditional crops and to develop new crop exports;
- To structure agricultural production to reverse the growing reliance on imported agricultural commodities.

(Source: MOA Green Paper, November 1973)

The MOA submission to the GOJ Five-Year Plan (FY 1978 - 82) acknowledged that a lack of growth in agriculture over the past decade has been a major cause of Jamaica's increasing unemployment, high inflation rates, foreign exchange shortage, high rural to urban migration, lower living standards, and emerging nutritional problems among the poor. (Chapter One) The accuracy of this evaluation was previously substantiated in the February 1974 and March 1976 World Bank studies, as well as in the November 1973 GOJ Green Paper on the agricultural sector.

The 1978 Agricultural Sector Assessment Report, "The Small Farmer in Jamaican Agriculture," (Chapter 3) found the following conditions:

- A high proportion of small farmers are actively involved in commercial agriculture; ... mixed farming, some food crops and some export crops is the typical orientation of the small farmer.
- The small farmer produces most of the nation's domestic food crops, and this includes: legumes, vegetables, condiments, fruits, cereals, etc.
- The small farmer produces a substantial part of the nation's foreign exchange originating in agricultural exports. This includes most of the coffee, cocoa, pimento, and ginger, and smaller percentages of banana and sugar cane ... estimated that he contributed 25 per cent of the value of agricultural exports in 1977.
- Among agricultural assets, he owns most of the goats, sheep, pigs, mules and donkeys, and small percentages of chickens, beef and dairy cattle.

However, the small farmer - those with one to ten acres - performs under numerous handicaps which include:

- yields which are less than that of the larger growers; and
- use of marginal, hillside lands for the most part; use of simple hand tools, and little in the way of agricultural chemicals.

The Agricultural Sector Assessment Report also described the Jamaican small farmer thus:

"He shares a number of the characteristics of the traditional small farmer, but there are also notable differences. On balance, it might be fair to say that he is cautious about abandoning the practices of a traditional agriculture to embrace those of a more modern agriculture. On the one hand, he is moved by the example at home of progress in other sectors of the economy, by the report of progress abroad received from relatives who have emigrated, and by the continuing efforts of successive governments to 'do something' for the small

farmer. But, on the other hand, he is reluctant to stray from traditional ways when, anytime, he may be confronted by erratic conditions of climate, credit, prices and government commitment.

Furthermore, the small farmers rely largely on family labor. Most of the small farms are to be found on hillside land where the soils of moderate natural fertility have been badly eroded. His crops are produced for local consumption and form an important part of small farm output. The small farmer manages his farm in conjunction with his work on his farm and in employment outside. He is preoccupied with the consumption needs of his household and the need to provide for himself and his family in later years.

The small farms produce a large number of products; some are exported, but the others constitute most of the food locally produced for consumption in Jamaica. Hand tool methods rather than mechanized cultivation are typical of the small farms.

A high proportion of small farmers are actively involved in commercial agriculture; indeed, most of them do not consider themselves subsistence farmers. While mixed farming, some food crops and some exports are the typical orientation of the small farmer, he recognizes the necessity for cash purchases to meet both household and farm necessities.

The Jamaican small farmer thus finds himself in the anomalous position of laboring essentially in the traditional way, but in an overall environment which is anything but traditional. The differences are stark, and this has contributed to attitudes and expectations which require understanding so that they can be properly channeled into an improvement of both his productive capacity and living conditions.

In the small farmer, education seldom goes above early primary school, and many adults (forty to fifty per cent of the population over fifteen years of age) who finished schooling in their childhood are functionally illiterate. The large proportion of illiterates is to be understood in the context of the average age of farmers - in the mid-fifties. Few farmers can qualify for entrance to the Jamaica School of Agriculture. As a result, most extension agents are town boys - a frequent complaint of farmers, who report that the extension agents know theory, but not how to apply that theory to specific local situations.

In general, attitudes of small farmers tend to reflect economic and social realities. Farmers are willing to make changes, and indeed want help to do so if they see a chance for profit and betterment without undue risk. The reason for the caution is simply that there is not the margin to absorb additional risk. They cannot afford to give up what has worked for them in the past."

GOJ statements indicate an awareness of small farmer importance as those with one to ten acres constitute 88 per cent of the nation's farmers. However, the lack of continuity in research and application of specific information to the small farmers of Jamaica has led to sporadic efforts to increase production. Efforts, when made, have been primarily due to political pressures or merely by large injections of capital into the rural farming communities. The maximizing of inputs, which should result from a continuous flow of usable information to the farmer, has not been realized. This devolves partly from the inability of the MOA to systematically collect, analyze, store and retrieve data such that the process of replication is feasible. The result has been reinventing rather than replicating. A specific area of farming is re-researched over and over again. This is inefficient and costly both in terms of money and time.

The GOJ's agricultural sector goals in the Five-Year Plan attempt to address these problems through numerous projects to put more people back into, and improve opportunities for, small-scale farming. The following indicates the growing magnitude of the endeavor. Between 1962 and 1968, the number of farms increased by 32,905. Since 1972, 34,000 farmers have come under Project Land Lease, a Government program aimed at land redistribution, while in 1977-78, 38,000 farmers benefitted under the MOA's Crop Loan Program. However, deficiencies in technical skills and administrative capability hamper MOA capacity to identify and respond to these small farmer needs. With the gradual movement from a traditional export cropping system to a more diversified cropping pattern, the MOA has not been able to keep abreast of the data required to facilitate easy transformation for a growing number of farmers into successful farm enterprises.

If small farmers are to improve their standard of living, it is necessary for the MOA to be in a position to provide them with useful information in a timely manner, as well as measure their performance over time. Prior to improvement of conditions and productivity amongst small farmers, the MOA needs to know considerably more about this group than it does at present. There is a need for basic data regarding the agricultural sector. There are needs for training those with responsibility to analyze

data and formulate project plans. There are needs for training and equipment to manage and process data.

It is also necessary for the MOA to be able to keep track of its large and growing asset base if the assets (such as equipment and buildings scattered throughout the country) are to be of benefit to the sector. A manual system of data preparation and analysis cannot fulfill such a function. (Storage and retrieval of the data under a manual system is virtually impossible at such a level of operation.)

This agricultural planning project will benefit all farmers in Jamaica, but, because of GOJ goals and the make-up of the agricultural sector, small farmers will be the chief indirect beneficiaries. The project will focus on utilization and coordination of training, technical assistance and commodities to address deficiencies in:

- (1) the collection and management of basic agricultural data;
- (2) the analysis of rural sector data for project and policy formulation;
- (3) determination and management of agricultural sector training requirements;
- (4) techniques for evaluation of on-going and future projects.

These functions are to be coordinated by the MOA. This coordination will be facilitated by a MOA reorganization approved by the Cabinet and the Ministry of the Public Service. The Planning and Policy Review Division and the Data Bank and Evaluation Division will be amalgamated into the new Planning and Evaluation Division with four branches:

- (1) Data Collection, Processing and Statistics;
- (2) Planning and Policy Review;
- (3) Evaluation;
- (4) Data Library.

The long-run rationale for this five-year project is based on the need to strengthen the capabilities of the MOA through development of its human resources and data for all agricultural projects on an ongoing basis as well as making the results of research more easily available to the MOA and to farmers generally.

B. Strategy

The overall strategy of this project is embodied in the fact that by strengthening MOA's institutional capabilities and its analytical and data systems, which will improve planning and implementation of agricultural programs/projects, progress toward achieving the GOJ's sector goals will be advanced. USAID's and the GOJ's target group will be benefitted.

In the Country Development Strategy Statement, USAID/Jamaica stated that focus on agricultural productivity and planning will be particularly important. Between now and 1985, AID's assistance is planned to help the GOJ to:

- analyze and respond to changing problems of the small farmer;
- ensure that productivity gains generated by AID's assistance are maintained; and,
- develop technological innovations and policies in response to evolving conditions in the rural sector.

The GOJ's Five-Year Development Plan (1978-82) places considerable emphasis upon agriculture and human resource development. To achieve the targets of this Plan, a number of constraints must be overcome; two of which are addressed by this Project:

- shortages of skills, technical personnel, managers and entrepreneurs, and
- shortcomings in the Government's ability to prepare and implement projects (See Page 20, CDSS).

The present slowness with which externally financed projects are being implemented, despite the country's desperate need for foreign exchange, supports the premise that priority should be given to strengthening the capacity of the MOA to assure the efficiency and effectiveness of future projects.

Ultimately, the goal of this Project is to improve incomes and living conditions for the Jamaican small farmer. To accomplish this task, the MOA must first know considerably more about this group than it does at present, if relevant policy decisions are to be made and appropriate projects are to be designed. This necessitates the collection of basic data from the target group. Beyond collection of data, it implies data management. Data management involves selecting the appropriate data to collect, proper enumeration, rapid and efficient processing. To this end, the Project includes technical assistance in data collection, training of enumerators (and expansion of their numbers), training in data processing and the addition of the data processing equipment required to facilitate this effort.

With the improved capacity to collect relevant data, the MOA will be able to move toward improving the projects and programs which will deliver the information and services necessary to improve the productivity and incomes of small farmers. This improvement will come from improved problem analysis and, subsequently, better project planning. As an intermediate step toward this objective, the analysis and planning capacity of the MOA will need to be strengthened. This will require the expansion of the Planning and Policy Review Unit and training of its personnel in analytical techniques.

Even with the best of plans and projects, implementation is dependent upon the managerial and technical skills of the individuals charged with the specific tasks. It should be noted that of particular concern to MOA officials, was the fact that particular attention be given to this element. In addition to the specific training for individuals involved in data collection, processing, analysis and planning, it is the intention of the Project to assist the MOA in improving upon its current system of training of personnel. The Project will provide training and technical assistance for the Training Unit (formed in 1977) in order to upgrade the skills of this unit in systematically identifying training needs in the public sector, upgrading the quality of training (utilizing visual aids, etc.), and coordinating individual training needs with training opportunities offered both within the MOA and in other institutions. The task of the Training Unit will be to assess the current level of skills, identify the additional skills required to implement present and future projects - both in terms of technical and managerial skills - and plan training (both domestic and foreign) to assure that prompt implementation is not constrained by lack of personnel with appropriate skills.

This Project will provide for technical assistance and training for the Training Unit, and for certain improvements in the MOA's training centers; such as updating facilities and incorporating visual aid equipment. The Training Unit will then be responsible for achieving the training objectives of the MOA, the cost of which will be included in present and future MOA budgets.

In conclusion, this Project will affect the incomes of small farmers through improvements in current and future MOA projects directed toward that goal. Its impact will be the result of:

- (1) better analysis of the problems of small farmers;
- (2) better planning of projects directed toward these problems; and
- (3) improved implementation of such projects because the managers, researchers, extensionists and others charged with this task will have the skills required to assume their successful execution.

C. Synopsis of the Logical Framework

1. Project Goal

The goal of this project is to provide increased MOA technical, planning, administrative and logistical support for the Jamaican rural/agricultural sector effort to improve production and incomes at all sector levels, especially the small farmer.

2. Project Purpose

The purpose of the project is to increase the institutional capability of the MOA to collect, organize and analyze relevant data; upgrade its level of personnel, both quantitatively and qualitatively; improve its administration and management; identify and satisfy its ongoing training requirements; and utilize these factors effectively to meet the stated project goal.

3. End of the Project Status

By the end of the project, the following conditions will exist:

- a. The MOA will have absorbed additional trained permanent staff professionals and satisfactorily upgraded the capabilities of other existing professionals.
- b. The MOA will have increased its permanent data handling capability through computer availability, data storage and retrieval capacity, and trained personnel on board.
- c. The MOA will have significantly augmented its general management and specialized training systems capacities.
- d. The MOA will be using the information from the equipment, personnel and systems improvements made under the project in designing sound plans and policies to benefit the rural/agricultural sector in general and small farmers in particular.
- e. The MOA will have an increased capacity to conduct needed agricultural surveys.

IV PROJECT COMPONENTS

A. Training

<u>AID</u>	<u>GOJ</u>	<u>TOTAL</u>
\$682,700	\$286,470*	\$969,170

The project will provide training in the following areas:

- data collection for field enumerators;
- data management for the parish (Senior Data Collection Officer) and region (Chief Data Collection Officer);
- data processing for the Data Bank and Evaluation Division central staff;
- data analysis for the Planning and Policy Review Division;
- training administration for the Training Division.

1. For Data Collection, Processing and Management

<u>AID</u>	<u>GOJ</u>	<u>TOTAL</u>
\$403,400	\$149,375*	\$552,775

The MOA Data Bank and Evaluation Division (to become the Planning & Evaluation Division under a new MOA reorganization) presently consists of forty-seven personnel (including twenty-six field enumerators), only ten per cent having been in the unit over two years. Their experience in data collection and management has been limited to their time in the Data Bank. With the exception of the Division Director, none of the staff are trained in data collection and management. The staff of twenty-six field enumerators provides for two enumerators per parish, one per 7,700 farmers or 60,000 acres of cultivated land. A work load of this magnitude limits effectiveness. This project will assist the Data Bank to overcome its deficiencies in three areas:

* Includes the cost of air fares and salaries for personnel in training as an indicator of GOJ total input into training. While salaries for training periods are included in the totals here, to avoid double counting, they are not reflected elsewhere in the Training Component figures. They are included as part of the project personnel costs in the financial plan, (Tables 6-8, pp 6f-i, Project Sub-Component

(1) lack of training, (2) shortage of staff, and (3) lack of mobility (the transportation problem will be addressed under Component C.- Commodities) for the field enumerator staff.

a. Training for the Data Bank staff will be achieved by:

- short formal courses conducted in-country, primarily by external technical assistance, to improve data collecting capabilities. The field enumerator staff, as well as the supervisory levels of senior and chief data collection officers, will be trained in area-frame sampling and other supportive collection techniques;
- medium and long-term formal training conducted primarily outside of Jamaica to (a) up-date skills of mid-level management in data management and processing, as well as improve their ability to supervise staff specialists, and (b) upgrade skills of four staff systems analysts and programmers.

b. To carry out this project, the GOJ needs to increase the Data Bank staff to the following levels:

Field Enumerators - An additional thirty-nine will be recruited by the GOJ. The present staff of two enumerators per parish allows only limited sampling in completion of regular quarterly crop production surveys. Technical assistance under the USAID PASA with the U.S. Bureau of the Census has indicated that utilization of improved area frame sampling techniques will require that the sample size be increased 150% to five enumerators per parish.

The training component will facilitate recruitment of relatively untrained personnel who can be brought into the Data Collection Unit and develop a useful skill. This recruitment will increase the field enumerator total to 65; 5 per parish, one enumerator per 3,100 farmers, or one enumerator per 23,000 cultivated acres. Training of the field enumerators, in conjunction with the transfer of all data collecting responsibilities from the area extension officer to the Data Bank field enumerator staff, and the increased number of enumerators, will increase the reliability of agricultural data because:

- the field enumerator will be trained in area-frame sampling, and other data collection techniques;

- data collection will be his/her one and only responsibility, with training and qualified supervision to assist him/her in becoming a specialist.
- the field enumerator will not be reporting on himself/herself; i.e., the information conveyed by the data he/she collects will not reflect positively or negatively on other components of the field enumerator's work, as is presently the case when Area Extension Officers are used in the collection of production data.
- the senior data collection officer in each parish will be responsible for spot checking reported data and assisting field enumerators to perfect their data collecting capabilities.

Senior Data Collection Officers - An increased number of agricultural surveys resulting in extensive data amalgamation require that thirteen new positions be recruited at the parish level, one for each parish, with responsibility to: (1) oversee the work of the field enumerators assigned to the parish; (2) assist in the designation of areas for coverage by area-frame sampling; and (3) spot check the data collector's work for accuracy and completeness. Although he/she will serve as a data resource person to the parish manager's staff, the Senior Data Collection Officer will report directly to the Chief Data Collection Officer at the regional level.

Chief Data Collection Officers - Four positions will be recruited at the regional level, one to be posted in each of the agricultural regions with responsibility to: (1) oversee the work methodology of Senior Data Collection Officers and field enumerators; (2) verify individual field enumerator's field collections in conjunction with the Senior Data Collection Officers and (3) participate in the training of data collection personnel within the region. Each Chief Data Collection Officer will also be coordinating with a German Volunteer Society program coming on-stream at the regional level and below in 1979 and a Dutch program of regional planners. Under the former project, a Farm Records Analyst will be assigned to each regional staff to establish a system for assisting small farmers to develop and maintain on-farm accounting

records. The establishment of an adequate record system at the farm level will contribute positively to this project by helping to ensure the reliability of the data field enumerators collect.

- c. To upgrade data processing capabilities, an IBM System 34 computer will be installed in the central office and connected to the IBM 370-125 computer in the Central Data Processing Unit of the Ministry of Finance (See Component C - Commodities). The effective utilization of this new equipment, supporting system, and personnel, require that relevant training be provided for the entire associated staff.

The shortage in Jamaica of adequately trained data processing personnel necessitates training as follows for the existing and new staff of the Planning and Evaluation Division as well as related personnel to assure proficiency in their assigned responsibilities:

- for 8 systems analysts, programmers, and data entry technicians in the new hardware/software. IBM training resources will be utilized to the maximum extent possible. Formal classroom training and carefully monitored self-study courses will be utilized. At least two people from the Central Data Processing Unit, Ministry of Finance, will be included in all training on MODA equipment to be interfaced with Central Data Processing Unit equipment to facilitate coordination in efforts by these two units.
- for 6 systems analysts and programmers in systems analysis, FORTRAN IV, and mathematical and statistical software packages. Course sources will be the University of the West Indies, IBM, and the U.S. Bureau of the Census.
- for 30 statisticians in mathematical and statistical software packages, to familiarize them with the types of packaged routines available, and to develop skill in writing specifications for use by programmers.

Long-term training, especially that to be conducted outside Jamaica, will be deferred until the new data processing organization personnel and equipment are functioning and some of the unit's major applications are underway.

The cost breakdown, excluding training time salaries, for training in the data collection, processing and management areas is as follows:

(US\$000)

	Year 1		Year 2		Year 3		Year 4		Year 5		TOTAL	
	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ
Collection	72.	-	45.4	.32	45.4	.32	14.4	-	-	-	177.2	.64
Processing	4.8	-	74.4	.96	42.	.64	42.	.64	-	-	163.2	2.24
Management	-	-	21.	.32	21.	.32	21.	.32	-	-	63.0	.96
	76.8	-	140.8	1.6	108.4	1.28	77.4	.96	-	-	403.4	3.84

2. For Data and Policy Analysis

<u>AID</u>	<u>GOJ</u>	<u>TOTAL</u>
\$63,000	\$44,535*	\$107,535

Analysis by the MOA Board of Management indicated a need for a reorganization within the Ministry to combine the Planning and Policy Review Division and the Data Bank and Evaluation Division into one new unit - the Planning and Evaluation Division. The implementation schedule for this reorganization is for the first half of 1979. The expected benefits from the reorganization are:

- improved coordination between the policy analysis branch (as a consumer of data) and the data collecting and processing branch (as the data supplier); and,
- more rapid availability of raw data to the analytical branch staff, eliminating the need for it to wait to utilize the same data until it is available in finished printed form.

To date, data analysis for project development has not been an institutional responsibility of any unit within the MOA. This responsibility is to be exercised by the Planning and Policy Review Division, which has primary responsibility for project development. Each of the fourteen members of the professional staff

* See footnote to IV. A.1.

within the Planning and Policy Review Division has had very limited experience in project development. Moreover, the paucity of reliable and relevant data, combined with inadequate analytical capability, constrains project planning and implementation.

For similar reasons, policy analysis is ineffective. Utilization of current data and up-to-date analysis will be made possible through acquisition of computer equipment and training. The staff of the Planning and Policy Review Division have had limited exposure to rudimentary procedures in econometrics and computer technology. However, the MOA has accepted the validity of recommendations for further training and technical assistance in these areas as proposed by the U.S. Bureau of the Census and by the Gast Report (Annex C). Training for the professional staff of the Planning and Policy Review Division requires utilization of overseas courses at universities supplemented, where possible, with instruction available locally.

Overseas Training - The four member policy analysis staff plus two other persons from the data analysis and planning staff will be enrolled two at a time, in a program on data, policy and planning, analysis and projections. The ability to utilize basic economic model-building, linear programming and simulation techniques will be acquired. To facilitate the rapid application of these new analytical techniques, participants will simultaneously enroll in computer science courses to develop familiarity with the capabilities of the IBM system.

The assignment of technical assistance to the Planning and Policy Review Division will be coordinated with this overseas training schedule so that the foreign advisor arrives approximately twelve months after the first participant training has been initiated. In this way, the one person-year of technical assistance will allow an advisor to commence working with two fully-trained participants, with other participants returning from overseas training during the advisor's tour of duty. Official responsibilities of those participants involved in training will be fulfilled through redistribution to remaining Division personnel. The training expense schedule, excluding training time salaries, will be as follows:

Data & Policy Analysis (Overseas)	Year 1		Year 2		Year 3		Year 4		Year 5		TOTAL	
	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ
	21	.64	21	.64	21	.64	-	-	-	-	63	1.92

3. For the Training Division

<u>AID</u>	<u>GOJ</u>	<u>TOTAL</u>
\$216,300	\$92,560*	\$308,860

Requirements for upgrading the MOA Training Division are numerous and were discussed in the December 1978 Hiemstra/Doll Report, "Training Needs and Capabilities of the Jamaican Ministry of Agriculture," (Annex B). Those needs addressed by this project are:

- training to upgrade staff professional skills;
- technical assistance (see Component B) in the areas of implementing and analyzing personnel skills inventories; selection and utilization of audio-visual equipment; establishment of organized training schedules; and,
- limited upgrading of the physical facilities at three of the four training centers maintained by the MOA (see Component C).

Long Term Training

The Training Unit consists of ten persons, five of whom are professionals. As recommended in the Hiemstra/Doll report, this staff will be bolstered through recruitment of additional professional personnel to function as specialists in training administration in order to implement an effective agricultural training program. It is not their primary assignment to perform actual training. They are charged with the responsibilities to (a) evaluate MOA training needs and determine those which can be implemented by locally available resources, (b) determine relevant training opportunities abroad and seek the enrollment of appropriate MOA personnel, (c) locate and have available the specialists within and without the MOA necessary to provide local training in requisite specialties, and (d) maintain and operate the four training centers owned by the MOA.

The varied educational and experience backgrounds of the training staff have not prepared them for efficient functioning in training administration (Annex B, Page 29). There is need for the training staff to receive substantial exposure to, and develop skills in, the fields to which they have been assigned. The Hiemstra/Doll report (page 30, Annex B) strongly recommended that adequate

* See footnote to IV, A.1.

skill development in training administration would be accomplished best through the successful completion of a Master's degree or equivalent training program by each of the professional staff attached to the Training Division. Implementation of this recommendation for the eight staff professionals will require commencement of training for two persons in each year of the project.

Optimally, the Training Division staff should be supervised by one or more Ph.D level personnel. Given the present stage of development in Jamaican agriculture and MOA staff personnel, the use of M.S. degree or equivalent level personnel with core skills in training administration will temporarily suffice. Of the U.S. schools presently offering less than a terminal degree in training administration, only seven offer a Master's Degree or equivalent program and there are none offering courses in a non-degree program.

To assist in the identification of training needs, the Hiemstra/Doll report recommended that it will be necessary to appoint liaison officers. These liaison officers will be identified by the regional directors along with the parish managers, with one person on each parish manager's staff to serve as liaison with the Training Division. These liaison personnel will receive local training by project technical assistance regarding their responsibilities to:

- coordinate the needs assessment activities; and
- identify training requirements peculiar to their respective regions.

To complete the immediate training needs of the Training Division, short-term local courses will be conducted by technical advisers furnished through this project. Component B.1. discusses these needs regarding skills evaluation techniques and general management principles.

The training expense schedule (excluding training time salaries) is:

(US\$000)

	Year 1		Year 2		Year 3		Year 4		Year 5		TOTAL	
	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ
Master's Degree program or equivalent (overseas)	16.5	.64	49.5	.64	49.5	.64	49.5	.64	33	-	198	2.5
Evaluation (local)	3.9	-	-	-	-	-	-	-	-	-	3.9	-
Management (local)	14.4	-	-	-	-	-	-	-	-	-	14.4	-
TOTAL	34.8	.64	49.5	.64	49.5	.64	49.5	.64	33	-	216.3	2.5

Upon completion of this training component, the MOA will have staff available within the training, data collection, analytical and planning units capable of absorbing and utilizing technical assistance and commodity components of this project to:

- collect and analyze agricultural data to understand the position and needs of the small Jamaican farmer;
- plan and implement relevant agricultural projects, effectively absorbing foreign donor assistance;
- develop and implement a training program that will satisfy current and future needs; and,
- evaluate existing projects to improve future performance.

The total training component budget (excluding training time salaries) is:

(US\$000)

	Year 1		Year 2		Year 3		Year 4		Year 5		TOTAL	
	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ
Data Collection Processing & Management	76.8	-	140.8	1.6	108.4	1.28	77.4	.96	-	-	403.4	3.84
Data & Policy Analyses	21.	.64	21.	.64	21.	.64	-	-	-	-	63.	1.92
Training Administration	34.8	.64	49.5	.64	49.5	.64	49.5	.64	33.0	-	216.3	2.56
TOTAL	132.6	1.28	211.3	2.88	178.9	2.56	126.9	1.6	33.0	-	682.7	8.32

The USAID/Jamaica training component contribution to the Agricultural Planning Project will provide training in:

- data collection for field enumerators;
- data management for parish and regional officials;
- data processing for central office staff;
- data analysis for the Planning and Policy Review Division staff; and
- training administration for the Training Division staff.

The GOJ contribution includes the cost of international travel air fares for training participants. (See footnote IV A.1.)

The Hiemstra/Doll report included an extensive list of recommendations for improvement of the MOA Training Unit's capacity to fulfill its assigned responsibilities. A substantial portion of the report's recommendations will be implemented through this agricultural planning project. The only major recommendations not addressed herein pertain to (a) long-term construction of new training facilities at yet-to-be-built regional office centers, (b) specific training for MOA staff in the areas of research and the cooperatives movement, and (c) the establishment of a professional training publication and organization within Jamaica. Implementation of these latter

recommendations will be postponed until (a) there is an improvement in GOJ resource availability, and (b) the MOA Training Unit is upgraded and capable of implementing the requisite courses. The Hiemstra/Doll recommendations not implemented in this project were evaluated and deemed not essential to successful implementation of the project goal and purposes. They may be implemented through other projects at a later date.

B. Technical Assistance

<u>AID</u>	<u>GOJ</u>	(7.25 person-years)
\$673,750	-	

1. For the Training Division (\$370,000 - 4 person-years)

Prior to expenditure of funds for any overseas or domestic training by the project, a condition precedent will be the completion of a skills inventory of the MOA, particularly for personnel of the Planning and Policy Review Division and the Data Bank and Evaluation Division. The Training Division, in coordination with the Data Bank, will conduct this skills inventory.

Upon completion of the skills inventory, technical assistance will be provided to evaluate the Training Division's skills inventory and help make recommendations for personnel training needs. Technical assistance during the first year of the project will also be required to standardize the needs assessment process utilizing the computer. Thus, initial technical assistance will concentrate on refining skills inventory techniques and developing evaluation skills within the Training Division staff.

Also, during the first year of the project, a specialist will be needed to assist and train in the selection and utilization of audio-visual training aids. The Training Division personnel and the training center managers will require this assistance to become familiarized with the range of training aids and equipment available and their application. At present, the four training centers contain no basic projection or display equipment. Although used extensively, the facilities are not conducive to learning or to teaching. The advisor will contribute to a determination of requirements for upgrading the training facilities at Eltham, Twickenham Park and Smithfield centers for an effective use of audio-visual equipment.

An advisor in training administration will also be needed for three and one-half of the first four years of the project. This advisor will serve as team leader for all technical assistance provided under this project. In addition, the advisor will assist in these areas:

- evaluation of the skills inventory;
- establishment of management systems appropriate to the requirements of a central training office in agriculture;
- short-term training courses for MOA project and divisional office managers to forecast unit training requirements;
- evaluation of existing general management courses offered within the GOJ civil service system to determine effectiveness and relevancy; and
- planning and implementation of a centralized learning resource center wherein training staff will have access to materials for self-development in their specialty.

A total of four person-years of technical assistance will be provided to the Training Division by the project. The schedule and budget for this technical assistance are:

(Years)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Evaluation methodology	---					.25
Audio-visual aids	-	-				.25
Training Administration	<hr/>					3.50
TOTAL						4.00

(US\$000)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Evaluation Methodology	18.75	-	-	-	-	18.75
Audio-visual aids	6.25	12.5	-	-	-	18.75
Training Administration	47.5	95.0	95.0	95.0	-	332.5
TOTAL	72.5	107.5	95.0	95.0		370.0

2. In Data Collection, Processing and Management

(\$208,750 - 2.25 person-years)

The major constraint of the entire data management system is at the initial data collection level. At present, three different organizations within the GOJ are responsible for the collection of raw agricultural data:

- Area Extension Officers, within the Production Unit of the MOA, collect crop production data on a monthly basis;
- Field Enumerators of the Department of Statistics in the Ministry of Finance carry out the Agricultural Census, presently done once every ten years.
- Field Enumerators of the Data Bank and Evaluation Division in the MOA collect crop production data on a quarterly basis, as well as data for other studies and surveys.

All field enumerators are hampered by inadequate training and transportation and a shortage of travel allowance funds. The uncoordinated collection of limited data of questionable accuracy has been the result.

The Data Bank has responsibility for collecting data in the following regular surveys:

- Quarterly Crop Production Survey
- Annual Pig Census
- Survey of Agricultural Machinery and Buildings

- Crop Production Forecasts
- Inland Fisheries Production and Price Statistics
- Evaluation Data for all MOA projects

If the Planning and Policy Review staff is to fulfill effectively its responsibilities in data and policy analysis, there is an urgent need for surveys to furnish current socio-economic views of the agricultural sector. Even if the Agricultural Census could be repeated every five years, effective policy analysis will require the implementation of new annual surveys in the areas of farm income, employment/underemployment by parish, etc.

Refinements in policy analysis also will increase the number and scope of surveys required, examples of which may include: eradication or control of animal or plant diseases; cost effectiveness of alternative approaches to water management; demand studies for non-traditional agricultural exports; probable effects of introducing new plant or animal species into Jamaica; environmental impact analyses, etc.

Technical assistance to the data collection and management staff will be implemented after the new data processing organization personnel are in place. An advisor is needed to assist the data collection staff at the field enumerator, parish and regional levels to refine and apply area-frame sampling techniques acquired in formal training. The advisor will coordinate evaluation of existing surveys with Data Bank and Evaluation Division and Planning and Policy Review Division officials.

Technical assistance also will be required by the data processing personnel of the Data Bank central office for fifteen person-months to facilitate application of techniques acquired through formal training in the following areas:

- for the eight systems analysts, programmers, and data entry technicians having participated in training courses on the new computer hardware/software;
- for the statisticians trained in writing program specifications; and,
- for the clerks and management persons who have responsibility for the establishment and maintenance of a data bank library and relevant systems.

The 2.25 person-years of technical assistance for data collection, processing and management provided by the project will be as follows:

Short term: 1 x .25 person years
 Long term: 2 x 1 person years

The schedule and budget are shown in the following tables:

(Years)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Survey Methodology		—				1.0
Systems & Programming	—	—				1.0
Library Systems		—				0.25
TOTAL						2.25

(US\$000)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Survey Methodology	-	95.	-	-	-	95.
Systems & Programming	47.5	47.5	-	-	-	95.
Library Systems	-	18.75	-	-	-	18.75
TOTAL	47.5	161.25	-	-	-	208.75

3. In Data and Policy Analysis

(\$95,000 - one person-year)

A long-term advisor will be assigned to the Planning and Policy Review Division for one person-year to assist that staff with the practical application, within Jamaican agriculture, of techniques formally acquired through overseas training. The advisor will also assist in the preparation of upcoming training participants to enhance their capacity to benefit from overseas training.

The advisor's scheduled arrival during the second year of the project will permit Planning and Policy Review Division personnel to take maximum advantage of their experience. (Two participants will have returned from training.) In addition to being versed in data and policy analysis within the agricultural sector, the advisor must also possess working ability in demand analysis and projections, as well as have experience in basic computer technology.

The advisor will also assist in data analysis techniques at the regional level in the MOA planning process. The MOA is currently recruiting four Project Analysts, one for each of the four agricultural regions, as Regional Project Planners. This decentralization of planning efforts will institute micro-planning (focusing on individual projects) at the regional level while retaining macro-planning (general direction of the economy) in the MOA central offices. The Chief Data Collection Officers, added to each region through this project, will be a source for necessary data. Technical assistance in data analysis will promote the planning skills and expand capacity of planners to function at the regional level.

The MOA establishment of decentralized project planning is partially attributable to the success of the USAID/GOJ National Planning Project. Through the National Planning Project, monthly project profile preparation courses have been conducted for parish and regional personnel, demonstrating to MOA officials that project planning capability can be acquired by, and does exist in, regional and lower level personnel.

The technical assistance schedule and budget are as follows:

(Years)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Data & Policy Analysis						1.0
TOTAL						1.0

(US\$000)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Data & Policy Analysis	-	95	-	-	-	95
TOTAL						95

The overall technical assistance schedule will be as follows:

TECHNICAL ASSISTANCE SCHEDULING

Long term - 6.5 person-years
 Short term - .75 person years

(Years)

	Year 1	Year 2	Year 3	Year 4	Year 5
Evaluation Methodology	---				
Audio-visual Aids	---	---			
Training Administration	-----	-----	-----	-----	-----
Survey Methodology		-----			
Systems & Programming	-----	-----			
Library Systems		-----			
Data & Policy Analyses		-----			

The total technical assistance budget will be as follows:

(US\$000)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Evaluation Methodology	18.75	-	-	-	-	18.75
Audio-visual Aids	6.25	12.5	-	-	-	18.75
Training Administration	47.5	95.	95.	95.	-	332.5
Survey Methodology	-	95.	-	-	-	95.
Systems & Programming	47.5	47.5	-	-	-	95.
Library Systems	-	18.75	-	-	-	18.75
Data & Policy Analysis	-	95.	-	-	-	95.
TOTALS	120.00	363.75	95.	95.	-	673.75

C. Commodities

<u>AID</u>	<u>GOJ</u>	<u>TOTAL</u>
\$392,800	\$194,030	\$586,830

i. To Upgrade Training Centers

<u>AID</u>	<u>GOJ</u>	<u>TOTAL</u>
\$97,750	\$160,000	\$257,750

Physical Facilities:

<u>AID</u>	<u>GOJ</u>
-	\$160,000

The MOA currently owns and operates four training facilities managed by the Training Division: Eltham in Ocho Rios, St. Ann; Twickenham Park in Spanish Town, St. Catherine; Canaan in Sturton, St. James; and Smithfield in Hanover. The facilities were constructed and put into use between 1965 and 1977. They are used extensively for short and medium term training courses for farmers and government employees.

Each training center has one classroom, approximately thirty by forty feet in size, while Twickenham Park has an additional room equipped as a kitchen for use in the Home Economics training program. Spartan living quarters are included in each center to accommodate trainees during residential courses of a duration of more than one day. Meals and lodging are provided to trainees in lieu of per diem. The boarding capacities are as follows:

Eltham	- 42 persons, dormitory style
Twickenham Park	- 26 persons, dual occupancy rooms
Canaan	- 26 persons, dormitory style
Smithfield	- 18 persons, dormitory style

The combined operational budget for the four training centers has been equivalent to \$170,000 per annum, with no allowance for capital improvements. MOA officials expect this budget allotment to continue at the present level.

The Canaan Training Center is presently undergoing a complete renovation and enlargement of facilities. This is being financed by the Netherlands Government through a loan equivalent to \$300,000. Due to inadequate planning, the loan to upgrade facilities includes no audio-visual equipment or teaching aids.

The requirements for upgrading the facilities will differ at each training center. The MOA will conduct a detailed survey of the three centers to be improved to determine specific requirements. This survey will be coordinated with the training aids advisor's survey.

Audio-Visual Aids:

<u>AID</u>	<u>GOJ</u>
\$97,750	-

At present, the four training centers contain no basic projection, display or other audio-visual equipment. Equipment consists of old, rusted metal table top chairs and over-used, scarred chalkboards. The equipment facilitates neither learning nor teaching. Appropriate training aids to be determined by the audio-visual training aids specialist and Training Division personnel will be installed in each of the four training centers. Each center will be equipped with its own set of audio-visual equipment because of: (1) constant use of each center, (2) the distance between each center and the central offices of the Training Division, and (3) relative isolation of each training center.

2. Transportation

<u>AID</u>	<u>GOJ</u>
\$143,750	-

The transportation constraint for field enumerators is acute. In order to address this constraint in a cost-effective manner, trailbikes for sixty-five field enumerators will be procured.

Trailbikes are necessary given the mountainous terrain in Jamaica and the off-highway driving required for data collection in typical agricultural areas. The advantages of trailbikes are:

- (a) the gear ratio, which is lower than that for a regular motorcycle;
- (b) its tires are designed to provide traction in a variety of non-highway conditions; and
- (c) frame configuration provides for increased road clearance, permitting travel over rocky areas and shallow streams, both of which are abundant in rural areas of Jamaica.

Each field enumerator will be given the opportunity to enter into an individual legal agreement with the MOA for obtaining transportation under the procedures currently used by the MOA for individual acquisition.

- (a) The project will initially supply 65 trailbikes of approximately 150 cc engine size, with limited spare parts, for purchase by the field enumerators, at cost, interest free, but including the cost for mandatory insurance coverage.
- (b) Spare parts will be handled by the regional equipment maintenance and repair unit of the MOA.
- (c) Monthly payments will be withheld from the field enumerator's salary by the MOA, to effect total repayment by each individual enumerator within a two-year period.
- (d) The monthly repayments will be deposited in a revolving fund to be used solely for the purchase of new trailbikes when necessary to facilitate project implementation.
- (e) Until repayment is completed, the MOA will retain title to each trailbike. Upon completion of repayment, the trailbike will become the property of the field enumerator.
- (f) During the period of employment, the MOA will pay established travel allowances to the enumerator, and the enumerator will be responsible financially for all maintenance and repairs.
- (g) In the event an enumerator voluntarily or involuntarily relinquishes employment related to the project, he will concurrently relinquish possession of the trailbike without refund of past purchase payments as compensation for depreciation, or will immediately pay the remaining balance owing in one lump sum.

Five four-wheel drive vehicles and three regular sedans will be purchased through the project. Four of the four-wheel drive vehicles will be assigned to the regional level chief data collection officers to facilitate implementation of the project. The remaining four vehicles will be required at the Data Bank and Evaluation central office to facilitate:

- (a) central office coordination of survey methodology utilized in the field;
- (b) transportation for technical advisors and central office personnel involved in training of field-oriented data collection personnel;
- (c) official transportation for technical assistance personnel required in the project; and,
- (d) movement of raw data and finished products between the MOA, the Central Data Processing Unit, and official organizations utilizing printed versions of survey results.

The transportation expenses will be as follows:

(US\$000)

	AID	GOJ
65 Trailbikes	62.1	-
5 Four-Wheel Drive Vehicles & Spares	57.5	-
3 Sedans & Spares	24.15	-
TOTAL	\$143.75	-

3. Computer Hard/Software Requirements

<u>AID</u>	<u>GOJ</u>	<u>TOTAL</u>
\$151,300	\$33,830	\$185,130

Equipment

<u>AID</u>	<u>GOJ</u>	<u>TOTAL</u>
\$151,300	\$33,830	\$185,130

Computer hardware in the form of the IBM System 34 will be installed at the Data Bank Division of the MOA, with hook-up to the Ministry of Finance computer functioning in the Central Data Processing Unit. The MOA has determined that this equipment is requisite to satisfactory fulfillment of its official responsibilities. The GOJ Electronic Data Processing Steering Committee has certified that installation of the IBM System 34 will not create a redundancy in computer facilities. (See Annex E)

The Gast-SER/DM report of December 8, 1978, recommended the IBM System 34 hardware/software configuration as outlined in Annex C. The System 34 is a remote job entry terminal with three entry stations and display screens, capable of computerizing small job applications. For large applications the raw data must be fed through the link-up with the Central Data Processing Unit for processing there. The System 34 will be rented with an option to purchase after one year. Support for this decision is stated in Section V.C., "Financial Analysis of Computer Costs."

The IBM System 34 has been announced in Jamaica and maintenance will be available upon installation. The Gast report outlined the advantages of the System 34 within the context of MOA use as follows:

- system configuration can support three users at a time, with possibility for expansion to eight users;
- the system provides sufficient main storage and supplemental disc storage to meet present needs of the MOA in processing preliminary surveys, with an allowance for expansion of capacity when required;
- all input data is entered through the display stations directly into the system for on-line validation.

Material support for the System 34 will require the MOA to procure installation of telephone cable hook-up with the Central Data Processing Unit computer. Air conditioning for the Data Bank offices, as well as a back-up generator system at the MOA and again at the Ministry of Finance, are required and will be financed by the grant.

Utilization of the System 34 will require the implementation schedule to allow eight months for lead time. The budget will be as follows:

(US\$000)

	Year 1		Year 2		Year 3		Year 4		Year 5		TOTAL	
	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ
IBM System 34	33.3	-	32.	-	32.	-	32.	-	-	32.	129.3	32.
Telephone cable	-	.366	-	.366	-	.366	-	.366	-	.366	-	1.4
Air conditioning	12.	-	-	-	-	-	-	-	-	-	12.	-
Generators, etc.	10.	-	-	-	-	-	-	-	-	-	10.	-
TOTAL	55.3	.366	32.	.366	32.	.366	32.	.366	-	32.366	151.3	33.4

Staffing Requirements: The data processing unit within the Data Bank is inadequately staffed to utilize the computer hardware/software outlined above and perform in the responsibilities assigned by the MOA. There is only one full-time programmer with five other employees capable of programming but who are working primarily as statisticians. The data processing staff will be brought to the following strength:

Position	No. of Personnel
Data Processing Manager	1
Senior Systems Analyst	2
Senior Programmer	1
Journeyman Programmer	2
Data Entry Technicians	2
Clerk-Typist	<u>1</u>
TOTAL POSITIONS	9

Experience in Jamaica has verified that MOA salaries are not competitive with the private sector, and, therefore, there is much difficulty in hiring and retaining data processing personnel. In an effort to alleviate this situation, the MOA, the Ministry of the Public Service and the GOJ have worked out a plan to upgrade the salaries of positions in the data processing field to a level competitive with the private sector. The GOJ Cabinet has approved a set of guidelines which allow, where necessary, for payment of higher salaries to public service personnel associated with foreign donor assisted projects. (See Annex G)

The total commodities budget will be as follows:

(US\$000)

	Year 1		Year 2		Year 3		Year 4		Year 5		TOTAL	
	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ	AID	GOJ
Training Centers	97.75	160	-	-	-	-	-	-	-	-	97.75	160.
Transportation	143.75	-	-	-	-	-	-	-	-	-	143.75	-
Computer Hardware/ Software	55.3	.366	32.	.366	32.	.366	32.	.366	-	32.366	151.3	33.8
TOTALS	296.8	160.366	32.	.366	32.	.366	32.	.366	-	32.366	392.8	193.8

V. PROJECT ANALYSES

A. Technical/Administrative Feasibility

One of the major problem areas faced by the GOJ in the achievement of its policy objective of improved standards of living through agricultural productivity has been the effective use of resources - capital, land and people. This includes the inability to move at a desired rate to improve institutional capability in the analytical, planning and implementation of projects to cope with rapidly changing domestic and world economic conditions. This situation in turn emphasizes the need for timely and relevant production and marketing information to the rural poor, the lack of which tends to lock them - particularly small farmers - into a circle of low incomes and poor living standards.

This Agricultural Planning Project addresses this problem of inadequate institutional capability in the MOA. The project is technically feasible for the following reasons:

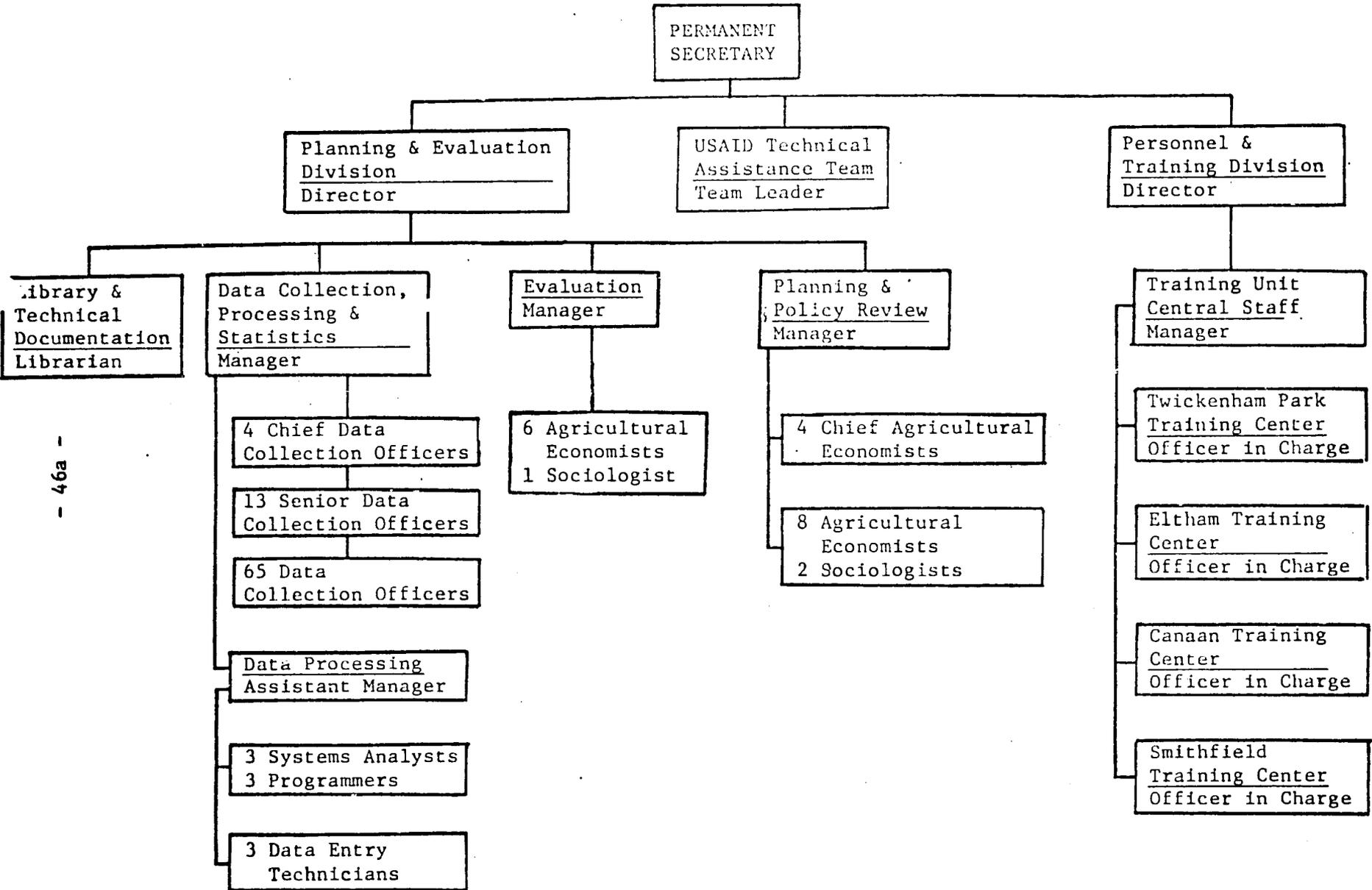
1. Project Organization

In 1975 the Management Services Division of the Ministry of the Public Service reviewed the structure of the MOA and recommended major organizational changes. The report found that the planning, staffing and control functions of the Ministry needed strengthening. It also found that program and project implementation was ineffective because the MOA did not have organizational control of major services such as irrigation, drainage and extension. Most important, the farmer was not being reached.

Most of these ministerial recommendations were accepted and the formal reorganization became effective in April 1977. Essentially, the reorganization placed the training, planning, data storage, and overall control in MOA headquarters, while implementation of agricultural production and rural development programs was decentralized. A further refinement of the MOA reorganization has been approved by the Cabinet and the Ministry of the Public Service, to be implemented in 1979, which will enhance coordinated implementation of the project components. The Planning and Policy Review Division and the Data Bank and Evaluation Division will be amalgamated into the new Planning and Evaluation Division with four branches:

- Data Collection, Processing and Statistics
- Planning and Policy Review
- Evaluation
- Data Library

PROJECT ORGANIZATION



This Agricultural Planning Project will be under the direction of the MOA Permanent Secretary, with implementation coordinated by the Project Committee consisting of the Director of the Training Unit, the Director of the Planning and Evaluation Division, and the technical assistance team leader. (See Organizational Chart #1) The project will, among other things, enable the necessary resources to be placed at the disposal of the MOA for timely and efficient implementation. This reorganization makes it possible for the output of the strengthened Planning and Evaluation Unit to be fed into all appropriate operations of the MOA.

The principal MOA units to participate in the project will be Data Collection, Processing and Statistics; Evaluation; Planning and Policy Review; (all of the above to be coordinated under the same GOJ divisional director) and the Training Division. Systems will be developed for training and analysis with regard to the special functions of each of these units, as well as improving the training capabilities within the Training Division.

2. Counterpart Personnel

Although the project requires an increase in the MOA staffing pattern, the counterpart personnel, for each technical advisor made available through the project, are already in place within the ministry as follows:

Area of Technical Assistance	MOA Counterparts
a. Training Division Evaluation Audio-Visual Training Administration	Evaluation Unit Manager Training Division Director and Staff Assistance, Officer-in-charge of each training center. Training Division Director
b. Data Collection, Processing and Management Survey Methodology Systems and Programming Library Systems	Manager, Data Collection, Processing and Statistics Unit Assistant Manager of Data Processing Librarian
c. Data and Policy Analysis	Manager, Planning and Policy Review Unit

Ministry of the Public Service and MOA personnel assignment policy and practice require candidates for each of the above counterpart positions to be holders of scholastic degrees equivalent to the Bachelor's Degree level. All personnel presently in place and designated as counterparts have surpassed this requirement and are capable of absorbing the training and technology transfer anticipated in this project. MOA officials assure us that information contained in job applicant resumes, and the present 24% level of unemployment in Jamaica, facilitate employment of additional requisite personnel qualified to absorb training as detailed in Section IV.A.

3. MOA Resource Availability

In addition to the human resource availability as discussed above under "Counterpart Personnel," MOA officials have pledged full support of the requisite resources to the project purpose and implementation methodology. The implementation schedule for renovation of physical facilities at each of the training centers included in this project will be coordinated with similar endeavors at the fourth training center, currently in progress by the Netherlands Government, to ensure availability of adequate space for all relevant training under the project.

A new wing is currently under construction at the MOA central office building and adequate space is being designated, within the central office, to properly house the computer hardware as well as to provide library facilities and staff offices for new MOA and technical assistance personnel.

a. Availability of Personnel to Receiving Training

The training of personnel covered in this project includes eight at the M.S. level degree in Training Administration, six in Policy and Planning, seven in Data Processing, and eighty-two in Data Collection.

(1) Master's Degree or Equivalent Training Sub-Component

The project calls for overseas training of eight persons to the M.S. degree level. Training for these persons has been predicated on possession of B.S. degrees or equivalent. Personnel with the necessary skills and prerequisites for this training have been identified from the current Training Division structure.

Positions	Status
Director	Incumbent B.Sc.
Deputy Director	Vacant
Five Training Officers	1 M.S. Ag. Ed. 1 B.S. Entomology 1 B.S. General Agriculture 3 Dip. Agriculture, Jamaica School of Agriculture 1 High School Graduate
Four Training Center Managers	4 Dip. Ag., Jamaica School of Agriculture

An additional five training officers are to be recruited over the next five years, one per year. The Deputy Director of Training and the five training officers to be recruited will all have minimum qualifications at the B.S. level. No difficulty is envisaged in recruiting these personnel because of the annual turn-out of graduates of this level from the University of the West Indies. Therefore, from the total complement of twelve Training Administration personnel, at least ten will be at a level of preparedness to absorb training at the M.S. Training Administration level.

(2) Data Collection Sub-Component

The effective implementation of this sub-component requires the services of four chief data collection officers, thirteen senior officers and sixty-five data collecting officers. Of these numbers, three chief data and twenty-six data collecting officers are already in place prior to development of this project. The minimum qualification of these personnel can be briefly stated as follows:

(a) Chief Data Collection Officers:

Tertiary level education with 2 years administrative experience.

(b) Senior Data Collecting Officers

G.C.E. with supervisory experience.

(c) Field Enumerators (Data Collection Officers)
G.C.E. and Jamaica School Certificate

There is at this time no shortage of personnel in these categories in Jamaica. Indeed, a large number of these types boost the unemployment figure to 24% of the work force. There will be no difficulties in building a team which can be adequately trained to perform in the requisite areas.

(3) Data Processing Sub-Component

Most of the staff for this sub-component are already on board. The notable exceptions are the Systems Analysts (2); Programmers (2) and a Data Processing Manager. These personnel will be recruited from graduates in Data Processing from the University College in Jamaica.

(4) Policy Analysis Sub-Component

Personnel required in this area are already employed at the MOA and possess at least a B.S. degree. The overall availability of personnel capable of absorbing the required training under the project enhances the feasibility of the project.

b. Retention of Trained Staff

Historically many ministries and programs have suffered from the outward movement of trained personnel. While no analytical studies are available on the reasons for the level of fall-out from these ministries, it is generally agreed that it derives from:

- low levels of salaries viz-a-viz private sector employees;
- the lack of committment by persons trained at the expense of the public purse or international donor assistance.

Given the level of fringe benefits and the security of tenure associated with public sector employment, if the levels of salaries (while not 100% competitive) were brought within a reasonable range of private sector wages, then there could be a significant reduction in the attrition rate. In order to address this problem, the GOJ in a recent Cabinet decision, has approved a more competitive salary scale for personnel employed

under projects receiving international donor assistance. These salaries are to be 25% higher than those existing for the same levels of operation in the relevant ministries. (See Annex G). Additionally, the project makes provision for training award incentives which will have the effect of further increasing the wages of people who have completed training abroad such that they remain and function in the areas in which specialized training has been received.

In addition, the Ministry of the Public Service has the following requirement that all persons receiving training under GOJ training grants are bonded to return to work in the area in which training was received for a period of between two to five years (dependent on the length and level of training). The bond (countersigned by three sureties) covers all costs, including salaries and air fares (where applicable).

The Ministry of the Public Service' requirement, combined with recent Cabinet decisions dealing with increased salaries and the training award incentives, will significantly reduce the probability of individuals not remaining with the Ministry after receiving training from project funds.

4. Agriculture Sector Coordination

The MOA organization is as presented in Chart 2. The broken lines indicate coordination and informational flows between the MOA, small farmers, and/or other ministries regarding project identification, approval and implementation.

The USAID/GOJ National Planning Project, jointly centered in the MOA and in the Projects Division, Ministry of Finance and Planning, established a system within the GOJ for identification, development, approval and implementation of projects. Establishment of that system within the MOA in 1978 promotes integration of the Training Division and the Data Collection, Processing and Statistics Division personnel into the main-stream of agricultural productivity, and assures utilization of their skills and expanded capabilities, developed through this Agricultural Planning Project. That system is described in the following paragraphs:

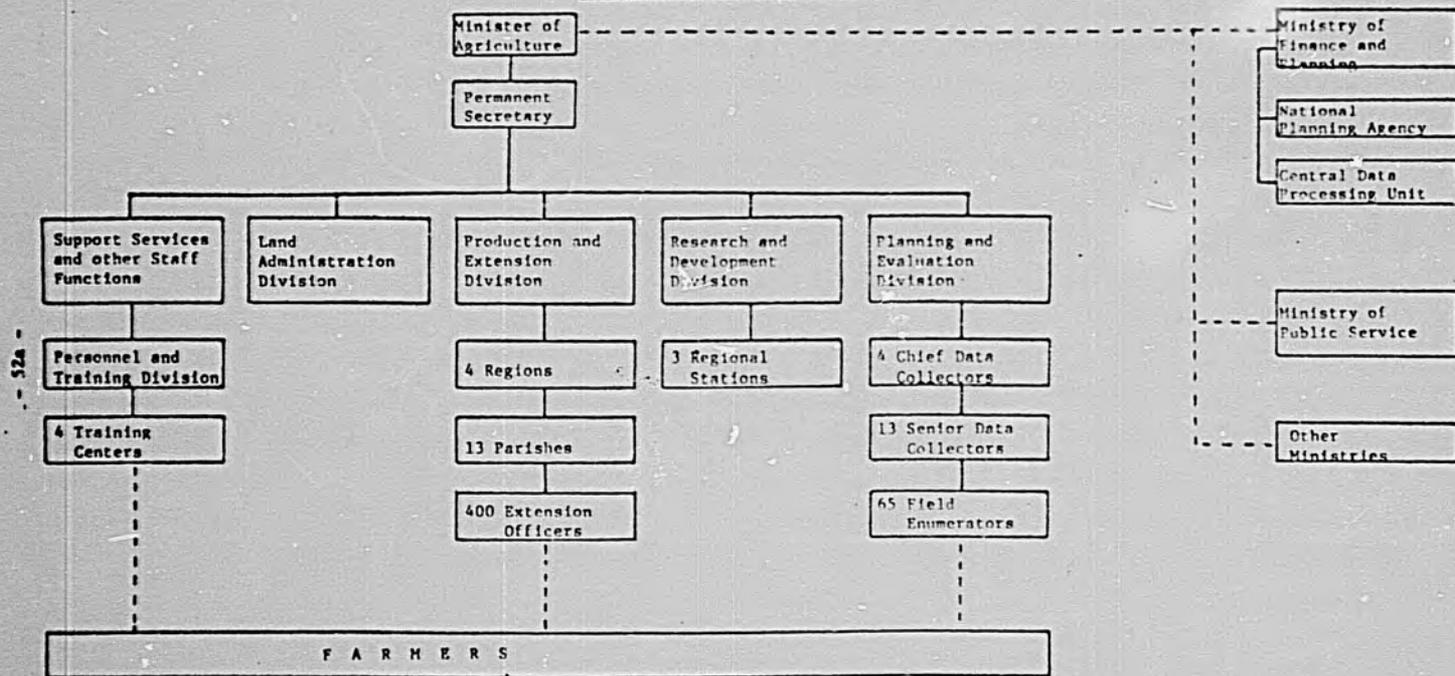
Raw agricultural data flows up from the farming community via the field enumerators and data management system for utilization in policy and project analysis at appropriate levels within the Ministry. This data will return to the farming sector through the Extension Officer system as planning, production and marketing guidelines. Descriptions of identified problem areas and possible project ideas flow upward from the farmers via the extension officer system. These flows of data and of project ideas are to be coordinated at two levels when the necessary staffing pattern and training are complete: i.e., at the regional director's staff level (by the Chief Data Collection Officer and the Regional Project Planner) and at the central government level (by the Planning and Evaluation Division Director and the Production and Extension Division Director). This coordinated flow and utilization of ideas and data actively support the Planning and Evaluation Division service unit posture.

The initial identification of project ideas and the formulation of project profile documents, (the GOJ equivalent of the USAID PID), pertaining to the small farm sector may take place at any level within the system, and then be forwarded into the Planning and Policy Review Unit for analysis, feasibility study, and prioritizing. In the case of small scale production projects at the small farm level, there may be situations where the MOA Project Approval Committee can finance such with resources internally available to the MOA and no further approval may be sought. In those cases regarding larger projects necessitating greater use of domestic resources, or international donor support, the system exists for MOA solicitation of Ministry of Finance and Cabinet approval and funding. In such cases, documentation for MOA approved projects is forwarded to the Projects Division in the Ministry of Finance for analysis, prioritizing and circulation to the appropriate central government ministries for policy and funding approvals. Approval at either the Ministry of Finance or MOA level puts in motion a flow of implementation activities, in the reverse direction, culminating at the farm sector level.

Thus, the system for utilization of the results of the Agriculture Planning Project does exist. Solution of the inadequate administrative capability and technical skills shortages addressed by this project will alleviate serious bottlenecks to the efficient functioning of the existing project identification, formulation, approval and implementation system.

Chart 2

AGRICULTURAL SECTOR COORDINATION



B. Economic Analysis

1. Economic Rationale

The major considerations that justify a special effort to accelerate the development of the agricultural sector are as follows:

- A large proportion of the population (over 50%) and of the country's poor (about 75%) live in the rural areas where productivity and wages are relatively low. According to government statistics, the average annual GDP per worker employed in agriculture is about one-fourth the national average.
- The agricultural sector has stagnated in recent years. Over the whole five-year period 1972-77, the contribution of agriculture, forestry and fishing to the GDP in constant prices increased by only 3.5%. Domestic agriculture increased by 14% while export agriculture declined by 27%.
- Jamaica remains a substantial food importer. In 1977, food imports absorbed J\$124 million of scarce foreign exchange resources, constituting 16% of total merchandize imports. Given the country's climate and soil, this dependence on food imports can be sharply reduced.
- Jamaica could and should be a significant exporter of agricultural and agri-business products. Given its proximity to the U.S. market, it should attempt to develop its potential to produce and export fruits, vegetables and flowers to the U.S. Its traditional exports - bananas and sugar - should at least be restored to their former level.
- The development of the agricultural sector should help slow rural-urban migration. Jamaica's urban population increased at an average annual compound rate of 3.3% during the decade of the 60s, which gave rise to a number of serious social and economic problems.

This project is designed to address one of the many inter-related obstacles that impede the development of the rural sector - the inability of the Ministry of Agriculture to collect and analyze the data required to plan, prepare and implement projects.

Examples of specific problems and deficiencies that can be related to shortcomings in the Ministry's ability to collect, process and analyze data, prepare projects and develop solutions are as follows:

a. Problems in Marketing Agricultural Products

Substantial losses are experienced in the production and marketing of agricultural products resulting, in part, from lack of information on demand, markets, export opportunities and plantings. Specifically, there is no reliable and timely information as to the amounts of the various crops demanded and the areas where the demand is strongest; and on amounts of the various crops that the farmers are planting. Hence, there is no adequate basis for estimating the likely prices for various crops.

As a result, agricultural production is a hit-and-miss affair. The farmers make decisions to plant without meaningful information with regard to the current state of the demand or the amount of plantings by other farmers. For example, in 1978 the government made available on soft terms J\$10 million for crop lien loans to increase production of a number of food items including onions, red peas, peanuts and corn. No production guidelines were provided. Farmers responded well on some items, resulting in over-production and significant price declines. The MOA feels that gluts, spoilage and losses could have been avoided or, at least substantially reduced, if good data had been available at the time the program was initiated.

Similar observations were made by spokesmen for the Agricultural Marketing Corporation (AMC). The AMC pointed out that (a) the marketing information that it has been getting from the Ministry of Agriculture is frequently erroneous and in conflict with the information that it has collected at the parish level. As a result of errors in estimating farm supplies, inadequate arrangements frequently have been made in arranging for transport and storage, which in turn resulted in poor prices, high storage costs and high spoilage rates; (b) the AMC sees excellent opportunities in the area of supplying locally produced fruits and vegetables to the hotels and to food processing plants. However, attempts to do so have been frequently defeated in the past by the AMC's (and farmers') inability of assuring a reliable supply. The AMC feels that improved data on

market supply and demand conditions would facilitate the development of markets for agricultural produce within Jamaica, thus helping to stimulate food production and increased farm income.

b. Forecasting Sugar Cane Production

As a result of insufficient data and training in the area of forecasting, the MOA has had difficulty with forecasting sugar production. The result has been poor planning of sugar sales (which should be done well in advance of the harvest), lower prices for part of the crop and the incurrence of high storage charges.

c. The Coffee Borer Problem

Jamaica is currently facing a major problem with the coffee borer, a serious infestation of the coffee plant. The government has been unable to quantify the extent of the danger: What acreage is involved? What acreage is threatened? What crop losses have already occurred? What is needed in terms of personnel, equipment and materials to combat the problem and how much would this cost? The MOA has not had the kind of personnel and equipment to conduct the surveys to answer these questions.

d. The Fruit Fly

The fruit fly represents another serious threat to some of Jamaica's crops, particularly mangoes. Substantial losses have already been experienced.- The GOJ is particularly concerned about loss to its high quality export varieties such as the Bombay and East Indian mangoes. Again, there is no reliable information with respect to the seriousness of the problem, the potential threat to exports and how much it would cost to control the spread of the pest.

e. Project Failures

A number of projects failed or could not be implemented as effectively as they should have been owing to deficiencies in the area of data collection and processing, or shortcomings in the area of project evaluation. Some examples follow:

- (1) The Food Farm Project: This project was conceived to increase domestic food output and employment by using government-owned land. The government was to employ farm workers

directly and manage the project itself. The project failed presumably owing to lack of proper planning and administrative capability.

- (2) Horticultural Development Project: This project is intended to capitalize on the potentially lucrative export markets for horticultural products. The MOA is now unable to proceed with the feasibility study owing to a shortage of expertise to collect and analyze the data needed for a market analysis. This deficiency is the major bottleneck that must be overcome before this project idea can be translated into an acceptable proposal.
- (3) Rehabilitation of the Vere (Clarendon) Area: This project is designed to provide irrigation in the drought-prone area of Vere and to promote crop diversification on sugar cane lands. The project, started in 1978, is behind schedule mainly because of deficiencies in the area of research, specifically in the area of identifying the effect of herbicides and fertilizers (traditionally used in the sugar cane plots) on the vegetables proposed for intercropping.
- (4) The Jamaica Sugar Estates Project: The objective of this project is to improve land utilization and promote the industrialization of the area. It is proposed to re-forest the hill slopes and develop small agro-industrial projects utilizing the wood. The project now needs personnel trained in collecting and analyzing socio-economic data to prepare the documentation required for the feasibility study.
- (5) The Five-Year Development Plan: A number of projects had been identified but the project documentation was not prepared, nor were proper implementation strategies formulated. National and foreign analysts investigating the problem have pointed to deficiencies in data collection and analysis as major problems in the area of project preparation. Training in the area of project preparation and implementation is provided under USAID's National Planning Project, which the proposed project will complement.

The specific deficiency in numbers and types of trained personnel in the data collection and analysis area is recapitulated as follows:

Function	No. Needed	Now Available
Training Administration	8	None
Data Collection	84	29 partly trained
Data Analysis for Project Preparation & Policy determination	21	2
Project Preparation	15	None

2. Benefit/Cost Calculation

The quantification of benefits is extremely difficult in an institution-building project. No overall estimation of the various benefits accruing from the project will be attempted here. However, we will try to develop a benefit/cost calculation on the basis of an estimation of the reduction in spoilage that could reasonably be expected to result from improved information regarding the demand-supply situation for perishable agricultural products, and we will provide an estimate of the total MOA investment in planning and implementation of agricultural projects that, hopefully, will be utilized more effectively as a result of implementation of the current project.

As a first step in the analysis, we shall attempt to determine the average annual amount that the project would have to yield over its lifetime to permit recovery of the initial investment at the going opportunity cost of capital. We shall assume that the life of the project is ten to fifteen years and that the opportunity cost of capital is 11%, which is the current commercial bank prime lending rate. It may be objected that this rate is not a realistic measure of the opportunity cost of capital since the consumer price index in 1978 increased by nearly 50%. We can avoid this pitfall by expressing the required average annual yield of the project in constant U.S. dollars. To the extent that prices are increasing, the yield would have to be raised proportionately when translated into current Jamaican dollars.

An estimate of the project's initial and recurrent annual costs is presented in the following table. Two alternative estimates of "initial cost" have been made. In Cost Calculation I totaling US\$2.53 million, expenditures on personnel, operation and maintenance during the five-year project implementation period

TABLE A

INITIAL AND RECURRENT COSTS (AID PLUS GOJ)

OF AGRICULTURAL PLANNING PROJECT

In U.S. Dollars ('000)

	Initial Costs	Recurrent Annual Costs
<u>Calculation I</u>		
Personnel and operating and maintenance costs during project implementation period are excluded from initial costs.		
Computer wares	161.4	32.1
Ancillary equipment	1.8	-
Training	690.0	-
Technical Assistance	674.0	-
Analysis & Evaluation	134.0	-
Personnel	-	371.4
Equipment	423.5	-
Operation and maintenance	-	97.0
Inflation factor	255.7	-
Contingency	191.7	-
TOTAL	<u>2,532.1</u>	<u>500.5</u>
<u>Calculation II</u>		
Personnel and maintenance costs incurred during project implementation period are included among initial costs.		
Personnel	1,603.8	
Operating & Maintenance	473.0	
Inflation factor for above	506.8	
Contingency for above	224.7	
TOTAL	<u>2,808.3</u>	
<u>GRAND TOTAL</u>	<u>\$5,341.4</u>	

were excluded from the project's "initial cost" on the assumption that such costs are properly treated as recurrent annual costs. In Calculation II, on the other hand, we presented a very conservative benefit/cost calculation by adding the total outlay for personnel, operation and maintenance incurred during the project implementation period to the initial cost of the project. This caused the initial investment outlay to double to US\$5.34 million (see Table A).

On the assumptions made, the average annual yield that the project would have to realize to pay for itself over a period of ten to fifteen years and return an 11% annual interest rate (compounded semi-annually) is as follows:

	<u>Required Average Annual Yield</u>	
	(In U.S. dollars)	
	<u>If N^{1/} = 10 yrs.</u>	<u>If N^{1/} = 15 yrs.</u>
Assumed initial investment US\$2.53 million (Calculation I)	423,400	348,200
Assumed initial investment US\$5.34 million (Calculation II)	893,700	734,800

We have quantified the actual benefits that may accrue to this project on the basis of a possible reduction in spoilage rates of agricultural produce, particularly fruits and vegetables. According to information provided by the Agricultural Marketing Corporation (AMC), the spoilage rate that the Corporation has experienced in its purchases is about J\$1.3 million a year. Since their operations account for approximately 23% of total agricultural production, the total annual spoilage in the country can be estimated at J\$5.65 million (J\$1.3 million x 1/23). At the current exchange rate ^{2/}, this amounts to US\$3.23 million.

Admittedly, the whole amount of this loss cannot be attributed to defective market information. A significant amount of spoilage is accounted for by lack of refrigeration, particularly lack of refrigerated transport, inadequate refrigeration

^{1/}N: Assumed useful life of project

^{2/} US\$1.00 = J\$1.75

facilities at storage points and other factors. According to AMC estimates, perhaps 30 - 40% of total spoilage could be attributed to errors resulting from deficient forecasts, lack of communication and lack of timely and accurate market information. On the basis of this estimate, a total of about J\$2 million a year (35% of J\$5.65 million) could be saved if the existing deficiencies in the market information system could be remedied. This is equal to US\$1.13 million at the current rate of exchange^{1/}. After deducting the annual operating cost estimated (see Table A) at US\$.50 million, we are left with a net annual benefit of US\$630,000, which exceeds the required yield to recover the initial cost in Calculation I (with wages and maintenance costs incurred during the project implementation period excluded), but not sufficient to recover the expanded calculation of initial costs (with all wages and operating costs incurred during project implementation included).

Two points should be noted: first, it is not technically correct to include all personnel and operating maintenance costs among the initial costs incurred during the project implementation period. Annual personnel and other operating costs should be included only among the recurrent costs, to be deducted from the gross benefit, which we have done throughout. Thus, if the initial cost of the project is considered to be US\$2.53 million rather than US\$5.34 million, the benefits projected are adequate. Second, our calculation of benefits did not include benefits resulting from improvements in project preparation, evaluation and implementation which are practically impossible to quantify; nor did we attempt to estimate the potential gains that could result from the more efficient marketing of sugar cane, or the stimulus that the project might provide to the development of an effective program to control the coffee borer and fruit fly diseases (see Section B.1 above). Thus, our benefit calculation allows for only part of the total benefits expected from the project.

To obtain some idea with regard to the possible impact that the project may have on improving the efficiency of the Ministry of Agriculture in the area of project preparation and implementation, we have obtained data on the amount of resources that the MOA has invested in the area of project preparation and implementation which, it is hoped, will be utilized more effectively as a result of the present project.

The MOA reported that their combined FY 78-79 budget for the data bank and the planning and training budgets amount to J\$975,000 (US\$557,000); while the total value of projects financed

^{1/} US\$1.00 = J\$1.75

by AID, the IDB and the IBRD that are to be implemented by the MOA over the next five years is a substantial US\$106 million (\$57.5 million by AID, \$33.7 million by the IDB and \$15.0 million by the IBRD). Thus, there is a considerable amount of resources whose management can be improved as a result of the implementation of the proposed project.

C. Financial Analysis

The proposed project cost totals \$5.341 million of which USAID will finance \$2.328 million and the GOJ will contribute \$3.013. AID's contribution will be used to finance the acquisition of computer hardware and software, technical assistance, equipment, and participant training, while the GOJ's contribution will be mainly for salaries for additional staff in the area of data collection and management.

Disbursement will occur over a period of five years. However, there will only be one subcomponent, training, under the Training Component which will continue into year five for long-term overseas training. Tables 1-9 present the financial plan, indicating the proposed budget for each of the major components to be funded from AID and GOJ sources, set forth by project and year of disbursement.

At the end of the project cycle, the GOJ budgetary allocation for continuity is projected to be approximately \$1.4 million annually. However, in real terms, based on the MOA budgetary allocation trend over the past five years, the sixth year additional funding for personnel salaries and operating costs will increase the MOA budget by only 1.05% and the overall GOJ budget by 0.10%.

Table 1

AGRICULTURAL PLANNING PROJECT												
FINANCIAL PLAN												
by												
AREA OF ACTIVITY AND YEAR OF DISBURSEMENT												
	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT						GOVERNMENT OF JAMAICA					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTALS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTALS
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Computer Hardware	27,800	26,500	26,500	26,500	-	107,300	-	-	-	-	26,566	26,566
Computer Software	5,500	5,500	5,500	5,500	-	22,000	-	-	-	-	5,500	5,500
Telephone Cable	-	-	-	-	-	-	366	366	366	366	366	1,830
Other Equipment & Spare Parts	263,500	-	-	-	-	263,500	160,000	-	-	-	-	160,000
Training	132,600	711,300	178,900	126,900	33,000	682,700	1,280	2,880	2,560	1,600	-	8,320
Technical Assistance	120,000	364,000	95,000	95,000	-	674,000	-	-	-	-	-	-
Analysis & Evaluation	11,000	34,000	32,000	32,000	25,000	134,000	-	-	-	-	-	-
* Personnel	-	-	-	-	-	-	259,644	295,538	326,024	351,087	371,409	1,603,752
** Operation & Maintenance	-	-	-	-	-	-	92,000	93,000	95,000	96,000	97,000	473,000
Inflation Factor 10%	-	62,950	71,000	94,850	26,900	255,700	-	39,183	89,029	148,187	230,387	506,786
Contingencies 10%	57,300	62,950	33,800	28,650	5,800	188,500	51,329	39,183	42,395	44,905	50,084	227,896
TOTALS	617,700	767,200	442,700	409,400	90,700	2,127,700	US\$564,619	470,200	555,374	642,145	781,312	3,013,650
							US\$979,966	816,090	963,921	1,114,522	1,356,065	5,230,600

* Additional Staff Personnel ** Includes travelling allowances and operation of equipment. *** Air Fares only

+ Assumes a 20% Jamaican dollar inflation, a 10% U.S. inflation and a maintenance of parity of exchange rates at current levels.

Table 2

AGRICULTURAL PLANNING PROJECT
PROJECTED USAID EXPENDITURE BY FY

(US\$)

	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTAL</u>
	FY 79	FY 80	FY 81	FY 82	FY 83	
Computer Hardware	-	27,800	26,500	26,500	26,500	107,300
Components Software	-	5,500	5,500	5,500	5,500	22,000
Other Equipment & Spare Parts	-	263,500	-	-	-	263,500
Training	58,000	249,000	185,000	136,000	55,000	683,000
Technical Assistance	-	293,740	229,590	95,000	55,420	673,750
Analyses & Evaluation	<u>11,000</u>	<u>34,000</u>	<u>32,000</u>	<u>32,000</u>	<u>25,000</u>	<u>134,000</u>
<u>Sub-Total</u>	69,000	873,540	478,590	295,000	167,420	1,883,550
Inflation*	-	62,950	71,000	94,850	26,900	255,700
Contingencies*	<u>57,300</u>	<u>62,950</u>	<u>33,800</u>	<u>28,650</u>	<u>5,800</u>	<u>188,500</u>
TOTAL	<u>126,300</u>	<u>999,440</u>	<u>583,390</u>	<u>418,500</u>	<u>200,120</u>	<u>2,327,750</u>

*The Inflation and Contingency factors of the disbursement schedule (Table 1) have been applied.

Table 3

FINANCIAL PLAN													
COMPONENT A - TRAINING													
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT								GOVERNMENT OF JAMAICA					
TRAINING IN U.S.	No.	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTALS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTALS
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
M.S. Degree Prog.	8	16,500	49,500	49,500	49,500	33,000	198,000	640	640	640	640	-	2,560
Data Processing Manager	1	-	21,000	-	-	-	21,000	-	320	-	-	-	320
Systems Analysts	3	-	21,000	21,000	21,000	-	63,000	-	320	320	320	-	960
Computer Programs	3	-	21,000	21,000	21,000	-	63,000	-	320	320	320	-	960
Survey Methodology	2	-	21,000	21,000	-	-	42,000	-	320	320	-	-	640
Evaluation	3	-	21,000	21,000	21,000	-	63,000	-	320	320	320	-	960
Planning & Policy	6	21,000	21,000	21,000	-	-	63,000	640	640	640	-	-	1,920
<u>IN-COUNTRY</u>	<u>No.</u>												
Management	6	14,400	-	-	-	-	14,400	-	-	-	-	-	-
Evaluation Method	11	3,900	11,400	-	-	-	15,300	-	-	-	-	-	-
Survey Methodology	82	20,000	10,000	10,000	-	-	40,000	-	-	-	-	-	-
Data Analysts	6	4,800	-	-	-	-	4,800	-	-	-	-	-	-
Statistics	30	52,000	14,400	14,400	14,400	-	95,200	-	-	-	-	-	-
TOTALS		<u>132,600</u>	<u>211,300</u>	<u>178,900</u>	<u>126,900</u>	<u>33,000</u>	<u>682,700</u>	<u>1,280</u>	<u>2,880</u>	<u>2,560</u>	<u>1,600</u>	<u>-</u>	<u>8,320</u>

Table 4

FINANCIAL PLAN
COMPONENT B - TECHNICAL ASSISTANCE

	<u>UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT</u>					
	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>
	\$	\$	\$	\$	\$	\$
Technical & Administration	47,500	95,000	95,000	95,000	-	332,500
Systems & Programs	47,500	47,500	-	-	-	95,000
Data Collection & Management	-	95,000	-	-	-	95,000
Policy & Planning	-	95,000	-	-	-	95,000
Training Aids	6,250	12,500	-	-	-	18,750
Evaluation	18,750	-	-	-	-	18,750
Library Systems	-	18,750	-	-	-	18,750
TOTAL	<u>120,000</u>	<u>363,750</u>	<u>95,000</u>	<u>95,000</u>	<u>-</u>	<u>673,750</u>

Table 5 61e

FINANCIAL PLAN												
COMPONENT - COMMODITIES												
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT							GOVERNMENT OF JAMAICA					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTALS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTALS
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Computer Hardware	27,800	26,500	26,500	26,500	-	107,300	-	-	-	-	26,500	26,500
Computer Software	5,500	5,500	5,500	5,500	-	22,000	-	-	-	-	5,500	5,500
Telephone Cable	-	-	-	-	-	-	366	366	366	366	366	1,830
Upgrade Training Facilities	-	-	-	-	-	-	160,000	-	-	-	-	160,000
Training Aids & Spares	97,750	-	-	-	-	97,750	-	-	-	-	-	-
<u>ROAD VEHICLES & SPARE PARTS:</u>												
Jeeps	5	57,500	-	-	-	57,500	-	-	-	-	-	-
Cars	3	24,150	-	-	-	24,150	-	-	-	-	-	-
Trailbikes	65	62,100	-	-	-	62,100	-	-	-	-	-	-
Air Conditioning	12,000	-	-	-	-	12,000	-	-	-	-	-	-
Standby Generators	5,000	-	-	-	-	5,000	-	-	-	-	-	-
Measuring Wheels	5,000	-	-	-	-	5,000	-	-	-	-	-	-
TOTALS	296,800	32,000	32,000	32,000	-	392,800	160,366	366	366	366	32,366	193,830

Table 6. 61f

<u>MASTER TRAINING SUB-COMPONENT</u>												
<u>FINANCIAL PLAN</u>												
	<u>UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT</u>						<u>GOVERNMENT OF JAMAICA</u>					
	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>
A. TRAINING												
H.S. Degree Programs 8	\$ 16,500	\$ 49,500	\$ 49,500	\$ 49,500	\$ 33,000	\$ 198,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Management 6	14,400	-	-	-	-	14,400	-	-	-	-	-	-
Evaluation 3	3,900	-	-	-	-	3,900	-	-	-	-	-	-
B. TECHNICAL ASSISTANCE												
Management Courses & TA Coordinations	47,500	95,000	95,000	95,000	-	332,500	-	-	-	-	-	-
Evaluation	18,750	-	-	-	-	18,750	-	-	-	-	-	-
Training Aids	6,250	12,500	-	-	-	18,750	-	-	-	-	-	-
C. COMMODITIES												
Training Aids	97,750	-	-	-	-	97,750	-	-	-	-	-	-
Upgrade Facilities	-	-	-	-	-	-	160,000	-	-	-	-	160,000
D. ANALYSES												
Analyze of skill levels	6,000	5,000	4,000	4,000	-	19,000	-	-	-	-	-	-
Standardize N.A.P.	5,000	4,000	3,000	3,000	-	15,000	-	-	-	-	-	-
Unit Evaluation	-	10,000	10,000	10,000	10,000	40,000	-	-	-	-	-	-
E. PERSONNEL												
Additional Personnel	-	-	-	-	-	-	5,762	11,811	18,149	24,775	25,927	86,425
Training Reward Plan	-	-	-	-	-	-	-	17,285	28,810	34,970	36,700	118,965
TOTAL	216,050	176,000	161,500	161,500	43,000	758,050	165,762	29,096	46,959	59,345	62,227	203,390

DATA BANK & EVALUATION - SUB-COMPONENT
FINANCIAL PLAN

<u>UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT</u>							<u>GOVERNMENT OF JAMAICA</u>						
<u>A. TRAINING</u>	<u>Nos.</u>	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Data Processing Manager	1	-	21,000	-	-	-	21,000	-	320	-	-	-	320
Systems Analysts	3	-	21,000	21,000	21,000	-	63,000	-	320	320	320	-	960
Programmers	3	-	21,000	21,000	21,000	-	63,000	-	320	320	320	-	960
Data Analysts	6	4,800	-	-	-	-	4,800	-	-	-	-	-	-
Statistics	30	52,000	14,400	14,400	14,400	-	95,200	-	-	-	-	-	-
Evaluation Method	3	-	21,000	21,000	21,000	-	63,000	-	320	320	320	-	960
Evaluation Method	8	-	11,400	-	-	-	11,400	-	-	-	-	-	-
B. TECHNICAL ASSISTANCE													
Systems & Programs		47,500	47,500	-	-	-	95,000	-	-	-	-	-	-
Library Systems		-	18,750	-	-	-	18,750	-	-	-	-	-	-
C. COMMODITIES													
Computer Hardware		27,800	26,500	26,500	26,500	-	107,300	-	-	-	-	26,500	26,500
Computer Software		5,500	5,500	5,500	5,500	-	22,000	-	-	-	-	5,500	5,500

DATA BANK & EVALUATION - SUB-COMPONENTFINANCIAL PLAN

(Cont'd)

	<u>UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT</u>						<u>GOVERNMENT OF JAMAICA</u>					<u>TOTALS</u>
	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	
C. <u>COMMODITIES</u>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Telephone Cable	-	-	-	-	-	-	366	366	366	366	366	1,830
Air Conditioning	12,000	-	-	-	-	12,000	-	-	-	-	-	-
Standby Generator	5,000	-	-	-	-	5,000	-	-	-	-	-	-
D. <u>PERSONNEL</u> (additional)												
Data Processing 1	-	-	-	-	-	-	8,020	8,300	8,570	8,850	9,290	43,030
Systems Analyst 2	-	-	-	-	-	-	14,935	15,485	16,040	16,595	17,425	80,480
Programmers 2	-	-	-	-	-	-	14,935	15,485	16,040	16,595	17,425	80,480
Agr. Economists 4	-	-	-	-	-	-	29,870	30,970	32,080	33,190	34,850	160,960
Data Entry Technicians 3	-	-	-	-	-	-	8,712	9,210	9,750	10,268	10,780	48,740
Agr. Assistant 1	-	-	-	-	-	-	3,940	4,114	4,286	4,460	4,680	21,500
E. <u>OPERATIONS & MAINTENANCE</u>												
	-	-	-	-	-	-	3,600	4,300	4,700	5,200	5,500	23,300
F. <u>ANALYSIS & EVALUATION</u>												
Project Evaluation	-	15,000	15,000	15,000	15,000	60,000	-	-	-	-	-	-
TOTAL	<u>154,600</u>	<u>208,050</u>	<u>109,400</u>	<u>109,400</u>	<u>15,000</u>	<u>596,450</u>	<u>84,378</u>	<u>88,250</u>	<u>91,832</u>	<u>95,524</u>	<u>100,315</u>	<u>460,320</u>

Table 8 611

	<u>UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT</u>						<u>GOVERNMENT OF JAMAICA</u>					<u>TOTALS</u>
	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	
<u>A. TRAINING</u>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Survey Methodology	-	21,000	21,000	-	-	42,000	-	-	-	-	-	-
" "	20,000	10,000	10,000	-	-	40,000	-	-	-	-	-	-
<u>B. TECHNICAL ASSISTANCE</u>												
Survey Methodology	-	95,000	-	-	-	95,000	-	-	-	-	-	-
<u>C. COMMODITIES</u>												
Road vehicles & Spare Parts	81,650	-	-	-	-	81,650	-	-	-	-	-	-
Trailbikes	62,100	-	-	-	-	62,100	-	-	-	-	-	-
Measuring Wheels	5,000	-	-	-	-	5,000	-	-	-	-	-	-
<u>D. PERSONNEL</u>												
Snr. Data Collection Officers (13)	-	-	-	-	-	-	60,220	62,917	65,567	68,310	71,732	328,746
Data Collection Officers (39)	-	-	-	-	-	-	113,250	119,991	126,732	133,474	143,000	636,450
<u>E. Operation & Maintenance (Incl. Travel Allowance)</u>												
	-	-	-	-	-	-	76,000	77,000	78,000	79,000	80,000	390,000
<u>TOTAL</u>	<u>168,750</u>	<u>126,000</u>	<u>31,000</u>	<u>-</u>	<u>-</u>	<u>325,750</u>	<u>249,470</u>	<u>259,908</u>	<u>270,299</u>	<u>280,784</u>	<u>294,732</u>	<u>1,355,200</u>

Table 9 ⁶¹³

POLICY & PLANNING SUB-COMPONENT

FINANCIAL PLAN

	<u>UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT</u>						<u>GOVERNMENT OF JAMAICA</u>					
	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTALS</u>
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<u>A. TRAINING</u>												
Agr. Planning & Policy	21,000	21,000	21,000	-	-	63,000	-	-	-	-	-	-
International Travel	-	-	-	-	-	-	640	640	640	-	-	1,920
<u>B. TECHNICAL ASSISTANCE</u>												
Agr. Planning & Policy	-	95,000	-	-	-	95,000	-	-	-	-	-	-
TOTAL	21,000	116,000	21,000	-	-	158,000	640	640	640	-	-	1,920

Computer Cost: The Gast report on the acquisition of computer hardware (Annex C) recommends that the equipment should be rented for one year with a view to purchasing thereafter. IBM/Jamaica's policy is rental with a purchase option with 50% of rental charges laid off against purchase (option to be exercised at perogative of user). Consideration:

- a charge for servicing of the equipment is included in the rental cost;
- on purchased equipment there is a separate contracted minimum servicing cost.

The financial implications for outright purchase and rental/purchase up to the end of Year Two are analyzed in this Table:

	Year 0	End Year 1	End Year 2
Purchase price	70,755	70,755	70,755
Service charge	27,300 (5 yrs)	21,840 (4 yrs)	16,380 (3 yrs)
Rental	132,500 (5 yrs)	106,000 (4 yrs)	79,500 (3 yrs)
Credit to purchase (50% rent)	-	13,250	26,500
Effective Saving $(R_x - C + S_n) - (P + S)$	34,445	26,655	18,365

The analysis shows that if the equipment is purchased at the beginning of the project as against a rental for the life of the project, a saving of \$34,445 would be generated. Purchase at the end of Year One would generate a saving of \$26,655 and purchase at the end of Year Two, a saving of \$18,365.

P=Purchase Price
S=Service Charge
C=Credit
R=Rental
R_x=Years of Rental

- The MOA feels that the question of obsolescence of the equipment will not affect Jamaica for at least ten to fifteen years.

- The GOJ recurrent costs will be reduced by \$21,000 per year (R - S) at the end of the project cycle if the equipment is purchased by the project. The decision, therefore, is to rent the equipment for one year, followed by the exercising of purchase option to allow time for evaluating suitability of the hardware for MOA needs as per Gast's report - Annex C, page 7, #3.

D. Social Analysis

Traditionally, agriculture as a way of life has been ranked very low in the social hierarchy although succeeding government administrations have always spoken of its importance and at various times have demonstrated their commitment by obligating a large share of the annual budgets to agriculture. The budgetary allocation for agriculture for the past five years is shown in the following table.

GOJ BUDGET ALLOCATION TO AGRICULTURE*

	(J\$million)				
	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>1978/79</u>
1. Total Budget	\$724.17	\$975.82	\$1,306.82	\$1,258.50	\$1,893.43
2. Public Debt (amortization)	187.80	57.25	144.48	69.30	187.30
Interest & Commitment fee)	<u>58.65</u>	<u>66.44</u>	<u>97.23</u>	<u>132.98</u>	<u>215.00</u>
3. Line 1 minus Line 2	477.72	852.13	1,065.11	1,056.22	1,491.13
4. MOA Budget	49.79	63.82	100.19	97.92	132.54
Line 4 as % of Line 3	10.42%	7.49%	9.41%	9.27%	8.89%
Derived Amount Benefitting the Rural Poor	38.33	50.81	60.82	71.02	92.39

A major reason for the low status of agriculture, even considering the large amounts put into the sector, has been the drudgery and frustrations associated with farming. This is in part attributed to the association of agriculture with slave labor. Much of the frustration, however, stems from the failure to diffuse or offer as meaningful and workable alternatives, such methods as would make production and marketing much easier for farmers and by extension, meaningful improvement in their standards of living. The 1977 National Labor

* GOJ Annual Estimates of Expenditures

Force Survey statistics indicate that 45 per cent of the employed labor force in the agricultural sector earned less than J\$20 per week when they worked and that 22 per cent earned between J\$20 and J\$49 per week when they worked.

The problem has been largely one of developing technologies and methodologies which would make agriculture more attractive to people, especially the young.

The Inez Carnegie research (1975) gives an indication as to how very little, if any, thought is given to agriculture by young people in schools. The survey covered 1,421 student respondents with the following breakdown of occupational preferences:

- 11.0% Primary School Teachers, Nurse, Public Health Inspector, Social Worker, Druggist, Customs Officer
- 14.8% Librarian, Dietician, Secondary School Teacher, Government Administrative Officer, Police Officer, Army Officer, Research Assistant
- 22.3% Accountant, Economist, Engineer, Surveyor, Town Planner, Statistician, Architect, Geologist, Airline Pilot
- 30.5% Lawyer, Doctor, Judge, Dentist, University Lecturer, Clergyman, Government Minister, Senior Civil Servant, Big Business Consultant
- 21.4% Not yet decided

At least 78.6 per cent of the sample opted for jobs unrelated in any direct way to agriculture.

The domestic migration pattern is also cited as evidence of diminishing interest in agriculture. However, the existing migration data and surveys considered in the 1978 Agricultural Sector Assessment indicate a mixture of causal factors.

A 1977 study of migration showed that movements out of rural areas in the parish of St. Ann have many features in common with internal migration in the island as a whole, but in a modified form.

- a. Population has been moving from areas which are predominantly agricultural toward the nodes of development within the parish.

- b. There are indications that migration occurs to some extent in steps: rural to urban within the parish, and parish to metropolis often by way of intervening parishes.
- c. The dominant 'pushes' within this rural parish were population pressure and high levels of agricultural employment, while the nodes of non-agricultural employment provided the 'pull'.
- d. Females dominate the stream of migration, and the young adult is more likely to migrate directly out of the parish, while the adult aged 30 years and over is likely to be the migrant within the rural parish.
- e. Young potential migrants are highly influenced by a desire to live in an 'urbanized' environment with the advantages of 'modern amenities'. They would prefer to live in one of the small urban nodes in this predominantly rural parish. For actual migrants, housing and amenities came second to family considerations in influencing their decision to move. The economic factor which is widely held to control migration in developing countries, is perceived as being of minor significance in the redistribution of population in this rural parish.

There appears to be no correlation between migration and farm size. This is also supported by the findings of the St. Elizabeth study ... which concluded that farm size is not related to the rate of migration. Family size was found to be the significant factor, and members of large families tend to migrate whatever the size of the farm.

The conclusion - There is a 'highly significant' relationship between the change in population and the proportion of the population aged under ten years in 1960; the larger the proportion of young people in the population, the greater the population loss between 1960 and 1970. The implication is that population pressure, 'the imbalance between human numbers and needs and the physical and human resources of a defined area' is a determinant of population redistribution within the parish. This is supported by Hunter (1966) and Eyre (1972) who contended that there is an optimum population carrying capacity under traditional systems of agriculture in developing countries: when the 'optimum' is exceeded in any district, redistribution of population is likely to occur. (Page 200-3)

However, since 1961 there has been a significant increase in the number of small farms resulting from GOJ land reform

and Land-Lease Programs. This increase has concurrently resulted in an increasing rural agricultural population that has only slightly offset the rural to urban migration pattern.

Total rural population has increased only slightly over the past three population censuses. The rural population was 1,000,200 in 1943, 1,090,300 in 1960, and 1,097,300 in 1970. Over the whole period of twenty-seven years, the overall increase was less than one per cent. As a consequence of this, the proportion of rural population to the total population has shown a steady decline: it was 80.0 per cent in 1943, 67.7 per cent in 1960, and 59.4 per cent in 1970. It is highly probable that this tendency has continued to hold sway during the decade of the 70s.

As of 1968, the Land Settlement Program did provide land to large numbers of small and medium-scale farmers and made a significant contribution to agricultural production. An accounting made of data supplied by the Land Development and Utilization Commission shows that approximately 235 land settlements have been established. The total acreage is a very substantial 208,000 acres and a very rough approximation of 38,000 farm units.

The major successor to the Land Settlement concept has been Project Land Lease. Begun in 1973, some government lands, even moribund portions of land settlements, were turned over to this program. However, the major source of lands has been the bauxite companies and lands declared idle. Properties of over fifty acres have been the source of idle lands for Project Land Lease.

There are three sub-programs or phases of Project Land Lease. Under Phase I, supplemental tenancy is provided for farmers within a reasonable distance (two miles) from their homes. The tenancy is given for a period of five years in the first instance, provision being made for an extension for a further five-year period based on the farmer's performance. Lands leased to farmers under this phase are primarily privately-owned lands which have been leased by the government for a period of six years in the first instance. As of March, 1978, under the three phases of Project Land Lease, some 34,202 farmers were placed on 65,140 acres of arable lands. The program increases the number of small farms in two ways - to the extent that the beneficiaries had been landless previously, and by bringing the less-than-one-acre farmers into the one- to-ten acre group.

According to the projections of the Agricultural Five-Year Plan, another 20,000 farmers are expected to be placed under the Land Lease Program.

This project proposes to address certain management deficiencies in the MOA in order that applied research and relevant technology can become more accessible to this growing body of small farmers. Only when it can be demonstrated, by replicability, that certain systems can and do operate to improve the lot of the rural poor will there be meaningful gains in this sector. To the extent this project contributes to these gains, it will have a positive social impact.

E. Environmental Impact

As stated in the objective purpose of this document, the project is designed to impact primarily on the institutional capabilities of the MOA by more intensive use of automation of data processing and analysis and training in specialist areas to increase analytical, designing, planning, implementation and evaluation capabilities. The spread effect to farmers is expected to be beneficial by way of increased agricultural production, thereby increasing incomes and improving standards of living on a continuous and long-term basis. A negative determination is made, as indicated in Annex A - "Environmental Impact".

VI PROJECT IMPLEMENTATION ARRANGEMENTS

A. Recipient Country and AID Administrative Arrangements

The project will be managed by the Permanent Secretary, MOA. Day-to-day implementation and coordination will be supervised by the Project Committee chaired by the Permanent Secretary and consisting of the Planning and Evaluation Division Director, the Manager of the Training Unit Central staff, and the leader of the Technical Assistance Team. Project activities are to be coordinated in a mutually supportive way, leading to an integrated and systematic capacity for achieving the project purpose. The budgets for each sub-component of the project; viz., Master Training, Data Bank, Data Collection and Evaluation and Policy Analysis appear in Tables 6 - 9, Section V, C.

1. AID Arrangements

- a. The USAID/Jamaica Rural Development Officer will monitor the project for USAID.
- b. Washington, through AID/LAC/DR, AID/SER/DM, BUCEN and USDA, will provide general and technical backstopping to USAID/Jamaica.
- c. The Program Office, USAID/Jamaica, will develop the necessary agreements for annual obligation of funds.
- d. Annual evaluations of this project will be conducted by a team of USAID and GOJ appointees. For USAID, the evaluation process will be monitored by the Program Office, USAID/Jamaica.

2. GOJ Arrangements

The GOJ will provide the staff and salaries necessary for the overall management and proper functioning of the project and the necessary logistical/administrative services. Counterpart support services and cooperation will be provided for external technical assistance personnel.

The Project Committee will also conduct a post project evaluation in September, 1983. The annual evaluations will review the progress of the preceding year, provide feedback and recommendations relative to the ongoing activities of the project and will provide a time-phased implementation plan for the coming year. The End-of-Project Evaluation will provide a summary report on all of the project components in terms of their effectiveness in meeting initial or revised project objectives. In addition, an evaluation of the planning,

implementation, evaluation, analytical and training systems will be made to verify their effectiveness in the areas of their application and impact on the entire agricultural sector.

The evaluation process will follow established AID evaluation guidelines as contained in Handbook 3, but will also include any special evaluation approaches or interest put forward by the GOJ. Preparation of evaluation materials will be the joint responsibility of the MOA and USAID/Jamaica. These materials will be presented to the Project Committee for its consideration and approval. AID/W backstop officers and USAID field officers from other missions may also be requested to participate.

B. Responsibility Assignments

Responsibility for implementation of major aspects of the project will be as indicated:

	GOJ				U.S.			
	MOA	MOF *	CDPU *	NPA *	USAID JA.	AID/W	PASA	US Contractors
Initiate GOJ Project Activities	x	x		x				
Coordination of Project Activities	x							x
GOJ Project Development & Execution	x							
Procurement of Equipment, Technical Assistance & Training in USA	x				x	x	x	x
Logistic Support of U.S. Contractors in Jamaica	x		x					
Project Reporting	x							x
Monitoring Project Development	x				x			x
Annual Evaluation	x	x		x	x			x

* CDPU = Central Data Processing Unit, Ministry of Finance

* NPA = National Planning Agency, Ministry of Finance

* MOF = Ministry of Finance

C. Conditions Precedent & Covenants

The project will be implemented in accordance with AID regulations subject to the following terms, covenants and major conditions:

1. Source and Origin of Goods and Services:

All goods and services (except for ocean shipping) shall have their source and origin in the United States or in the cooperating country. Ocean shipping financed by AID shall be procured in the United States.

2. Conditions Precedent to Disbursement

- (i) Prior to the first disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D. a statement of the name of the person representing the Grantee, and of any additional representatives, together with a specimen signature of each person specified in such statement.
- (ii) Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement, other than to finance the technical assistance to develop the implementation schedule, the evaluation program, and the skill level needs assessment; the Grantee shall furnish in form and substance satisfactory to A.I.D.:
 - (a) Evidence that a project manager responsible for the monitoring and coordinating of the project functions within the Ministry of Agriculture has been designated;
 - (b) A time-phased implementation schedule for the technical assistance and training to be carried out during the first year of the project;
 - (c) evidence that the Ministry of the Public Service approves of a salary structure which will make salaries, specifically in the area of data collection, processing and management, sufficient to attract and retain needed staff; and

- (d) evidence that the Ministry of the Public Service will create the new positions necessary for the project to meet its implementation goals and that the Ministry of Finance will provide the funding needed to cover the recurrent costs of such positions.
- (iii) Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance automatic data processing equipment, the Grantee shall furnish in form and substance satisfactory to A.I.D.:
 - (a) Evidence that additional core capacity to facilitate Ministry of Agriculture application has been installed at the Central Data Processing Unit; and
 - (b) Evidence that a telephone cable, specifically for data transmission to connect the Ministry of Agriculture computer terminal with the Central Data Processing Unit, has been installed.
- (iv) Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance training, the Grantee shall furnish in form and substance satisfactory to A.I.D., a skill level needs assessment.
- (v) Prior to any disbursement or the issuance of any commitment document under the Project Agreement, to finance trailbikes, the Grantee shall furnish to A.I.D. in form and substance satisfactory to A.I.D., evidence that a revolving fund has been established to be used solely for the purchase of new trailbikes when necessary to facilitate project implementation.
- (vi) Prior to any disbursement or the issuance of any commitment document under the Project Agreement, to finance technical assistance and training during the twelve-month periods commencing on October 1, 1980, 1981, 1982, and 1983 respectively, the Grantee shall furnish to A.I.D., in form and substance satisfactory to A.I.D., time-phased implementation schedules for each such twelve-month period, each based on the results of the annual evaluation of the project during the previous twelve-month period.

3. Covenants

- (i) The Grantee will agree to make budgetary allocations sufficient to compensate personnel who complete specialized training so that they will remain and function in their areas of specialization;
- (ii) The Grantee will agree to establish a workable system of incentives as well as bonding to insure the return of trainees to Jamaica; and
- (iii) The Grantee will insure that, prior to the initiation of individual training, trainees are committed to continue their employment with the appropriate ministry for a minimum of twice the length of time of training received.

D. Evaluation Plan

Annual evaluations of the project will be carried out by representatives of the GOJ and the USAID, designated by the MOA Permanent Secretary and the USAID Rural Development Officer. These annual evaluations will take place on the anniversary of the start of the project, beginning with the first evaluation exercise in 1980, then in 1981, 1982, and 1983. Baseline data for the evaluations will be obtained from (a) the skills inventory discussed in Section IV B. of this Project Paper, (b) the MOA staffing pattern information contained in Section IV herein, and (c) the training objectives and survey targets as listed in the Logical Framework, Annex D.

E. Schedule and details of key events

<u>Activity No.</u>	<u>Activity Indicated</u>	<u>Previous Completed Activity</u>	<u>Time Frame</u>
1	Signing of Pro Ag	-	-
2	Preparation and submission to USAID/Jamaica of fulfillment of agreements contained in Section VI. C.	1	3 months
3	Procure, install and test computer wares.	2	9 months
4	Procure, install and test standby generators and air conditioning units.	2	6 months
5	Improve training facilities. This will upgrade living as well as classroom facilities at Twickenham Park; Smithfield and Eltham.	2	12 months
6	The procurement of all other equipment will be done early in the project life such that with enough lead time, they can be operative with as little delay as is possible. These will include 65 trail bikes, 8 road vehicles and measuring wheels.	2	9 months
7	The first technical assistance personnel to be recruited will be the technical assistance coordinator. He should be a management specialist.	2	6 months
8	Skills inventory and needs assessment process to indicate training needs and personnel.	2	3 months
9	Recruitment of staff personnel as indicated by project	2	6 months

10	Recruit TA for Programming & Systems.	2	6 months
11	Recruit technical advisor for training aids.	2	6 months
12	In-country training schedule developed with TA coordinator.	7 & 8	1 month
13	Overseas training schedule developed as per CP submitted to USAID/J.	7 & 8	1 month
14	Participant Training in the following areas:		
	Training administration	13	4 years
	Systems and programming	13	1 year
15	Recruit TA's - Data Collection & Management, Library Systems, Policy & Planning.	7	6 months
16	First Project evaluation	16	1 month
17	Training in Data Collection & Management Library Systems, Policy and Planning both local and overseas.	12, 13, 15	4 years
18	Annual Evaluations	Begin- ning of each year	1 month

ACTIVITY SCHEDULING

Table 10

Functional Area - Training

ACTIVITIES	PROJECT YEAR				
	1	2	3	4	5
1. Up-Grade Training Facilities					
2. Analyze Skill Levels					
3. Standardize NAP					
4. Recruit T.A. (Management) A.T.A. Coordinator					
5. Recruit T.A. (Evaluation)					
5. Recruit T.A. (Training Aids)					
7. Recruit Training Unit Personnel					
8. Procure Training Aids					
9. Hold Management Courses & Coordinate T.A.					
10. Hold Evaluation Courses					
11. Train in Use of Training Aids					
12. M.S. Degree Program					
13. Training Reward Plan					
14. Unit Evaluation					
15. Train Liaison Officer					

Table 11

ACTIVITY SCHEDULING
 Functional Area - Data Collection and Evaluation

ACTIVITIES	PROJECT YEAR														
	1			2			3			4			5		
1. Procure Road Vehicles															
2. Procure Trail Bikes															
3. Procure Measuring Wheels															
4. Recruit Staff Personnel															
5. Recruit I.A. Survey Methodology															
6. Recruit I.A. Evaluation Methodology															
7. Train Staff (In-Country)															
8. Train Staff (Overseas)															

ACTIVITY SCHEDULING

Table 12

Functional Area - Data Bank

ACTIVITIES	PROJECT YEARS									
	1		2		3		4		5	
1. Procure, Install, Test Computer	█	█								
2. Recruit T.A. - Programs and Systems	█	█								
3. Recruit Staff Personnel	█	█								
4. Procure and Install Aid Conditioning	█	█								
5. Procure and Install Stand-by Generators	█	█								
6. Train Staff Programs and Systems (Local)		█	█	█	█	█	█	█	█	█
7. Train Staff Programs and Systems (U.S.)		█	█	█	█	█	█	█	█	█
8. Recruit T.A. - Library Systems		█	█							
9. Train Staff - Library Systems		█	█							
10. Project Evaluation			█	█	█	█	█	█	█	█

Initial Environmental Examination

A. Project Location : USAID/Jamaica
Project Title : Agricultural Planning
Funding (FY and Amount) : \$2,000,000 Grant, FY 1979
Life of Project : Five Years (FY 1979 - FY 1983)
IEE Prepared by : Paul N. Wenger, CRDO
Date : March 15, 1979

Environmental Action Recommended: It is recommended that this project receive a negative determination that no additional environmental examinations be carried out in respect to it.

Concurrence :

 Marshall Brown, Chief
 LAC/DR

Date :

B. Description of the Project

The project is to assist the MOA in developing and implementing a comprehensive systems approach to the building and improving of institutional planning and management capabilities. This will be accomplished through training and technical assistance based on needs analysis and a systematic approach to data collection and management. The project will expand the capability of the MOA to collect, analyze and manage data, and to use this expanded capacity to plan for and manage its input into increased production/productivity. The Data Bank and

Evaluation Unit and Training Unit of MOA will play a major role in the timely execution of the Project. A substantial amount of technical assistance and training spread over the life of the project will be provided as stated under:

Training opportunities will be provided for approximately 135 staff personnel of MOA in-country and 26 overseas in specialized areas. This training will range from data collection and management to systems analysis and computer programming, policy planning and implementation, training administration and management and evaluation methodology.

Eighty-seven person months' technical assistance will be provided over the first four years of the project. This assistance will be in the areas of management and training administration, evaluation methodology; policy planning and implementation, data collection and management. The technical assistance will be coordinated by a team leader.

An integral part of the project is equipment needs. This includes computer hardware and accompanying software, training aids and transport for data collection.

C. Identification and Evaluation of Environmental Impacts

As a strictly institutional development exercise, this project will have no direct impact on the environment. The minor amount

of construction to be carried out by the GOJ in connection with the project will consist essentially of rehabilitating and upgrading existing facilities, rather than engaging in new construction.

The indirect environmental impact will be wholly beneficial in that improvement of the MOA planning capability will enable environmental considerations to be weighed more accurately in the preparation of future agricultural projects. To this end, appropriate portions of the training and technical assistance under the project will concern themselves with planning to maximize environmental benefits and minimize environmental damage from activities intended to assist in agricultural development.

It should be noted that the overall GOJ attitude toward environmental considerations is strongly positive. The Ministry of Mining and Natural Resources has an active department of environmental concerns in the area of natural resources, while the Ministry of Health and Environmental Control is active in the areas of health and sanitation.

IMPACT IDENTIFICATION AND EVALUATION FORM

Impact
Identification
and
Evaluation ^{1/}

Impact Areas and Sub-Areas

A. LAND USE

1. Changing the character of the land through:

- a. Increasing the Population N
- b. Extracting Natural Resources N
- c. Land Clearing N
- d. Changing Soil Productive Capacity N

- 2. Altering Natural Defenses N
- 3. Foreclosing Important Uses N
- 4. Jeopardizing Man or His Works N

B. WATER QUALITY

- 1. Physical State of Water N
- 2. Chemical and Biological States N
- 3. Ecological Balance N

C. ATMOSPHERIC

- 1. Air Additives N
- 2. Air Pollution N
- 3. Noise Pollution N

D. NATURAL RESOURCES

- 1. Diversion, Altered Use of Water N
- 2. Irreversible, Inefficient Commitments N

E. CULTURAL

- 1. Altering Physical Symbols N
- 2. Change of Cultural Traditions N

1/ N - No environmental impact.
 L - Little environmental impact.
 M - Moderate environmental impact.
 H - High environmental impact.
 U - Unknown environmental impact.

F. HEALTH

- 1. Changing a Natural Environment N
- 2. Eliminating an Ecosystem Element N

G. GENERAL

- 1. International Impacts N
- 2. Controversial Impacts N
- 3. Larger Program Impacts N

REPORT
on
THE TRAINING NEEDS AND CAPABILITIES
of the
JAMAICAN MINISTRY OF AGRICULTURE

December 1978

Prepared by: Dr. Roger Hiemstra, Iowa State University, Ames
Dr. Eugene Doll, USDA, Washington

ACKNOWLEDGMENTS

The team gratefully acknowledges the assistance and cooperation of the staff of the Training Division, and the many additional people within the Ministry of Agriculture. Special thanks must go to Marilyn Clarke, Neville Gammon, and Leonard Henry of the Training Division for their support and hosting of our interviews, meetings, and field trips. In addition, Dr. Pat Peterson, Dr. Kenneth Ellis, and Mr. Fitz Bartley of USAID and their staff were very helpful. We also express appreciation for the many field staff that helped to make our field visits so meaningful. Without the help of all the above people and many others who so graciously made our stay in Jamaica pleasant and efficient an effective study would not have been possible.

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ABSTRACT

Following is a summary of the recommendations made in this report:

- A1 The Ministry should consider adding training-related facilities to the plans for the proposed regional centers.
- A2 The existing training centers should be upgraded in terms of repairs, equipment, and improved living quarters.
- A3 Consider reorganizing the training component as a separate Division.
- A4 House the entire training staff together in the main Ministry building.
- A5 Develop a system to reward training as an incentive to stay within the same job area.
- A6 Require a person to train a back-up person for his or her position.
- A7 Develop a budget to seek support of training in terms of the funds needed to implement this report's recommendations.
- A8 Require a percentage surcharge on all future project proposals to cover the cost of training.
- B1 Determine the current skill levels of Ministry personnel.
- B2 Analyze needed entry level skills for various positions in the Ministry.
- B3 Use a standardized needs assessment form each year.
- B4 Upgrade overall management skills of middle management Ministry employees.
- B5 Orient Ministry staff regarding the importance of research.
- B6 Orient Ministry staff regarding the cooperatives movement
- B7 Enable all personnel from training officer status or above to obtain up to a master's degree.
- B8 All personnel from training officer status or above should upgrade their training, organization, and evaluation skills.
- B9 Authorize at least one new training officer position each year for the next five years.

- B10 Identify one person in each division as a "training" liaison.
- B11 Meet with Ministry of the Public Service (MPS) officials to determine how their courses can be made more specific to agriculture.
- B12 The training component should evaluate its operations annually.
- B13 Develop performance criteria by which the training staff can be evaluated each year.
- B14 Use a standardized evaluation form to be completed by participants at the end of each training activity.
- B15 Develop training center programs that are more practical in nature.
- B16 Develop a centralized learning resource center for training materials.
- B17 Systematize the flow of communications between the training staff and the various divisions of the Ministry.
- B18 Develop and disseminate a monthly training bulletin.
- B19 Obtain institutional membership and annual periodical subscriptions in the training field.
- B20 Support all personnel from training officer status and above in attending at least one professional "training" conference every three years.
- B21 Develop a professional "training" association in Jamaica.

It was estimated that US\$646,000 would be required for the first year in carrying out these recommendations. The five-year total need is estimated to be \$1,246,000 in foreign exchange.

TRAINING NEEDS AND CAPABILITIES
of the
JAMAICAN MINISTRY OF AGRICULTURE

1. INTRODUCTION

Agriculture is important to Jamaica for two very basic reasons: (1) the production of food to feed a population of some two million people, and (2) the provision of jobs and food exports which contribute to the economic health of the country. The Ministry of Agriculture is charged with guiding, developing, and expanding agricultural production.

To carry out such a charge, the Ministry must have a highly trained and dedicated staff. The newly reorganized training component of the Ministry has responsibility for developing and implementing a training program that will meet current and future needs.

To assist the training staff in planning such a program, a two-man consulting team was brought to Jamaica under the auspices of the United States Agency for International Development (USAID). The scope of work for this team is summarized as follows:

- A. The team, consisting of a person trained in technical agriculture with experience in tropical agriculture and a person trained in continuing education, training, and organizational development, interviewed numerous officials in and out of the Ministry (see Appendix I) and reviewed a variety of related documents (see Appendix II).

- B. The team analyzed available information regarding training needs and resources and evaluated the current capabilities of the training staff to plan and implement training necessary for the Ministry.
- C. The team developed a series of recommendations with suggestions and management guides for carrying out the recommendations. The remainder of this report contains the recommendations and supporting material.
- D. The management guides accompanying the recommendations guides contain the planning information necessary for those responsible to develop a program for the next five years. Financial and time requirement estimations need to be made more specific or adjusted as the planning progresses. However, the estimations should serve to provide the basic direction needed for implementation.

2. RECOMMENDATIONS

A variety of needs have been uncovered by the team. Some of the needs are critical, while others are more long term in nature. Some needs can be met only by fairly extensive capital investments, while others can be addressed by better efficiency or by relatively small dollar inputs. Subsequently, in this report, each need area will be described and then followed by one or more policy statements. Recommended action steps pertaining to each policy guideline are included. Supporting materials, such as PERT flow diagrams, descriptions, of who is responsible in carrying out the recommendations, and financial planning information, follow the recommended action steps.

A. The Ministry of Agriculture

The first set of recommendations pertain directly to actions needed or decisions to be made by the Ministry's top leaders.

Training Centers

The team visited two of the existing training centers--Eltham and Twickenham Park. Given the current economic situation in Jamaica, both centers no doubt were in good repair as possible. However, they obviously needed some upgrading in terms of classroom facilities, instructional equipment, living quarters, etc. Such troublesome features are bound to inhibit learning to some degree.

Related to the above is the keen competition for use of the facilities.

Both centers visited had instructional space for no more than one or two short courses at any one time. In addition, some divisions reported they

would like to use training centers more often than currently possible.

POLICY STATEMENT: The purpose of maintaining training centers is to foster the development of skills and knowledge; therefore, it should be the policy of the Training Division to utilize the most up-to-date training facilities as is economically possible.

RECOMMENDED ACTION STEPS:

- A1 - The Ministry should consider adding training-related facilities (classrooms, labs, demonstration sites, living quarters, dining rooms, etc.) to the plans for the four proposed regional centers. The training facilities should be large enough so that more than one training session can take place at a time and thus accommodate all requests for training space. This recommendation should be carried out immediately in order to alter the regional center plans before construction begins.

The cost effectiveness of the above recommendation as compared to the next recommendation needs to be made. A favorable decision on Action Step No. A1, for example, may necessitate the eventual phasing-out of the existing training centers. However, both may be possible or only A2. The costs of renovation, maintenance, and operation of separate training facilities should be considered in making the decision.

- A2 - The existing training centers should be upgraded in terms of repairs, equipment, and improved living quarters.

Organizational Structure of the Training Component

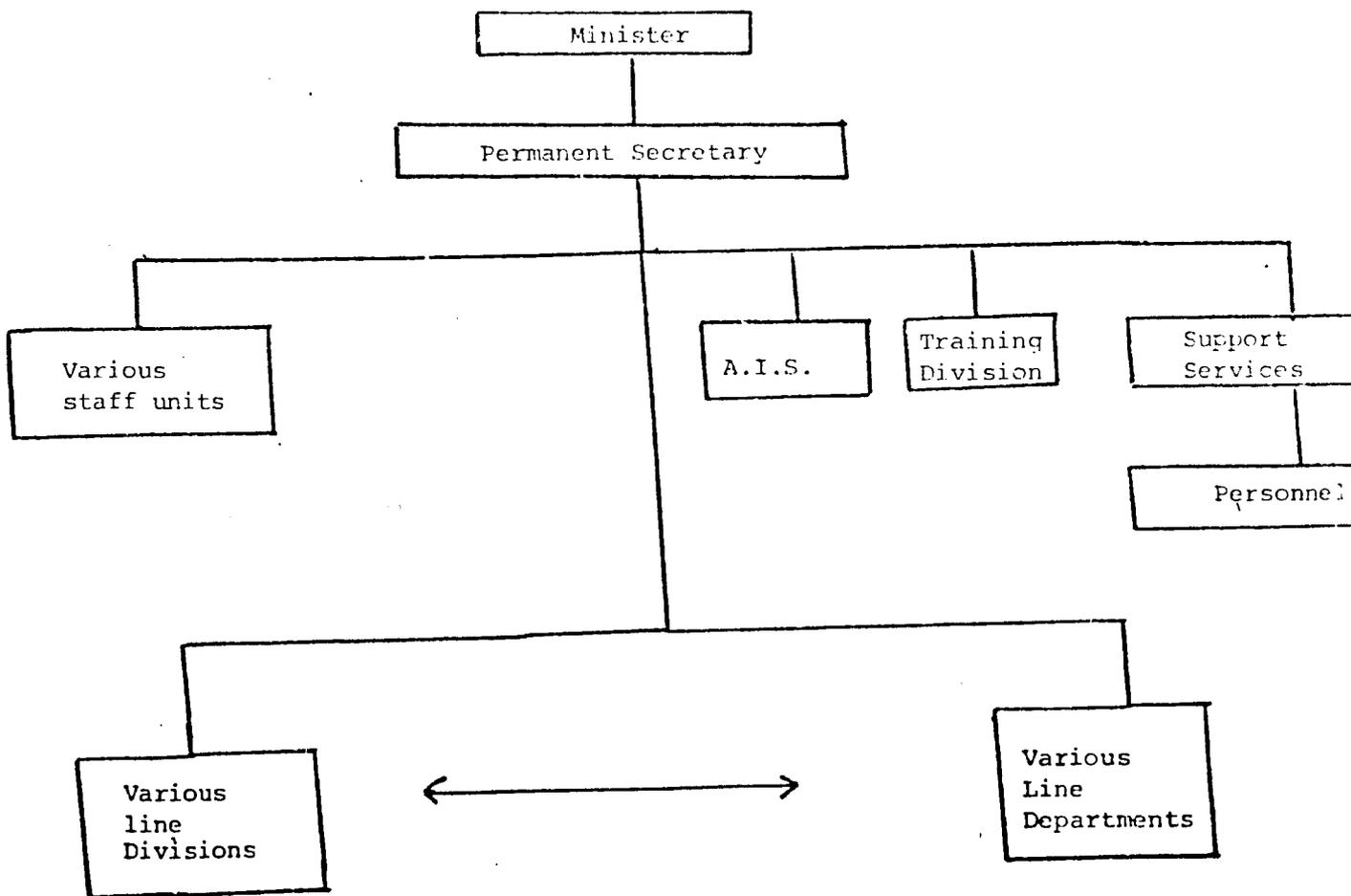
Another problem pertains to an analysis made by the team regarding the current organizational structure. It appears that the recent reorganization of training shifting it from an arm of the Extension Service to that of an organization responsible for training throughout the Ministry has created some confusion as to role expectations. In addition, although connected structurally to the Personnel Division, most staff members of the training

component are housed in a building separated from the main Ministry building and the Personnel office.

POLICY STATEMENT: The purpose of an organizational structure is to foster efficiency and effectiveness; therefore, it should be the policy of the Ministry to develop an organizational arrangement that will give the training component optimum decision-making strength.

RECOMMENDED ACTION STEPS:

A3 - The Ministry should establish a commission to evaluate the current organizational structure and to study the feasibility of once again re-organizing Training as a separate Division responsible directly to the Permanent Secretary. Obviously, a careful coordination of training activities with personnel functions would need to be maintained. In addition, a direct liaison relationship with the Agricultural Information Services would be needed to provide coordination for the development of training materials. An organizational chart suggesting one such structure for training follows:



A training liaison person in each division or department, perhaps supported partially from the training budget, would provide a direct link from training to the other units. See Recommended Action Step No. B10 for more detail regarding this liaison appointment.

- A4 - The entire training staff should be housed together in the main Ministry building. In addition, if at all possible some space should be converted to a meeting room for use by the training component for staff meetings, short course or seminar instruction, and training resource materials.

Pay and Promotion Incentives Related to Training

One problem noted and described by many of the people interviewed is that of job tenure. Although the team was not able to discover how widespread the problem is, it was suggested by several of those interviewed that many people upon receiving advanced training either leave the Ministry altogether or they use an additional degree as a basis to move to another division where increased responsibilities would merit a pay raise or promotion.

POLICY STATEMENT: Job tenure is very important to the Ministry of Agriculture if trained personnel are going to maximize their contribution to the country; therefore, it should be the policy of the Ministry to develop a clear procedure for rewarding training.

RECOMMENDED ACTION STEPS:

- A5 - The Ministry should authorize the Personnel Division to develop a system whereby a person after advanced training can maintain the same technical responsibility or stay within the same division if he or she so desires but receive extra pay for improved performance. The purpose of this system would be to provide incentive to stay within the same job area and at the same time promote a professional commitment to a division while upgrading the technical competencies.

Following are some guidelines suggested in terms of this recommended action step.

- A. The division or department administrator directly in charge of the person being considered for extra pay should be the one to evaluate whether or not performance has improved after the training experience.
- B. The person to be trained should have a clear understanding of what improvements are expected from the training prior to the training experience. The intent of this guideline is to promote in the trainee a clear sense of purpose and direction.
- C. The following form is suggested as the administrator could use to evaluate the person who has been trained approximately six months after completion of the training. A sliding scale for the salary increase is recommended with an assessment being given the person regarding desired future improvements.

EMPLOYEE RATING FORM

Indicate by means of a check on the five-point scale how you rate your employee on each item based upon his or her training experience. A final evaluative statement and assessment of needed improvement should be added. In addition, please discuss your evaluations with the employee and have him sign the form.

Employee's name _____ Date _____

Evaluator's name _____ Date _____

1. Did the employee accept greater responsibility after the training?

<u>No change</u>					<u>Assumed much more responsibility</u>
_____					_____
1	2	3	4		5

2. Evaluate the employee's attitude toward his work.

<u>Low</u>					<u>High</u>
1	2	3	4		5

3. Did the employee share what he learned with his colleagues?

<u>Did not share</u>					<u>Great enthusiasm in sharing</u>
_____					_____
1	2	3	4		5

4. Has the employee's knowledge and command of his job changed?

<u>No change</u>					<u>Considerate improvement</u>
_____					_____
1	2	3	4		5

5. How would you rate this employee's overall effectiveness?

<u>Low</u>			<u>Average</u>		<u>High</u>
1	2	3	4		5

6. Please provide an overall rating of this employee based on the effect you believe training had on his performance.

7. Please describe any improved performances you would like to see in this employee.

8. What additional training would you recommend for this employee?

Employee's statement:

I have discussed the above evaluations with my employer.

_____ signed

_____ date

My comments are: _____

- A6 - To alleviate some of the recurring problems of turn-over, the Ministry should develop a management procedure that requires each person to identify and train a back-up person, perhaps a less experienced person within the same grade or lower, for his or her position. Subsequently, when the senior person leaves for advanced training or moves to another position there is an immediate transfer of leadership and responsibility. This recommendation should have immediate attention but will be on-going in nature.

Financing training

The many recommendations contained in this report will cost a considerable amount of money and commitment if each is carried out. Indeed, training is an expensive venture. However, carefully planned and implemented training programs are a necessity if the Ministry of Agriculture is to accomplish its five-year goals.

POLICY STATEMENT: Financial support of training must be a top priority investment of the Ministry; therefore, it should be the policy of the Ministry to provide the training component with the dollars necessary to carry out the recommendations in this report.

RECOMMENDED ACTION STEPS:

- A7 - The Ministry should develop a budget request to seek support of training in terms of the funds needed to implement the recommendations in this report.
- A8 - The Ministry should require that all future project proposals for support to donor agencies have a percentage surcharge of some amount added to meet the training needs necessary to carry out the authorized projects.

Management Information

To guide Ministry officials in carrying out the above recommendations, several management tools are included. The first is a table that details the key persons involved with each action step, the estimated costs, and the estimated time requirements for each recommendation. Second there is a Program Evaluation Review technique (PERT) flow diagram to show the suggested sequencing of implementation activities. A critical path is not shown because some activities

are of a policy-determination nature while others are short-term action steps. However, the diagram details the different action flows. The final figure is a GANTT calendar of events. All of the tools used in conjunction with each other should provide considerable assistance in the planning and implementing of the action steps.

TABLE 1.
PROJECT MANAGEMENT GUIDE--THE MINISTRY OF AGRICULTURE

Recommendation	Key Person/Group Involved	Estimated Costs*	How Determined	Estimated Time Requirement
A1 - Add training facilities to regional centers	Ministry leader Leonard Henry	\$75,000/Center Total = \$300,000	Estimation based on knowledge of USA building costs.	One to two years
A2 - Upgrade existing training facilities	Ministry leader Leonard Henry	J\$250,000 (US\$150,000)	Training Programme Five-Year Plans	One Year
A3 - Evaluate current organizational structure for training.	Ministry leaders Leonard Henry Chester Gibson	STAFF TIME	- -	Two months to consider; six more months if implementing
A4 - House training staff in main Ministry building	Ministry leaders Leonard Henry Chester Gibson	STAFF TIME If, moving, \$10,000 in moving and renovating costs	Estimation based on knowledge of USA building costs	Six months
A5 - Reward plan for training	Ministry leader Chester Gibson	\$50,000/year	Suggested amount to begin with	One year to establish policy and implement
A6 - Train replacement person	Ministry leaders Divisional Heads Leonard Henry	STAFF TIME	- -	Establish Policy in six months
A7 - Develop Budget plan to implement recommendations	Ministry leader Financial Planning Unit	STAFF TIME	--	Complete Budget Plans within two months
A8 - Develop Training Surcharge Policy	Ministry leaders	STAFF TIME	--	Six months to establish Policy

Total = Up to \$510,000 for the first year
Five-Year requirement would be approximately
\$710,000 (both figures in US\$)

*The estimated costs are included to show the general magnitude for each recommendation. They should be used only as rough guides in budget planning.

Recommendation

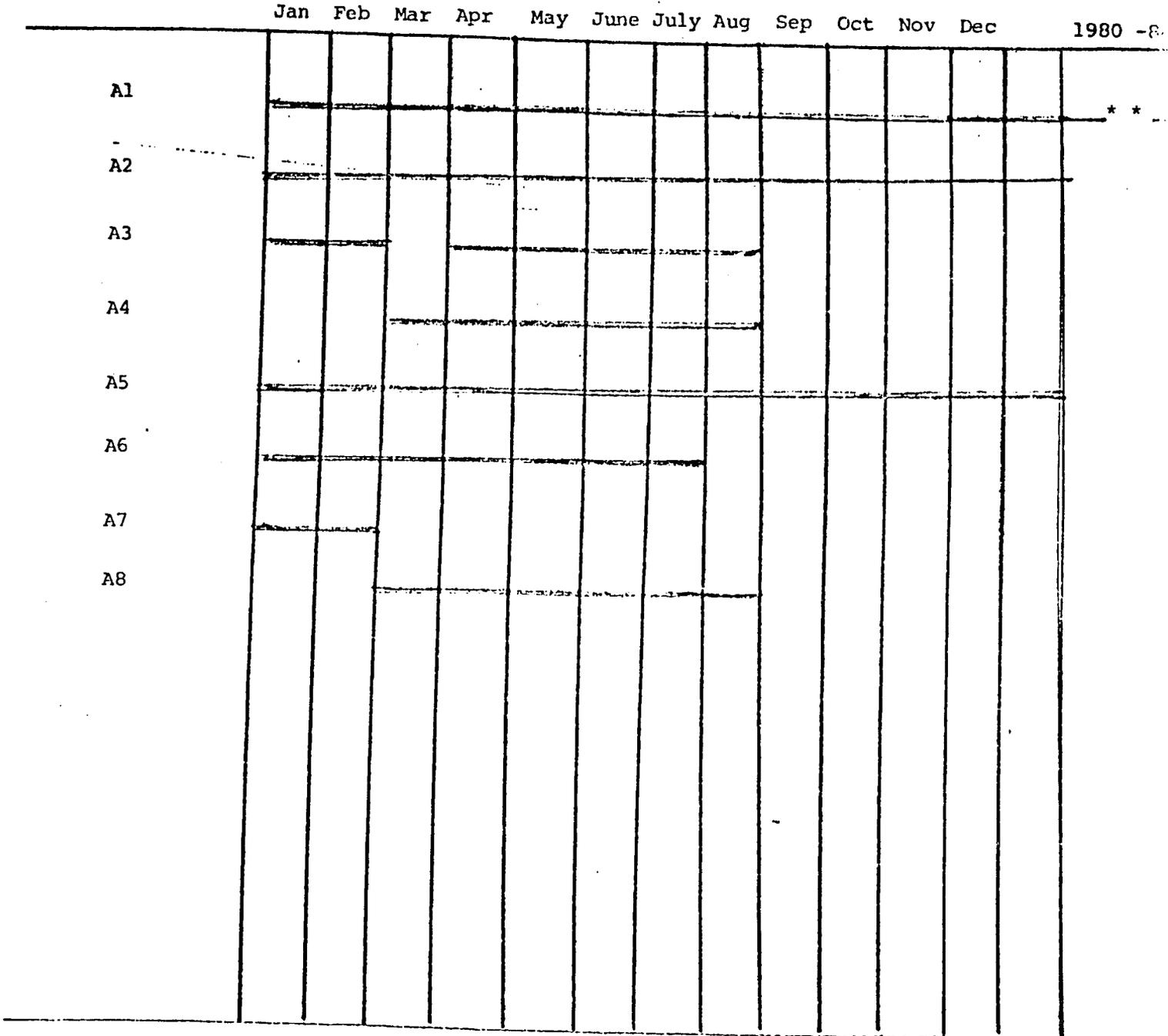
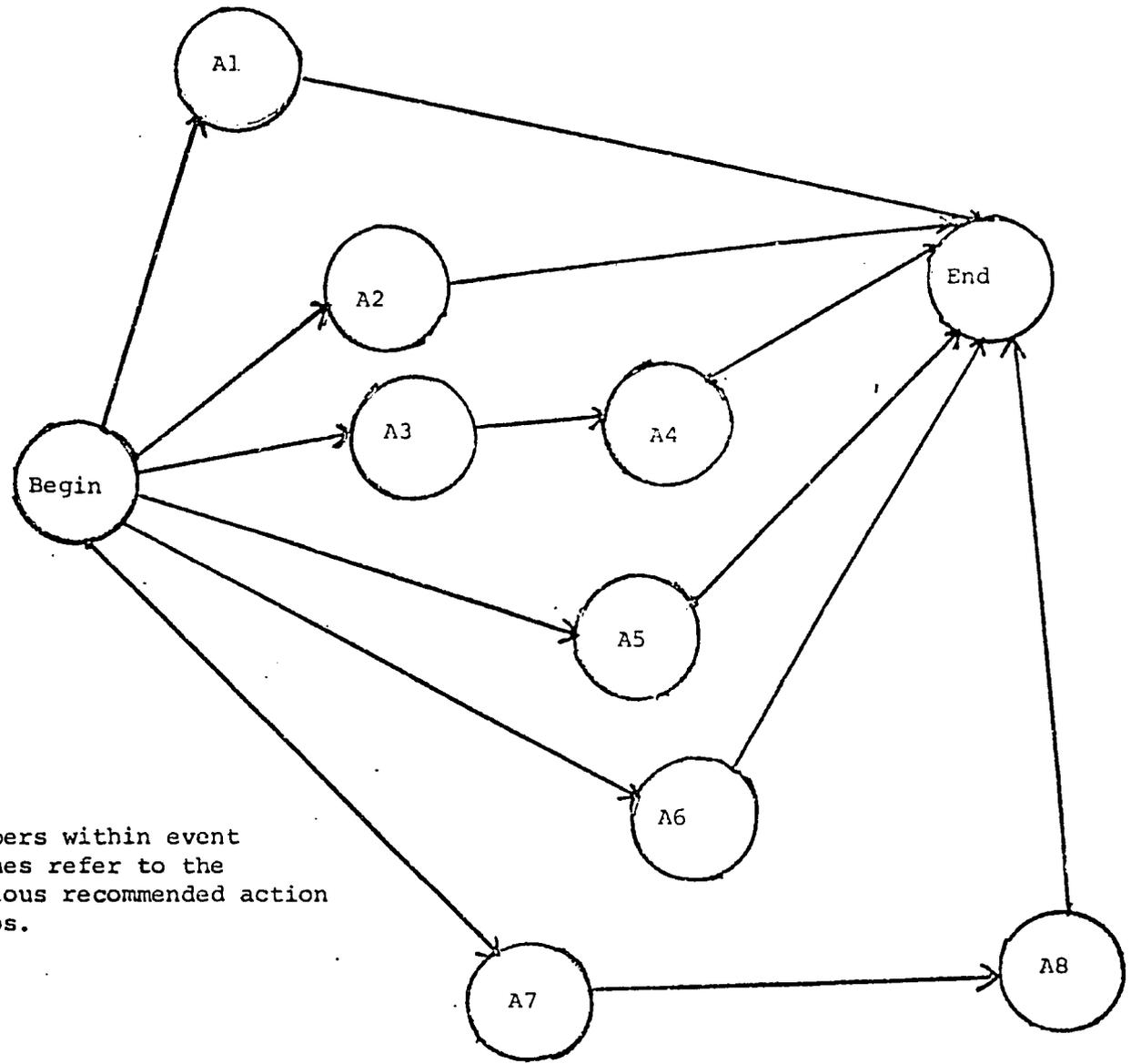


Figure 2 GANTT CHART OF ACTIVITIES-- Ministry of Agriculture recommendati



KEY: Numbers within event arches refer to the various recommended action steps.

FIGURE 1. PROGRAM EVALUATION REVIEW TECHNIQUE FLOW DIAGRAM--Ministry of Agriculture recommendations

B. The Training Component

The team's discussion with various people and review of a variety of documents resulted in the identification of many manpower training needs. This section of the report presents recommendations relative to the training staff's capabilities in meeting these needs.

The need for trained Personnel

As Table 2 points out, the need for additional personnel is great in terms of the Ministry's five-year plans; nearly 700 new staff will be required. The assumption made in suggesting the numbers needed is that increased production through programs like Land Lease, through innovations in hillside farming, and through higher yields will require a variety of new, highly skilled staff in addition to the current staff. This contention is supported by another team's analysis of staff needs (see reference No. 1, Appendix II). In the Florida's report the estimation was made that approximately 1,600 people, newly trained in agriculture, will be required over the next five years. They further suggested that slightly more than 800 would go into government work.

However, before the accuracy of the five-year needs can be verified, the training staff must obtain some understanding of what skills are currently available within the Ministry because the design of an appropriate training program is dependent upon knowledge.

TABLE 2

SUMMARY OF CURRENTLY ALLOTTED AND ESTIMATED STAFFING
NEEDS OF MINISTRY OF AGRICULTURE*

Type of Staff**	Currently Allotted***	Estimated Need 1979-1984****	Suggested Percentage increase
Administrative			
Senior level	16	19	+ 20%
Middle level	270	351	+ 30%
Technical Staff			
Professional level	989	1,187	+ 20%
Sub-professional level	564	790	+ 40%
Office and Clerical	784	862	+ 10%
Support staff	<u>1,045</u>	<u>1,150</u>	+ 10%
Totals	3,668	4,359	
New numbers needed = 691			

* Compiled from a Personnel Division listing of classifications by group, sub-group, and grade, Ministry of Agriculture, November 1978.

** Administrative--Senior--division/department heads
 Administrative--Middle--deputy directors, program managers, and administrative group leaders.
 Technical--professional--directors of support groups, directors of specific research units, etc.
 Technical--subprofessional--research officers, training officers, ag chemists, agronomists, etc.

*** These are the numbers allotted--in many instances a division will have served spots currently vacant. Therefore, the new number needed in the next five-years will be greater than the 690 figure if all vacancies are filled.

**** The estimated needs were obtained by multiplying a percentage figure times the currently allotted number.

The percentages that are suggested were derived from discussions between the team members and from discussions with various officials at the Ministry. They are presented as preliminary guides for the training staff in planning future training. Further discussion of the numbers by Ministry officials will be needed to verify their accuracy of the gap that exists between available skill in comparison to future skills required to meet the needs of the five-year plan. If this gap is unknown and there is an absence of policy for selecting training opportunities, the result will be a reactive response to training requests rather than a proactive design of targeted training programs.

POLICY STATEMENT: Highly trained managerial, technical, extension and support staff are crucial to achieving the goals of the five-year plan; therefore, it should be the policy of the Ministry to establish and maintain a current listing of available skills per division.

RECOMMENDED ACTION STEPS:

B1 - The Director of Training, in consultation with Roy Russell, Director of the Data Bank and Evaluation Division, should design and administer a form that will collect data from each division on what has been the academic and short-course training exposure of each employee.

The following is an example of a form that could be used:

- A. Ask divisional and department heads to administer the suggested form to each of their employees. Deletions, additions, or computer card column adjustments to the form or the code sheet will need to be made as appropriate.
- B. It is suggested that the form be keypunched and computerized and that point-outs be obtained that are both descriptive and analytic in terms of various cross tabular comparisons.
- C. It is recommended that each divisional head administer the form to all employees with the request that the form be returned within one week.

D. The following instructions are suggested for a cover sheet.

To meet the training needs of each employee and to ensure that the Ministry maintains an up-to-date work force, the attached survey form has been designed. Please fill it out and return it within one week. Please complete each question to the best of your ability so that we may proceed at once in the useful design of needed training programs.

MINISTRY OF AGRICULTURE
SKILL LEVEL ASSESSMENT FORM

	ID	No.
NAME _____	4	7
JOB CLASSIFICATION/TITLE _____	8	14
YEARS IN CURRENT POSITION _____	15	16
DATE OF FIRST EMPLOYMENT _____	17	18
AGE _____	19	20
YEAR, DEGREE, INSTITUTIONS, AND SPECIALIZATIONS of FORMAL EDUCATION	21	25
_____	26	30
_____	31	35

YEAR, DESCRIPTION OF RELATED SHORT COURSES, AND WHERE HELD (MOST RECENT FOUR)	36	40
_____	41	45
_____	46	50
_____	51	55
DESIRED ADDITIONAL TRAINING	56	57
_____	58	59
_____	60	61
_____	62	63

CODE SHEET

SKILL LEVEL ASSESSMENT FORM

	<u>Cols</u>	
1. Job Project ID	1 - 3	
2. Name (use unique ID number)	4-- 7	
3. JOB CLASSIFICATION/TITLE (use current CLASSIFICATION SCHEME - ALPHA AND RIGHT JUSTIFIED FOR EXAMPLE, OPS/ST3 or GLS 1)	8 -14	
4. YEARS IN CURRENT POSITION (ACTUAL - LESS THAN ONE EQUALS 90)	15 - 16	
5. DATE OF FIRST EMPLOYMENT (IN YEARS - FOR EXAMPLE, 1976 = 76	17 - 18	
6. AGE (ACTUAL- RIGHT JUSTIFIED)	19 - 20	#1
7. YEAR AND TYPE OF FORMAL EDUCATION (FOR EXAMPLE, 1974, DIPLOMA - JAMAICA SCHOOL OF AGRICULTURE = 74,111)	21 - 25 31-35	#2 #3
<u>DEGREE</u>	<u>INSTITUTION</u>	<u>MAJOR</u>
1 = Diploma, 2 yr.	1 = JSA	1 = General Ag.
2 = Diploma, 3 yr	2 = UWI	2 = Home Economic
3 = B.Sc/B.A.	3 = USA	3 = Agronomy
4 = MS/MA	4 = Other	4 = Ag Econ
5 = Ph.D		5 = Soils
6 = Other		6 = Education
		7 = other
8. YEAR, DESCRIPTION OF RELATED SHORT COURSES,LENGTH (IN WEEKS) AND WHERE HELD	36-40 41-45	#1 #2

The team's discussion with various people and review of a variety of documents also resulted in the identification of some specific concerns.

They are summarized as follows:

- There is a need to emphasize knowledge about and commitment to the value of research in meeting the five-year goals;
- There is a fairly universal need to improve the skills of managers and middle managers in terms of human relationship skills;
- Because the development of cooperatives is expanding rapidly and is important to the increased production goals of the Ministry, there is a need to educate centrally and regionally located staff about the cooperative movement;
- As the Training component will need to rely a great deal on the teaching expertise of various personnel throughout the Ministry, there is a need to upgrade the general level of teaching, extension, and program planning skills;
- There is a general need for more resources to purchase training-related equipment and materials for use by the Training staff, the Agricultural Information Service, and others.

POLICY STATEMENT: The systematic identification of needs is crucial to establishing training objectives and plans; therefore, it should be the policy of the Training staff to utilize carefully assessed needs in its program planning process.

RECOMMENDED ACTION STEP:

- B3 - The training staff should administer a standardized needs assessment form each year in order to maintain an up-to-date understanding of the training needs.

The following is an example of a form that could be used.

- A. It is important in the use of a standardized form to move the employee and manager from an immediate perception of need (interests, likes, felt need, and preferences) to a recognition of real need (at the demonstratable level). only when the real need has been identified and becomes the basis for program planning that progress toward meeting the five-year goals can be met.

- B. The basis of a standardized form follows point "D" below. In the instrument the subjects that are shown are placed there only for demonstration purposes. A training staff member should interview the division or department director to obtain the statement specific to that division. This procedure gives the top administrator an opportunity to make an "expert" intervention early in the process. Roy Russell should be consulted in designing the actual instrument if the information is to be computerized.
- C. The process to be used for each division or department is as follows:
1. The instrument (designed as described above) is administered to each staff member of a division or department depending on the number or classification diversity of employees within a division, more than one form may be required. It is important to protect the anonymity of each respondent if he or she so desires.
 2. After the form has been completed by member of the division (strive to obtain 100% participation), compile a simple descriptive summary. (a computerized summary of the forms may be desired.) For example, if 35 people in a division completed their forms, there might be 10 who checked column No. 1 for subject No. 1, 10 who checked column No. 2, and 15 who checked one of the other three. This information would be compiled for each of the subject areas.
 3. The next step is to ask the 35 people to meet in a group setting. Provide each with a summary of the combined instrument responses. Ask them to work in small groups of 6 - 10 people and prioritize the needs according to the summarized responses and their own individual needs. This modified "Delphi" technique moves the person toward a recognition of their real need as they participate in a discussion of why particular subjects are more important than others in their division. They are asked to come to an agreement on the subject priorities. An important by-product of this process is a feeling of "ownership" in terms of both the decided priorities and the whole process of designing training to meet specific needs.

4. The final step is merging the data from the various small groups into a master priority listing of needs. This information becomes the basis for planning the training program for that division each year. The advantage of the process is that the "expert", the division administrator, has been involved, the needs assessment instrument was based on initial interests and perceptions of need, and the group process technique moves individuals into the identification of real needs. The process should be completed annually if at all possible.
- D. The above described process obviously will be time consuming. However, the overall commitment to training that will develop in most cases is with the time investment. In addition, if a training liaison is identified in each division (see Recommended Action Step B10) he or she can carry out the needs assessment process each year.

TRAINING NEEDS ASSESSMENT SURVEY**PURPOSE**

This instrument is designed to provide training with some descriptive information regarding the staff development needs of your division. Information is solicited through an anonymous assessment and compiled on a total division basis. This assessment is not an evaluation tool. Information gathered with this form will assist training in planning effective staff development activities.

DIRECTIONS

This inventory includes statements relating to abilities or competencies which have been identified as important to the successful operation of your division. For each of the items, indicate the degree of competence you think you now demonstrate to assure a valid profile of training needs, is essential that you respond to every item. Mark your responses in the spaces provided next to the statements. Circle the number which best approximates your perception of your own performance regarding the item.

The five degrees of competency are defined as follows:

1. Have a slight degree of competency; a definite need for improvement.
2. Have some degree of competency; a need for improvement.
3. Have a moderate degree of competency; some need for improvement.
4. Have a high degree of competency, may need improvement.
5. Have a superior degree of competency; no need for improvement.

EXAMPLE

To what degree do I as an (Administrator*)....

Item #

1 Use a systematic planning process 64 1 2 3 4 5

Meaning: This indicates that you think you have a moderate degree of competency and need some improvement

* Substitute whatever term is most appropriate: agronomist, soil chemist, clerical officer, etc.

INVENTORY OF _____ * TRAINING COMPETENCIES

Scoring Directors: Circle appropriate number for each item according to the directions on the preceding page. Please respond to every item.

TO WHAT DEGREE DO I AS A (MANAGER**).....

1. Use a systematic planning process	1.	1	2	3	4	5
2. Communicate effectively with my employees	2.	1	2	3	4	5
3. Evaluate progress toward goals	3.	1	2	3	4	5
4. Have evaluation skills	4.	1	2	3	4	5
5. etc.***	5.	1	2	3	4	5
6. etc.	6.	1	2	3	4	5
7. etc.	7.	1	2	3	4	5

*Substitute whatever term is appropriate: Forestry, Soil Conservation, Personnel, etc.

**Substitute whatever term is appropriate: agronomist, soil chemist, clerical officer, etc.

***Add subjects as needed based on the interviews with the division or department heads.

An immediate need expressed by many of the administrators who were interviewed was the desire for both field and central staff to have increased managerial and human relationship skills so that they can better organize their operations, provide motivation to their employees, and maintain the leadership necessary in meeting their goals and objectives.

POLICY STATEMENT: Management effectiveness is vital to the long-range accomplishment of the five-year goals; therefore, it should be the policy of the Ministry to encourage a continuous development of managerial and human relationship skills.

RECOMMENDED ACTION STEP:

B4 - The training staff should facilitate the use of new or existing short courses in upgrading the skills of middle management (and above) Ministry employees in the areas of management, human relationships, interpersonal communications, program planning, and teaching methodology. The needs assessment, recommendation (see Action Step No. B3) will help to focus these needs. The USDA's International Training Division and the Ministry of the Public Service both have short courses available on the above subjects. It is further recommended that at least twenty people participate each year. There should be at least one participant per division selected by the divisional heads on the basis of those most in need of the training.

Two consistent needs expressed by several people interviewed concerned a perceived lack of awareness regarding the value of research to agricultural progress and the importance of the cooperatives movement.

POLICY STATEMENT: Each employee of the Ministry should be aware of critical issues important to the accomplishment of the five-year plans; therefore, it should be the policy of the Ministry to orient all employees regarding certain critical issues as quickly as possible.

RECOMMENDED ACTION STEPS:

- B5 - The Ministry should charge the Director of Research, the Training Director, and the Agricultural Information Service with orienting current and future staff regarding the importance of research to achieving the five-year goals. Representatives from the three areas should meet, design a short course and instructional mode, and assist the training staff in carrying out the course.
- B6 - The Training Director, in conjunction with the Cooperative Development Center, should facilitate the design and implementation of orientation sessions in the cooperatives movement for the Ministry's central and field officers who have some need for the information (to be identified by each divisional head in conjunction with the training staff.)

A priority assignment for the team was to examine Training in-order to make recommendations which would aid the training staff in successfully completing their five-year plans. Of the people interviewed in training, the Director of Training and four training officers, two have B.S. degrees, one has a M.S. degree, and two have J.S.A. diplomas. However, only one person has a degree related to education--the M.S. is in Agricultural Education; this person has not had extensive academic preparation in training. Other individuals have either had only one or two courses in extension methods or have picked up some training-related exposure through experience and through short courses.

Subsequently, one problem is the lack of collective experience and professional education in training methods. This somewhat limits the effectiveness of the staff to do the following:

- training others in education techniques (training of trainers);
- utilize appropriate training techniques relative to the content to be taught or the size of the group to be taught;
- identify crucial training needs and potential educational resources to be used in meeting those needs;
- facilitate others who are serving as resource persons.

There are a variety of ways in which the Training component can improve its effectiveness. However, administrative decisions in terms of priorities and the availability of resources, will dictate the extent to which some of the means will be undertaken.

POLICY STATEMENT: Training expertise and management efficiency are crucial to the success of the Training component; therefore, it should be the policy of the Training staff to continuously pursue the improvement of their training skills and managerial effectiveness.

RECOMMENDED ACTION STEPS:

- B7 - Each member of the Training component at the Training Officer level or above should be encouraged and given the opportunity by the Ministry to obtain at least a master's degree in the area of continuing education and training. This degree program should contain at least a three-month internship with some training division in industry or government in the host country. The Director of Training should also have additional academic training in administration and management.
- B8 - All current members of training at the training officer level or above should participate in the following short courses:

"training of the trainer"

"Organizational Planning and Development"

"Evaluation techniques"

The USDA's International Training Division and the Ministry of the Public Service both have short courses available on the above subjects.

There are three additional means by which the overall capabilities of the training staff can be increased.

POLICY STATEMENT: Training is crucial to achieving the Ministry's five-year goals; therefore, it should be the policy of the Ministry to increase the capabilities of the Training component as quickly as possible.

RECOMMENDED ACTION STEPS:

- B9 - The Ministry should authorize at least one new person at the Training Officer level for each of the next five years. Such persons should be capable of quickly stepping into a Training Officer role. At least a B.S. degree in an education-related field would be desirable; if such individuals are not available, then someone who has had at least some academic preparation in extension or educational methods should be sought. These new staff persons should participate immediately in the "Training the Trainer" short course described earlier and the other two workshops as time permits.

One purpose of the above recommendation in addition to increasing the training capabilities, would be to facilitate the release of current staff as quickly as possible so they can pursue advanced degrees in continuing education and training. Eventually the above described new personnel should also be supported in obtaining similar advanced degrees. Subsequently, at the end of eight to ten years hence, the Training Unit would have a complement of up to ten people with master's degrees.

- B10 - The Training Unit, in conjunction with Regional Directors and the various Divisional Directors, should identify one person in each division and in each region who would serve as a liaison with Training. Such a person should participate in at least the "Training the trainers" short course described earlier and would be delegated responsibility for the coordination of needs assessment activities, the identification of training requirements peculiar to a particular division or region, and a general liaison with Training in addition to regular divisional or regional responsibilities. The training unit, in turn, would be the authorizing agent for all training taking place in the Ministry.

B11 - The Training component and Personnel Division leaders should meet with Ministry of the Public Service officials to determine how some of the MPS courses can be made more specific to the training needs of the Ministry of Agriculture. This will permit the training unit to concentrate more on facilitating the movement of people in and out of courses rather than developing their own courses for many areas of need.

The Effectiveness of the Training Unit

Most staff members connected with training have been there less than one year. As mentioned in the section above, the staff members have a need for additional skills related to several areas. The team has several concerns regarding the Training Unit's current mode of operation because of the lack of certain skills. Gaining additional skills through short courses and academic preparation in the long run will permit the training staff to create a better organization. However, the team has several recommendations that should improve the immediate effectiveness of the Training Unit.

One area related to managerial effectiveness is evaluation. Evaluation of training activities is necessary to understand how well needs are being met and whether objectives are being accomplished.

POLICY STATEMENT: Evaluation is crucial to effective program management; therefore, it should be the policy of the Training Unit to utilize good evaluation practices in their day to day efforts.

RECOMMENDED ACTION STEPS:

- B12 - The Training Unit should carry out, on an annual basis, a systematic evaluation of its operations. The level of accomplishment of objectives, the abilities of the staff, and the effectiveness of the Unit in helping to achieve Ministry objectives are some of the aspects which should be included in an overall plan.
- B13 - As part of the plan described above, the Director of Training should establish a list of performance criteria by which each of the staff members can be evaluated annually; such as the extent to which the individual staff members plan and evaluate their activities, the attempts made for self-improvement, efforts made to improve effectiveness and inter-personal communication skills, etc.
- B14 - The Training Unit should use a standardized evaluation form to be completed by participants at the end of each training activity. Appendix III suggests a

form that could be used. The results will help identify both effective and ineffective teachers.

Several people interviewed said that training center and farmer short courses should be more practical in nature as opposed to sessions which are primarily "lecture" in nature. Thus, the training staff members need to improve their effectiveness in the design and use of courses.

POLICY STATEMENT: The training needs of the Ministry dictate that training program participants receive the best possible training; therefore, it should be the policy of Training that all training center programs develop skills that have direct relevancy to implementing the five year goals.

RECOMMENDED ACTION STEP:

- B15 - The Training Unit should develop training center programs which include more demonstrations, field visits where appropriate, skills to enable the passing of various tests, and more practical information. The Ministry of the Public Service (MPS) should be consulted for help in this regard. For example, secretarial courses could be designed to meet the standards of the Secretarial and Recording College through MPS guidance. As another example, farmer training sometimes could be completely removed from a classroom and centered around visits to demonstration sites or highly successful farms. This recommendation should be carried out by including an analysis of the problem, the design of new teaching strategies and techniques, and the work with instructors.

The training component's effectiveness also could be improved if there were adequate resources to acquire the capability in developing and using a variety of training materials.

POLICY STATEMENT: There is tremendous potential through self-study to increase skills, knowledge, and awareness; therefore, it should be the policy of the Training component to promote self-development.

RECOMMENDED ACTION STEP:

- B16 - The Training Unit should begin immediately to develop or locate resources that can be utilized by Ministry personnel for self-development and upgrading. Technical reports,

periodic literature, lectures, conference proceedings, and self-study materials are some of the materials that should be placed in a centralized learning resource center. Divisional administrators should be asked to both contribute materials and to encourage their personnel to use the learning materials; a subprofessional person with some experience or training in the library sciences could handle the categorizing and check-out procedures. In addition, the Training staff should work with AIS and develop a request to some donor agency for any audio-visual equipment necessary for the self-study materials. The resource center should be operational as soon as possible.

Finally, organizational effectiveness can be improved by the smooth flow of information. Two recommendations are offered regarding the Training Unit's communications efforts.

POLICY STATEMENT: Effective communication is crucial to the long-range success of training; therefore, it should be the policy of Training to continuously improve its communication processes and to upgrade its overall visibility.

RECOMMENDED ACTION STEPS:

- B17 - The Training Director should adopt various means for institutionalizing and systematizing the flow of communication with divisions in the Ministry. Regular interdivisional staff meetings on training, the assigning of each Training staff member to liaise with selected divisions, and a regularly distributed newsletter on training (to be more fully described in the next recommendation) are some of the means that should be utilized.
- B18 - The Training Unit, in conjunction with AID, should develop and disseminate a monthly bulletin on training opportunities and activities to all personnel in the Ministry.

The Training Staff's Commitment to Training

As mentioned earlier, the training staff members are relatively inexperienced in terms of training experience and preparation. No real commitment to or understanding of the "training" field was observed by the team. However, training staff members appear anxious to obtain a professional commitment and to be seen as professional trainers. Thus, three final recommendations are provided regarding professionalization.

POLICY STATEMENT: Professionalization is crucial to the overall growth and development of a training unit; therefore, it should be the policy of the training staff to increase their professional involvement in and commitment to the continuing education and training field.

RECOMMENDED ACTION STEP:

- B19 - The Director of Training should work with some donor agencies and request institutional membership and/or annual subscriptions to at least the following:

Organizations - Adult Education Association of the USA
- American Society of Training Directors

Periodicals - Adult Education (USA)
Adult Education (UK)
Convergence
Lifelong Learning
Journal of Continuing Education & Training

The periodicals should be mandatory reading for all Training staff.

- B20 - Each Training staff member at the Training Officer level or above should be permitted and given financial support to attend the annual conference of some continuing education and training-related associations in some other English speaking country at least once every three years.
- B21 - The Training staff, in conjunction with trainers from the Ministry of the Public Service, should take the leadership role in developing a continuing education and training association in Jamaica. An annual conference, the development of periodic literature specific to Jamaican continuing education and training activities, and regular contact with other professionals carrying out similar functions are the probably by-products. JSA, the Ministry of Education, CAST, UWI, JAMAL, and the Cooperative Development Center are only some of the organizations where continuing education and training-related professionals are employed.

Management Information (see diagrams over)

TABLE 3. Project Management Guide - The Training Component

RECOMMENDATION	KEY PERSON/GRUOP INVOLVED	ESTIMATED COSTS	HOW DETERMINED	ESTIMATED TIME REQUIREMENT
B1 - Analyze skill level	Leonard Henry Chester Gibson Roy Russell	\$5,000 first time and less each succeeding time.	Estimation - includes computer time, key punching, and printing.	Two Months
B2 - Analyze entry level skills	Leonard Henry Chester Gibson Ministry officials JSA officials	Staff time	--	Two Months
B3 - Use a standardized needs assessment process	Leonard Henry Training staff Roy Russell	\$5,000 first time and less each succeeding time.	Estimation - includes computer time, key punching, and printing.	Four Months
B4 - Management short course	Leonard Henry Divisional Heads	\$15,000 for one instructor brought into country. Less if in-country course.	USDA Guidelines	Six weeks each year.
B5 - Orient on research	Leonard Henry Director of Research	Staff time	--	One month to plan One week each time course is taught.
B6 - Orient on cooperatives	Leonard Henry Cedrick McCulloch Divisional Heads	Staff time	--	One month to plan One week each time course is taught.
B7 - Training staff obtain Masters degree	Ministry officials, in conjunction with Leonard Henry	\$1,100/month/person Eight years worth required for a total of \$105,600 Inflation over the eight	USDA Guidelines	Five to eight years.

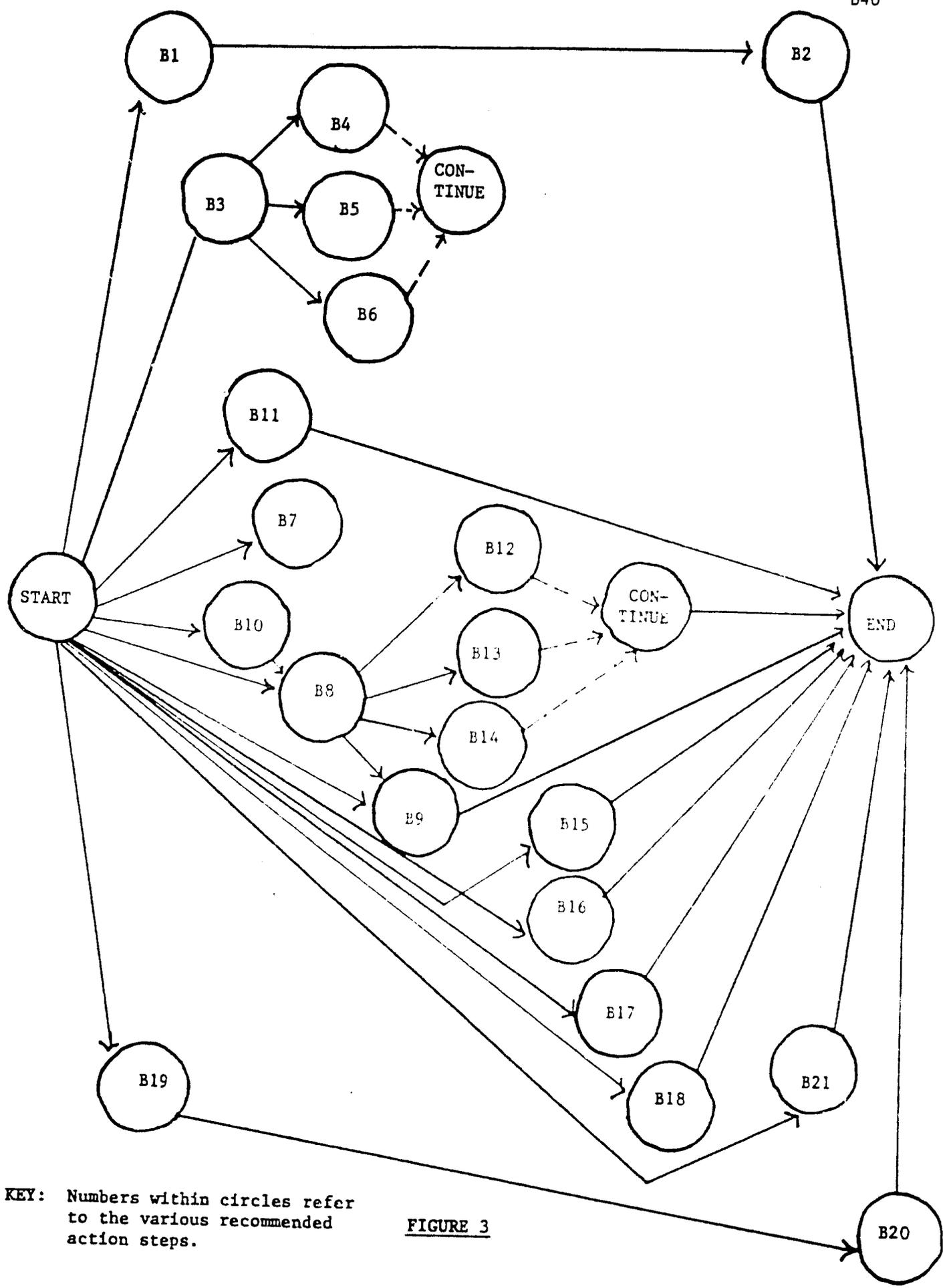
(11)

RECOMMENDATION	KEY PERSON/GRUP INVOLVED	ESTIMATED COSTS	HOW DETERMINED	ESTIMATED TIME REQUIREMENT
B8 - Three Short Courses	Leonard Henry Training staff	\$5,000 for evaluation course \$15,000 for other two Total = \$20,000 less if in-country course	USDA Guidelines	One week - evaluation Six weeks for each of other two Spread out over one year.
B9 - Additional persons in the Training Unit	Ministry officials Chester Gibson Leonard Henry	Salary plus any training costs per person. Estimated \$10,000/year	Estimation	One per year/or five years.
B10 - Select liaison in each division	Leonard Henry Regional Heads Divisional Heads	Any needed training costs Estimated \$5,000 total for travel, etc.	Can participate in short courses for training staff.	One year
B11 - Focus MPS courses on agricultural needs	Leonard Henry Chester Gibson MPS officials	Staff time	--	Two months for meeting
B12 - Evaluate the Training Unit	Leonard Henry Training staff	Staff time	--	Two months to plan One month to implement
B13 - Develop performance criteria and evaluate the training staff	Leonard Henry	Staff time	--	Two months to plan Two months to implement

(111)

RECOMMENDATION	KEY PERSON/GROUP INVOLVED	ESTIMATED COSTS	HOW DETERMINED	ESTIMATED TIME REQUIREMENT
14 - Have participants evaluate training activities	Leonard Henry Training staff Roy Russell	\$10,000 per year	Estimation - includes computer time, key punching, and printing.	Two months to plan implemented as needed.

TOTAL - Up to \$136,000 for the first year.
The five year requirement would be approximately \$136,000. (Both figures in US dollars)



KEY: Numbers within circles refer to the various recommended action steps.

FIGURE 3

1979

1980 - 1984

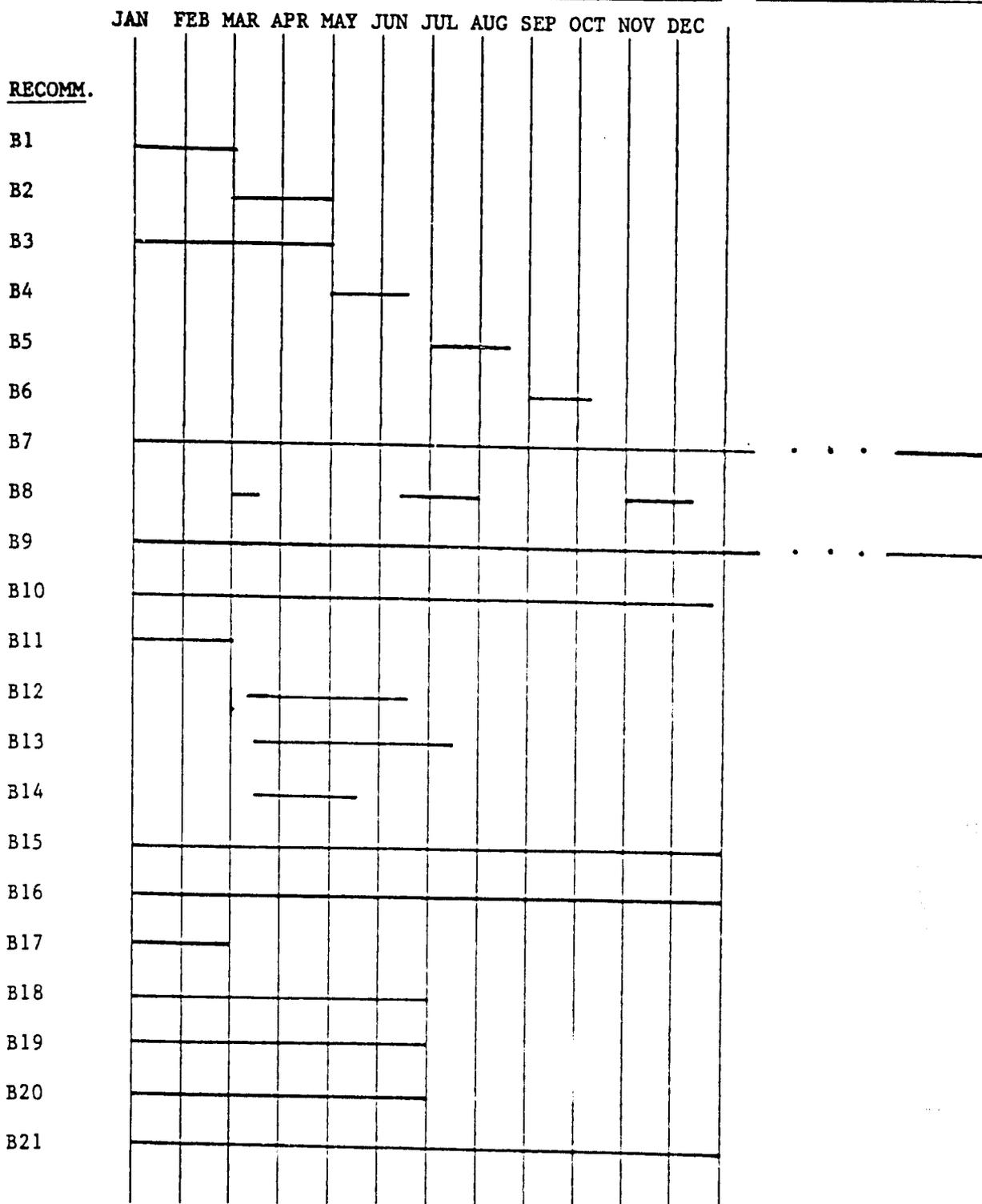


FIGURE 4. GANTT Chart of Activities - Training Component

3. RESOURCES FOR TRAINING

Another aspect of the scope of work for the team was to identify any existing and potential opportunities for training within Jamaica and out of the country. To obtain some information regarding opportunities staff members in the Personnel Division of the Ministry, Training staff members, staff members in the Ministry of Public Service, staff members with the Agricultural office of USAID in Kingston, officials with the International Training Division of USDA, the Principal of the Jamaica School of Agriculture, and an agricultural specialist from Holland who was consulting in Jamaica, were interviewed. In addition, a number of documents (see Appendix II) obtained through the above sources were reviewed.

The findings of interest to this report are as follows:

1. The Ministry of Public Service - This Ministry has a Training Division, training centers located in Kingston and in Mandeville, and an administrative staff college. The Ministry offers a variety of courses in the areas of management, instructor training, and support staff training. Several of the courses appear to have potential in meeting several of the Ministry's needs. A complete listing of all their courses appear each year in a comprehensive guide (see No. 30 in Appendix II).

However, several of the Ministry of Agriculture staff members who were interviewed by the team reported that frequently the courses were not specific enough for the needs of sub-professional, technical, and managerial staff in agriculture. Therefore, the Directors of Training and of Personnel should meet with Ministry of Public Service officials to clarify agricultural training needs and to determine how some of their courses can be tailored more to meet the needs of agriculture.

2. International Training Division, USDA, Washington, D.C. - The International Training Division, offers a variety of courses in the United States; in addition, several of their courses can be brought into a country. Many of the courses have direct or partial potential in relation to several of the recommended short courses. As an example of the costs, a six-week, two-person teaching team would cost approximately \$22,000 plus \$4,500 in per diem costs. The Director of Training should work with AID officials to determine if any of the courses could be utilized to carry out some of the recommendations. A list of their courses can be found in the brochure referenced as No. 29 in Appendix II. Copies of this brochure can be found in the Ministry's Personnel Office and in the USAID office.

3. The Jamaica School of Agriculture - JSA has a staff of teachers, most of whom are trained in agriculture or home economics. There would be time both in the summer months and in the evenings during the year for involvement in training activities. The Principal, Dr. Nelson, reported that a willingness exists among the staff to be involved in outreach efforts. The Training Director, after the training needs have been specified, should meet with the Principal to determine procedures for utilizing the JSA teachers.
4. Miscellaneous - Time limitations did not permit the team to seek out other bilateral or multilateral funding sources to support training. However, an informal visit with an agricultural specialist from Holland about the Ministry's training needs, led to the suggestion that he felt his government would be quite interested in supporting some training-related projects in agriculture. Therefore, it is suggested that the Training Director should visit with representatives from various governments about the training needs of the Ministry and their support in meeting some of the needs.

Obviously, a large number of the immediate training needs of the Ministry will need to be met through internal training and through short courses both in and out of the country. The urgency of making agriculture more viable in Jamaica warrants heroic efforts to use "immediate" training to increase the capability of the Ministry to meet its five year goals.

However, the long range capability of the Ministry will rest on the shoulders of a highly trained and committed staff of agricultural professionals. The development of such a staff will be painfully long-range in nature when matched against the economic needs of the country. Therefore, every effort should be made, and several of the recommended action steps point the way to facilitate the academic preparation of an ever-increasing corps of managers, researchers, technicians, and scientists at both the masters and doctoral degree levels.

4. CONCLUDING REMARKS

The implementation of this report's recommendations will require heavy commitments on the part of the training staff. Equally important, fairly large investments (estimated to be \$1.25 million in foreign exchange) will be required. The Ministry must do its part and rechannel some of its scarce foreign exchange into support for training.

However, it will be impossible for the Ministry of Agriculture and its Training Unit to do it all alone ... the urgency is too great and the cost too high. Therefore, it is suggested that the Ministry prepare a project proposal for consideration by a number of foreign donor institutions. The proposal should request up to one-half of the dollar support needed over the next five years in order to carry out the recommendations in this report.

Agriculture is important to Jamaica's future - and a well-trained staff is crucial to the Ministry of Agriculture's capability in meeting its long-range goals. Hopefully, a well-trained and efficient training staff will be a reality in another five years.

Report of Travel
to USAID Jamaica, November 14-21, 1978
by Mary Gast, SER/DM/DS-A, Sr. Systems Analyst

A. PURPOSE OF VISIT

This trip was made at the request of USAID/Jamaica to analyze the data processing needs of the Ministry of Agriculture (MOA), and to recommend hardware, software, staffing, and training required to satisfy these needs.

B. PERSONNEL CONTACTED

Ken Ellis, Rural Development Office, USAID/Jamaica
H. Patrick Peterson, Rural Development Office, USAID/Jamaica
W. L. Bertie Wilson, Rural Development Office, USAID/Jamaica
Roy Russell, Director, Data Bank and Evaluation Division,
Ministry of Agriculture
Horace McMorris, Director, Data Processing Services (CDPU),
Ministry of Finance
Winston Brown, IBM/Jamaica

C. SUMMARY OF FINDINGS

1. Current and planned data processing requirements for the Ministry of Agriculture were discussed with Mr. Roy Russell, Director of the Data Bank and Evaluation Division.
 - a. MOA has no data processing equipment at this time. The input data for the few MOA systems that are currently automated is keypunched under contract and the computer programs run on the IBM 370/135 in the Central Data Processing Unit (CDPU) of the Ministry of Finance. A summary of current and planned automated systems is contained in Attachment 1. Due to time constraints, it was not possible to obtain more detailed information of the type normally required for an assessment of equipment requirements.
 - b. The data processing function in MOA is not adequately staffed. At the present time, there is only one full-time programmer; five other employees can program but work primarily as statisticians. Since MOA salaries are not competitive with the private sector, much

difficulty has been experienced in hiring and retaining data processing personnel. In an effort to alleviate this situation, MOA and the Government of Jamaica are working on a plan to upgrade the salaries of positions in the data processing field to a level more competitive with industry. The types of positions needed to support the current and planned workload of MOA were discussed and a proposed staffing plan developed (Attachment 2).

- c. The types of personnel training needed to support MOA's expanded data processing function were discussed and are listed below. The amount of training actually required, however, will be contingent upon the previous training and experience of the personnel recruited for the new data processing organization.
 - (1) Short term requirements - training for systems analysts and programmers in systems analysis and in any new hardware/software which is installed, e.g., IBM System 32, RPG II, FORTRAN IV; training for data entry technicians in data entry and correction processes on the selected remote job entry equipment; and training for statisticians in the preparation of specifications for use by systems analysts and programmers.
 - (2) Long term requirements - training abroad for two to three people, e.g., extensive FORTRAN training at the Bureau of Census International Training Office is desirable but will be contingent upon the availability of funds for transportation and per diem. As an alternative, the University of West Indies in Jamaica will be contacted regarding the availability of training courses in systems analysis and FORTRAN.
2. The hardware/software capabilities of the CDPU which provides data processing services to MOA were discussed with Mr. Horace McMorris, Director of Data Processing Services, and his staff. A summary of our discussion follows:

- a. Mr. McMorris and his staff foresee no problems in interfacing with RJE equipment if installed at MOA and feel confident that any increase in MOA's workload can be accommodated. Action has already been initiated by CDPU to improve their service capacity, e.g., tape systems are being converted to disk, tape units are scheduled to be upgraded in the first quarter of 1979, and disk memory increased in either the first or second quarter. Mr. McMorris stated that CPU memory will be expanded as necessary to accommodate all of CDPU's clients. The amount of additional core and the proposed date of installation has not yet been determined. Attachment 3 is a listing of CDPU's current and proposed hardware/software.
 - b. CDPU operates three shifts Monday through Friday and works on weekends on an as-required basis. Production jobs are normally run at night and testing during the day shift. Fifty-nine applications are run on the IBM 370 at the present time with the heaviest workload occurring at the end of the month.
 - c. CDPU is proposing to increase their charge for computer time to \$J150.00 (U.S. \$89.28) per hour for production work and \$J80.00 (U.S. \$47.60) per hour for testing. An effective date for the increase has not yet been established but the increased costs should be included in MOA's budget(s) for new automated systems.
 - d. Mr. McMorris requested that CDPU personnel be included in MOA training on any new equipment which will interface with CDPU.
3. A meeting was held with Mr. Winston Brown, IBM/Jamaica, to discuss MOA's current and planned automated systems and to describe, generally, the hardware/software capability needed; viz, an automated interface between MOA and the IBM 370 computer at CDPU; automated validation at the point of data entry; and sufficient local capacity to process small applications.
 - a. Based on the above requirements, our discussion centered primarily on the System 32 supported by an off-line IBM 3742 Dual Data Station. While RJE stations and a remote printer at MOA would expedite the transfer of data to and

from the IBM 370 at CDPU, a small scale local processing capability is also needed at MOA. Local capability will facilitate the processing of small application programs, particularly ad hoc programs with short deadlines, and should also expedite program development by providing faster turnaround time on program compilations and tests. One other important point - in the event that telephone communication between MOA and CDPU is interrupted, MOA will not be totally without processing capability.

- b. It appears that the System 32 configuration proposed in Attachment 4 will fulfill the MOA requirements which are known at this time, but with limited capability for automated validation at the point of data entry.
 - (1) Data can be entered into the System 32 through the keyboard or with diskettes created off-line on the 3742 Dual Data Station; the Dual Data Station allows two operators to enter data onto diskettes simultaneously. Data entered directly into the System 32 through the keyboard can be validated at the point of entry; however, data entered onto diskettes through the Dual Data Station will not be validated until the diskettes are run through validation programs in the System 32.
 - (2) Data to be processed on the IBM 370 will be transmitted by the System 32 to CDPU, via a telephone line, with output reports printed at CDPU or routed to the 155 lpm printer in the System 32.
 - (3) The System 32 can be programmed in RPG II, FORTRAN IV, and ANS COBOL, and will provide sufficient capacity to compile, test, and run data validation programs as well as some small application programs.
- c. Mr. Brown advised that a lead-time of at least six months can be expected on both the System 32 and the 3742 Dual Data Station; this applies whether the equipment is leased or purchased.
- d. The office space required for a System 32 is 10.3' x 7.2'; the 3742 Dual Data Station

requires 6.1' x 7.5'. Power specifications are single phase AC, 60Hz, 208V/230V (220V). Permissible operating environment is from 60° to 100° F, and from 8% to 80% relative humidity.

4. Since my return to AID/W, I have learned from IBM/Washington that their System 34 has been announced in Jamaica, and that maintenance will be extended to Jamaica as soon as the first System 34 is installed. To provide a basis for comparison between the System 32 versus the System 34, I requested IBM/Washington to prepare a System 34 configuration for MOA's requirements. This proposed configuration is shown in Attachment 5. Following is a brief summary of the System 32 versus the System 34.
 - a. The most significant difference between the two systems is the number of users each can support. The System 32 can support only one user at a time; the proposed System 34 configuration can support three users at a time, and this support can be expanded to eight users.
 - b. The System 32 provides a maximum of 32K bytes of main storage and 13.7MB of disk storage; the proposed System 34 configuration provides 48K bytes of main storage and 13.2MB of disk storage. These storage capacities can be expanded to 128K and 128.4MB, respectively.
 - c. With the proposed System 32 configuration, only that input data which is entered directly into the System 32 through the keyboard can be validated at the point of entry; data entered onto diskettes through the off-line 3742 Dual Data Station cannot be validated until the diskettes are run through the validation programs in the System 32. With the System 34 configuration, all input data is entered through the Display Stations directly into the System 34 for on-line validation.
 - d. The lead-time for the proposed System 32 configuration is six months versus twelve months for the System 34. It is possible that the lead-time on the System 34 will be reduced by the time that hardware selection must be finalized.

- e. The office space requirements for the proposed System 34 configuration are approximately the same as for the System 32 configuration. All of the 5251 Display Stations need not be located in the same room with the 5340 System Unit; some of these stations may be located up to 5,000 feet away from the main system. The power, air conditioning, and humidity requirements for the System 34 are the same as for the System 32.
 - f. The total monthly rental cost (hardware plus software) for the System 32 is \$2,383 versus \$2,366 for the System 34. The total purchase price for the System 32 is \$62,228 versus \$62,720 for the System 34.
5. In summary, it appears that the System 34 configuration proposed in Attachment 5 will best fulfill MOA's data processing needs; however, the fact that System 34 installations have not yet been established in Jamaica poses a potential problem from both a maintenance support and back-up standpoint. Since four System 32 installations are currently operating and being maintained by IBM in Jamaica, the System 32 configuration proposed in Attachment 4 seems to be a viable alternative for MOA. For reasons stated in paragraph C3a, a remote job entry/printer configuration is not considered adequate to support MOA's data processing workload.

D. RECOMMENDATIONS

Based on the findings reported in paragraph C, it is recommended:

1. That MOA and the Government of Jamaica finalize their plans to upgrade and maintain the salaries of MOA's data processing positions at levels which will be competitive with industry. Without a competent staff, MOA's data processing problems will not be solved regardless of the type of hardware/software installed. Before signing the project agreement authorizing hardware/software for MOA, USAID/Jamaica should ensure that an upgraded salary structure has been approved for implementation.
2. That action be initiated to recruit the personnel proposed in Attachment 4.

3. That MOA rent for one year (with an option to purchase) the System 32 hardware/software configuration proposed in Attachment 4. In the event that System 34 installations and maintenance support are established in Jamaica prior to the time that a final decision must be made on specific hardware, this recommendation will be changed to recommend that MOA rent for one year (with an option to purchase) the System 34 hardware/software configuration proposed in Attachment 5. Rental is recommended at this time rather than leasing or purchase to allow time for evaluating the suitability of the hardware for MOA's needs.
4. That the following short term training be provided, on an as required basis, for MOA data processing personnel:
 - a. Training for systems analysts, programmers, and data entry technicians in the new hardware/software. IBM training resources should be used to the maximum extent possible for this training. While formal classroom training is desirable, carefully monitored self study courses can also be very effective. At least two CDPU people should be included in any training on MOA equipment which will interface with CDPU equipment.
 - b. Training for systems analysts and programmers, according to their specific needs, in systems analysis, FORTRAN IV, and mathematical and statistical software packages. The availability of training courses at the University of West Indies should be explored by USAID/Jamaica; also, IBM and Bureau of Census should be contacted to determine whether on-site training in Jamaica can be arranged. (BUCEN personnel conducted a training course in CENTS III at CDPU during the period November 6-24, 1978.)
 - c. Training for statisticians in mathematical and statistical software packages to the extent necessary for them to become familiar with the types of packaged routines available; also, training in writing specifications for use by programmers. An experienced Senior Systems Analyst can assist in this training.
5. That long-term training abroad be deferred until the new data processing organization and equipment

are functioning and some of the major applications are under way.

6. That a Systems Analyst from AID/W visit MOA after the new hardware/software has been in operation for approximately ten months to evaluate the usage and suitability of the configuration for MOA's data processing needs.

E. COMMENTS

1. The implementation of the proposed hardware/software at MOA will expedite input and output processes for those applications which are run at CDPU; however, the quality and timeliness of work produced on the IBM 370 will continue to be totally reliant upon the level of service provided by CDPU.
2. The cooperation and courtesies extended to me by the USAID Rural Development Staff and the Jamaican Ministry officials are greatly appreciated.

Five (5) Attachments:

1. MOA Current and Planned Automated Systems
2. Proposed Data processing Staff for MOA
3. CDPU Hardware/Software Configuration
4. Proposed System 32 Hardware/Software Configuration for MOA
5. Proposed System 34 Hardware/Software Configuration for MOA

Ministry of Agriculture

Current and Planned Automated Systems

1. Current automated systems:

a. Crop Production surveys

Questionnaires are completed quarterly (April, July, October, January) for approximately 3500 farmers. These questionnaires contain approximately 750 questions relating to land utilization; types and acreages of crops planted in the previous quarter and planned for the subsequent quarter(s); harvest yields; goats grazed; agricultural labor; usage of fertilizers, insecticides, etc. The questionnaire data is keypunched under contract and the punched cards delivered by MOA to the CDFU for generation of 7-10 tabular reports. (Total estimated input for the third quarter of 1978 was 25,000-30,000 80-column punched cards; total estimated print lines - 35,000.) By April 1979, the number of farmers participating in the crop production surveys is expected to double (to 7,000) and the questionnaire data will be expanded to include approximately 1900 questions.

b. Ad hoc surveys

Approximately five ad hoc surveys are conducted each year. Data for these surveys is keypunched under contract and delivered to the CDFU for generation of output reports. One of the ad hoc surveys conducted in 1977 for the Integrated Rural Development Project was a survey of the Pindars-Two Meetings Watershed Areas; this survey provided base line information to be used in evaluating the project over a period of years, and for developing a project profile. Tabulations of the survey results required approximately 1400 pages of computer output, including 200 tables.

c. Pig Census

This application is in the process of being automated. Approximately 6,000 questionnaires were completed for the pig census in April 1978 and approximately 10,000 in September 1978. These questionnaires include information on the number and types of pigs being raised by each pig farmer, methods of disposal, problems, etc. Approximately forty items are contained on the questionnaire at the present time, however, this number is expected to double next year. Data from these questionnaires will be processed in the same manner as the crop production survey questionnaire, i.e., keypunched under contract and reports produced by CDFU. One or two tabular reports are anticipated at this time.

2. Planned automated systems:

- a. Evaluation of projects during and after the life of the projects.
- b. Agricultural management information systems, e.g., farm equipment performance, building maintenance, etc.
- c. Fishery statistics on monthly fish production and market prices.
- d. Analysis of experimental agricultural data, e.g., experiments in livestock breeding, including the monitoring of milk production; experiments in entomology, soils, crops, fertilizers, etc.
- e. Supply and demand statistics - improved forecasting techniques must be developed to alleviate current problems of shortages and losses in farm products.
- f. Fiscal management - MOA manages between 200 and 300 million dollars annually.
- g. Agricultural credit system - disbursements, credits, usage vs. purpose for which credit was granted.
- h. Library information system - bibliographic reference capability; monthly listings of new library material by title, author, subject matter, etc.
- i. Automation of manually tabulated reports, e.g., monthly Project Land Lease Reports; monthly surveys of acreage planted and yield production for 52 crops; monthly surveys on consumption of meat and meat products, eggs, fish, etc.; quarterly crop production estimates.

Proposed Data Processing Staff
for
Ministry of Agriculture

Annex C
Page 11

<u>Type of Position</u>	<u>No. of Positions</u>
<p>Data Processing Manager Experienced in systems analysis and statistics/mathematics. Responsible for overall data processing activities; e.g., workload planning and scheduling, budget estimates and financial records, personnel recruitment and training; interface with hardware/software vendors.</p>	1
<p>Senior Systems Analyst One analyst should be experienced in statistics/mathematics and both in systems analysis. Responsible for design and development of new and modified systems; i.e., design specifications, system documentation, test plans, verification of test results; interface with clients.</p>	2
<p>Senior Programmer Experienced in statistics and programming, preferably FORTRAN. Responsible for all programming and related functions--testing, documentation, maintenance, program libraries, etc.; supervises Journeyman Programmers and provides guidance as necessary.</p>	1
<p>Journeyman Programmer Experienced in programming, preferably FORTRAN and RPG II, but at least one programmer must also be experienced in COBOL. Responsible for writing, testing, documenting, and maintaining computer programs.</p>	2
<p>Data Entry Technicians Experienced in typing and in senior clerical duties preferably those of a technical nature which demonstrate an ability to learn and implement new techniques. Responsible for all data entry functions both on-line and off-line, writing format control programs, etc.</p>	2
<p>Clerk (Typist) Experienced in clerical and administrative duties, e.g., maintaining records, preparing reports, typing, filing. Responsible for scheduling ADP jobs in accordance with overall priorities established by the Data Processing Manager, preparing status reports on jobs scheduled and completed, typing, filing, etc.</p>	1
Total	9

NOTE: As the workload increases, it may be necessary to add one more person to serve as a backup for the Data Entry Technicians and for the Clerk (Typist).

OPERATIONS STANDARDS MANUAL
 OPERATING ENVIRONMENT

A.1 HARDWARE CONFIGURATION

A.1.1 CPU SPECIFICATIONS

IBM 370-135 with a ^{DOS/VS} capacity of 192K Real and 576 Virtual Storage and the following features:

<u>Type</u>	<u>Model</u>	<u>Description</u>	<u>Quantity</u>
3135	GDO	Processing Unit	1
	1421	Block Multiplexor Channel	1
	3621	Emergency Power Off Control	1
	3900	Floating Point	1
	3905	64 Multiplexer Sub-channels	1
	4640	Integrated Communication Adapter	1
	4655	3330/3340 Series IFA	1
	4668	Integrated Pointer Adapter for 1403N1	1
	4722	Second Additional Line	1
	6981	First Selector Channel	1
	7855	3215 Adapter	1
	7861	First Control Storage Increment	1
	7862	Second Control Storage Increment	1
	8637	Universal Character Set Adapter	1

Ministry of Finance
Central Data Processing Unit
HARDWARE/SOFTWARE CONFIGURATION

OPERATIONS STANDARDS MANUAL
OPERATING ENVIRONMENT

A.1 HARDWARE CONFIGURATION (cont)

A.1.2 INPUT/OUTPUT DEVICES

<u>Quantity</u>	<u>Description</u>	<u>Device No.</u>	<u>Channel Address</u>
1	Card Reader	3505	00C
2	Printers-1100 LPM	1403	00E and 00F
1	Console Type- writer	3215	01F
3	Model V Tape Drives	3420	281-283
1	Model V Tape Drive(Dual Density	3420	280
4	Disk Drives	3340	1C0-1C3
1	Optical Mark Reader	3881	
1	Tape Drive	3410	

1 each 2821, 3803 Control Units

EQUIPMENT ON ORDER

1	Diskette Reader	3540	
1	Direct Access) Storage) Model B2F)	3344	
4	Model VII Tape Drives	3420	

Ministry of Finance
Central Data Processing Unit
HARDWARE/SOFTWARE CONFIGURATION

B. Compilers

RPG II
Assembler
COBOL (ANS)
FORTRAN IV (Level G)

C. Software

SPSS
CENTS
COCENTS
FILEDTAB (Produced in England)

PROPOSAL SYSTEM 32 HARDWARE/SOFTWARE CONFIGURATION
FOR MINISTRY OF AGRICULTURE

HARDWARE

<u>TYPE</u>	<u>MODEL/ FEATURE</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>MONTHLY RENTAL</u>	<u>MONTHLY LEASE</u>	<u>LEASE TERM</u>	<u>PURCHASE PRICE</u>	<u>MMMC</u>
5230	B34	System/32 with: 16,384 bytes main storage 13,777,920 bytes disk storage 155 lpm printer	1	\$1,403	\$1,275	36	\$44,410	\$225.00
	1005	Additional Stor. @ 8,192 bytes	2	84	76	36	1,756	5.00
	2074	Binary Synch. Comm. Adapter	1	108	98	36	3,600	10.00
	5600	2400 BPS Integrated Modem	1	75	68	36	2,240	11.50
	5733	Processing Unit Expansion	1	8	8	36	320	.50
	1500	Control Storage Increment	1	42	36	36	878	2.50
	5552	FORTRAN Print Belt	1	---	---	---	170	---
		Sub-Total		1,720	1,561		53,374	254.50
3720	001	Dual Data Station	1	237	202	24	5,420	52.00
	4003	Feature Group A	1	16	14	24	483	1.00
	6125	Record Insert	1	6	5	24	164	.50
		Sub-Total		259	221		6,067	53.50
3872	001	2400 BPS Modem	1	94	94	--	2,575	25.00
	6101	Point-to-Point Basic	1	7	7	--	212	1.50
		Sub-Total		101	101		2,787	26.50
		TOTAL HARDWARE COSTS		\$2,080	\$1,883		\$62,228	\$334.50

*One-time cost of \$170.

SOFTWARE (Rental Only)

<u>DESCRIPTION</u>	<u>TYPE</u>	<u>MODEL</u>	<u>MONTHLY CHARGE</u>
System Control Program	5725	SC1	\$ N/C
Remote Job Entry	5799	WKJ	N/C
Report Program Generator (RPGII)	5725	RG1	28.00
Utilities Program Product	5725	UTI	15.00
FORTRAN IV	5725	FO1	75.00
COBOL	5799	AWQ	85.00
Subroutine Library - Math.	5725	XM1	50.00
Statistical System	5725	XA1	50.00
		TOTAL SOFTWARE COSTS	\$303.00

COMMUNICATION LINE (Lease Only)

Non-switched 2400 Baud Communication Line between MOA and CDPU
(This charge should be recomputed if MOA relocates, e.g.,
\$1.37 (\$J2.30) per 1/4 mile X mileage from MOA to CDPU.) Monthly Charge \$28

ADDITIONAL ONE-TIME COSTS (Rental, Lease or Purchase)

Installation (Freight, insurance, etc.)

\$600

Narrative Summary

Objectively Verifiable Indicators

Means of Verification

Important Assumptions

Program or sector goal

Provide increased MOA technical, planning, administrative and logistical support for the Jamaican rural/agricultural sector effort to improve production and incomes at all sector levels, especially the small farmer.

Measures of goal achievement

X Percent more MOA employees with significantly higher levels of educations/training are providing a markedly greater amount of qualitatively superior assistance both directly and indirectly to the Jamaican rural/agricultural sector, especially small farmers, in the preparation of production and marketing plans and obtaining of the technical and material resources necessary for carrying out such plans.

1. Joint MOA/AID evaluations of MOA policies and performance.
2. MOA operational records such as computer time used, person-days of field trips taken, farmers contacted, number of production plans prepared, etc.

Assumptions for achieving goal targets:

1. Absence of force majeure
2. Continued GOJ commitment to project, including agreed financial support
3. Continued willingness of farmers to work with and accept advice from MOA.

Project purpose:

Increase the institutional capability of the MOA:

- a) to collect, organize and analyze relevant data;
- b) to upgrade its level of personnel, both quantitatively and qualitatively;
- c) to improve its administration and management
- d) to identify and satisfy its ongoing training requirements; and

End of Project Status

1. MOA has absorbed and is employing W additional trained permanent staff professionals and has satisfactorily upgraded the capabilities of X existing professionals.
2. MOA has increased its permanent data handling capability (computer availability, data storage and retrieval capacity, trained

1. Joint MOA/AID evaluations of MOA capabilities.
2. MOA personnel roster and updated biodata.
3. MOA equipment lists.
4. Study of MOA agricultural surveys.
5. Study of rural/agricultural plans prepared by MOA.

1. Ministries of Finance and Public Service make necessary funds, personnel slots and pay scales available.
2. MOA remains institutionally committed to internal reform.
3. Excessive departures of trained personnel can be avoided.

Narrative Summary

- e) to utilize these factors effectively to meet the stated project goal.

Objectively Verifiable Indicators

- personnel onboard, etc.) by Y percent during the course of the project.
3. MOA has augmented its general management and specialized training systems capacities to the point where they can function at a satisfactory level without further external assistance.
4. MOA has added Z annual agricultural surveys to the 5 being conducted at the start of the project.
5. MOA is using the information flowing from the equipment, personnel and systems improvements made under the project in designing sound plans and policies to benefit the rural/agriculutral sector in general and small farmers in particular.

Means of Verification

Important Assumptions

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
5. Improved MOA training management capability	5.a. Each professional in Training Division to earn a Master's Degree b. Resource learning center established in Training Division c. Skills inventory for MOA personnel maintained and updated annually. d. Training liaison officer appointed in each MOA region and divisional office	MOA employee bio-data. Visual inspection. MOA organization and personnel staffing charts. Project evaluation report.	
6. Development of data and policy analysis capability.	6.a. 6 staff professionals complete long-term overseas training.	Project evaluation report	
7. Improved capability in project evaluation	7.a. Short-term training for 4 professionals in Evaluation Unit.	Project evaluation report	Coordinated utilization of data collection officers
<u>Project Inputs</u> Technical assistance, training and commodities listed in the Financial Plan.	As specified in the scheduled Financial Plan	1. Annual Report of Project Evaluation team. 2. Project accounting documents. 3. Visible inspection of commodities and technical advisors for relevant divisions in MOA.	1. Accuracy of the Gast SER/DM report, Ag Sector Assessment and Hiemstra/Doll report. 2. Adequate absorptive capacity in MOA



CENTRAL DATA PROCESSING UNIT - MINISTRY OF FINANCE

122 EAST STREET, P.O. BOX 512, KINGSTON, JAMAICA, WEST INDIES.

TELEPHONE 21862

Your Ref.

Our Ref. A40/01

6th April, 1979.

OFFICIAL FILE

e
- [unclear] (2)
[unclear]

Dr. Donor Lyon,
US AID Mission to Jamaica
c/o Embassy of the United States of America
2 Oxford Road,
Kingston 5.

Dear Sir,

With reference to the proposals concerning the institution of an Agricultural Data Bank, I am to advise that the concept of the Data Bank System has been accepted by the Electronic Data Processing Steering Committee.

In this connection the USAID sponsored plan calling for the placement of a computer at the Ministry of Agriculture linked by telephone lines to a large computer at the Central Data Processing Unit does not constitute a conflict of interest, neither is it envisaged that the installation of such a computer at the Ministry of Agriculture will create redundancy in the usage of the computer and its ancilliary equipment.

Yours truly,

H. M. Embden
Director of Systems Development

DATE REC.D: 4/11	
ACTION OFFICE: DOM	
INFO. TO:	
DOM	ARDO
EA	HNP
PROG/TRG.	EDUC
CAP	GDO
MGT	C & R
CONT	PER/GSO
DUE BY: 4/20	
ACTION TAKEN: /	

Annex, F

TELEGRAM

INDICATE
 COLLECT
 CHARGE TO USAID

KINGSTON 2449

FROM AMEMBASSY KINGSTON	CLASSIFICATION UNCLASSIFIED
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E.O. 11652:
TAGS:
SUBJECT:
ACTION:

N/A
PROJECT NO. 532-0061 - AGRICULTURAL PLANNING

P 091830Z APR 79

SecState WashDC
PRIORITY
UNCLASSIFIED KINGSTON 2449

AIDAC
FOR: SER/COM

DIST:
CHARGE
AID-3
RF
CHRON

1. Request geographical source/origin waiver under subject to buy Sixty-five (65) ~~thirty-five (35)~~ trailbikes of 120 - 175 cc size estimated at total cost (including freight) of \$62,000. Only known manufacturers this size are Japanese. Reference is made to State 059623.
2. Request approval proprietary procurement of IBM System 34 hardware/software configuration. The Gast-SER/DM report of December 8, 1978, ~~1979~~ recommended this system. This system has been introduced into Jamaica and maintenance will be available upon installation. System will be leased for one year with option to buy thereafter. Total estimated cost of rental and purchase is \$151,000.

[Signature]
HAVERKAMP

RAFTED BY: RDO:RGIBSON: jkv	DRAFTING DATE 3/30/79	TEL. EXT. 254	CONTENTS AND CLASSIFICATION APPROVED BY: ASSISTANT DIRECTOR: PSCHWAB
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RDO:HPPeterson
CAP:PWenger
PROG:HJohnson

RDO:KCellis
CONT:DDolley

Salaries of staff assigned to work on Projects
Funded by International Agencies.
Guidelines.

Consequent on the approval given by Cabinet for special salaries to be attached to posts engaged in implementing projects funded by International Agencies, the following guidelines should be applied in determining salaries and making appointments to such project posts:

1. The Ministry of the Public Service must be consulted with regard to the Organization and the establishment of posts so that approval may be given for the Organizational Structure and the numbers of posts to implement each project.

In the case of projects which are currently in progress, this requirement will not be necessary.

2. Once the organization structure and the numbers of posts are agreed by the Ministry of the Public Service, job descriptions should be submitted to the Ministry of the Public Service for each post, in order that posts may be allocated to an occupational group.
3. On receipt of information from the Ministry of the Public Service as to the occupational group to which each post on a project is allocated, the implementing Ministry should enquire about recruitment sources to fill the project posts.
4. The implementing Ministry will then be responsible for appointment of persons to the project posts. Recruitment for project posts may be done in any one of the following ways -
 - seconding staff from the permanent establishment work on a project. In cases of this nature the formal approval of the Public Service Commission must be sought for the secondment;
 - recruiting staff outside the Public Sector to work specifically on a project. In cases of this nature, the appointment should be made by the implementing Ministry. Such appointments should be of a temporary nature and the duration should not exceed the life of the project. However, it may be that some staff may be required for a portion of the life of the project and in this event, the period of the appointment should be specified, but in no case should it be beyond the completion date of the project;

recruiting staff on a contract basis for the duration of the project or for such part thereof, as may be required.

recruiting staff on a contract/gratuity basis for the duration of the project, or for such part thereof, as may be required in consultation with the Ministry of the Public Service. A contract/gratuity basis means that, provided the period of service is not less than two (2) years, the employee may be offered a gratuity of 10% of basic salary on satisfactory completion of the contract. On completion of the contract, a certificate should be issued by the implementing Ministry to the effect that the employee's service has been satisfactory, before approval is given for the payment of the gratuity.

Salaries

5. Attached is a schedule indicating the occupational groups to which posts employed on projects are usually assigned. For each occupational group a symbol is used, for example, PP/AGG meaning, Project Post assigned to the Applied Sciences Group, or NP/NPS meaning, Project post assigned to the Natural Physical and Social Sciences Group and so on.

For each occupational group a salary range is indicated - a minimum and a maximum. It will be noted that there are no grades indicated in the occupational groups, and hence the question of a classification for the post does not arise.

On receipt of the information from the Ministry of the Public Service as to the occupational group to which a project post is allocated, the implementing Ministry may recruit staff for a project on any of the bases set out in 3 above, and determine the salary to be paid at a point within the range indicated in the occupational group. In no case should a salary be set for any post outside the range indicated in the schedule of salary ranges.

Implementing Ministries will have the authority to increase the salary of any member of staff engaged on a project with the following provisos:

- (a) No more than one increase may be granted in any 12 month period;
 - (b) in no case should the increases granted be more than the maximum of the range indicated for the occupational group to which the officer's post is allocated.
6. Permanent staff seconded to work on a project will revert to their substantive positions and salaries on completion of the project. Permanent staff may, however, be paid salary in the appropriate approved range indicated in the schedule during the period of their assignment to projects, and they may be granted increases subject to the provisos set out in 5(a) and (b) of these guidelines.
7. Permanent staff seconded to work on a project should be regarded as holding their substantive positions and earning annual increments, but they would be paid in the appropriate project salary range, depending on the occupational group to which their project post is allocated. Permanent staff seconded to projects should not be overlooked when promotions are being made on the permanent establishment, due regard being paid to their performance on the project in considering them for promotion. For example, an officer holding a permanent post classified at NPS II but assigned to a project should be regarded as earning his normal annual increment in his substantive post, but when he reverts, on completion of the project, to his NPS II position, he should be paid at the point in the salary scale which he would have reached had he remained in the permanent post. Such an officer could also be considered for promotion to a post on the permanent establishment classified at NPS III, during his assignment to work on a project. On reversion to his substantive position, he would, (assuming he is promoted) take up his position in the NPS III post at the salary he would normally have received had he continued in the permanent post.

Leave

3. Leave of Absence may be granted to staff employed on projects at the appropriate approved rate for temporary whole-time officers indicated in Schedule A of the Staff Orders, 1976 Cap. 5.

The grant of vacation leave, however, should only be made on condition that the officer can be spared without jeopardizing the progress of the project.

There may, however, be cases where leave of absence may be required due to illness or injury on the job.

have to

Each case will be considered on its merits and the normal procedure applicable in the Government Service should be followed.

9. The implementing Ministries are expected to exercise discretion in determining the salary to be offered within the specified salary ranges at which project staff is paid, and ensure that a uniform policy is followed, due account being taken of the candidates' qualifications and experience.
10. Permanent Secretaries should note that it is a condition to these guidelines that staff assigned to work on projects will remain so assigned, subject to their satisfactory performance during the continuance of the project.
- This condition is intended to apply to permanent staff seconded to work on projects as well as to temporary staff employed to work on projects.
11. In the event that an implementing Ministry needs further guidance or assistance in the application of these guidelines, the Ministry of the Public Service should be consulted.

SALARY RANGES FOR PROJECT STAFF

Groups	Salary Ranges Per Annum	
	Minimum	Maximum
Project Directors	\$16,100 -	\$20,300
PP/PMA	\$ 5,525 -	\$16,400
PP/FAA	\$ 6,050 -	\$16,100
PP/ASG	\$ 8,900 -	\$17,450
PP/NPS	\$ 8,900 -	\$17,000
PP/PST/GN	\$ 4,850 -	\$11,675
PP/PST/GT	\$ 6,050 -	\$14,450
PP/OPS	\$ 3,275 -	\$ 8,450



MINISTRY OF AGRICULTURE
OFFICIAL FILE

HOPE GARDENS,

KINGSTON 6,

JAMAICA

PLEASE QUOTE

REFERENCE No. _____

January 30, 1979

Pl. File

Dr. Pat Peterson
 Rural Development Officer
 U.S.A.I.D.
 Kingston, Jamaica.

Report on the Training Needs and Capabilities
 of the Jamaica Ministry of Agriculture

The Ministry of Agriculture acknowledges with gratitude the receipt of the above named report prepared by Dr. Roger Hienstra, and Dr. Eugene Doll, and would like to extend thanks to the officers of the United States Agency for International Development, through whose effort the study and subsequent report was made possible.

We accept the proposals as a good strategy which the Ministry of Agriculture is committed to follow, in the expectation to receive further USAID assistance to implement.

There are a number of the recommendations which may have to be approached with some degree of caution, as to select them at this time may create problems for the Ministry. We nevertheless believe that none of these problems are incapable of solution in the long run, provided we receive the anticipated support in project preparation, finance and development, which we are convinced lies within the capability of your Agency, to provide.

We look forward to your usual kind and early reply.

Permanent Secretary
 MINISTRY OF AGRICULTURE

DATE REC'D: 2/22

ACTION OFFICE: ARDO

TELEGRAM

Annex I

UNCLASSIFIED

Classification

COMM NOTE:

CORRECTED COPY:

10 142050Z FEB 78

FM SECSTATE WASHDC

TO AMEMBASSY KINGSTON 2776-7-8

BT

URGAS

STATE 038736

51DAG

F.U. 11650: N/A

CLASS:

SUBJECT: DAEC REVIEW - JAMAICA AGRICULTURAL PIDS (AG SECTOR, AG PLANNING AND AG EDUCATION).

1. SUMMARY: THE DAEC REVIEWED SUBJECT THREE AGRICULTURAL PIDS JANUARY 24, 1978. THE AG PLANNING PID WAS APPROVED FOR INTENSIVE REVIEW LEADING TO A PROJECT PAPER. THE AG SECTOR PID WAS APPROVED FOR DEVELOPMENT OF AN INTERIM REPORT TO BE SUBMITTED UPON COMPLETION OF THE PROPOSED AGRICULTURAL ASSESSMENT. THE AGRICULTURAL RESEARCH, EDUCATION AND EXTENSION PID WAS FOUND TO BE PREMATURE PRIOR TO CARRYING OUT OF TITLE XII BASELINE STUDY OF EXISTING RESEARCH, EDUCATION AND EXTENSION CAPABILITIES IN JAMAICA. A REVISED PID BASED ON THE STUDY RESULTS MAY BE SUBMITTED AFTER STUDY IS COMPLETED. END SUMMARY.

2. AGRICULTURAL SECTOR STRATEGY. IN REVIEWING PIDS FOR CONSISTENCY WITH MISSION STRATEGY FOR AGRICULTURAL SECTOR, THE CURRENT STATUS OF THE SECTOR ASSESSMENT AND AGRICULTURAL STRATEGY WAS DISCUSSED IN SOME DETAIL. THE INTENSIVE AG SECTOR ASSESSMENT UPON WHICH THE STRATEGY WOULD BE BASED WAS DESCRIBED AS ABOUT TO GET UNDERWAY WITH AN ESTIMATED DATE OF COMPLETION IN MID-SUMMER. WHILE IT WAS

CLEAR THAT AGRICULTURAL EDUCATION AND PLANNING COULD ALREADY BE IDENTIFIED AS CRITICAL PROBLEM AREAS, IT WAS NOT EVIDENT THAT MARKETING, PARTICULARLY DOMESTIC MARKETING, WAS THE PRIORITY PROBLEM OF SMALL FARMERS. THE SECTOR ASSESSMENT WILL CLEARLY ESTABLISH THE MAIN CONSTRAINTS TO INCREASING SMALL FARMER PRODUCTIVITY AND INCOME, THEIR RELATIVE IMPORTANCE, AND IF POSSIBLE, THEIR PRIORITY. THE SECTOR ASSESSMENT SHOULD ALSO DESCRIBE THE RURAL POOR AND

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PROVIDE A SOCIO-ECONOMIC PROFILE OF THE AID TARGET GROUP. IT WAS ALSO REQUESTED THAT THE AID STRATEGY STATEMENT IN THE SECTOR ASSESSMENT RELATE THE STRATEGIES UNDERLYING THE EXISTING INTEGRATED RURAL DEVELOPMENT PROJECT AND THE PROPOSED AG SECTOR PROJECT TO EACH OTHER AND TO THE GOJ'S AGRICULTURAL STRATEGY. MISSION IS ENCOURAGED TO PROCEED WITH THIS AREA, BUT DAEC FEELS TARGET DATE FOR COMPLETION OF SECTOR ASSESSMENT AND STRATEGY STATEMENT SHOULD ALLOW SUFFICIENT TIME FOR THOROUGH STUDY OF PROBLEMS AND POSSIBLE RESPONSES. UNDER PRESENT CIRCUMSTANCES, DAEC CONSIDERS END OF FY 78 AS REASONABLE TARGET DATE.

5. AG SECTOR LOAN: IN ADDITION TO FUTURE DEVELOPMENT OF AN AGRICULTURAL SECTOR STRATEGY, THE DAEC REQUESTED (AS OUTLINED BELOW) THAT THE RATIONALE FOR THE SECTOR LOAN APPROACH BE CLARIFIED AND QUESTIONED WHETHER ENOUGH WAS KNOWN CONCERNING PRINCIPAL SMALL FARMER PROBLEMS TO AGREE AT THIS TIME ON THE BASIC COMPONENTS OF A SECTOR LOAN. IT WAS AGREED THAT ONCE THE ASSESSMENT (AND STRATEGY) WAS COMPLETED, AN INTERIM REPORT OUTLINING THE AG SECTOR PROJECT SHOULD BE DEVELOPED. IDEALLY, THE SECTOR ASSESSMENT AND INTERIM REPORT WOULD BE SUBMITTED FOR DAEC REVIEW SIMULTANEOUSLY ABOUT OCTOBER. THE INTERIM REPORT SHOULD ADDRESS THE FOLLOWING SPECIFIC DAEC CONCERNS:

1. SECTOR APPROACH - THE DAEC EXAMINED THE REASONS FOR PACKAGING AG ACTIVITIES INTO A SECTOR LOAN. OTHER THAN THE MAGNITUDE OF THE AID RESOURCES INVOLVED IT WAS NOT APPARENT THAT THE USUAL REASON FOR A SECTOR PROGRAM APPROACH EXISTS, I.E. A MAJOR COORDINATED SECTOR-WIDE INITIATIVE BY THE GOJ REQUIRING POLICY AND INSTITUTIONAL CHANGES WHICH AID WISHES TO ENCOURAGE WITH SUBSTANTIAL RESOURCES. AS CURRENTLY PRESENTED, THE PROGRAM APPEARS TO BE A "MARKETING, CREDIT AND EXTENSION LOAN" ("INTEGRATED AG SERVICES") IN THREE GEOGRAPHICAL AREAS, WHICH COULD POSSIBLY BE ACCOMPLISHED ON A PILOT BASIS AT A REDUCED AMOUNT. ALTHOUGH CHANGES MAY BE NEEDED IN CREDIT AND MARKETING POLICIES, IT WAS IMPLIED THAT THESE

COULD BE ACHIEVED WITH A SMALLER AID EFFORT. IN DEVELOPING ITS SECTOR STRATEGY ABOVE, MISSION IS ASKED TO REVIEW THE "PACKAGING" OF THE

AID SUPPORTED AGRICULTURAL ACTIVITIES OVER THE NEXT SEVERAL YEARS IN TERMS OF WHAT IT WISHES TO ACCOMPLISH IN THE SECTOR. GIVEN MAGNITUDE OF THE RESOURCES PROPOSED AND THE APPARENT NEED, THE DAEC WOULD LIKE TO ENCOURAGE A SECTOR PROGRAM AIMED AT INCREASING SMALL FARMER PRODUCTIVITY AND INCOME IF GOVERNMENT IS PREPARED TO UNDERTAKE THE INITIATIVE AND THE INSTITUTIONAL BASE EXISTS. OTHERWISE, AN ALTERNATIVE WOULD BE TO UNDERTAKE SMALLER INDIVIDUAL PROJECTS OVER THE NEXT SEVERAL YEARS. THE REASONS FOR THE APPROACH DECIDED UPON SHOULD BE ELABORATED.

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-----B. PROBLEMS ADDRESSED - THE DAEC QUESTIONED WHETHER THERE ARE SMALL FARMER PROBLEMS IN JAMAICA OTHER THAN THOSE ADDRESSED BY PID WHICH SHOULD BE ADDRESSED BY A SECTOR LOAN BASED UPON THE CONCLUSIONS OF AG SECTOR ASSESSMENT. IS THERE CLEAR EVIDENCE THAT LACK OF ACCESS TO CREDIT AND EFFICIENT MARKETING SERVICES ARE THE MOST SIGNIFICANT CONSTRAINTS ON THE TARGET GROUP, OR ARE THERE OTHERS WHICH SHOULD BE ADDRESSED SIMULTANEOUSLY OR IN LIEU OF THESE (E.G. LAND OWNERSHIP AND IMPROVEMENTS, APPROPRIATE TECHNOLOGY, TECHNICAL ASSISTANCE, ETC.)? MISSION REPRESENTATIVE INDICATED AGRICULTURAL PRODUCTION HAD NOT BEEN ADEQUATELY RESPONSIVE TO RELATIVELY HIGH FARM-GATE PRICES. DOES THIS SUGGEST THAT PROJECT SHOULD ALSO FOCUS ON LOWERING PRODUCTION COSTS? FINALLY, IF INCREASED ACCESS TO CREDIT AND MARKETING SERVICES ARE BASIC PROJECT COMPONENTS, IS THE TYPE OF RESPONSE PROPOSED BY PID (I.E. CENTRALIZED COLLECTION AND SERVICE CENTERS) THE MOST APPROPRIATE TO PROBLEMS OF LARGE NUMBERS OF FARMERS WITH LESS THAN FIVE ACRES OF LAND?

-----C. TARGET GROUP - THE INTERIM REPORT SHOULD DESCRIBE THE NATURE AND COMPOSITION OF TARGET GROUP, RELATE IT TO THE DESCRIPTION OF THE RURAL POOR IN THE ASSESSMENT, AND DISCUSS HOW THE SECTOR LOAN WILL REACH AND BENEFIT THE TARGET GROUP. WILL THE TARGET GROUP INCLUDE LANDLESS PERSONS?

-----D. ROADS - IF FARM-TO-MARKET ROADS ARE INCLUDED AS PROJECT COMPONENT, INTERIM REPORT SHOULD DISCUSS WHETHER AND TO WHAT EXTENT THE LACK OF SUCH ROADS IS A MAJOR CONSTRAINT ON SMALL FARMER PRODUCTIVITY AND INCOME. DAEC NOTED THAT FEEDER ROADS IN JAMAICA HAVE TRADITIONALLY BEEN HIGH COST (OVER DOLS. 100,000 PER MILE) AND THE GOJ/MPW HAS RESISTED REDUCING STANDARDS AND USING LABOR INTENSIVE METHODS. BEFORE INCLUDING THIS ELEMENT IN THE INTERIM REPORT, THE MISSION SHOULD DETERMINE WHETHER THERE IS A PRIORITY NEED FOR THESE ROADS AND WHETHER ROADS OF LESSER STANDARD MIGHT BE ADEQUATE TO THE NEED. MISSION SHOULD LOOK INTO EXPERIENCE OF ORGANIZATIONS OTHER THAN PUBLIC WORKS (E.G., FORESTRY DEPARTMENT UNDER AID FORESTRY LOAN,

PARISH COUNCILS, PRIVATE CONTRACTORS, ETC.) IN PROVIDING LOWER COST ROADS. MISSION SHOULD ALSO CONSIDER USE OF FIXED AMOUNT REIMBURSEMENT PROCEDURE FOR ANY ROAD CONSTRUCTION COMPONENT OF PROJECT.

-----E. ENVIRONMENTAL CONCERNS - THE PROJECT REQUIRES MORE DEFINITION BEFORE THRESHOLD DECISION CAN BE MADE. EARLY SUBMISSION OF A REVISED IEE IS ADVISABLE BECAUSE SEVERAL PROJECT COMPONENTS (E.G., ROAD CONSTRUCTION, PESTICIDE AND AGRO-CHEMICAL USE, LAND CLEARANCE) MAY REQUIRE EXTENSIVE DOCUMENTATION IF AN E.A. PROVES NECESSARY. REVISED IEE SHOULD INCLUDE A DESCRIPTION OF THE LAND AREAS TO BE AFFECTED BY PROJECT.

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Ref C.

4. AG PLANNING: THIS PID WAS APPROVED FOR DEVELOPMENT OF A PROJECT PAPER. THE DAEC, HOWEVER, EXPRESSED RESERVATIONS ABOUT PROCEEDING WITH AG PLANNING SEPARATELY FROM OTHER ACTIVITIES UNDER A SECTOR PROGRAM. THIS WAS PARTICULARLY SO AS AG SECTOR PROJECT ACTIVITIES REMAINING TO BE CLARIFIED MIGHT REINFORCE OR REQUIRE A PLANNING FUNCTION WHICH COULD BE BUILT INTO THE PLANNING PROJECT. ON THE OTHER HAND, DAEC RECOGNIZED MISSION'S CONCERN AS TO TIMING SINCE THIS PROJECT IS NEEDED AS SOON AS POSSIBLE AND IS MORE ADVANCED THAN OTHER PROJECTS. IF MISSION BELIEVES THIS PROJECT SHOULD GO FORWARD ON A SEPARATE BASIS, THE REASONS FOR DOING SO SHOULD BE EXPLAINED IN MISSION STRATEGY STATEMENT. PREFERABLY, THE AG PLANNING PP WILL BE SUBMITTED AFTER THE SECTOR ASSESSMENT AND AG SECTOR PROJECT INTERIM REPORT SO THAT THE RELATIONSHIP OF THE PLANNING PROJECT TO OTHER ACTIVITIES IN THE SECTOR ARE CLEAR.

→ have you made this clear?

-----A. PROJECT PURPOSE - THE PURPOSE OF THE PROJECT AS PRESENTED REQUIRES CLARIFICATION; IT WAS AGREED THAT THE FINAL RESULT DESIRED WAS AN EFFECTIVE, ANALYTICAL, PLANNING AND EVALUATION CAPACITY FOR THE AGRICULTURE SECTOR. THIS WOULD MEAN THAT IN ADDITION TO IMPROVING THE TECHNICAL SKILLS OF PERSONNEL AS PROPOSED, OTHER ELEMENTS NEEDED TO ACCOMPLISH THE ABOVE (I.E., DEFINED ROLE FOR THE PLANNING FUNCTION, PROPER REVIEW AND APPROVAL AUTHORITY, PROPER STAFFING, ETC.) WILL NEED TO BE ADDRESSED BY THE PROJECT PAPER. IN THIS CONNECTION, THE GOJ MUST RESOLVE ROLES OF EXISTING SEPARATE PLANNING UNITS IN THE AG SECTOR AND THEIR RELATIONSHIP TO EACH OTHER AND TO OTHER AG SECTOR INSTITUTIONS BEFORE AID WOULD ENGAGE IN A MAJOR AG PLANNING PROJECT IN ADDITION TO THE EXISTING NATIONAL PLANNING PROJECT.

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-----B. TARGET GROUP - IN DISCUSSING THE BENEFICIARIES OF THE PROJECT, THE PP SHOULD OUTLINE WHAT STEPS WILL BE TAKEN IN ESTABLISHING AND STRENGTHENING MOA'S PLANNING

UNIT TO ASSURE THAT ITS FUTURE ACTIVITIES TAKE INTO ACCOUNT THE NEEDS OF THE SMALL FARMER TARGET GROUP, AS WELL AS HOW TARGET GROUP PARTICIPATION IN PLANNING MAY BE ENCOURAGED.

-----C. ENVIRONMENT - EARLY SUBMISSION OF AN IEE FOR THIS PROJECT WOULD BE ADVISABLE.

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"5. AG RESEARCH, EDUCATION AND EXTENSION LOAN: DAEC NOTED THAT THE PROJECT CONCEPT AND PURPOSE IN PID ARE TOO GENERALLY FOCUSED AND THAT MISSION SHOULD AWAIT RESULTS OF PROPOSED TITLE XII BASELINE STUDY BEFORE DEVELOPING A PROJECT CONCEPT IN THIS FIELD. AS THIS IS A TWO-STEP PROCESS, PID WAS THEREFORE NOT APPROVED. IT WAS AGREED THAT LAZOR WILL INFORM BIFAD THAT PID WAS NOT APPROVED AT THIS TIME AND WILL SUBMIT TO BIFAD A REQUEST FOR JAMAICA BASELINE STUDY. MISSION WILL BE INFORMED AS SOON AS PROCEDURES FOR CONTRACTING THE STUDY CAN BE UNDERTAKEN. AS METHODOLOGY FOR BASELINE STUDIES IS BEING FINALIZED BY BIFAD/AID, SCOPE OF WORK FOR THE STUDY WILL CONSIST PRIMARILY OF APPLYING METHODOLOGY TO JAMAICA CONTEXT (SEE STATE CABLE 302388). MISSION MAY DECIDE TO RESUBMIT PID AFTER BASELINE STUDY IS COMPLETED, AND IF SO SHOULD ESTABLISH CLEAR LINKAGES TO AG SECTOR LOAN. IF A REVISED PID IS APPROVED, SUBSEQUENT PROJECT DEVELOPMENT WOULD ALSO BE UNDER TITLE XII."

6. PROJECT DEVELOPMENT FUNDING: AS MISSION AWARE, NO SSA FUNDS ARE AVAILABLE FROM PPC FOR PROPOSED BASELINE STUDY, AND FUNDS FOR STUDY WILL HAVE TO BE BUDGETED BY MISSION. HOWEVER, IT IS HOPED THAT THE SUPPLEMENT OF DOLS. 200,000 IN SSA FUNDS ALONG WITH REPROGRAMMING OF MANPOWER IN THE SURVEY PROJECT FUNDS SHOULD EASE MISSION BUDGET PROBLEMS TO PERMIT GOING FORWARD WITH AG SECTOR AND AG PLANNING PROJECT DEVELOPMENT SIMULTANEOUSLY WITH BASELINE STUDY. VANCE

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Department of State
INCOMING
American Embassy Kingston

TELEGRAM

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Annex K

OFFICIAL FILE

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Pl. File

P 222332Z FEB 79
FM SECSTATE WASHDC
TO AMEMBASSY KINGSTON PRIORITY 6973
BT
UNCLAS STATE 044229

AIDAC

E.O. 12065N/A

TAGS:

SUBJECT: REVIEW AND APPROVAL OF AGRICULTURAL PLANNING PROJECT (0061)

26

REF: (A) KINGSTON 0741; (B) STATE 037457; (C) STATE 038736 (1978).

1. REGRET DELAYED RESPONSE REF A.

2. GIVEN THE COMPLEXITY INHERENT IN AGRICULTURAL PLANNING PROJECTS AND THE IMPORTANCE OF SUBJECT PROJECT IN THE JAMAICA AGRICULTURAL PROGRAM, THERE ARE GOOD REASONS WHY PROJECT 0061 MIGHT BE REVIEWED AND APPROVED IN AID/W. HOWEVER, IN ACCORDANCE WITH PROCEDURES OUTLINED IN PARA 10 OF REF B (AA/LAC DELEGATION OF AUTHORITY MESSAGE) WE WOULD FAVORABLY CONSIDER A REQUEST FOR FIELD AUTHORITY TO REVIEW AND APPROVE THIS PROJECT UPON RECEIPT OF A BRIEF CABLE SUMMARIZING HOW THE ISSUES RAISED IN THE REVIEW OF THE AGRICULTURAL PLANNING PID (SEE REF C) HAVE BEEN ADDRESSED IN PROJECT PAPER DEVELOPMENT. CHRISTOPHER

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Annex J

TELEGRAM

INDICATE
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 CHARGE TO

KINGSTON 0741

FROM AMEMBASSY KINGSTON	CLASSIFICATION UNCLASSIFIED
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R 262000Z JAN 79

1652: N/A

1735:

SUBJECT: REVISION OF AGENCY'S PROCEDURES FOR REVIEWING AND APPROVING FIELD PROJECTS

TO: SECSTATE WASHDC

UNCLASSIFIED KINGSTON 0741

AIDAC

REF: State 322561

Mission nearing completion of PP for Agricultural Planning Project (0061) with life X of project AID funding totaling \$2 million. Assume per ref tel Mission will be permitted review and approve this project in the field. Please advise if our assumption correct and when necessary delegation of authority can be expected. This project is scheduled for an FY 79 obligation of \$450,000 prior to the end of the second quarter.

LION *[Handwritten Signature]*

Johnson: fv	DRAFTING DATE 1/26/79	TEL EXT. 272	CONTENTS AND CLASSIFICATION APPROVED BY <i>[Handwritten Signature]</i> Phillip R. Schwab, Asst. Director
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Johnson In Draft

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OPTIONAL FORM 154
 (Promulgated 12-21-77)
 January 1975
 Dept. of State

TELEGRAM

INDICATE
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Kingston 1479
USAID

FROM Amembassy/Kingston	CLASSIFICATION Unclassified
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1652:
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N/A

Review and Approval of Agricultural Planning Project (0061)

SECSTATE WASHDC IMMEDIATE

Unclassified Kingston 1479

AIDAC

Ref: (A) State 044229; (B) Kingston 0741; (C) State 038736 (1978)
(D) AIDTO-A22

R 271910z feb 79

1. Per request Ref. A para 2, the issues raised in Ref. C Para 4 were addressed during development of PP as follows:

A. Mission Strategy: Ag Sector Assessment identifies lack of MOA administrative capacity as a principal development constraint in the agriculture sector. While proposed FY79 ~~XXXX~~ agriculture sector projects all address aspects of MOA administrative capacity directly related to the projects, ^{more} ~~XXXX~~ general and critical aspects such as across-the-board planning, analysis, and training are not treated. Because of the urgency of dealing with these aspects as soon as possible and because future Sector Loans will focus on subject matter priority areas as stated in CDSS, Mission is proposing separate Ag Planning Project at

Person:lv	DRAFTING DATE 2/27/79	TEL. EXT 254	CONTENTS AND CLASSIFICATION APPROVED BY XXXXXX Schwab, Asst. Director XXXXXX
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nger: *[Signature]*
Johnson: *[Signature]*
Schwab: *[Signature]*

Donor M. Lion, Mission Director

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this time.

- B. Project Purpose: Recent reorganization of MOA combined Data Bank and Evaluation Office with Policy and Planning office ~~forming~~ ^{forming} new Planning and Evaluation Division (PED). This merger resolves the problem of separate planning units in the agricultural sector. Purpose of Agricultural Planning Project will be to strengthen capacity and role of this new Division. PP directly addresses staffing ^{contribution} problem by providing as part of GOJ/incentive salaries for persons trained to work in the new Division.
- C. Target Group: With reference to assuring that Project will take into account needs of the small farmer, PP points out that small farmer is the principal concern of MOA in all of its activities. With regard to small-farmer participation, experience with the National Planning project shows that inability of the MOA to follow up on field-generated project proposals is a primary constraint to encouragement of target group participation in planning. Institutional procedures already in place for decentralization of planning process to Parish Councils and extension staff. Purpose of Ag Planning Project is to improve ability of MOA so that it will be able to respond more adequately to projects generated in the field.
- D. Environment--Per ref. D para 1 A, we assume for projects which have neutral impact upon environment, ^{an} ~~an~~ ^{not} IEE is ^{not} required.

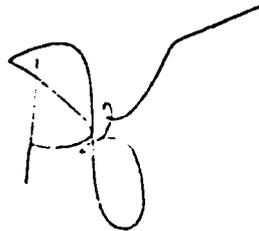
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2. Mission again requests authority to review and approve project in Field. LAC/DR encouraged to send participant for project review. Dwight Steen~~er~~, ARDO/USAID/Guyana also tentatively invited to participate. Review is scheduled for March 8. This timing critical for second quarter obligation.

3. Please respond by immediate cable.

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5C(1) - COUNTRY CHECKLIST

Listed below are, first, statutory criteria applicable generally to FAA funds, and then criteria applicable to individual fund sources: Development Assistance and Security Supporting Assistance funds.

A. GENERAL CRITERIA FOR COUNTRY

1. FAA Sec. 116. Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in consistent pattern of gross violations of internationally recognized human rights?

Portions of the contemplated assistance will benefit the needy directly, other portions indirectly. The Department of State has made no determination of gross human rights violations in Jamaica.
2. FAA Sec. 481. Has it been determined that the government of recipient country has failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully?

No.
3. FAA Sec. 620(b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement?

The GOJ is not controlled by the International Communist Movement
4. FAA Sec. 620(c). If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government?

No.
5. FAA Sec. 620(e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

No.

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6. FAA Sec. 620(a), 620(f); App. Sec. 107, 114. Is recipient country a Communist country? Will assistance be provided to the Socialist Republic of Vietnam, Cambodia, Laos, Cuba, Uganda, Mozambique, or Angola? No.

 7. FAA Sec. 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? No.

 8. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? No.

 9. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason? An Investment Guaranty Agreement is in effect.

 10. FAA Sec. 620(o); Fishermen's Protective Act, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters, N/A
 - a. has any deduction required by Fishermen's Protective Act been made?
 - b. has complete denial of assistance been considered by AID Administrator?

 11. FAA Sec. 620(q); App. Sec. 503. (a) Is the government of the recipient country in default on interest or principal of any AID loan to the country? (b) Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds, unless debt was earlier disputed, or appropriate steps taken to cure default? No.

 12. FAA Sec. 620(s). "If contemplated assistance is development loan (including Alliance loan) or security supporting assistance, has the Administrator taken into account the percentage of the country's budget which is for military expenditures, the amount of foreign exchange spent on military equipment and the amount spent for the purchase of sophisticated weapons systems?" (An affirmative answer may refer to the record of the taking into account, e.g.: "Yes as reported in annual report on implementation of Sec. 620(s)." This report is prepared at the time of approval by the Administrator of the Operational Year Budget. Yes, as reported in annual report on implementation of Section 620(s).

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Upward changes in the Sec. 620(s) factors occurring in the course of the year, of sufficient significance to indicate that an affirmative answer might need review, should still be reported, but the statutory checklist will not normally be the preferred vehicle to do so.)

13. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? No.
14. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? Current.
15. FAA Sec. 620A. Has the country granted sanctuary from prosecution to any individual or group which has committed an act of international terrorism? No.
16. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out economic development program under FAA? No.
17. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? Has it detonated a nuclear device after August 3, 1977 although not a "nuclear-weapon state" under the nonproliferation treaty? No.
18. FAA Sec. 901. Has the country denied its citizens the right or opportunity to emigrate? No.
- B. FUNDING CRITERIA FOR COUNTRY
1. Development Assistance Country Criteria
- a. FAA Sec. 102(c), (d). Have criteria been established, and taken into account, to assess commitment and progress of country in effectively involving the poor in development, on such indexes as: (1) small-farm labor intensive agriculture, (2) reduced infant mortality, (3) population growth, (4) equality of income distribution, and (5) unemployment. Yes, the criteria have been established and demonstrate both a high degree of commitment and a satisfactory rate of progress in all 5 cases.

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b. FAA Sec. 104(d)(1). If appropriate, is this development (including Sahel) activity designed to build motivation for smaller families in programs such as education in and out of school, nutrition, disease control, maternal and child health services, agricultural production, rural development, and assistance to urban poor?

c. FAA Sec. 201(b)(5), (7) & (8); Sec. 208; 211(a)(4), (7). Describe extent to which country is:

- (1) Making appropriate efforts to increase food production and improve means for food storage and distribution.
- (2) Creating a favorable climate for foreign and domestic private enterprise and investment.
- (3) Increasing the public's role in the developmental process.
- (4) (a) Allocating available budgetary resources to development.
(b) Diverting such resources for unnecessary military expenditure and intervention in affairs of other free and independent nations.
- (5) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.
- (6) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

d. FAA Sec. 201(b), 211(a). Is the country among the 20 countries in which development assistance loans may be made in this fiscal year, or among the 40 in which development assistance grants (other than for self-help projects) may be made?

e. FAA Sec. 115. Will country be furnished, in same fiscal year, either security supporting assistance, or Middle East peace funds? If so, has Congress specifically authorized such use of funds, or is assistance for population programs, humanitarian aid through international organizations, or regional programs?

Motivational material for family planning is built into all appropriate AID Programs in Jamaica.

Food production, storage and distribution constitute a major thrust of GOJ policy and AID assistance.

The GOJ has actively sought to create such favorable climate.

The GOJ has strongly encouraged public participation in the development process.

Available budgetary resources are allocated as greatly as possible to development.

There is no substantial use of GOJ budgetary resources for unnecessary military expenditures or intervention in the affairs of other free and independent nations.

Jamaica has had an excellent overall record in the cited areas of progress.

Likewise

Yes.

No.

B

2. Security Supporting Assistance Country Criteria

- a. FAA Sec. 502B. Has the country engaged in a consistent pattern of gross violations of internationally recognized human rights? Is program in accordance with policy of this Section? N/A

- b. FAA Sec. 531. Is the Assistance to be furnished to a friendly country, organization, or body eligible to receive assistance? N/A

- c. FAA Sec. 533(c)(2). *Will assistance under the Southern African Special Requirements fund be provided to Mozambique, Angola, Tanzania, or Zambia? If so, has President determined (and reported to the Congress) that such assistance will further U.S. foreign policy interests?* N/A

- d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? N/A

- e. App. Sec. 113. *Will security assistance be provided for the purpose of aiding directly the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?* N/A

- f. FAA Sec. 620E. *Will security supporting assistance be furnished to Argentina after September 30, 1975?* N/A

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5C(2) - PROJECT CHECKLIST

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY. HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

The Standard Item Checklist has been reviewed.

A. GENERAL CRITERIA FOR PROJECT.

1. App. Unnumbered; FAA Sec. 653(b); Sec. 671

(a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project;
 (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure

Project included in FY'79 CP

Yes.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

Yes.

Yes.

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

N/A

4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per the *Principles and Standards for Planning Water and Related Land Resources* dated October 25, 1973?

N/A

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?

N/A

6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multi-lateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate?

No.

A

7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?
11. ISA 14. Are any FAA funds for FY 78 being used in this Project to construct, operate, maintain, or supply fuel for, any nuclear powerplant under an agreement for cooperation between the United States and any other country?

The project is one of institutional development; the improved MOA planning capacity will increase their ability to move toward the listed goals, all of which are also stated GOJ goals.

Any such effect would be indirect, except insofar as U.S. private firms will do much of the training and render much of the T.A. under the Project.

The GOJ is contributing well over $\frac{1}{2}$ the total cost and virtually all of the local currency cost of the project; the U.S. does not own any Jamaican currency.

No.

No.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria
- a. FAA Sec. 102(c); Sec. 111; Sec. 261a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

The project is one of institutional development; the improved MOA planning capacity will increase their ability to move toward the listed goals all of which are also stated GOJ goals.

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b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

(1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;

Both by GOJ policy and as a particular result of the structuring of this Project, the improved MOA planning capability created hereby will primarily benefit the rural poor.

(2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;

N/A

(3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;

N/A

(4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:

N/A

(a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

(b) to help alleviate energy problem;

(c) research into, and evaluation of, economic development processes and techniques;

(d) reconstruction after natural or manmade disaster;

(e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;

(f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

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(5) [107] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

N/A

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

Jamaica is contributing over 25% of total project costs.

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"?

This is not a capital assistance project.

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on: (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (6) integrating women into the recipient country's national economy.

U.S. assistance to Jamaica places emphasis on encouraging the economic, social, and political institutions required for a democratic society. A major objective of this project is to strengthen GOJ institutions. Additional agricultural planning information made available to farm owners and their spouses should enable them to upgrade their standard of living. Women share a large portion of and participate actively in the national economy, especially in agricultural production and marketing of crops. This strengthening of the MCA planning capability will especially help small farmers who, to a far greater degree than large farmers, lack both the information base and the analytical tools to do their own planning.

f. FAA Sec. 201(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

This program will increase the flow of agricultural planning information to rural areas relying on technical assistance and provide inputs and services for development of appropriate governmental agencies in order to provide trained personnel and essential services when AID assistance has terminated.

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g. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(e); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

The development of adequate data gathering, analysis and planning capacity in the MOA is a necessary precondition to further progress in agriculture. The PP has concluded that the project is technically and economically sound.

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

The project will have a negligible effect on the U.S. Balance of Payments.

2. Development Assistance Project Criteria (Loans only)

N/A

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

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e. FAA Sec. 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources?

f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

3. Project Criteria Solely for Security Supporting Assistance

N/A

a. FAA Sec. 531. How will this assistance support promote economic or political stability?

b. FAA Sec. 533(c)(1). *Will assistance under the Southern African Special Requirements Fund be used for military, guerrilla, or paramilitary activities?*

4. Additional Criteria for Alliance for Progress

N/A

[Note: Alliance for Progress projects should add the following two items to a project checklist.]

a. FAA Sec. 251(b)(1), -(3). Does assistance take into account principles of the Act of Bogotá and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America?

b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CEPCIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities?



Annex P

MINISTRY OF FINANCE AND PLANNING

30 NATIONAL HEROES CIRCLE,

P.O. BOX 512,

KINGSTON,

JAMAICA

12th June, 1979

ANY REPLY OR SUBSEQUENT REFERENCE
TO THIS COMMUNICATION SHOULD BE
ADDRESSED TO THE FINANCIAL
SECRETARY AND THE FOLLOWING
REFERENCE QUOTED:—

No. _____

TELEPHONE No. 92-28600-16

Dr. Donor Lion
Mission Director
United States Aid Mission
2 Oxford Road
Kingston 5

Dear Dr. Lion,

I refer to your letter addressed to the Honourable Seymour Mullings, Minister of Agriculture, in connection with the USAID Agricultural Planning Project.

I have to indicate that the Government of Jamaica accords great importance to the proposed Agricultural Planning Project as it addresses a priority need of the Government in the Agricultural Sector. Funding will be made available both during the life of the project, in terms of the Government's financial contribution, and also to meet the recurrent cost of the proposed activities which must take place after its completion.

Sincerely yours,

Eric O. Bell
Minister of Finance & Planning



MINISTRY OF THE PUBLIC SERVICE

PERMANENT SECRETARY

 9th FLOOR, CITIBANK BUILDING, 63-67 KNUTSFORD BOULEVARD,
 KINGSTON 5, JAMAICA.

TELEPHONE: 926-3235-9

OFFICIAL FILE

27th June, 1979.

Dear Sir,

Please refer to your letter of the 3rd April, 1979, addressed to the Hon. Minister of Agriculture regarding US/AID approval of the Agricultural Planning Project.

In your letter under reference you sought certain assurances from the Ministry of the Public Service relating to salary structure and creation of new post positions to support implementation goals of the project. As you are aware, we have certain management responsibilities to fulfil in respect of new proposals such as are contemplated here. Within the ambit of those responsibilities, and with a view to giving maximum co-operation in the implementation of the project, the Ministry of the Public Service will work closely with the Ministry of Agriculture in developing a reasonable salary structure and providing the posts necessary for the project to meet its implementation goals.

Yours sincerely,

 Glaister C. Duncan,
 Permanent Secretary.

Dr. Donor M. Lion,
 Mission Director,
 US/AID,
 Embassy of the U.S.A.,
 Oxford Road,
 KINGSTON.

DATE REC'D: 6/28	
ACTION OFFICE: ARDO	
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