IICA EVALUATION OF THE FIRST PHASE ALLSIDES PILOT PROJECT

IICA/JAMAICA

IICA Miscellaneous Publications #251

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OF

THE FIRST PHASE

ALLSIDES PILOT PROJECT

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IICA/MISCELLANEOUS PUBLICATIONS #251

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INTRODUCTION

The document written by the Director General in "Boletin Interno" #948 of November 15 provides an excellent introduction for the Evaluation of the Allsides Project. Here we present the introduction and the four documents which comprise the total Evaluation exercise.

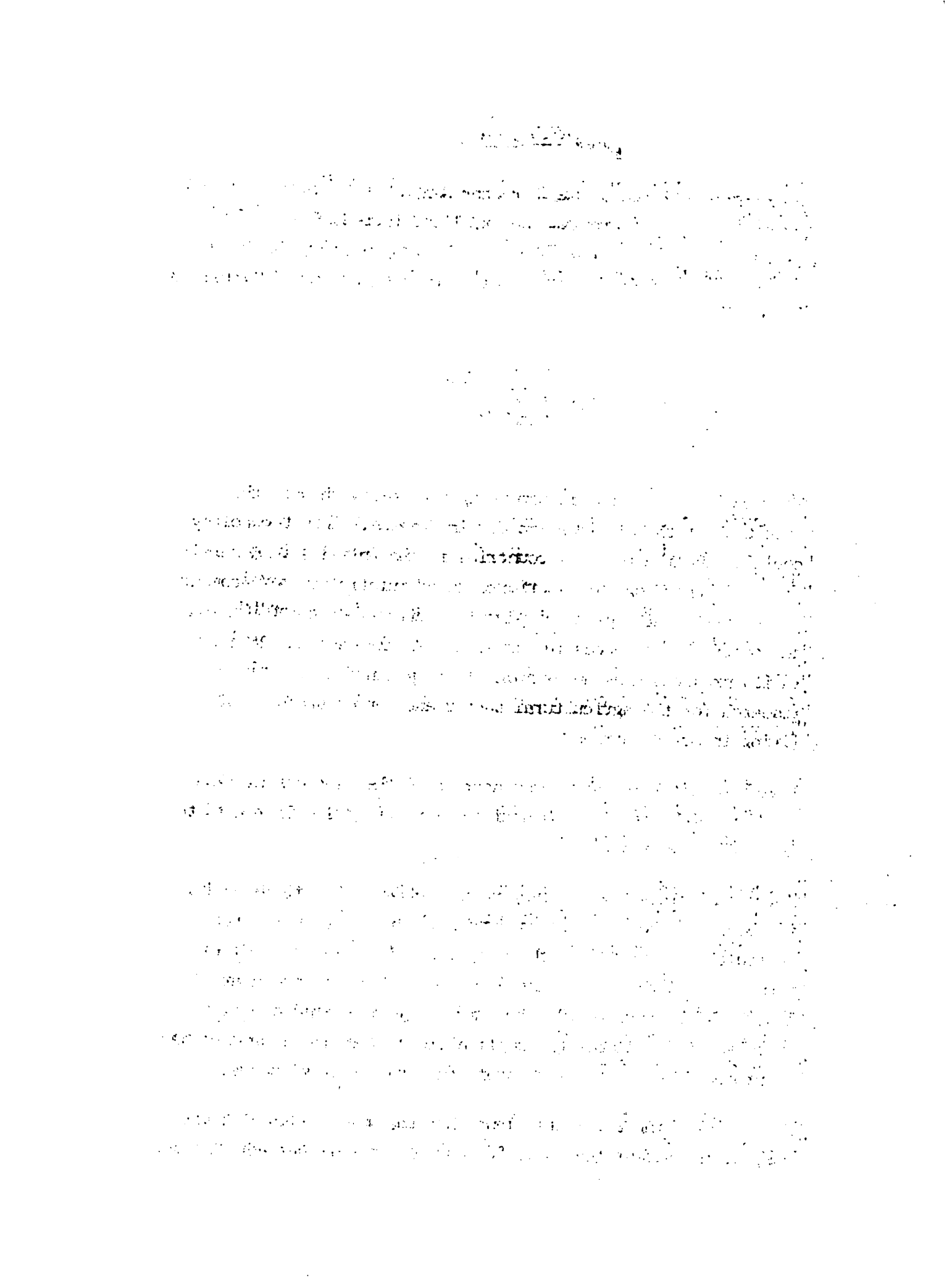
Percy Aitken-Soux
Director
IICA/Jamaica

"The Simon Bolivar Fund is producing technology through the "execution of the Allsides Project in Jamaica. This technology "could be applied to other countries in the Antilles in general; "it is a methodological experience on administrative development "in its different aspects of planning, direction, co-ordination "and control of a successful project. We also see the project "in its projection as an example of the potential of applied "research for the agricultural sector and better standard of "living in our countries.

"I wish to offer you some commentaries on this successful IICA "project which has given us satisfaction especially in regard to "its potential projection.

"How was Allsides begun? Imagine a beautiful country known for "its beautiful beaches of its Northcoast but unknown for its "agricultural land beyond the beaches. 80% of the country is "mountainous with slopes that vary from 7 - 35% in which are "186,000 small farmers 70% of whom possess less than 5 acres; "in these circumstances the small hillside farmers of Jamaica have "to produce much of the food stuff that this country needs.

"Even considering the little land that the small hillside farmer "has, it is evident that some 56 tons of top soil per acre per year



"are lost by erosion. If you think on the above statement you will "readily agree with the priority given by the Ministry of Agriculture "of Jamaica to the programme of Soil Conservation and Soil and Water "Management.

"The project devised by the Simon Bolivar Fund of IICA emerges then "as one of the immediate phases of the national programme, whose "objectives are the efficient utilization of the areas that have been "recuperated for agriculture through systems of production.

"The project began in 1977 in the area of Allsides located in the "parish of Trelawny. It is considered a Pilot Project since the "project deals with various factors typically representative of the "Jamaican situation. The technology generated will have to be valid "to solve the multifaceted sided project. This technology is definitely "applicable to other regions of the continent where hillside farming "is practised.

"What are the objectives of the project? Above it was defined that the "project should search for means to improve agricultural production "through systems of production on newly terraced lands. For this it "was necessary to design an experiment, ideas which would respond to "the technical economic and cultural expectations of the area.

"Such small farms (1.5 acres), having steep slopes and lacking capital "were among others the factors that challenged the imagination of the "experts. Due to that the project fixed clear objectives which were:

(a) Development of technologies for cropping systems in hillside areas.

(b) Development of new systems of production based on multiple cropping and efficient utilization of the resources.

(c) Increase of productivity for certain basic products (peas, yam, and others).

(e) The preparation of economic studies related to agricultural production of small hillside farmers including cost of soil conservation.

"In the social sector the project was established to:

(a) Increase the production of food and income as well as to improve nutrition and standard of living.

(b) Extend the new technology in the whole area.

(c) Develop an institutional frame with the capacity to implement similar changes in other areas of the country, and

(d) Train local producers and professionals.

"If we take a minute to examine the above objectives we can easily "find that these comply with the norms, and targets of our institution "for agricultural development and improvement of the rural standard "of living for small farmers.

"The project uses as a means to technological change and improvement "of agricultural production a basic strategy: the institutional "strengthening through the technical participation and co-operation.

"What facts can we confirm? The following:

1. We have evidence that it is feasable to triple the food production through an adequate combination of crops and a better use and management of Soil Conservation and Fertilization.

2. We know the basis of such economic reality on which future programme action is based.

3. There is assistance, full-fledged participation and agreement on the part of the Ministry of Agriculture of Jamaica on the advantages of the project. The Ministry

has even decided to make an extra effort for the extension of the project as one avenue for the institutionalization of agriculture and rural life.

4. A number of technicians have been trained and they form the base for an expansion of the project.

5. The experience has allowed the publication of research and technical data on:

   (i) Diagnosis of the area;

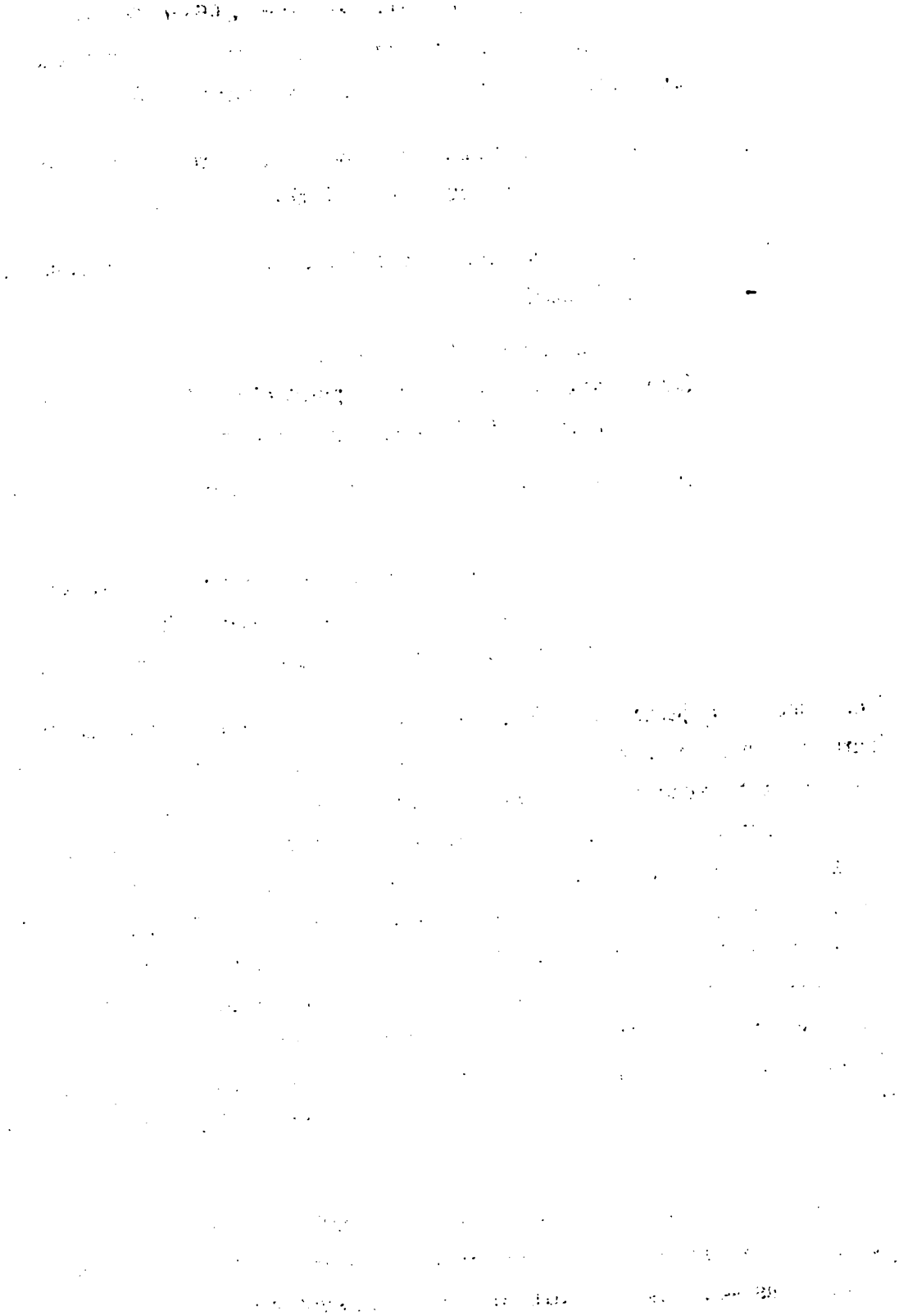
   (ii) strategies and recommendations for the implementation of the national programme;

   (iii) a clear cut policy for the training of farmers; and

   (iv) a design of alternatives for the organization of the farmers as well as the marketing of the principal products produced on the small farms.

"The future projection: After three years of execution the Allsides "farmers have generated ideas that have been used for the design of "the project extending the Allsides experience. The total cost of "the project would be US$8 million, five of which would be financed "by IDB and another three provided to the Government of Jamaica as a "grant. Besides, the UNDP/FAO/Norway/GOJ have $2 million in the first "phase of another similar rural development project. To the above "projects we also have to add the volume of resources allocated by "the Government for their implementation. We wish to refer to the "GOJ/IDB/IICA/PHILAGRIP (abbreviation for Pilot Hillside Agricultural "Project) which has been prepared by our experts and is in the process "of approval by IDB.

"The project was designed taking advantage of the accumulated and "evaluated experiences to identify and improve the soil conservation "measures as well as the multiple cropping systems of production



"as a means to improve the nutrition employment and income of the "rural families of Allsides.

"The five sub-projects which are considered in the above project are:

1. Agricultural and economic applied research.
2. Technology transfer.
3. Seed production.
4. Farm management and credit.
5. Soil conservation.

"An estimated detail in the project which calls for our attention "is the fact that the gross value of the production per hectare "in the area is estimated in J$3,000 per year and an average of J$1,470 "per hectare as net benefit above variable costs which is obtained at "present with traditional practices.

"The project estimates that the net benefits per hectare would be "double which would generate a service that constitutes the poten- "tial resource for the improvement of the standard of living of the "small farmers involved.

"Now it is necessary to comply with the process of transfer of "technology and although the transfer of technology has already been "initiated it should be intensified with an extension sub-project.

"It should be mentioned that the "Rural Women Project" is also "programming its contribution. We have assigned a professional as "a specialist in our office in Jamaica, this specialist already "initiated her work, assisting therefore holistically in reaching "the targets fundamental to the project.

"Finally, the Allsides Project which is authentically IICA/Jamaica "transforms itself in an example which on one hand guides and provides "orientation, and on the other hand serves as an indication of

"caution. The first leads us to think and to summize the positive "side of its progress and the second warns us from deviating from the "validity that our actions of technical co-operation have.

"I want to congratulate all the colleagues of the Office of "Jamaica who have made the project with "their own hands" and to "all the other colleagues who have assisted with their expertise "for the design, preparation and execution of the new project. "To all the other colleagues of IICA I wish that the knowledge of "this example will lead them to observation and reflection.

"We feel very happy for a job well done and for the good effort "by one of our member countries, Jamaica.

JOSÉ EMILIO G. ARAUJO
DIRECTOR GENERAL - IICA

HILLSIDE FARMING STUDY AND IMPLEMENTATION PROJECT IN JAMAICA

(ALLSIDES PILOT DEVELOPMENT PROJECT)

1. SUMMARY

The Problem

Over the last five years the Government of Jamaica has given high priority of the conservation of the nations limited land resources. Indeed about 80% of the total area of Jamaica are hilly lands where small land holders reside and food crops are produced.

It has been estimated that about 557,000 acres of hillsides lands belonging to 186,000 farmers - 70% of whom own less than 5 acres are in urgent need of protection rehabilitation and development.

An ambitious national programme has already been launched by the Ministry of Agriculture (Soil Conservation Unit) in the area of land and Water Resources Conservation. IICA is willing to cooperate with the programme starting to work in a pilot area. The area selected is Allsides, where a project will be launched.

The Allsides Agricultural Development Project is conceived as a second phase of the national programme which foresees the utilization of the rehabilitated areas through the development of efficient commercial farming.

Location, Size and Boundaries

The Allsides pilot area of 622 acres in extent is situated wholly in the Parish of Trelawny. The area is bounded on the North by the Quashie River, on the South by the Hectors River, on the East by a line which follows the main ridge passing Drylands to the Quashie River and on the West by a line following the prominent ridge from the Quashie River up to the highest point of the area and then down to the Hectors River in the South.

Number of Farmers to Benefit from the Project

According to the survey realized by the Soil Conservation Unit (September -76) the number of farmers living in the area of the project has been estimated at 300 with an overall average acreage of just over (2) acres per farmer.

General Objectives

To cooperate with national organizations on:

1. The development of a body of knowledge on hillside farming and cropping systems conductive to change the traditional pattern of hilly land farming.
2. The spread of that body of knowledge throughout the pilot area.
3. Extending pilot area results to the whole hillside region.

Specific Objectives

a. To develop a new system of production based on multiple cropping and efficient utilization of land and water resources.

b. To increase the productivity and production of certain food crops (yams, beans, potatoes, cassava, sweet potatoes).

c. To increase food production, income, nutrition and improve the standard of living of approximately 300 farm families occupying about 622 acres of hilly land in the parish of Trelawny.

d. To develop an institutional framework, capable of implementing similar changes in other areas of the country.

e. To develop accurate production figures for crops grown by the small hill farmer.

f. To train local professional technicians.

Goals by States

1. First Year:

   a. Establishment of a 3 acre plot in order to:

      - Demonstrate improved food production techniques
      - Study new technique and production systems including economic aspects.

   b. Extend the improved food production techniques, apply and disseminate the research results of the demonstration plot.

   c. Train personnel to support the research, demonstration and extension activities of the project through seminars, production of extension materials, workshop, field trip.

   d. Study the institutional framework necessary to deliver production to consumers and help improve the organization performance.

   e. Soil conservation measures:

      - Establish 100 acres of soil conservation works
      - Establish 100 acres of waterways
      - Establish 75 acres of gully control

   f. Establish 100 acres of crops development.

2. Second Year:

   a. Maintenance of demonstration plot and continuation of research, demonstration and extension activities.

   b. Extend the improved food production techniques, apply and disseminate the research results of the demonstration plot.

   c. Continuation of training.

   d. Improvement of institutional framework.

e. Soil conservation measures:

- Establish 85.95 acres soil conservation works
- Establish 25.00 acres gully control
- Establish 85.95 acres waterways

f. Establish 85.95 acres of crop development

g. Planning of dissemination of pilot area results to the whole hillsides region of Jamaica.

Cost of the Project

The total cost of the project - 3 years - is US$658,840.00 and the distribution by sources of funds for the global outlay and for the first year of operation is as follows:

TOTAL 3 YEARS

A.	Sources	J$	US$
	Jamaica	311,042.16	342,840.00
	S. B. F.	270,542.45	298,200.00
	TOTAL	581,584.61	641,040.00

1st. YEAR OPERATION

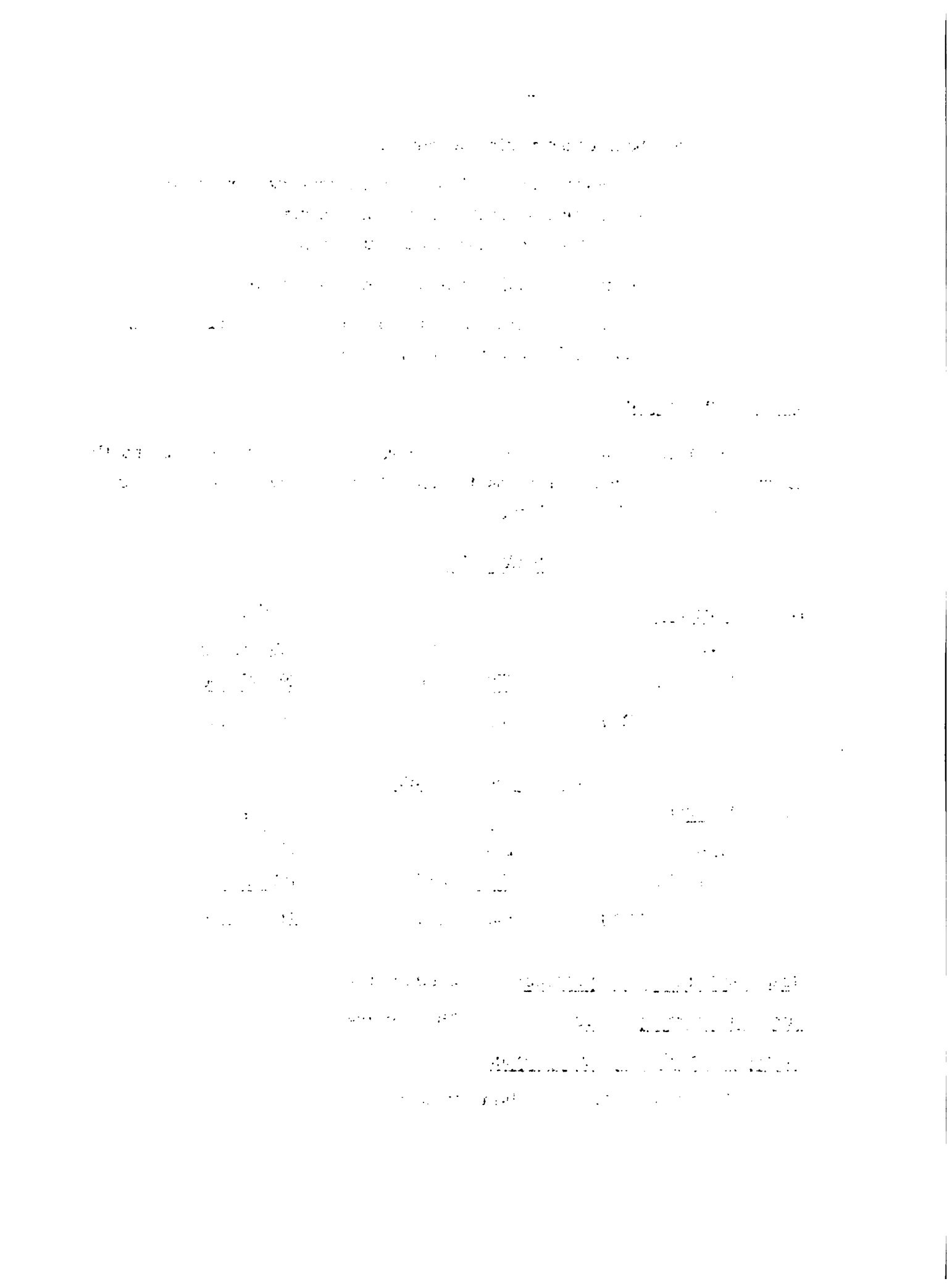
B.	Sources	J$	US$
	Jamaica	103,680.72	114,280.00
	S. B. F.	90,725.17	100,000.00
	TOTAL	194,405.89	214,280.00

Starting date of the project: January 1977

Duration of the project: Three years

Financial Product of the project:

The final product of the project is:



AIDE MEMOIRE

EVALUATION OF FSB IICA/JAMAICA PROJECT

1. The Evaluation Team comprised of:
   - Drs. Hugo Cohan and Rufo Bazan, who arrived on Sunday, June 1, 1980.

2. The Evaluation Team met the IICA/Jamaica staff on Monday June 2nd as was originally programmed.

2.1 At the beginning of the discussions IICA/Jamaica presented the Evaluation Team with Documents Nos. 2 and 3, and received Document No. 1. The tentative schedule of work for the week was discussed and agreed upon.

2.2 The IICA/Jamaica Team comprised:
- Dr. Percy Aitken-Soux;
- Dr. Abdul Wahab;
- Dr. Irving E. Johnson; and
- Dr. B. Woo

3. Following a review of the documents by both teams it was the consensus that Document No. 1 had to be completed, on the provision of appropriate information by the Jamaica office. This information was provided during the course of the week.

3.1 Documents Nos. 2 and 3 were found to be in compliance with the guidelines of the Official Methodology provided by the Evaluation Office.

4. In accordance with the schedule, the documents were reviewed, interviews were held, field days were attended, and working sessions held.

4.1 A detailed review of the original Project Document was effected as well as reviews of budgets covering the life of the project, its activities, reports and other relevant information.

4.2 Inter alia a review of the creation and working of the Co-ordinating Committee was made and the minutes of these meetings were made available. Additionally, Dr. Wahab presented a seminar on some of the achievements of the FSB Project.

4.3 During the final joint sessions, several considerations and recommendations were agreed upon. These are listed as follows:

4.3.1 The Evaluation Team congratulated the Jamaica Office for the design and execution of the Project. Special mention was made to Dr. Raul Soikes for his role in the identification and conceptualization of the Project. Further, the achievement of a clearly identifiable product constitutes a tangible proof of IICA's efforts in Jamaica. Through this product IICA has gained credibility for its capacity as an Agency for technical co-operation.

4.3.2 Furthermore, the Office has been able to generate new projects in other Lines of Action which emanated from the FSB Project. Through the IICA's achievements at Allsides, national institutions have also been able to generate new projects on hillside farming with external financing from several sources (GOJ/USAID Rural Integrated Development Project, GOJ/IDB/IICA Pilot Hillside Agricultural Project (PHILAGRIP), GOJ/FAO/Norway Hillside Project, the proposed Venezuelan/GOJ/IICA Peanut Project (VENAPEPOJ).

5. Recommendations

5.1 The continuation for 18 months of the FSB Project has already been approved by IICA at the request of MINAG. During the first six months of the extension period (July - December, 1980), a total of seven activities has been programmed as presented in addendum to Memorandum ZL/J-064 of February 4, 1980, from P. Aitken to G. Guerra.

As can be seen, the most important new activity concerns the establishment of commercial production plots on selected farmers holdings. This will serve to validate successful farming systems from the Allsides demonstration project, under direct farmer's management.

5.2 It is noted that the original objectives and goals as spelled out in the Agreement with the GOJ

a) did not clearly identify the IICA and MINAG's responsibilities;

b) were too optimistic in terms of transfer of technology; and

c) gave the wrong impression that IICA's project falls in Line IV when in fact it only deals with production systems research as a pre-requisite for increasing food production on the hillsides and enhancing small farmers' income.

5.3 It is suggested that new activities be added to the 1981 programme to deal with:

a) the preparation of a comprehensive final report on the Allsides and Olive River experiences; and

b) the preparation of blueprints for the transfer of the demonstration farms to MINAG including a proposal of priorities for future adaptive research for the two locations.

5.3.1 It is also recommended that another project similar to Allsides should be prepared in 1981 for funding and implementation in another ecological zone within the context of hillside farming. For this new project the transfer component should be carefully planned.

5.4 The PANP clearly shows that the highest ranking priorities are:

a) food production; and

b) rural employment.

5.4.1 The solution to these problems involves a series of Government activities such as:

a) land tenancy;
b) credit and credit insurance;
c) marketing and distribution;
d) price policies;
e) agroforestry;
f) rural industrial processing; and
g) farmers' organizations.

5.4.2 The FSB Project is not intended to assist the GOJ to develop all these activities.

5.4.3 For this reason it is recommended that the Jamaica Office explore the possibility of developing projects aimed at assisting national institutions in effecting solutions to priorities as stated in 5.4.

5.4.4 It is also recommended that new projects be consistent with hillside agriculture. Activities such as the ones already started in Marketing and Farmers' Organizations appear to fit very well with this recommendation.

5.4.5 Along these same lines it is very strongly recommended that the commitment of the Direccion General to recruit an Extension Specialist for Jamaica be complied with in the very near future due to the dire need to reinforce activities in transference of technology. As soon as this vacancy is filled the Jamaica Office will need to programme the activities that this expert will be expected to perform. In order to make this input from IICA meaningful it is imperative that MINAG should not cease its endeavours to provide adequate Extension Agents for this project.

Prepared by:

Drs. Hugo Cohan
Rufo Bazan
Irving E. Johnson
Percy Aitken-Soux
Abdul Wahab

PROJECT EVALUATION

HILLSIDE FARMING STUDY AND IMPLEMENTATION PROJECT IN JAMAICA (ALLSIDES PILOT DEVELOPMENT PROJECT)

DOCUMENT #1

"REVIEW OF PROJECT DESIGN"

PREPARED BY: Dr. Heraclio Lombardo
Project Evaluation Division

PROJECT IV.XLJ.11

Hillside Farming Study and Implementation

Project in Jamaica (Allsides Pilot Development Project)

1.1 National Problem

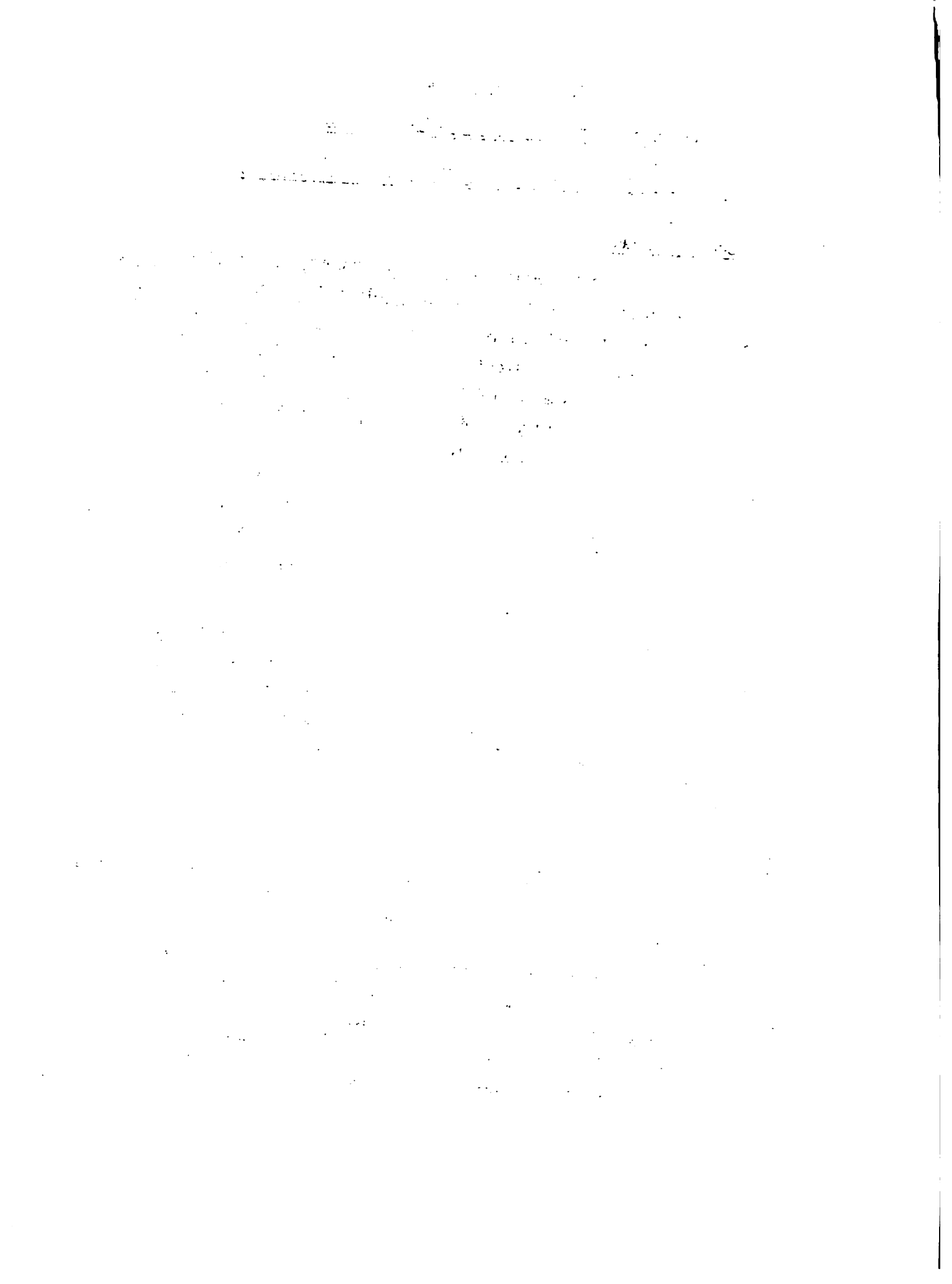
1.1.1 What, specifically, are the key country problems indicators? Jamaica has traditionally been an agricultural country. Out of the two million eight hundred thousand acres (1,134,000 ha.) which form the country it has been calculated that eighty percent (80%) is mountainous. In this area hillside agriculture is practised. At present hillside agriculture utilizes inappropriate technologies that cause and increase soil erosion.

The agricultural Census of 1968 states that of a total of 190,582 farms in the country 149,703 have areas of less than 5 acres (2.02 ha.). This represents 78.6 percent of all the farms in the country. The majority of these farms are located in the mountainous area of the country where hillside agriculture is practised.

Due to the fact that land under hillside farming has been losing considerable quantities of soil annually (loss of 54 tons of soil per year per acre recorded on the Smithfield Project), the Government of Jamaica, has launched a programme of soil conservation. IICA's help was requested to provdde adequate farming technology for newly terraced lands.

1.1.2 What is the magnitude of these problems?

There is high rural unemployment (30%) in the country and rural annual incomes are quite low (in many instances less than J$400 per person). This has increased the level of rural urban migration. Rural farm labour is culturally undesirable and considered of low status. It is hoped to develop improved farming hillside lands more intensively so as to increase farm incomes and ultimately raise the standard of living for small farmers in Jamaica. It is also important to note that the average age of the minifundia hillside farmers is over fifty years.



1.1.3 How serious are these problems? Who would benefit (or be harmed) if solved?

El Proyecto, su identificación, preparación e implementación puede ser más apropiadamente visto comparado con los antecedentes de los planes para el desarrollo de la agricultura así como la situación de la agricultura en el tiempo de su iniciación.

1.1.4 Are these problems in their own right, or are they only constraints to attaining other ends?

Jamaica es una pequeña isla con recursos naturales muy limitados y una creciente población que presiona sobre todos (el área es de 1.2 millones de hectáres, la población es de aproximadamente dos millones, 176 personas por Km2, y con un crecimiento de población estimado en 2.5% - 3%. La Agricultura, que en 1974 contribuía con el 7.8% del total del producto doméstico bruto y empleaba un promedio del 35% del total de trabajadores, representa un área vital de la actividad económica.

El Gobierno, en años recientes, ha enfatizado firmemente la importancia de la agricultura en la alimentación de la población y en mejorar las normas de nutrición en términos de cantidad y calidad. (El total de alimentos agrícolas importados ha subido más rápidamente en los años receintes que el total de exportaciones agrícolas). En busca de la política de mayor confianza en la producción de alimentos también han sido emitidas políticas para dar atención especial al desarrollo de recursos físicos y humanos y a la adopción de medidas para desarrollar tierras adicionales así como para incrementar la eficiencia de sug usos.

En un país, donde el crecimiento de la población (1976 = 2 millones; 1980 = 2,169 millones) está causando una alarmante reducción en el área percápita de la tierra disponible para la agricultura y donde el 80% del terreno es montañoso o escarpado, dichas políticas resaltan urgentes necesidades.

1.1.5 What is being (or has been) done to resolve these problems?

Principal Actions:

- After Independence in 1962 Government (GOJ) escalated the programme of land acquisition for the settlement mainly of small farmers. This programme was based on a freehold system. Since 1972, however, the programme of acquisition has been further intensified, but the emphasis has been placed on leasehold tenure.

- In 1969 GOJ increased the number of Land Authorities (LA) from two thirteen to cover all of Jamaica. These LAs, while dealing with agriculture in general, had as a major function the developmental potential of soil and water resources, particularly in the interest of small farmers.

- Since 1972 GOJ reinforced the Soil Conservation Division with the assistance of studies made by FAO. This was the beginning of a national programme of soil conservation.

- At present there is greater emphasis on food production on hillside land. However, there is limited trained capacity in the country to conduct research for determining appropriate systems of food production for hillside farming, and for developing the technology for extension to small farmers.

Concurrent Planned Actions:

- GOJ, with the assistance of IICA, has already initiated operations similar to those adopted at Allsides in other demonstration centres in Jamaica.

- USAID/GOJ have initiated a $26.5 million 5-year project, designed, inter alia, to increase production and productivity in the Pindars - Two Meetings area of the country. This project is titled the "Rural-Integrated Development Project".

- IDB/GOJ/IICA are initiating a pre-feasibility study for a proposed "National Hillside Farming Development Project". It is expected that this study will be followed by a $1 million (pilot-cum-feasibility) study to be funded by IDB, and for which IICA will provide technical inputs.

1.1.6 Is there a carefully planned and explained set of national institucional actions which could approximate a conventional definition of a national project?

An ambitious national programme has already been launched by the Ministry of Agriculture (Soil Conservation Unit) in the area of Land and Water Resources Conservation. The budget for this programme over the past three years was as follows:

1974/75	J$1,000.000
1975/76	J$2,500.000
1976/77	J$2,850.000

The Allsides Agricultural Development Project is conceived as a second phase of the national programme which foresees the utilisation of the rehabilitated areas through the development of an efficient commercial farming based on the following:

1. The development of proper crops and cropping systems on these treated areas.
2. Increase productivity and production of food crops in the area of the project.
3. Transferring the technology to private land owners with accent on the small hill farmer.

1.2 Analysis of National Institutions

1.2.1 Which national institutions are responsible for actions oriented toward resolving national problems?

Basically the Soil Conservation Division MINAG and other Divisions of this Ministry.

1.2.2 What responsibility does each institution have and how does it carry it out?

The Soil Conservation Unit. This Unit is the "counterpart" institution to IICA in the project. A few years ago GOJ indicated its intention to launch a national programme of soil conservation. This programme of soil conservation, coupled with the normative target for food production, caused MINAG, Jamaica, to request IICA's developing systems of production for newly terraced lands.

IICA has been providing training opportunities for some technicians of the Agricultural Research Division. MINAG is interested in repeating work done at Allsides in other parts of the island under different physical and climatic conditions. This will lead to a build-up of technology which will have wider application.

The Extension Service is still in the process of being centralized where agencies are concerned, but fully decentralized at the district level.

The Extension Training Division has been cooperating with IICA on a number of projects. Accordingly, IICA has executed a number of training courses in Hillside systems of production for Extension staff and has programmed additional ones to accommodate the increasing number of staff who should be exposed to this training.

The Allsides Pilot Development Project is a joint venture of experimental plots being done by the Soil Conservation Division and IICA Jamaica.

The Production Unit of MINAG was created specifically to promote increased food production as part of the Emergency Production Plan initiated in 1976. GOJ had been undertaking a programme of restructuring of the Ministry of Agriculture and with effect from mid-1977 most services in Agriculture had become decentralized and regionalized. It now appears that the Production Unit has become a permanent feature and that in addition it has engulfed many important divisions

of the Ministry. The restructuring is continuing and at this moment it is not possible to define the structure with any degree of precision.

Country-wise, however, there is a strong interest in the technologies already developed and others expected for improved hillside farming, especially with a view to intensifying food production of hillside lands through a judicious mix of appropriate technology and land utilization.

1.2.3 What are the pertinent characteristics of the national institutions involved in the IICA project, in terms of:

- Leadership
- doctrine
- programme
- resources
- structure
- products

This information is not available in the office of the Associate Deputy Director General for Planning.

To be completed at IICA;s office in Jamaica.

1.2.4 Where are the weaknesses or limitations in each institution?

En la etapa de planeamiento inicial se reconoció que el Ministerio de Agricultura, la agencia de principal actividad en el sector agrícola, poseía una capacidad limitada para planear y llevar a cabo dicho programa. Este impedimiento era de mayor significación, cuando en ese tiempo se apreciaba que el gobierno estaba contemplando una mayor escala de proyectos para la conservación de la tierra y estaba en busca activa de ayuda técnica y financiera de agencias internacionales (FAO) y bilaterales (USAID, NORAD) para mejorar esta capacidad y llevar a cabo la planeada.

Es difícil para el éxito a largo plazo del programa iniciado y desarrollado, la disponibilidad de tecnología apropiada para el cultivo de ladera y para sus condiciones variantes y su extensión entre los pequeños agricultures. Esto es en términos de continuo mejoramiento de tierra y conservación de agua y de producción económica substancialmente mayor.

Las agencias que operaron fueron la División de Conservación de Tierras (para la ejecución del trabajo para la conservación de la tierra) y los Servicios de Investigación y Extensión Agrícola (para el desarrollo y transmisión de tecnología).

Con respecto al tratamiento dado a la conservación de suelo, la División de Conservación de Tierras que fue creada en consecuencia del Proyecto UNDP/FAO/GOJ para la conservación de tierras y el manejo de cuencas, desarrolado y llevado a cabo desde hacen varios años, era pequeña y con poco personal. (El personal consistía de tres profesionales y menos de 10 técnicos que asistían). La organización para la producción y transmisión de la tecnología, el sistema de investigación y expansión estaba incompleto, carecía de coordinación adecuada y era relativamente ineficiente. Y eran estas las cosas que cualesquiera agencia de asistencia técnica tendría que encarar en la ejecución del trabajo de conservación de tierra y en el desarrollo y transmisión de la tecnología mejorada.

En el tiempo en que el Proyecto del "FSB" se conoció , ya se planeaba la reorganización de servicios a la agricultura nacional. Esto ha tenido como objetivo "interalia", el fortalecimiento del servicio de conservación de tierras, aumentando su número de fuerza y entrenando profesionales adicionales.

Sin embargo, se sabía que la reorganización del sistema de in-estigación agrícola, el cual ha debido efectuarse al mismo tiempo, parecía que iba a ser dilatada por un año más. Esto era para facilitar la for-

mulación final, le revisión y la realización de los acuerdos sobre las propuestas preparadas por la misión de la FAO/IDB-CP para la reorganización y fortalecimiento del sistema de desarrollo y extensión agrícola en Jamaica.

También se debe reconocer que el Proyecto FAO/UNDP/GOJ de manejo de tierra y cuencas en el oeste de Jamaica, al cual se le hizo referencia anteriormente, inició una serie de actividades en la conservación de tierra y manejo de cuenca, para desarrollar y demostrar métodos de trabajo y técnicos para la conservación de tierra en el cultivo de ladera y examinar su posibilidad. Los resultados del proyecto, que se concentraron más en las técnicas de conservación que en las de desarrollar la tierra tratada, hasta entonces se extendió a menos de 1,500 has. de tierra de ladera en algunas tres localizaciones.

También era significativo que en el intervalo del período, relativamente, poco se hizo para extender esas investigaciones a otras localidades, donde prevalecían diferentes condiciones, y tratar de estudiar un sistema apropiado para cultivo, especialmente cultivos múltiples que son tradicionales y extensión para responder al desarrollo necesario y al alza dramática en la demanda para esa información resultada de planes masivos para la expansión del programa de manejo de tierras y cuencas.

Fueron reconocidos problemas institucionales relacionados con la ejecución del programa especialmente en el desarrollo y generación de la tecnología.

1.2.5 Which institutions are assigned priority and why?

The Soil Conservation Division, MINAG.
Other divisions assisting would be:

- the Research Division;
- the Extension Service;
- the Extension Training Division; and
- the Production Unit.

1.2.6 What actions would contribute to relaxing the key constraints to institutional action for resolving national problems?

This information is not available in the office of the Associate Deputy Director General for Planning.

To be completed at IICA's office in Jamaica.

1.3 The objectives and goals of an IICA project

1.3.1 Do the project's objectives and goals reflect the nature and magnitude of the institutional problems to be resolved?

General objective:

To assist the Soil Conservation Unit of the Ministry of Agriculture to improve and to consolidate measures for developing appropriate technology for extension to users of newly terraced lands and lands which have been subjected to other types of soil conservation methods.

The specific objectives were defined in the 1976 Agreement with the Ministry of Agriculture as follows:

Specific Objectives

a) Programming

(i) To develop a new system of production based on multiple cropping and efficient utilization of land and water resources.

(ii) To increase the productivity and production of certain food crops (yams, beans, potatoes, cassava, sweet potatoes).

(iii) To increase food production and farm income, improve nutrition and the standard of living of approximately 300 farm families occupying about 622 acres of hilly land in the parish of Trelawny.

b) Management

(i) To develop an institutional framework capable of implementing similar changes in other areas of the country.

(ii) To develop accurate production figures for crops grown by the small hill farmer.

c) Extension

(i) To train local professional technicians.

1.3.2 Do the project objectives and goals fit within the framework of IICA's programmes and Line of Action?

Yes.

1.3.3 Do the project objectives and goals clearly identify the institutions to be supported?

Yes, see 1.3.1

1.3.4 Are the objectives and goals stated in terms so as to facilitate an adequate quantification of the pertinent accomplishments?

The final product of the project is:

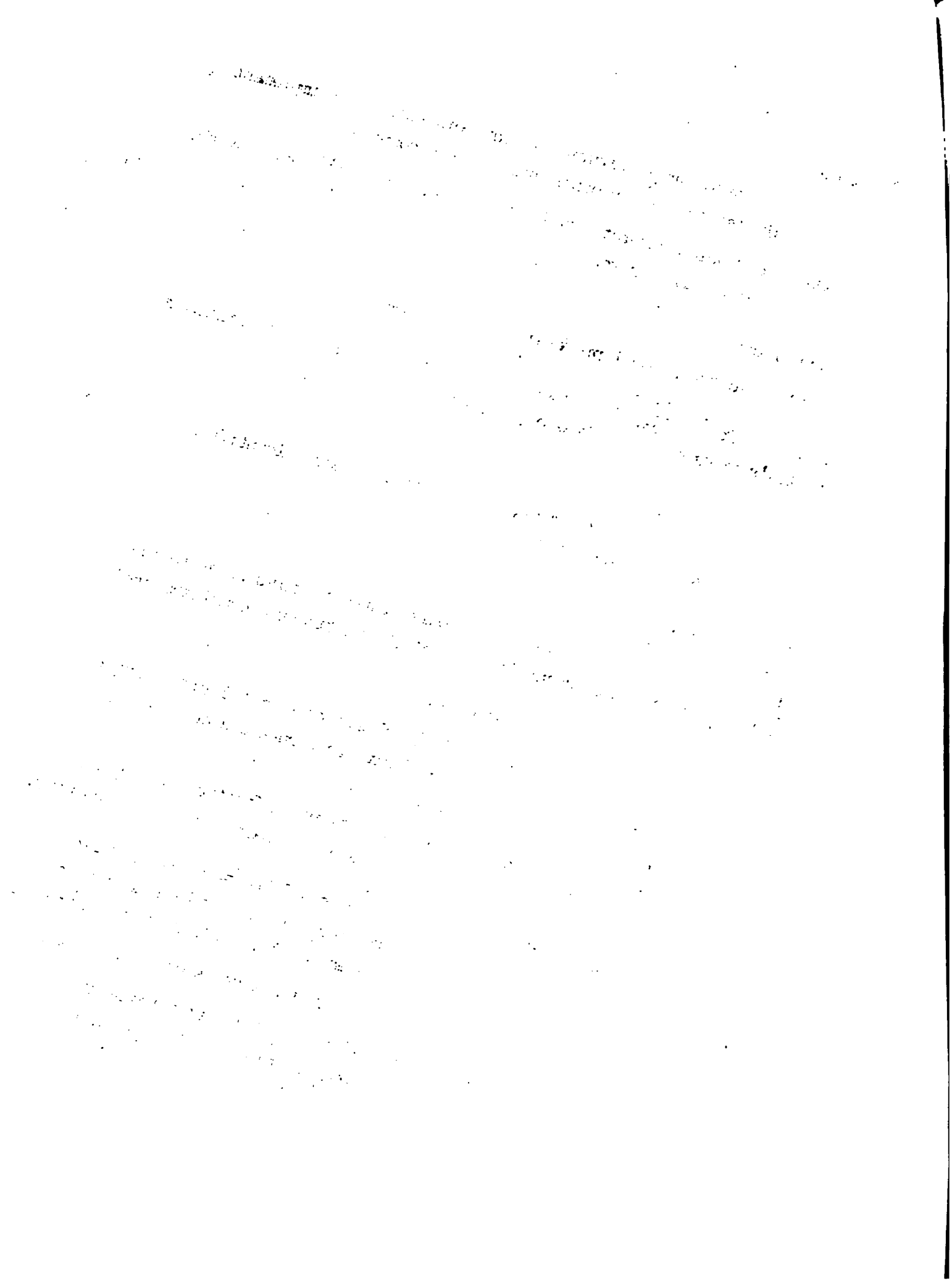
1. The development of a body of knowledge on hillside farming and cropping systems conducive to change the traditional pattern of hilly land farming.

2. The development of an institutional infrastructure capable of implementing similar changes in other areas of the country.

3. The improvement of the standard of living of the families living in Allsides due to increases in food production and income (Ja. $1,500.00 instead of Ja. $670.00 at the project).

4. The establishment of new cropping systems on 335.95 acres.

5. The complete rehabilitation and efficient management of 622 acres in the Allsides area occupied by 300 farm families



through:

- Completion of:

a. 335.95 acres of soil conservation
b. 335.95 acres of waterways
c. 200.00 acres of gully control

1.4 A project workplan as part of the strategy

1.4.1 Is the project strategy compatible with IICA's general strategy for its technical cooperation programme?

Yes.

Target 1.

Trial plots will be established over the 3-year period on 3-acre plots on which ten (10) systems are being rested and replicated. A number of different crops are being used in a multi-cropping system.

Target 2.

- Similar trials will be done in other hilly areas of Jamaica.
- Training will be provided to technicians from the Divisions of Research and Extension of MINAG, firstly to replicate the experiments and then to extend the technology which ensues.
- Strong links will be developed between the offices of the Soil Conservation Division, the Regional Director, the Parish Manager, the Extension Division and the Agricultural Research Division. A coordinating mechanism will be created and strengthened at MINAG.
- At the local level, a social organization will be promoted to perpetuate to the advange of farmers the technology developed, and in conjunction an appropriate socio-economic survey of the project area will be undertaken.

- Technology which has a potential for success will be demonstrated to farmers as it evolves.

Target 4

- The targets for transferring technology and procedures for land reclamation are worked jointly with MINAG and are subject to constraints. Extra effort will be made to ensure the joint involvement of the Soil Conservation Division, the Extension Division, Research Division, Production Unit and IICA.

Target 5

- Targets determined jointly by IICA and MINAG (see comments at 4. above).
- Extension will be involved to a great extent if progress is to be assured.
- The strategy is to plan the dissemination of results from the pilot area for use in all hillside farming areas of Jamaica.

1.4.2 Which was the most outstanding project action in the past?

The land provided by MINAG in 1977/78 for research of systems of production for newly terraced lands was three (3) acres. In 1978/79 MINAG promised additional lands for use as a testing site for conservation methods other than terracing. For various reasons (un-authorized settlement of identified plots by squatters, unsuitability due to inappropriate slope categories, distance from the Allsides project itself and inaccessibility) sires suggested by MINAG could not be used. Further efforts by IICA to obtain lands under the control of MINAG resulted in inspection of other proposed sites. At the time of preparing this document none of these sites is acceptable.

The search is continuing.

In 1977-78 GOJ completed the construction of a building containing three offices, two storage rooms, one water tank and complementary facilities on the site of the project. Subsequently, one of the offices was converted to a 6-bed dormitory to accommodate the Jamaica School of Agriculture (JSA) final year students for whom a special short course (three weeks) was arranged under IICA's supervision. Additional storage space was constructed by MINAG.

- During 1977-78 a total of 489 technicians was reached;
- from July 1978 through January 1979, 300 persons participated in on-the-site demonstrations. This figure does not include many individuals and small groups who have visited the demonstration site from time to time.

In 1977-78 ten systems of production were tested.

Anciallary trails on soil fertility using the micro-plot technique were also conducted.

In 1978-79 the four top performing mixes were repeated on a semi-commercial scale. In addition, there were six other production systems being tested. Further, research on cropping systems was initiated at two other watersheds.

1977-78: Liming trials
fertility trials
staking trials (yams)
animal component data
in-service training

1978-79: liming trials (cont.)
fertility trials (cont.)
animal component data
peanut trials
bean germplasm trials
in-service training.

1977-78: All trials were made at Allsides.

1978-79: Trials were expanded to Smithfield and Sweetwater.

1977-78: 628 farmers were reached.

1978-79: About 300 farmers have been reached up to January 31st.

Using traditional farming methods, farmers on average earn $670 per year. Results of the first crop cycle of the production systems trials of 1977/78 indicated that with appropriate technology and under the conditions which are found at Allsides, the Jamaican hillside farmer can obtain a net income of Ja. $2,000 per acre per year. This result is being retested during the 1978/79 crop to see at what levels these incomes would stabilize, since there could be some reduction in moving from experimental to commercial operations.

Other potentially superior income earning crops such as peanuts and ginger are being included in systems which are being tested in 1978/79.

1.4.3 What activities were programmed for the past year?

1979-1980

IV.XLJ-111 Fourth year establishment and maintenance of observation and demonstration plots on systems beat adapted to hillside agriculture.

IV.XLJ-112 Establishment of demonstration plots for farming systems tocated with soil conservation methods other than bench terracing.

IV.XLJ-113 Demonstrating the viability of promising farming systems on selected farmers holdings within the project development area; strengthening the role of extension.

IV.XLJ-114 Continued reinforcement of the operative units at Allsides in the areas of hillside farming technology programming, coordination and management.

IV.XLJ-115 Reinforcement of expertise in the areas of soil conservation and watershed management.

IV.XLJ-116 Evolving systems for obtaining data and information on Agro-socio-economic indicators of hillside farmers.

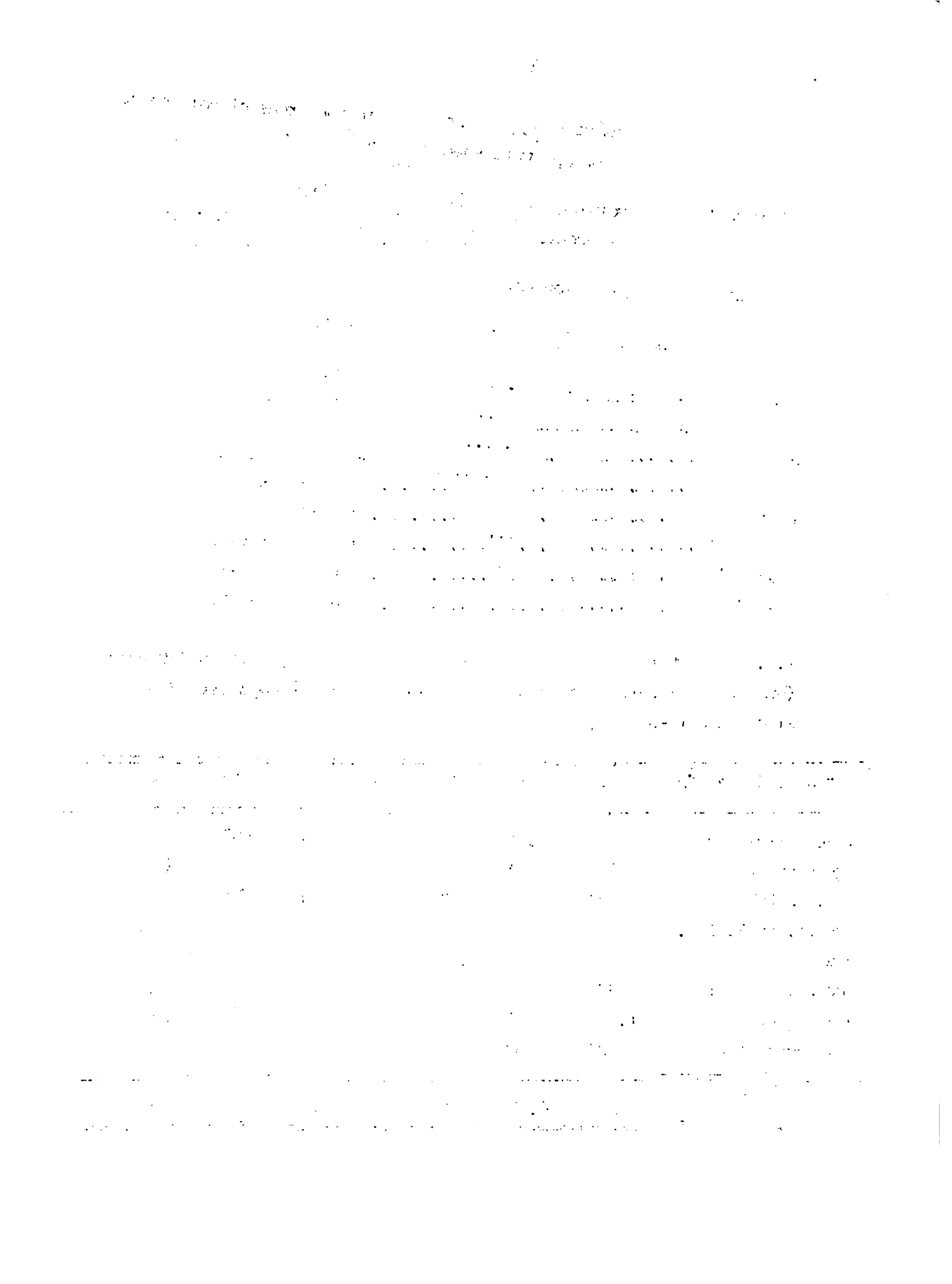
IV.XLJ-117 Entomological study of the area of Allsides.

1.4.4 When were these activities carried out?

IV.XLJ-111.....Jul 79 - Jun 80
IV.XLJ-112.....Jul 79 - Jun 80
IV.XLJ-113.....Jul 79 - Jun 80
IV.XLJ-114.....Jul 79 - Jun 80
IV.XLJ-115.....Jul 79 - Jun 80
IV.XLJ-116.....Jul 79 - Jun 80
IV.XLJ-117.....March 80 - June 80
IV.XLJ-118.....Jan 80 - Jun 80

1.4.5 What resources were allocated for the different activities? (budget, man/years or man/months, type of technical personnel, physical resources, etc.)

Costos de Operación	111	112	113	114	115	116	117
Viajes Oficiales	800	1.500	300	500	600	500	500
Literatura técnica	200	100					100
Edic. de Public.	1.000	200	100		100	200	300
Distrib. de Public.							
Becas	600		2.000	200	300		
Consult. y Conf.	300			300	400	300	500
Mater. y Utiles	1.500	2.000	1.000	400	1.400	400	400
Otros Servicios	400	400	350	100	300	200	100
T O T A L E S:	4.800	4.200	3.750	1.500	3.100	1.600	1.900



1.4.6 What was the technical nature of these activities?

(i.e.: in training, in what area and at what level)

This information is not available in the office of the Associate Deputy Director General for Planning. To be completed at IICA's office in Jamaica.

1.4.7 What role was planned for the participation of personnel from national institutions in these activities?

This information is not available in the office of the Associate Deputy Director General for Planning. To be completed at IICA's office in Jamaica.

1.4.8 How would the intermediate and final products of activities contribute to and support the work of national institutions?

This information is not available in the office of the Associate Deputy Director General for Planning. To be completed at IICA's office in Jamaica.

1.4.9 Why were these activities selected as a means of attaining project objectives? (i.e.: the impact on institutions).

This information is not available in the office of the Associate Deputy Director General for Planning. To be completed at IICA's office in Jamaica.

1.5 Project organization

1.5.1 Who has overall responsibility for the IICA project?

IICA's Office Director in Jamaica.

1.5.2 What authority does he have with respect to:

a) Modifications in the nature of project activities
b) The of consultants for the project
c) Obtaining and diploying physical resources

In all these cases, he can only make proposals, subject to prior approval of the Director of the Simon Bolivar Fund.

1.5.3 Who has responsibility for specific IICA project activities?

Primarily A. Wahab

1.5.4 What is their authority with respect to:

a) The nature of project activities
b) Personnel from national institutions
c) The use of resources on project activities

As defined in description of job responsibilities.

1.5.5 What internal communications systems are used to monitor progress and coordinate project activities?

This information is not available in the office of the Associate Deputy Director General for Planning.

To be completed at IICA's Office in Jamaica.

1.6 Working relationships with national institutions

1.6.1 Who are the key individuals in national institutions with whom IICA project staff should relate?

This information is not available in the office of the Associate Deputy Director General for Planning.

To be completed at IICA's Office in Jamaica.

1.6.2 How often and when are these contacts made?

The information is not available in the office of the Associate Deputy Director General for Planning.

To be completed at IICA's Office in Jamaica.

1.6.3 Is there a clear understanding between IICA and national institutions staff as to the purpose of these relationships?

This information is not available in the office of the Associate Deputy Director General for Planning.

To be completed at IICA's Office in Jamaica.

1. The development of a body of knowledge on hillsides farming and cropping systems conducive to change the traditional pattern of hilly land farming.

2. The development of an institutional infrastructure capable of implementing similar changes in other areas of the country.

3. The improvement of the standard of living of the families living in Allsides due to increase in food production and increase in income (J$1,500.00 instead of J$ 670.00 at the start of the project).

4. The establishment of new cropping system on 335.95 acres.

5. The complete rehabilitation and efficient management of 622 acres of Allsides area occupied by 300 farm families through:

   Completion of:

   a. 335.95 acres of soil conservation
   b. 335.95 acres of waterways
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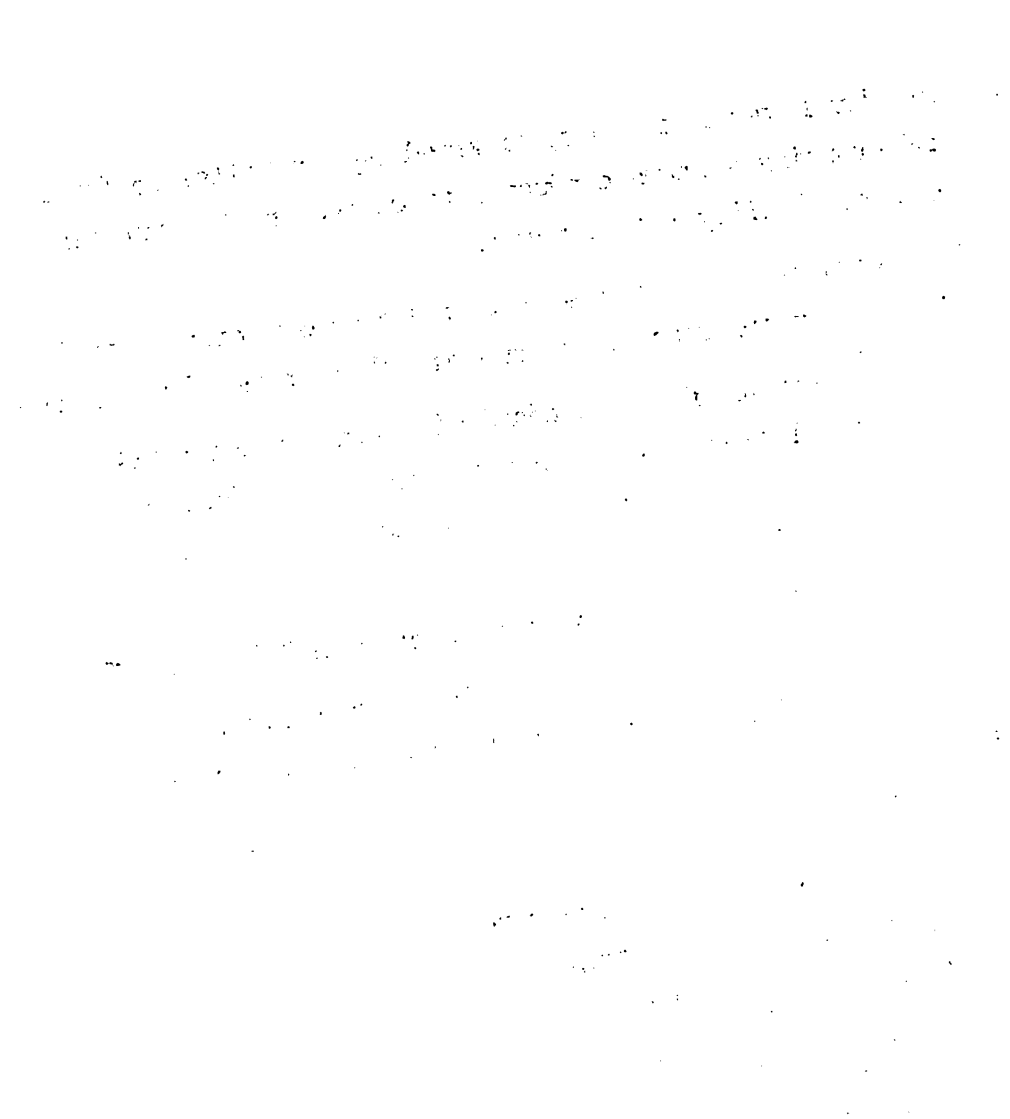


PROJECT EVALUATION

HILLSIDE FARMING STUDY AND IMPLEMENTATION PROJECT IN JAMAICA - (ALLSIDES PILOT DEVELOPMENT PROJECT)

DOCUMENT NO. 2

"ANALYSIS OF PERTINENT AND CURRENCY OF PROJECT OBJECTIVES"

SIMON BOLIVAR FUND

IICA/JAMAICA
KINGSTON

Prepared by:

Dr. Percy Aitken-Soux	Director
Dr. Abdul H. Wahab	Agricultural Research Specialist
and	
Dr. Irving E. Johnson	Agricultural Economics Specialist

1. Review of Changes in National Problems

1.1 The performance of the Agricultural Sector in Jamaica over the past five years has been characterized by continuing low level of production, especially of food. A reversal of this position is crucial since this would result in (i) increased employment and incomes; (ii) improvement in the standard of living, including the nutritional levels of the people; (iii) generation of financing for new investments; as well as (iv) import substitution and the saving/earning of foreign exchange.

1.2 Despite specific efforts to accelerate project preparation in agriculture, the implementation and execution phases have been continuously hampered by frequent institutional changes and overlapping responsibilities of the various entities. This problem was recognized by the Government of Jamaica (GOJ) as can be observed in the following official policy papers: 1/

1. "An Overview of Jamaican Agriculture"
   Agricultural Planning Unit, February 4, 1972
2. "Background information on Land and Livestock Development"
   Agricultural Planning Unit, February 20, 1973
3. "Green Paper on Agriculture - Agricultural Development Strategy"
   K.A.Munn, Minister of Agriculture, November 21, 1973
4. "Emergency Production Plan"
   Ministry of Agriculture of Jamaica, 1977
5. "Five Year Plan 1978 - 1983"
   Ministry of Agriculture of Jamaica, 1978

1/ IICA/Jamaica Publication No. IV-7
"Agriculture - Government Policy Papers for Jamaica", February 1978

1.3 There is a proliferation of International Agencies engaged in various forms of assistance to the Agricultural Sector. This assistance is focussed principally on export-oriented crops viz., banana, coffee, cocoa, sugar cane and spices. The above-mentioned assistance does not address itself to the solution of the principal problem which is sectional and humanistic, - the production of food for domestic consumption and the alleviation of high levels of unemployment and low standards of living.

1.4 Failure to solve the chronic problems which have resulted in inadequate food production has resulted in frequent food shortages accompanied by drastically increased cost of living over the past five years.

1.5 The most recent Agricultural Census data were provided by the Department of Statistics in 1968/69. 2/ The land distribution statistics are as set out below:

Land Distribution (1968/69)	Number of Farms (%)	Farmland (%)
0 - 4.9 acres	78.8	14.9
5 - 24.9 acres	19.0	22.1
25 - 99.9 acres	1.6	8.2
100 - 249.9 acres	0.4	9.9
250+ acres	0.2	44.9

1.6 However, since then there have been several national exercises in the redistribution of land which would have affected this distribution, particularly with respect to increasing the number of small farmers. The figures for the 1979 Census are not yet available.

2/ Statistical Yearbook of Jamaica 1978, Department of Statistics, March 1979 p. 459

1.6 The main land characteristics of the island country of Jamaica is that 80% of the land is on slopes having greater than 5%, with 33% of the land falling within slopes of 20 - 50% and steeper. [3/] The country is divided into 33 principal watersheds.[4/] These watersheds have progressively deteriorated over the years because of soil erosion and improper management.

1.7 The GOJ in cognizance of the:

i) inadequacy of supplies of domestically grown crops for home consumption;

ii) mountainous characteristics of the island;

iii) high concentration (80% of all farmers) of small farmers on the hillsides;

iv) state of erosion of the hillside farmlands;

v) disparity in income distribution between the rural and urban population; and

vi) high unemployment situation in the rural areas,

identified a target group for the solution of the above-mentioned problems. In 1969 Land Authorities were created across the entire island thereby increasing the number from two to thirteen. This was done in order to concentrate more fully on small farming activities. An important aspect was to identify action aimed at alleviating soil erosion and adopting sound land use practices.

3/ The National Atlas of Jamaica 1971, Ministry of Finance, 1971, p. 8

4/ IICA/Jamaica Publication No. III-1
Stennett, H.R. "Watersheds of Jamaica and Considerations for an Ordinal Scale of their Development", July 1979

In this context, a FAO Technical Mission in 1975 made recommendations to the GOJ on soil conservation measures. By 1976, in realization of the fact that soil conservation measures ipso facto were not enough to solve the problems causing low food production by the small hillside farmers of Jamaica, the GOJ solicited IICA's assistance for the development of viable systems of production for newly terraced land on an area typical of that used by the Jamaican small farmers. 5/

1.8 The problems faced today by the Agricultural Sector of Jamaica are greater in magnitude than the same problems identified three years ago. This is due to:

i) the political and socio-economic crisis which the country has and continues to experience;

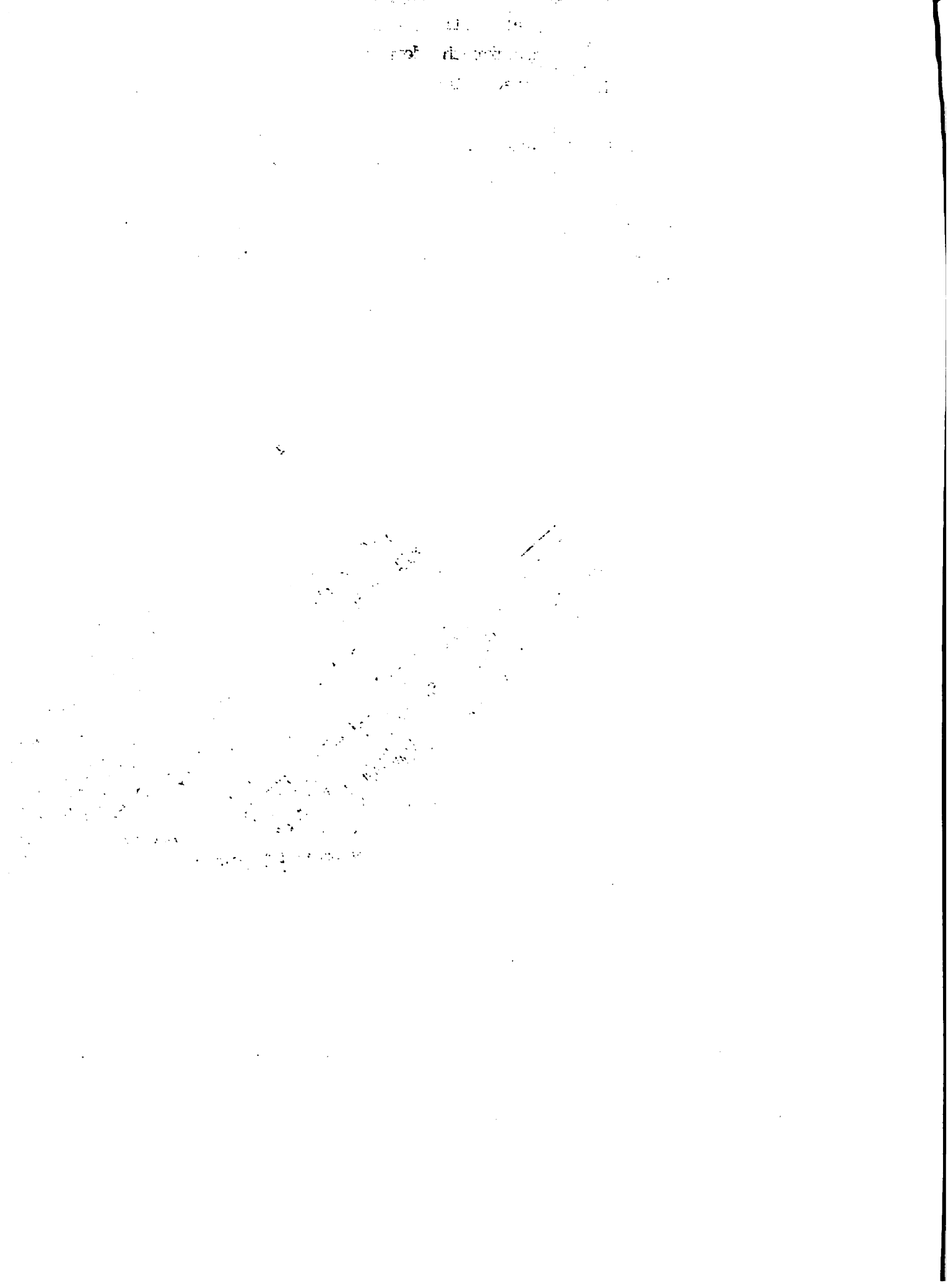
ii) many changes in the political leadership of the Sector. In order to re-affirm the national importance which must be attached to the Sector, the Honourable Prime Minister has recently taken upon himself the portfolio of Agriculture.

iii) the high level of unemployment across the country. Agriculture is the largest employer and therefore the most affected by unemployment and underemployment.

iv) the constant on-going process of reorganization of MINAG has over the past three years created instability, insecurity and a lack of policy continuity.

As a consequence of the above facts the national problems affecting the Agricultural Sector have increased in degree as well as in scope.

5/ Hillside Farming Study and Implementation Project in Jamaica (Allsides Pilot Development Project), December 1976



1.9 Steps being pursued to redress the problems identified by IICA/Jamaica [6/] since its inception here in 1976 are rendered more difficult now because the soil conservation programmes designed for the country and for the area of Allsides have been subjected to budgetary constraints and labour unrests.

1.10 During the execution of the IICA Allsides Pilot Development Project in Jamaica, there were a number of changes in project direction. Dr. Cesar Paniagua, the Project Director, resigned in May 1978. Further, the IICA/Jamaica Director, Dr. Raul Soikes was transferred in June 1977 and Nicot Julien, the Economist, was also transferred at the same time. Despite these changes, project continuity was maintained. However, new strategies were developed vis a vis:

i) execution of the project;
ii) relations with the Government;
iii) policies on training;
iv) policies on preparation and publication of necessary agricultural data, which hitherto were unavailable;
v) external linkages with other organizations;
vi) public relations and closer co-ordination with professional and high level echelon personnel of MINAG.

1.11 Notwithstanding the above changes in project direction and staff, the project objectives as originally defined in the project document were retained and were complemented by activities which were deemed necessary to attain the established targets of the project. This was due principally to the fact that Dr. Abdul Wahab, the office quota expert who initiated the National Project in February 1977 and who was replaced in July 1977 by Dr. Cesar Paniagua, the FSB Production Specialist, re-assumed responsibility for the direction of the project in May 1978 following the resignation of the latter.

6/ Country Level Action Plan (PAIP) IICA/Jamaica, February 1978

2. Identification of Changes in National Programmes and Institutions

2.1 There have been significant changes in the Agricultural Sector since 1977. These changes have been due to various causes among which are the following:

i) the national economic crisis;

ii) the very low investment profile;

iii) the necessity for re-adjustment in the institutions dedicated to export crops;

iv) the normative policy of the Government; and

v) the continued low production and productivity in the Agricultural Sector.

2.2 It is readily observed at the present time that there is no willingness on the part of the Jamaican private sector to continue investments in the country due to several Government controls and economic constraints. The food shortages have spurred within the Government the desire to initiate a system of retail price controls. However, in spite of this, producers have not taken advantage of the unprecedented high prices for agricultural products earmarked for domestic consumption. Also, severe constraints in the foreign currency availability for agricultural inputs have resulted in decreased investment in the sector.

The above considerations have caused serious distortions in the marketing and distribution of agricultural products. Some of the unprecedented high price levels reached create incentives and windfall gains to the producer because the prices are in some cases 300% to 500% higher than world market prices. Further, this situation creates a disincentive to farmers in the full utilization of their farmlands. Those products whose prices are below world market prices have disappeared from the local markets.

2.4 Those Statutory Bodies which are dedicated to export-oriented crops have been subjected to institutional changes in different aspects over the last three years. In some cases such as the Banana Board there was a complete institutional overhaul in an effort to attain greater efficiency. In other cases such as the Coffee Board the changes were focussed mainly on the centralization of each of the Extension and Research activities. This meant that specialized Extension Officers became general practitioners in the overall extension services with the consequential disadvantages often associated with such changes.

2.5 The Ministry of Agriculture has been undergoing a continued reorganization. The main reorganization has resulted first in the geographical division of the country into three administrative areas 7/ and recently into four. These areas are the Northern, Southern, Central and Western Regions.

2.6 The Ministry of Agriculture is now divided into four main Sectors:

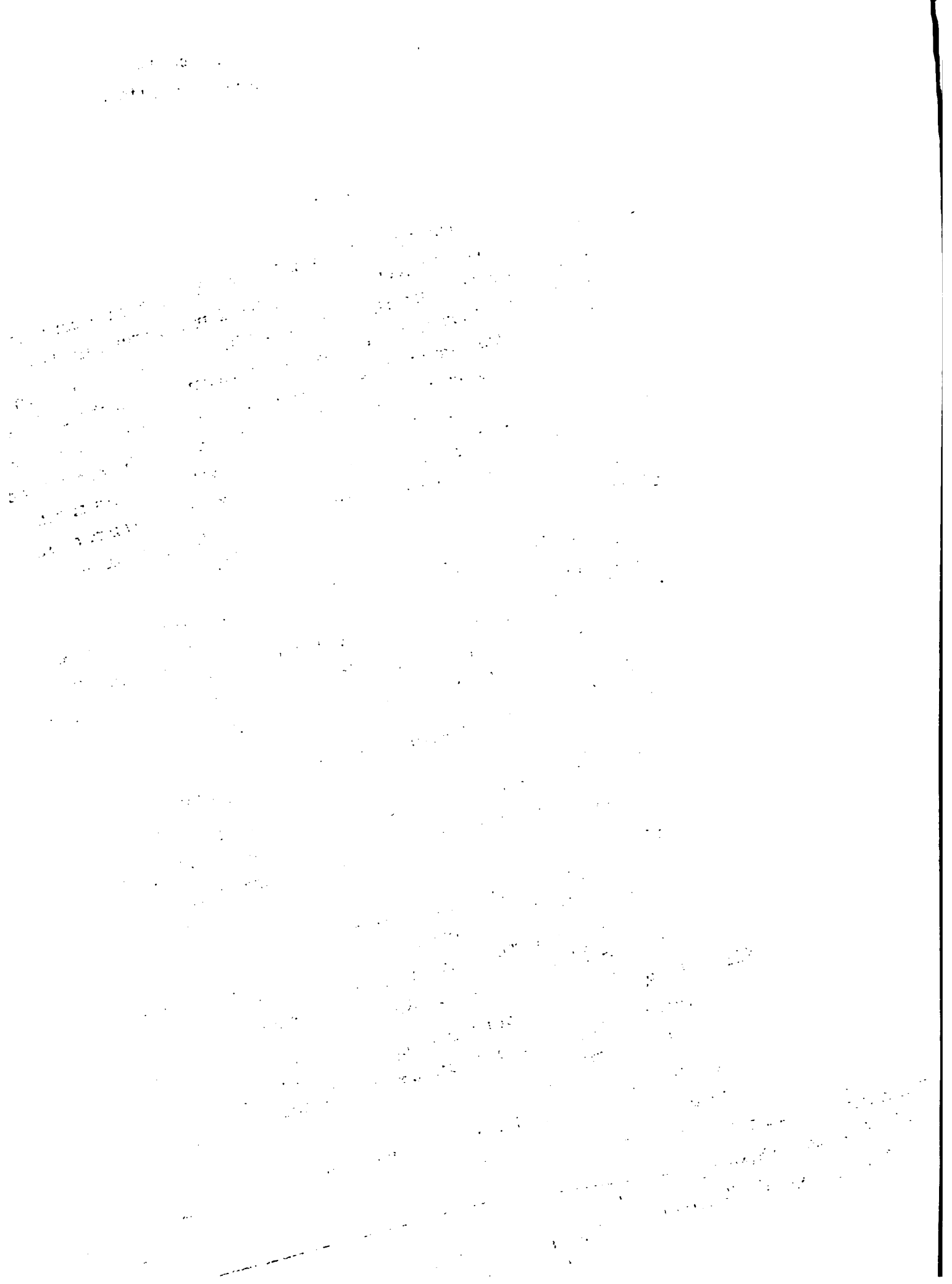
i) the administrative policy-making, consisting of the Minister, Ministers of State and/or Parliamentary Secretary;

ii) the supporting services such as the Land Administration Division and Soil Conservation, Veterinary Division, Marketing Development Division, Engineering Division, Fisheries Division and Data Bank and Evaluation Division;

iii) the Research and Development Department which is decentralized into the four administrative agricultural regions of the country; and

iv) the Production and Extension Department divided as in (iii) above.

7/ IICA/Jamaica Publication No. II-6, p. 38
Henry, D.D. et al "Agricultural Extension Service in Jamaica", 1979



2.7 The former Extension Division has now been absorbed into other Units or Divisions. The main extension activities, including some development ones, have been transferred to the Production and Extension Department, while its other development functions have been transferred to the newly created Department of Research and Development. In short, the reorganization has resulted in the redistribution of the extension functions which originally resided in an Extension Division which had an established lineage.

2.8 At the time of the initiation of the project the Department of Co-operatives operated under the aegis of the Ministry of Agriculture. These co-operatives covered all sectors of the economy inclusive of Agriculture. Since then this Department became first the responsibility of the Ministry of Parliamentary and Regional Affairs and now has been transferred to the Ministry of Local Government.

2.9 Regardless of the institutional changes and modifications underway, agricultural production and productivity still fall short of the potential.

2.10 The above-mentioned structural and institutional changes have not resulted in the achievement of the envisaged efficiency sought. No new institutions, as such, have been created in the sector but there are strong indications that some institutions will be radically changed, among them those which are concerned with marketing, particularly the Agricultural Marketing Corporation.

2.11 There is a recognition that within the sector which consists of almost 80% of very small farmers (less than five acres) there is an urgent need for an appropriately structured institution to provide the necessary farmer credit for increased production.

2.12 In February 1977, when the Fondo Simón Bolivar project was initiated, the Director of the Soil Conservation Division of the Ministry of Agriculture was designated as GOJ's counterpart Director. At that time the Soil Conservation Division was a separate entity of the Ministry of Agriculture. Since then it has become part of the Agro-Forestry and Soil Conservation Division. This change has affected the independent budgeting capacity of the former Soil Conservation Division. At present such budgeting is being done within the realm of the new Division. It is fortunate that the functions and individuality of the former Division have not been noticeably affected. However, it is apparent that the workload for the former Director of the Soil Conservation Division, now Deputy Director of the newly created Agro-Forestry and Soil Conservation Division, has been substantially increased in some instances.

2.13 There have been no changes in Government's policies in regard to IICA or its national project. The Ministry of Agriculture, recognizing the importance of the IICA project in the areas of Research, Soil Conservation and Training, has requested an extension of the project, which request has been granted by IICA's Headquarters for the period June 1980 to June 1981.

3. Identification of Changes in Resources Available to National Institutions

3.1 The economic crisis of the country has affected the annual growth rate of the economy in the following manner:

	1971/73	1974/75	1976	1977 8/
(%)	3.9	-0.4	-6.7	-4.0

The economic dislocations and the quantitive decreases in annual growth rates indicated above have pushed the Government to seek economic assistance in the form of increased external budgetary supports. In these efforts the Government appealed to the International Monetary Fund (IMF), an institution which has

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8/ Inter-American Development Bank, Jamaica, Socio-Economic Report No. GN 1026-2, p. ii, July 1979

demanded as a pre-requisite a tighter budget and a greater emphasis on the productive sub-sectors. Consequently the Government initiated budget restrictions which have significantly affected the budgetary allocation for most sectors including Agriculture.

3.2 During the fiscal period 1979/80, due to the rejection by the Government of Jamaica of the stringent conditions set by the IMF for assistance during the fiscal periods 1978/79 and 1979/80, and the country's worsening economic conditions, the Government is operating a holding budget. This has seriously affected the services expected of the Ministry of Agriculture. Additionally, 1980 is an election year and a new national election is expected as soon as certain pre-conditions are met. This causes not only a greater necessity for a holding budget, but also has implications for any critical after-election changes which may be made.

3.3 The conditions described above have affected to a lesser extent the IICA counterparts than those of other divisions of the Ministry of Agriculture, but the resources currently available to the national counterpart institutions are less than originally planned.

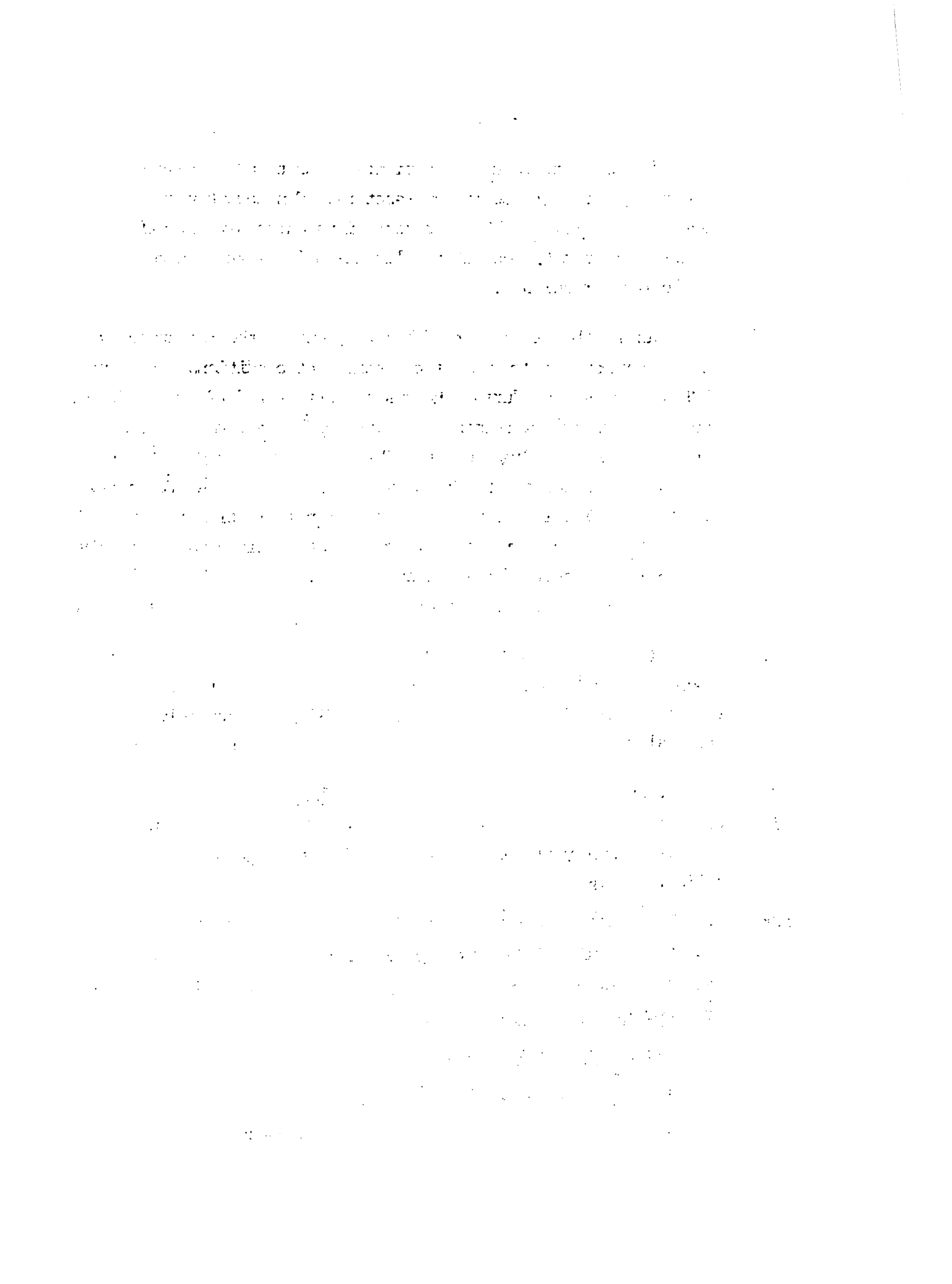
3.4 It is impossible at the moment to assess the magnitude, type or quality of the budgetary constraints on the Ministry of Agriculture until the holding budget has been upgraded to a final budget.

3.5 The national institutions have adjusted to the present situation in different ways. Inter alia it has become necessary to require their agencies to:

i) curtail official travel;

ii) reduce mileage travelled;

iii) temporarily freeze the filling of vacancies;



iv) effect a stricter retirement of officers;

v) limit overseas training and travel for officials; and

vi) institute limits to levels of salary increases.

GOJ has laid down stricter guidelines for the acceptance of new projects which contemplated varying degrees of Government counterpart expenditures.

3.6 Nonetheless the Government of Jamaica has honoured its commitment to IICA on quota as well as on the Simon Bolivar Fund contributions.

4. Up-dating the Institutional Analysis

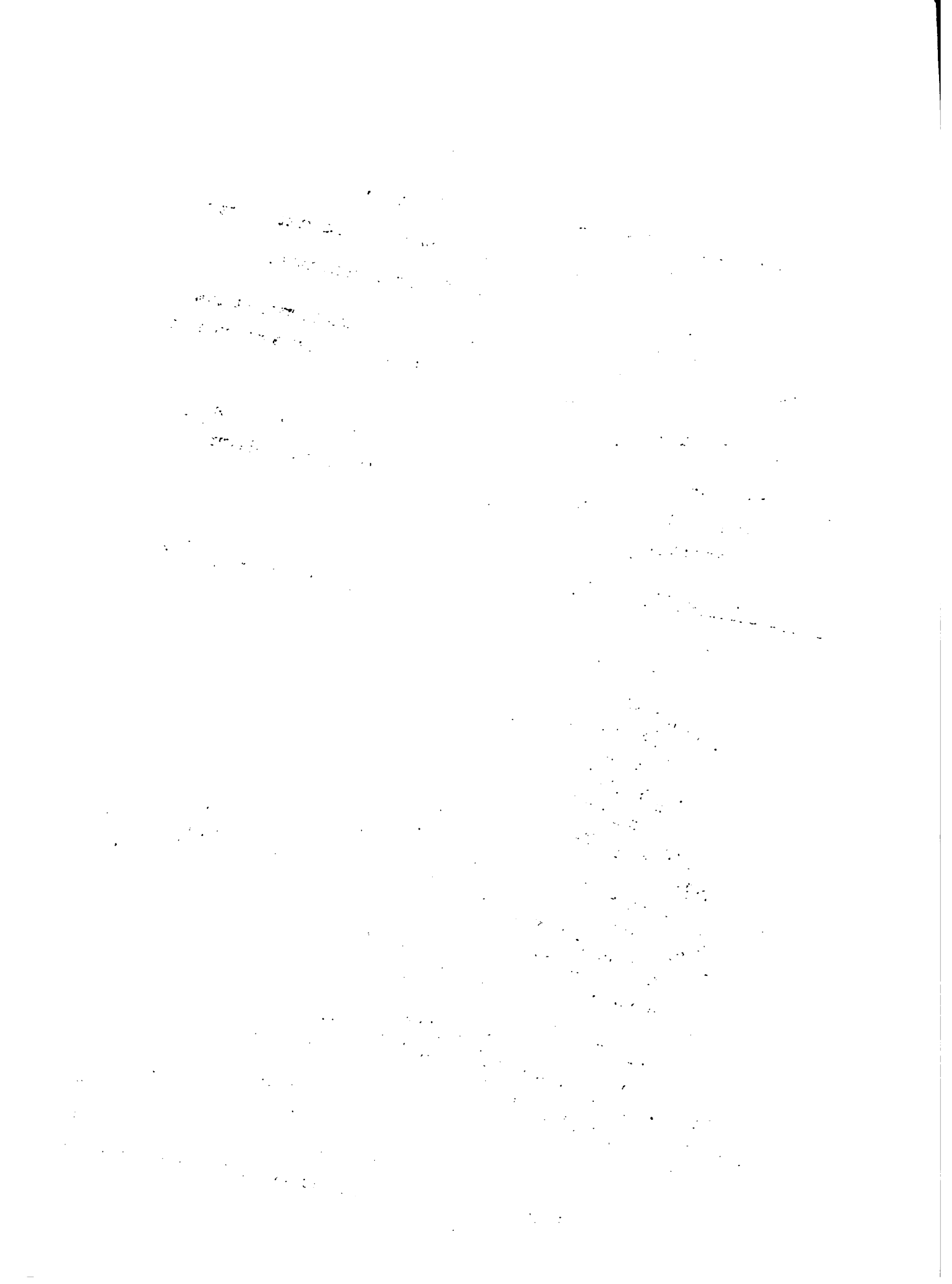
4.1 The originally identified institutions with which the IICA project worked were:

- Soil Conservation;
- Extension Services;
- Training;
- Research;
- Home Economics; and
- Crops and Soils.

4.2 As the Simon Bolivar Fund project developed, its scope was widened to include the involvement of the following sub-institutional agencies of the Ministry of Agriculture:

- Co-operatives;
- Marketing;
- Data Bank and Evaluation Division; and
- Planning and Policy Review Division.

4.3 As the project developed and the first year's results on the systems of production were being extended to the Allsides farmers, one of the constraints to production in the systems established on farmers' plots was the unavailability of agricultural inputs.



Also, IICA recognizing the benefits to be derived from MINAG's fertilizer subsidy programme, and identifying the many difficulties which small farmers experienced in obtaining farm inputs at prices more acceptable to them, initiated the Allsides Farmers Pre-Cooperative.

4.4 As IICA/Jamaica initiated basic studies related to hillside agriculture in Jamaica with special emphasis on Allsides, various marketing studies were completed for the area, and published as part of the collection of the series "Agriculture in Jamaica". 9/ The documents on marketing and the information presented therein were gathered jointly by IICA/Jamaica and the Planning and Policy Review Division of MINAG, in collaboration with the Production Unit.

4.5 As the performance of IICA became increasingly recognized, the need arose for surveys in and beyond the project areas. As a consequence, two major agro-socio-economic surveys were conducted jointly by IICA and the Data Bank and Evaluation Division. 10/

4.6 The impact of the Allsides project, its field-days, its training courses, its in situ demonstration to technicians and to farmers, as well as its publications, created in MINAG a greater awareness of the hillside farming problems and potentials.

4.7 The influence of the IICA project served as a catalyst for work done by international agencies in the area of hillside agriculture projects, e.g., the Integrated Rural Development Project of GOJ/USAID, the GOJ/Norway/FAO National Hillside Training Programme, the GOJ/IDB/IICA Pilot Hillside Agricultural Project (PHILAGRIP).

9/ IICA/Jamaica Publications 1 - 4, 1977; 1-3, 1978; 1-6,1978; 11-5,1979 III-7,1979, IV-1, 1980.

10/ IICA/Jamaica Publications III-4, 1979; and IV-4, 1980.

4.8 An important spin-off of the project will be a National Peanut Project which will utilize the research results obtained from the Allsides Project.

4.9 The constraints hindering the development of the priority institutions associated with the Simon Bolivar Fund project although not very critical are likely to remain unchanged until such time as the national economy improves and decisions are made in terms of the courses which these institutions will adopt in the future.

4.10 In 1977 during the preparation of the Country Level Action Plan (PANP) [11/] the following priority areas were identified:

i) food production;

ii) rural employment;

iii) soil and water conservation;

iv) training and education;

v) research;

vi) extension;

vii) marketing;

viii) assistance to rural youth; and

ix) social organization.

4.11 During the initial stages of the implementation of the Simon Bolivar Fund Project the greatest effort was dedicated to "the development of a body of knowledge" for hillside agriculture. This was consistent with the first general objective of the project document titled "Hillside Farming Study and Implementation Project in Jamaica (Allsides Pilot Development Project)". [12/]

11/ Op. Cit., p. 71

12/ Allsides Project Document, Ministry of Agriculture/IICA/Jamaica, December 1976.

4.12 In the process of generating this body of knowledge the greatest emphasis was placed on agricultural research and soil conservation with field demonstrations.

4.13 A multi-faceted approach was employed in the areas of:

i) testing of new crops for their performance and adaptability to the edaphic and climatic conditions of Allsides;

ii) the compatibility of these crops when grown as intercrops with yams (the principal crop in the area);

iii) pragmatic field demonstration and research on soil fertility and amelioration of soil acidity;

iv) alternative methods of soil conservation of steeply sloping lands;

v) collection of economic data, and subsequent analysis of these data with emphasis on potentially increasing farm income;

vi) surveys aimed at determining traditional systems of production as an ex-ante project, to be compared with the ex-post situation, forming the basis therefore for assessing the rate of adoption of the new technology;

vii) observation and analysis of the on-going social structures to determine the most viable social organizations to be utilized in the project;

viii) demonstration to farmers of the advantage of soil conservation, avoidance of soil erosion, improvement of soil conditions, and potential benefits of proper soil management.

4.14 As the project developed and due to the initial successes of research and soil conservation it became clear that more emphasis should be placed on the extension and credit components. The extension component was considered in the project document but did not receive significant assistance from MINAG. The credit

component was not included in the project, but it has now become apparent that such a component would greatly accelerate the adoption of the new technology and the potential benefits which could accrue to the farmers.

4.15 The pressing problems facing Jamaica as identified by the GOJ and the PANP are:

i) inadequacy of domestically produced foodstuffs;

ii) low income of the minifundia farmers;

iii) low investment levels in the Agricultural Sector, especially by small farmers;

iv) low performance qualitatively and quantitatively for export-oriented crops;

v) scarcity of foreign exchange for importation of key inputs for agricultural production and of food (including animal feeds);

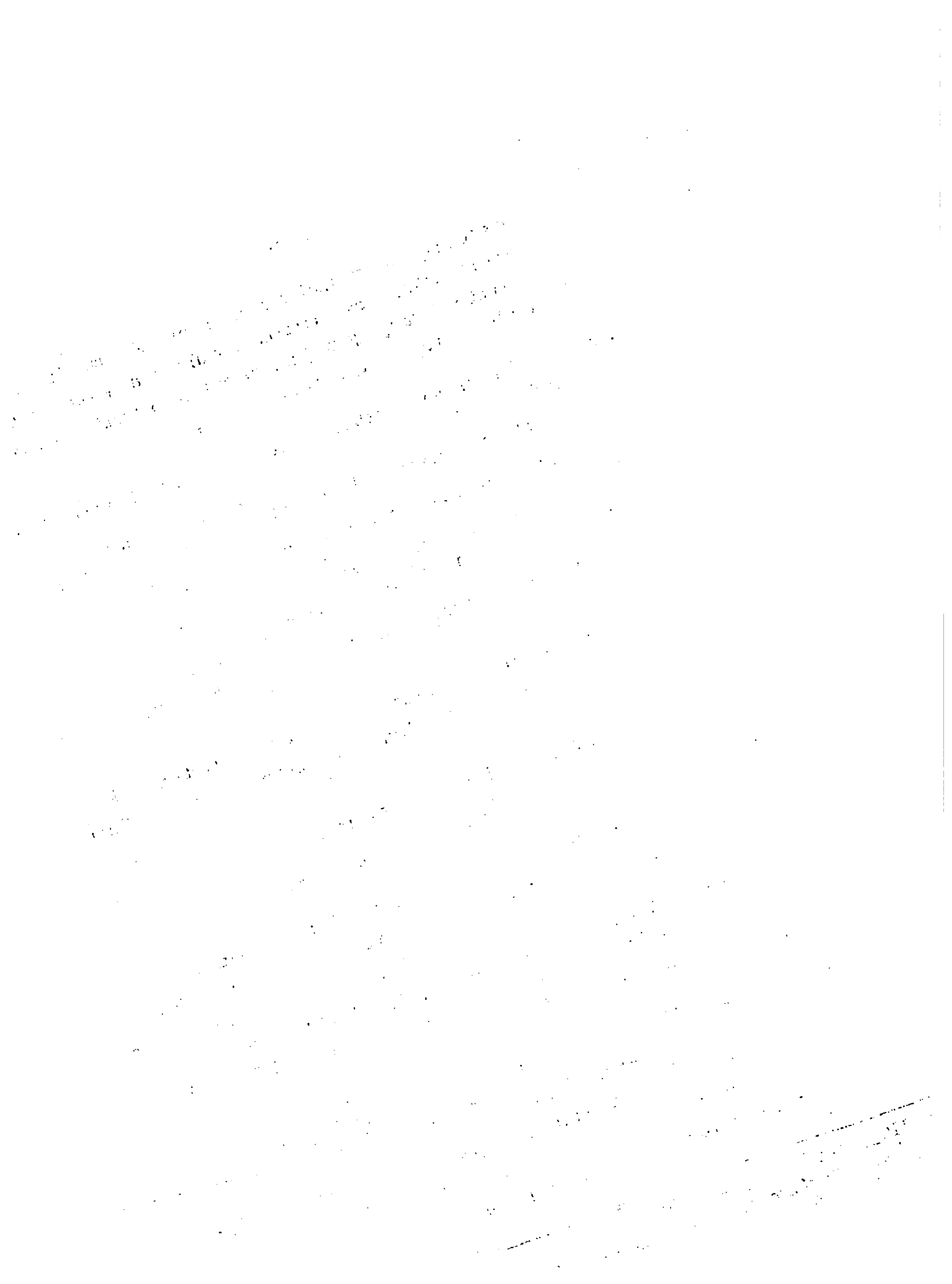
vi) negative balance of payments; and

vii) high levels of unemployment and underemployment.

4.16 Considering that 80% of Jamaica is hilly to mountainous and that 78% of all farmers are small hillside farmers with less than five acres of land (aggregate average is 1.5 acres) the greatest potential for improvement lies in the development of hillside agriculture, with a view to benefitting some 150,000 of a total of 190,000 farmer families.

4.17 The Allsides Project due to its relatively small size (622 acres and consisting of 233 farm families) [13/] can at best demonstrate the potential productivity of hilly lands which if properly managed would lead to the solution of most of the national problems listed in Section 4.15 above.

13/ IICA/Jamaica Publication No. III-4
"Agro-Socio-Economic Sample Survey of Allsides - Trelawny, Jamaica"
September 1979



4.18 The impact of the GOJ/IICA Allsides Project has been appreciated by MINAG and the Prime Minister himself. A measure of such appreciation is evidenced by the request to extend the Allsides Project and by the specific appeal from the Prime Minister during his meetings with IICA/Jamaica to establish an "Allsides in each of the thirteen parishes of Jamaica".

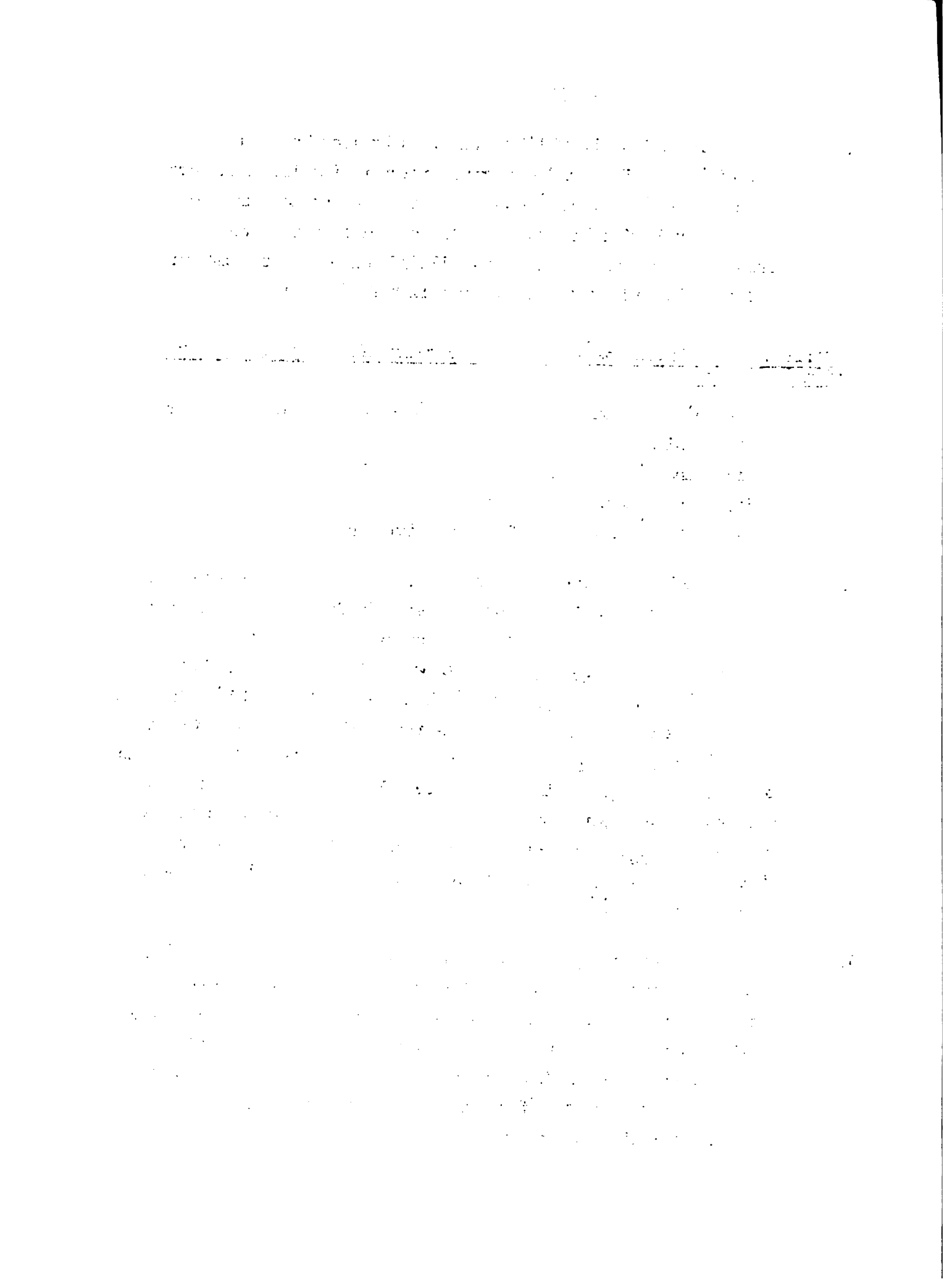
5. Identification of Differences of Opinion between IICA Project Staff and National Personnel

5.1 The highest ranking institutions co-operating in the execution of the Allsides Project are:

i) the Soil Conservation Division;
ii) the Research Division; and
iii) the Extension and Training Division.

5.2 Although many earlier efforts were made to tackle the problems associated with accelerated soil erosion in Jamaica, the records indicate that the subject of Soil Conservation had not been accorded the resources commensurate with its importance. With the creation of the Yallahs Valley Land Authority (YVLA) in 1951, steps were taken to place soil conservation on a more structured basis. This was followed in 1955 by the creation of the Christiana Area Land Authority (CALA). Subsequently in 1969 eleven additional land authorities were established. More recently the rapidly increasing density of population per square mile has required that hillside lands be used more intensively and that they be appropriately conserved.

5.3 Extensive terracing of hilly lands was done in the Yallahs Watershed during the period 1951 to 1960. These works were conceived and implemented in isolation from agricultural research on the relevant aspects of soil conservation, and respective land use patterns adopted. Without this, extension lacked an appropriate basis for guiding farmers. The main objective of the terracing was the conservation of the soil resource. However,



in addition to terracing there were other soil conservation methods which were low cost but which were not continued by farmers once they had been initiated with the assistance of Extension Officers.

5.4 The situation in the Christiana Area Land Authority (CALA) of which Allsides forms a part was somewhat different in that the overall potential for agriculture was better for CALA than was that for the YVLA.

5.5 The lack of economic incentives created the "typical gap" between planning at Government level and execution at small farmers' level. This "typical gap" in the Third World is the distance between the micro-concept of the planners and the micro-concept of the farmers to whom the projects are directed.

5.6 In the case of Allsides, the project proposals included provision for close linkages between those responsible for soil conservation, research and extension and the beneficiaries. The beneficiaries or the target group - the small farmers, would thus be enabled to observe for themselves demonstrated recommended changes in incomes arising from the new systems of production for newly terraced lands produced for them.

5.7 One very important aspect of the Allsides research in relation to the beneficiaries is that the systems of production have been designed using yams as the principal crop. Yam has traditionally been produced in the area for three hundred years. The farmers know the yields to be expected in their traditional system of farming and were reluctant to adopt any changes which would not ensure beyond any doubt that these changes would not decrease their yam yields but would actually increase their incomes.

5.8 The joint participation of technical personnel from the Divisions of Soil Conservation, Research and Extension, in the project has increased their enthusiasm, because it represented

a breakthrough in the Government's efforts to assist the small farmers. At the same time the results have demonstrated viability of farming systems as one approach to solving a number of the national problems which have contributed to the national economic crisis, particularly those related to production, productivity, incomes and employment.

5.9 From the above discussion it is believed that there is no difference in opinion between the staff of the national institutions and IICA and that both agree on the strategy and approaches towards solving the national problems.

5.10 The above-mentioned national institutions perceive their limitations in the same context as does IICA. These limitations are obvious in budgetary deficits as well as in human resources. More importantly both the National Agencies and the IICA staff recognize the following weaknesses:

i) inadequacy of the extension staff;

ii) lack of credit-worthiness of many farmers who therefore are unable to obtain credit for farming; and

iii) absence of an appropriate mechanism for ensuring that farmers comply with measures designed to conserve soil, maintain terraces, etc.

5.11 To solve the problem of hillside agriculture in Jamaica it is imperative that:

i) an ample budget be provided to the sector;

ii) steps be taken to obtain adequately trained personnel in sufficient numbers; and

iii) there be as much continuity as practicable in the tenure of office of staff assigned to the project.

5.12 IICA is convinced that the GOJ is aware of the problems of hillside farming and is making considerable efforts to solve this problem. The IICA/Jamaica staff expressed a view that the GOJ

should use the thirty-three watershed areas already identified across the island, declaring each watershed a management unit, in the belief that this would result in a more holistic approach to solving the problem on a national basis. Also, the IICA/Jamaica staff is of the opinion that a "package of projects" should be prepared for each watershed along the following lines:

A. Productive Projects

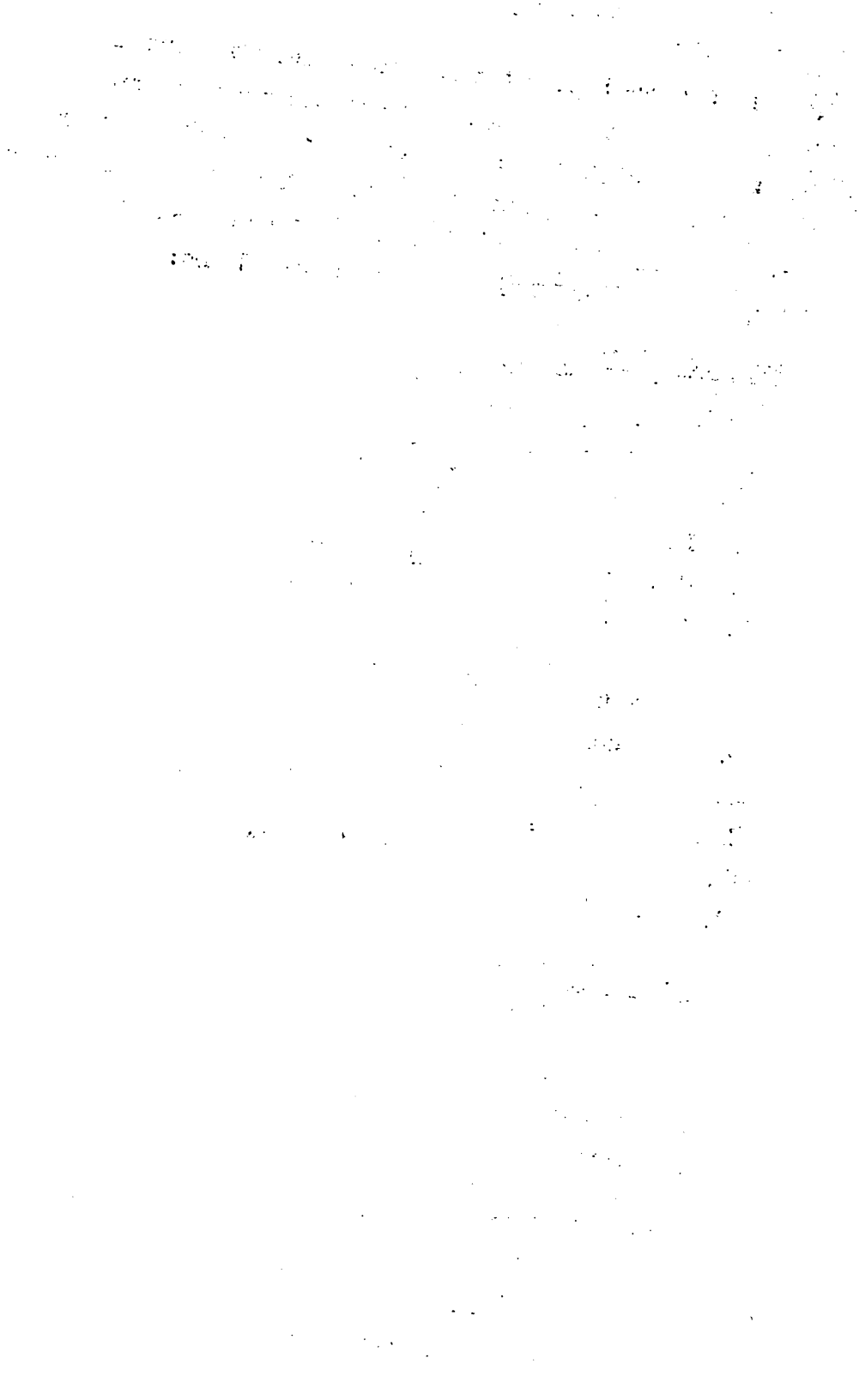
1. Land tenure;
2. Labour utilization;
3. Capital needs;
4. Input needs and surveys;
5. Water resources available and water needs;
6. Crop management and national needs;
7. Soil conservation;
8. Marketing;
9. Agricultural extension;
10. Agricultural research;
11. Communications;
12. Pre-industrialization of production;
13. Credit.

B. Social Projects

1. Education;
2. Health;
3. Housing;
4. Community organization;
5. Rural electrification;
6. Water for human consumption.

C. Institutional Projects

1. Watershed management planning;
2. Social organization;



3. Training of human resources;
4. Project management training;
5. Co-ordination;
6. Project evaluation. 14/

5.13 The above projects and sub-projects would tend to make each watershed an "integrated rural development project". Different sub-projects could have different sources of financing allowing Jamaica to capture and take advantage of the limited international financing available for development of its National Hillside Programme (NAHILLPRO).

5.14 The national institutions while agreeing with the above approach indicate that this would require a total overhaul of policy and organization of the Agricultural Sector which at present is difficult due to the politico-socio-economic crisis.

6. Analysis of the IICA Project Objectives

6.1 The general objectives of the project were:

General Objectives: 15/

To co-operate with national organizations on:

a) the development of a body of knowledge on hillside farming and cropping systems conducive to change the traditional pattern of hilly land farming.

b) the spread of that body of knowledge throughout the pilot area; and

c) extending pilot area results to the whole hillside region.

14/ Aguirre, J.A. "America and IICA in the Decade of the 80's", First Prize paper presented to the 50th Anniversary of the Kellogg Foundation, San Jose, Costa Rica, IICA Headquarters, 1979.

15/ "Allsides Pilot Development Project", op. cit. p. 2

Specific Objectives:

a) To develop a new system of production based on multiple cropping and efficient utilization of land and water resources.

b) To increase the productivity and production of certain food crops (yams, beans, potatoes, cassava, sweet potatoes).

c) To increase food production, income, nutrition and improve the standard of living of approximately three hundred farm families occupying about 622 acres of hilly land in the parish of Trelawny.

d) To develop an institutional framework, capable of implementing similar changes in other areas of the country.

e) To develop accurate production figures for crops grown by the small hill farmer.

f) To train local professional technicians.

The objectives stated above are as relevant today as they were in late 1976 when the project was prepared.

6.2 The changes which affected the national institutions have not changed conditions to the extent of affecting the objectives of the project.

6.3 During the preparation of the Operative Programme for the fiscal year 1977 - 1978, the planning and operations mission introduced and/or modified certain elements of the project document and consequently spelled out the following new set of specific objectives:

Specific Objectives: (as spelled out by the Central Office planners in the preparation of the Budget Programme 1977/78)
In order to achieve the general objectives indicated above, IICA will help the Government of Jamaica to:

a) improve its institutional system, rendering it capable of formulating and implementing appropriate hillside farming systems on a national scale;

b) develop and test appropriate farming systems for hillside food production;

c) extend proven hillside farming systems to selected areas;

d) design and implement a marketing system for hillside produce which will minimize post-harvest losses and increase the farmer's share in the final price; and

e) design and implement functional models of farmers' organizations for hillside production and marketing purposes.

6.4 The objectives of the project could not be changed unilaterally and so, after consultation with MINAG the new objectives were disregarded. Nonetheless on widening the scope of the project as the project got underway the project adapted some of the requested objectives.

6.5 IICA/Jamaica, recognizing the urgent need for MINAG to appoint a Project Co-ordinating Committee for the project successfully requested such a committee from MINAG. This Committee is comprised of the following members. The:

- Deputy Director, Western Division (Co-ordinator)
- Director, Soil Conservation Division
- Parish Manager, Trelawny
- Divisional Extension Officer
- Parish Home Economics Officer
- Allsides Project Counterpart Agronomist
- Allsides Project Extension Officer.

Additionally, high echelon personnel from MINAG, Kingston, and other Governmental agricultural bodies lying in close proximity to the project would occasionally participate at these meetings. IICA is represented by the IICA/Jamaica professional staff.

6.6 The objective (d) designed by IICA's planners, in reference to marketing cannot be implemented because the GOJ already has a National Marketing Programme which covers the Allsides farmers and is designated the Agricultural Marketing Corporation.

6.7 With regard to specific objective (e) as proposed by the planners, the IICA/Jamaica unit initiated and obtained the assistance of the Co-operative Department in forming a pre-cooperative along the guidelines of the GOJ. 16/

6.8 The national problems on which the project focussed (Hillside Agriculture) are not solved and will not be resolved for a long time. As stated before IICA is working with MINAG to demonstrate to technicians and farmers an economically viable alternative which will result in:

i) increased food production;

ii) increased levels of productivity;

iii) increased rural employment; and

iv) the general achievement of the GOJ's targets for the Agricultural Sector.

6.9 The national institutional staff share with IICA/Jamaica the belief that no change should be envisaged in the project objectives. The present need now resides in the area of technology transfer and paraphrasing the words of the Prime Minister on the occasion of his last visit to Allsides "there is need....of an Allsides...and IICA in every parish in Jamaica".

16/ IICA/Jamaica Publication No. IV-6
Wedderburn, M.R. "Allsides Farmers Pre-Cooperative - Socio-Economic Assessment" March 1980.

PROJECT EVALUATION

HILLSIDE FARMING STUDY AND IMPLEMENTATION PROJECT IN JAMAICA - (ALLSIDES PILOT DEVELOPMENT PROJECT)

DOCUMENT NO. 3

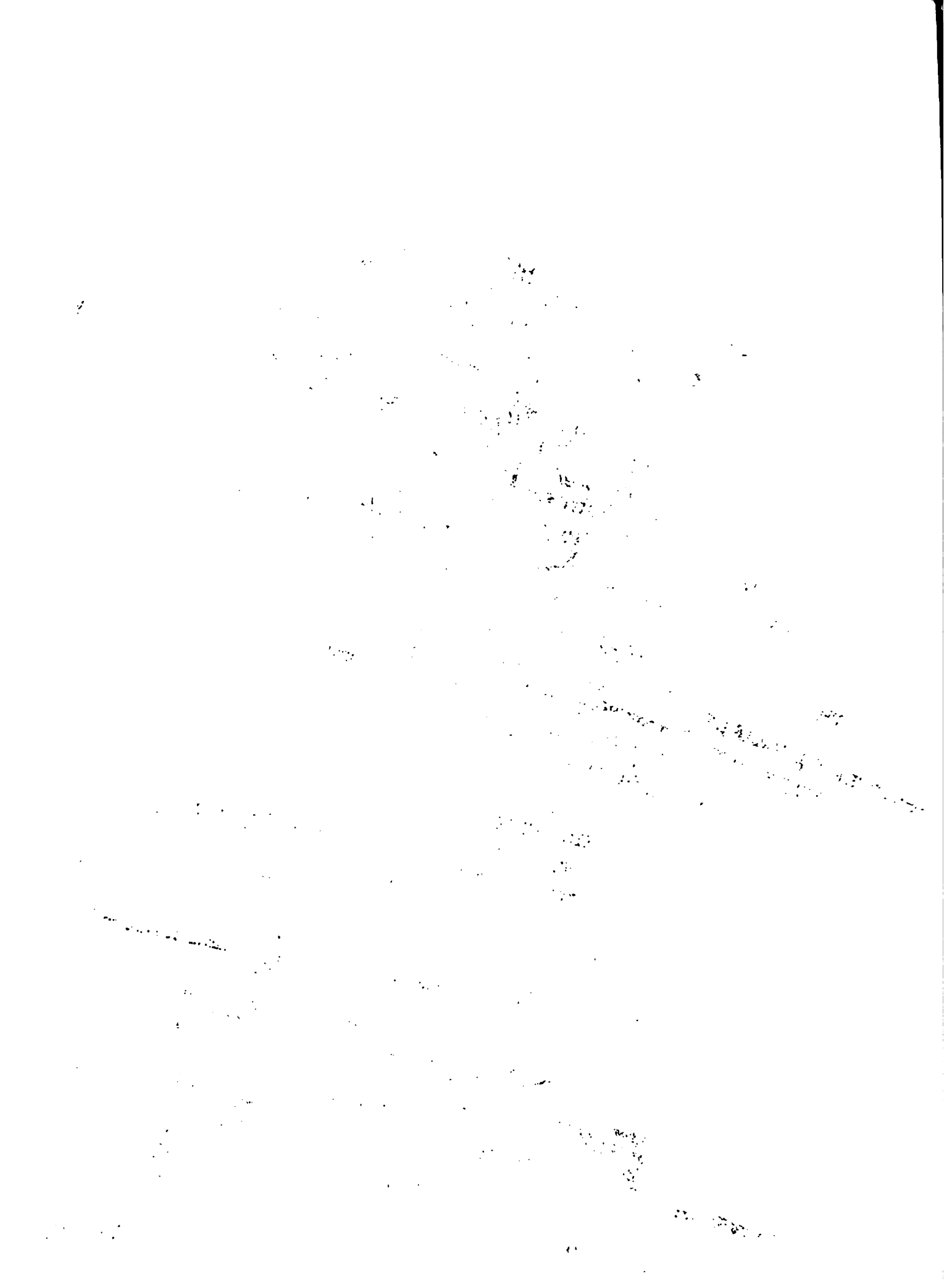
"ANALYSIS OF PROJECT PROGRESS AND CAUSAL FACTORS"

SIMON BOLIVAR FUND

IICA/JAMAICA
KINGSTON
NOVEMBER 1980

Prepared by:

Dr. Abdul H. Wahab	Agricultural Research Specialist
Dr. Percy Aitken-Soux	Director
and	
Dr. Irving E. Johnson	Agricultural Economics Specialist



INTRODUCTION

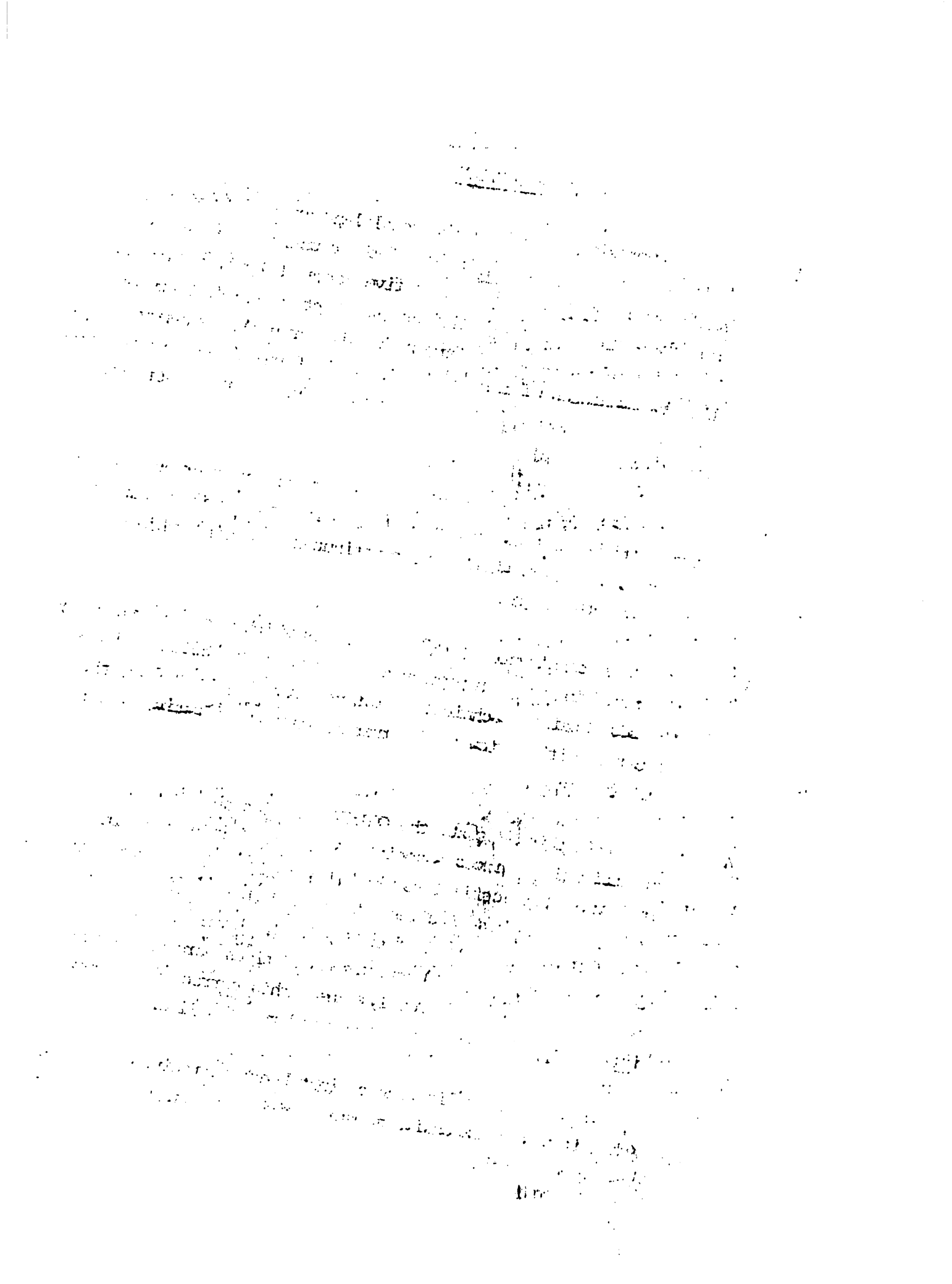
1 Approximately 80% of the total land area of Jamaica is hilly to mountainous. About 80% of the country's farmers are small producers having less than five acres of lands and who are largely confined to the hillsides (see Section 1.5 of Document No. 2 for distribution of farmers by size groups). Notwithstanding the disadvantages of farm size, the small farmers have traditionally produced nearly 90% of the foodstuffs produced for domestic consumption.

2 These crops are mainly centered around root crops such as yams, Irish potatoes, cocoa, dasheen, and other soil disturbing crops e.g. ginger, which have contributed to considerable soil loss over the years.

3 In cognizance of the above facts which were compounded by the rapid increase in population density on agricultural lands, the GOJ obtained technical assistance from FAO to analyze the situation with a view to determining what ameliorative action could be pursued.

4 In this context, the GOJ/FAO studies showed that under traditional practices associated with the farming patterns indicated above, soil losses as much as 54 tons per acre per year occurred. [1] These studies also showed that bench terracing resulted in considerable decrease in the level of soil loss (8 tons per acre per year) and recommendations were subsequently made that the GOJ vigorously pursue this corrective measure inter alia for mitigating the problems of soil erosion.

However, militating against bench terracing is the fact that it was an expensive measure which could only be viable if associated with:



i) high value crops;

ii) intensive cropping; and

iii) appropriate management.

It was also recognized that if bench terracing were to be accepted by farmers, the Government would have to heavily subsidize the construction costs of these terraces.

1.6 The GOJ's experience in the area of bench terracing up to this stage indicated that in the absence of improved agricultural practices and farming systems to sustain higher than traditional levels of operations on these soil conserved farms, the programme would be doomed to failure.

1.7 In consequence, the GOJ in 1976 sought the assistance of IICA to:

i) develop a body of knowledge on hillside farming and cropping systems conducive to change the traditional pattern of hilly land farming;

ii) spread this body of knowledge throughout the pilot area (Allsides, Trelawny); and

iii) extend the pilot area results to the whole hillside region.

1.8 Following up on this request, MINAG, in collaboration with IICA, prepared a project document titled "Hillside Farming Study and Implementation Project in Jamaica - Allsides Pilot Development Project". This proposal was accepted by IICA for financing through the Simon Bolivar Fund. In consequence, an agreement was duly signed on December 6, 1976 between the Honourable Prime Minister, GOJ and IICA for the implementation of the above project.

2.1 Design of Project Activities

To objectively assess the degree of accomplishment of the project it is first necessary to catalogue the actions and/or activities which were planned, approved and executed from the inception of the project.

Preliminary Period (January 1977 to June 30, 1977)

For the period January through June 1977, the programmed activities, their respective purposes and achievements are recorded below:

2.2.1 Activity IV.LJ.2.2.1 - Collaboration in the elaboration and execution of projects on soil conservation and management. The purpose of this was to provide opportunities for the development and execution of projects and to assist MINAG in the preparation of a technical manual in soil conservation for its field staff.

2.2.1.1 Warren Forsythe paid two visits during which he prepared maps and reports dealing with "Points of Equal Erosion". Also, Augustin Merea visited Jamaica for a one-week period during which he established the bases for collaboration by MINAG in the efficient management and utilization of water. This was followed by the participation of the Head of the Agricultural Engineering Division, MINAG, at a seminar on drip irrigation held in Mexico. This training was used on the irrigation programme for the dry plains of Jamaica.

2.2.2 Activity IV.LJ.2.1.2 - Training of national technicians in soil conservation. As a corollary to this activity, short term courses (two weeks) were given by Warren Forsythe at the Smithfield Soil Conservation and Training Centre.

2.2.3 Activity IV.LJ.3.1.1 - Analysis of the institutions of agricultural promotion. This activity resulted in the analyses

of the various divisions of MINAG with emphasis on those departments which promoted food production. Further, a clarification of their role within the "newly created" structure of MINAG was made.

2.2.4 Activity IV.LJ.3.1.2 - Training of functionaries of the Agricultural Sector. This activity served to impart in-service training to national technicians in the areas of:

i) soil fertility assessment; and

ii) agrarian reforms.

2.2.4.1 The soil fertility training was done by Abdul Wahab with the technical support of Rufo Bazan; and Messrs. J. Bosco Pinto and F. Oliart presented seminars on Agrarian Reform.

2.2.4.2 Arising from the soil fertility exercise was a fertilizer programme to be adopted for newly terraced soils of Allsides. As will be observed later, this in-service training exercise was widened in scope as a consequence of MINAG's request.

2.2.5 Activity IV.LJ.3.1.3 - Collaboration in the analyses and design of systems of production. This activity was accomplished with the participation of:

Messrs. Henry Stannett
Leslie Grant
Len Hutchinson
Errol McDonals - all of MINAG

and from IICA, Messrs.:
Rufo Bazan
Warren Forsythe
Nicot Julien
Antonio Pinchinat
Raul Soikes
Abdul Wahab

2.2.5.1 As a result, plans were prepared for the demonstration and testing of ten cropping systems on terraces.

2.2.6 Activity IV.LJ.4.1.1 - Case study of the domestic marketing system. This activity was aimed at describing the "Higgler" Marketing System which is ingrained in the marketing of domestic products and is typical of the hillside areas. The activity culminated in the preparation of a document titled "The Marketing of Agricultural Produce in Jamaica". [2]

2.3 Year One of Project (July 1977 through June 1978)

2.3.1 This period represented the first full year of implementation of the National Project, during which a total of 17 activities were planned and executed.

2.3.2 In the preparation of the second version of the operative programme for the period 1977/78, some of the specific objectives for the National Project were modified and spelt out differently from the project document which was approved and signed in December 1976.

2.3.3 Set out below are the general and specific objectives as they appear in the Allsides Project Document.[3]

General Objectives:

To co-operate with national organizations on:

a) the development of a body of knowledge on hillside farming and cropping systems conducive to change the traditional pattern of hilly land farming;

b) the spread of that body of knowledge throughout the pilot area; and

c) extending pilot area results to the whole hillside region.

Specific Objectives:

To:

a) develop a new system of production based on multiple cropping and efficient utilization of land and water resources;

b) increase the productivity and production of certain food crops (yams, beans, potatoes, cassava, sweet potatoes;

c) increase food production, income, nutrition and improve the standard of living of approximately 300 farm families occupying about 622 acres of hilly land in the parish of Trelawny;

d) develop an institutional framework, capable of implementing similar changes in other areas of the country;

e) develop accurate production figures for crops grown by the small hillside farmer;

f) train local professional technicians.

2.3.4 As spelled out by the Central Office planners in the preparation of the Budget Programme 1977/78, the specific project objectives were as follows: [4]

To:

a) improve its institutional system, rendering it capable of formulating and implementing appropriate hillside farming systems on a national scale;

b) develop and test appropriate farming systems for hillside food production;

c) extend proven hillside farming systems to selected areas;

d) design and implement a marketing system for hillside produce which will minimize post-harvest losses and

increase the farmers' share in the final price; and

e) design and implement functional models of farmers' organizations for hillside production and marketing purposes.

2.3.5 The targets over the three year life span of the project as specified in the original Agreement of December 7, 1976 are as follows: [5]

First Year: (ending June 30, 1979)

The:

a) establishment of a 3-acre plot in order to:
   - demonstrate improved food production techniques;
   - study new techniques and production systems, including economic aspects;

b) extension of improved food production techniques, application and dissemination of research results of the demonstration plot;

c) training of personnel to support the research, demonstration and extension activities of the project through seminars, production of extension materials, workshops and field trips;

d) study of the institutional framework necessary to deliver production to consumers and help to improve the organizational performance;

e) soil conservation measures: (responsibility of MINAG)
   - establishment of 100 acres of soil conservation works;
   - establishment of 100 acres of waterways;
   - establishment of 75 acres of gully control; and

f) establishment of 150 acres of crop development.

Third Year: (ending June 30, 1980)

The:

a) maintenance of demonstration plot and continuation of research demonstration and extension activities;

b) extension of the improved food production techniques;

c) study of the institutional framework necessary to deliver production to consumers and help to improve the organizational performance;

d) soil conservation measures: (responsibility of MINAG)

- establishment of 100 acres of soil conservation works;
- establishment of 100 acres of waterways;
- establishment of 75 acres of gully control; and

e) - establishment of 100 acres of crop development.

Second Year: (ending June 30, 1979)

The:

a) maintenance of demonstration plot and continuation of research, demonstration and extension activities;

b) extension of the improved food production techniques and application and dissemination of the research results of the demonstration plot;

c) continuation of training;

d) improvement of institutional framework;

e) soil conservation measures: (responsibility of MINAG)

- establishment of 150 acres of soil conservation works;

- establishment of 150 acres of waterways;
- establishment of 100 acres of gully control works; and

f) establishment of 150 acres of crop development.

Third Year: (ending June 30, 1980)

The:

a) maintenance of demonstration plot and continuation of research demonstration and extension activities;

b) extension of the improved food production techniques, application and dissemination of the research results of the demonstration plot;

c) continuation of training;

d) improvement of institutional framework;

e) soil conservation measures: (responsibility of MINAG)

- establishment of 85.95 acres of soil conservation works;
- establishment of 85.95 acres of waterways;
- establishment of 25.00 acres of gully control;

f) establishment of 85.95 acres of crop development; and

g) planning of dissemination of pilot area results to the whole hillside region of Jamaica.

2.3.6 Targets as specified in the Budget Programme for 1977/78[6] were as follows:

a) a first draft of a National Programme for the development of hillside agriculture will have been completed by the GOJ with the assistance of IICA;

b) the first cycle of the farming systems trials will have been completed by April 1978; results and re-

commendations will be available to the GOJ for implementation in the Allsides area and other areas selected by the Government;

c) capabilities will be developed within the Operative Unit at Allsides, for the performance of the following functions:
   - planning and programming;
   - services co-ordination;
   - administration and management;
   - research and transfer of technology; and
   - farmers' organization;

d) the marketing system for hillside products, particularly in the Allside area, will have been studied and recommendations for its improvement will be formulated and tested in the same area;

e) with IICA's assistance, the GOJ will have selected a number of hillside areas (additional to Allsides) for the implementation of proven hillside farming systems. Concomitantly, some services such as research and extension, will have been streamlined for this task, and new operative units will be organized in the areas that have been selected.

2.3.7 The activities programmed and accomplished for the year 1977/78 were as follows:

2.3.7.1 Activity IV.XLJ.1.1.1 - Organization of a work group for the formulation of a National Hillside Farming Development Project. This activity was accomplished through the joint participation of MINAG and IICA/Jamaica. A six-member work group was organized, with four from MINAG, and the remaining two from IICA. A draft profile of a National Hillside Farming Development Project (NHFDP) was prepared and submitted to MINAG. MINAG approved this document and communicated its approval to Messrs. Fernando Suarez de Castro and Antonio Pinchinat in November 1977.

2.3.7.2 Activity IV.XLJ.1.1.2 - Development of methodologies for the formulation of the NHFDP. This activity led to the preparation of a 58 page paper titled "Brief Overall Diagnosis of Hillside Farming in Jamaica". [7] It was prepared through the joint efforts of MINAG and IICA staff and while being a descriptive paper contained up-to-date quantitative information on hillside farming.

2.3.8 Activity IV.XLJ.1.1.3 - Formulation and approval of NHFDP. A 60 page paper was prepared titled "A National Programme for the Development of Hillside Farming in Jamaica" [8] which set out the objectives, goals, strategy and recommendations for implementation. Preparation was undertaken by the Planning Division of MINAG, assisted by IICA staff.

2.3.9 Activity IV.XLJ.1.1.4 - Formulation of a plan for the implementation of the NHFDP.

2.3.9.1 Several meetings were held between MINAG and IICA staff arising from which formal presentations were made to the Permanent Secretary and Chief Technical Officer of MINAG with a suggestion that a formal plan be prepared for implementation.

2.3.9.2 Meetings were held between GOJ officials and those of IDB to seek project preparation funds. This led to an agreement of an IDB grant of (US)$45,000 - for a total project of (US)$1.5 million. It is now gratifying to note that an agreement was signed in January 1980 between the GOJ and IICA for the preparation of a project document titled "Pilot Hillside Agricultural Project" (PHILAGRIP), with supporting funds from IDB. MINAG decided to postpone official policy action due to the many and diverse types of assistance being offered to GOJ in this field from USA, IICA, FAO-Norway, Korea, Yugoslavia, Hungary, Israel and Venezuela.

2.3.10 Activity IV.XLJ.1.1.5 and IV.XLJ.1.1.6 - Diagnosis of farming systems for Allsides and neighbouring areas and socio-economic study of farmers in the project area. These two activities were aimed at obtaining benchmark information from the Allsides and neighbouring areas in regard to:

i) farming systems being practised;
ii) income;
iii) employment;
iv) values; and
v) marketing.

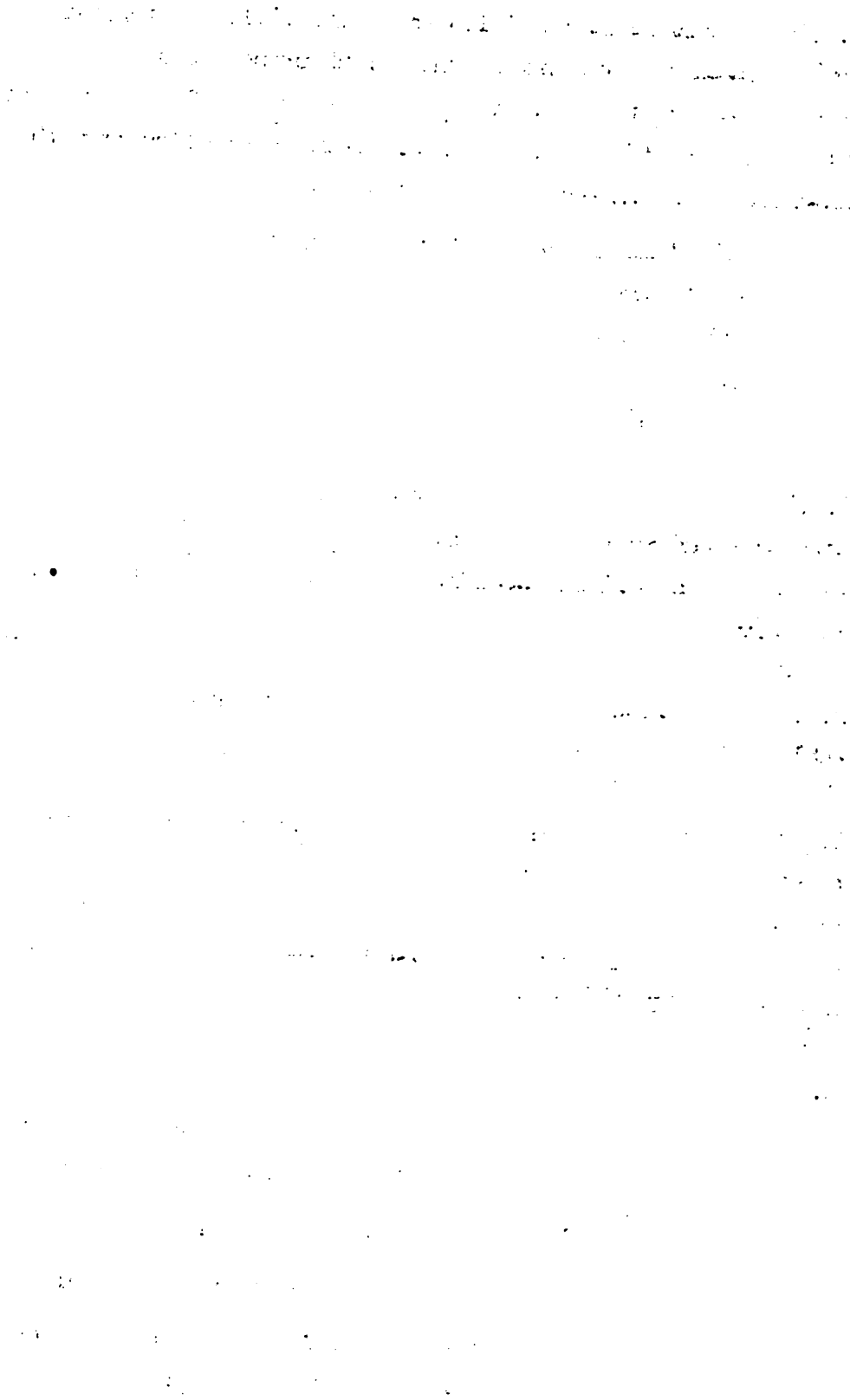
2.3.10.1 A questionnaire was prepared in conjunction with the Data Bank and Evaluation Division (MDAG). This questionnaire was tested and all the standard procedures adopted in conducting the survey.

2.3.10.2 The results of this survey are presented in IICA/Jamaica Publication No. III-4 in 1979. [9]

2.3.11 Activity IV.XLJ.1.1.7 - Establishment and maintenance of observation and demonstration plots on systems best adapted to hillside agriculture. This activity was aimed at developing a body of knowledge on farming systems best adapted to terraced hillside lands.

2.3.11.1 It was executed through:

i) detailed soil analyses and an examination of the cropping systems which obtained in the area;
ii) compilation and analyses of rainfall data;
iii) planning of the cropping systems to be evaluated;
iv) designing the field trials on cropping systems, soil amelioration and crop adaptation;



v) establishing the field trials on cropping systems, soil amelioration and crop adaptation;

vi) introduction of a livestock component;

vii) setting-up of an appropriate record system;

viii) creating additional interest to farmers and national technicians by hosting several field days;

ix) in-service training of national project staff and technicians associated with current practices and benefits which could accrue from the use of proven soil conservation practices.

2.3.11.2 Summarized observations on the early stages of the project were:

i) great resistance to change by farmers;

ii) difficulties in obtaining and retaining staff - national and international - militated against the success of the project at the outset.

2.3.12 Activity IV.XLJ.1.1.8 - Reinforcement of the operative unit at Allsides in the fields of programming, co-ordination and management. This activity was designed to reinforce the institutional co-ordination in planning, management and execution of the project.

2.3.12.1 Due to the continuing reorganization and lack of clear leadership within MINAG it was difficult to set definite structures for co-ordination. Nonetheless field days and monthly meetings were held with the various entities involved in the project.

2.3.13 Activity IV.XLJ.1.1.9 - Training national personnel in hillside farming technology. This activity was aimed at training national technicians in the areas of hillside farming technology, with special emphasis on research and transfer of technology for improved hillside farming systems.

2.3.13.1 In the execution of this activity the following training was provided:

i) an intensive two week short course involving 32 lecturers and 54 trainees (extension officers);

ii) ten national technicians (research and extension) received in-service training on the project site of which six were specially trained for the USAID/ GOJ Integrated Rural Development Project which is also predicated on soil conservation;

iii) two national technicians received specialised graduate training at CATIE, Costa Rica for a five week period;

2.3.13.2 Arising from the training of national technicians two publications were prepared titled "Hillside Farming Technology - Intensive Short Course" (Volumes 1 and 11).[10]

2.3.14 Activity IV.XLJ.1.1.10 - Design and testing of alternative models of Farmers' Organizations. This activity was designed to determine the most appropriate form of farmers' organizations.

2.3.14.1 At the suggestion of Central Office (Planning Division) and Regional Office, Joao Bosco Pinto visited Jamaica and worked with functionaries of the Ministry of Youth.

2.3.14.2 Regrettably his report, while reiterating the need for social organization, lacked a single mention of alternative models or strategy for achieving same.

2.3.15 Activity IV.XLJ.1.1.11 - Training and transfer of technology. This activity was aimed at providing appropriate methods for technology transfer.

2.3.15.1 Two seminars were held at Smithfield and Allsides. One seminar on soil conservation was held for senior level soil conservation officers of MINAG. One graduate student from the University of Missouri was sponsored and supervised. His Masters thesis (M.S.) was titled "An Economic Analysis of Intercropping Systems: Case Study, Allsides Development Pilot Project, Jamaica".[11] In consequence of in-service training in soil fertility assessment of newly terraced soils, a paper was prepared and later presented at a workshop of Soil Fertility Management in the Humid Tropics held in Kingston, April 2 - 7, 1978.[12] This workshop was sponsored jointly by USAID, the Universities of Cornell, Puerto Rico and the West Indies, the GOJ and IICA/Jamaica.

2.3.16 Activity IV.XLJ.1.1.12 - Studies of marketing for the principal foodstuffs produced in hillside farming, particularly Allsides. This activity was focussed on the marketing conditions for hillside products, especially principal foodstuffs.

2.3.16.1 In collaboration with MINAG, basic studies were promoted on the marketing of common hillside staples. These studies involved the preparation of appropriate questionnaires and subsequent field surveys at Allsides.

2.3.16.2 As a result of this activity, two papers were prepared on the marketing of yams and dasheen.[13, 14]

2.3.17 Activity IV.XLJ.1.1.13 - Upgrading the marketing systems in the purchase and distribution of hillside agricultural products, specifically in the Allsides area. This activity was aimed at training national personnel in specific problems relating to marketing.

2.3.17.1 A seminar on marketing of agricultural products for the Western Region of Jamaica was held at which 28 participants attended. Two Jamaican technicians were sponsored to the Regional Seminar on Post Harvest Losses held in Santo Domingo. Technical assistance was provided in the preparation of a document titled "The Marketing of Agricultural Produce and Post Harvest Losses in Jamaica" by C. V. Smikle. [15]

2.3.18 Activity IV.XLJ.1.1.14 - Definition and application of criteria for the selection of areas in the first stages of implementaiton of the NHFDP.

2.3.18.1 It was envisaged that this activity would result in the definition of criteria for selecting priority watershed areas for agricultural development within the context of the NHFDP.

2.3.18.2 Assistance was provided to MINAG for a joint testing of the "Allsides Cropping Systems" at MINAG's experiment stations located at Top Mountain, Mt. Erie, and Smithfield. Field inspection tours were made to various watersheds across the island. Assistance was rendered in the preparation of a document setting out an ordinal scale for the development of the watersheds. [16]

2.3.18.3 This activity assisted in establishing the bases for the establishment of the NHFDP which is already receiving consideration by the GOJ.

2.3.19 Activity IV.XLJ.1.1.15 - Increasing national capability in existing research and transferance institutions to develop and implement hillside farming systems in Jamaica. This activity was aimed at assessing and increasing research and extension capacities of MINAG.

2.3.19.1 An agricultural research position paper was prepared which:

i) reviewed the past and present status;
ii) identified areas of constraint;
iii) recommended alternative institutional structures; and
iv) suggested several strategies for increased efficiency of resources devoted to national research.

2.3.19.2 As a follow-up, two high echelon MINAG functionaries were sponsored to the regional research workshop in Haiti, where the above-mentioned paper was presented and discussed. The recommendations contained therein are at present being examined by MINAG in its continuing reorganization of national research.

2.3.20 Activity IV.XLJ.1.1.16 - Organization of new operative units in areas selected for expansion of the NHFDP. The aim of this activity was to create new operative units in areas selected for the NHFDP.

2.3.20.1 Field trials were established at two hilly locations viz., Sweet Water in St. James, and Smithfield in Hanover.

2.3.20.2 Due to problems generated by sustained labour unrest, MINAG was forced to discontinue the planned operation.

2.3.21 Activity IV.XLJ.1.1.17 - Promotion of external financing for the National Hillside Farming Project. The purpose of this activity was to host a field day at Allsides for participants of the Commonwealth Agricultural Society (CAS) with the specific objective of generating interest in assisting Jamaica for the development of agricultural projects in the hilly areas.

2.3.21.1 A hand-out was prepared describing the multiple cropping systems and their potentials for enhancing farm income. A field day at Allsides was organized for the participants of the CAS. However, for reasons beyond the control of the IICA/Jamaica office, the field tour to Allsides was aborted.

2.4 Year Two of Project (1978/79)

2.4.1 A total of 10 activities were programmed for this budget period. These activities were designed to provide consolidation and continuity to the national project. Having initiated the activities listed for the previous year, a base was now established for firmer collaboration and co-ordination with MINAG and other national agencies for achieving the objectives of the project.

2.4.2 The activities, their respective objectives and results are catalogued as follows:

2.4.2.1 Activity IV.XLJ.1.1.1 - Second year establishment and maintenance of observation and demonstration plots in Allsides on systems best adapted to hillside agriculture. The main purpose of the activity was to establish demonstration plots for further evaluation of cropping systems and to refine and validate those systems which had been demonstrably successful agronomically and economically in year one.

2.4.2.1.1 In summary, the following was done:

- the second year crop cycle of farming systems was established;
- ten cropping systems were tested;
- refinement was done on one system which in the previous crop cycle (1977/78) outperformed all other systems;
- semi-commercial plantings of three promising cropping systems were established;
- production data from all farming systems established were obtained;
- commercial plantings of eight most promising cropping systems were established;
- with a view to simulating livestock practices pursued by farmers, two heads of cattle were acquired to utilize the large quantity of napier grass produced on the risers of the bench terraces;
- a total of 12 senior year students from the Jamaica School of Agriculture (J.S.A.) received intensive residential training on the theoretical and practical aspects of the farming systems over a period of six weeks.

- MINAG technicians inclusive of those working on rural development programmes were trained in crop and field management techniques for hillside farming;
- two field days were hosted by IICA/MINAG for the purpose of demonstrating the technology being developed in relation to:
  - soil conservation
  - multiple cropping systems; and
  - optimum utilization of water resources;
- at the first field day there were 68 project area farmers and wives together with 26 senior students from the Wait-A-Bit All Age School. At the second field day 70 farmers, 50 wives, 15 research technicians from MINAG and 5 technicians from the USAID (Kentucky University team working on baseline data for research, extension and education project in Jamaica) attended; and
- the extension officers assigned to the Allsides Project have received and continue to receive training in the area of farming systems, and crop and soil management.

2.4.2.1.2 Resulting from the in-service training, a technical paper [18] was prepared and presented at the XVI Annual Meeting of the Caribbean Food Crops' Society, held in the Dominican Republic in 1979.

2.4.2.2 Activity IV.XLJ.1.1.2 - Establishment of observation plots on farming systems at hilly watersheds other than Allsides, jointly chosen with MINAG. This activity was aimed at the establishment and maintenance of demonstration plots on cropping systems at selected hilly watersheds in compliance with the Prime Minister's request; and to continue training of national technicians.

2.4.2.2.1 Six nationals received intensive in-service training in Multiple Cropping and Soil Management techniques for newly terraced lands. Following their training the technicians participated in the planning and establishment of demonstration plots in cropping systems at two watersheds viz., Smithfield in Hanover and Sweet Water in St. James. Additionally, in-service training was imparted to two recent graduates in Agriculture, who were to undertake soil fertility studies for newly terraced lands.

2.4.2.2.2 Considerable efforts were made to secure an appropriate plot of land for undertaking research and demonstration work on soil conservation measures other than bench terracing. In conducting this exercise, a number of sites were identified on Government owned land. These sites proved to be inappropriate for many reasons. An appropriate plot was eventually identified on privately owned land situated at Clive River in the Lowe River area of Trelawny. Soil surveying and sampling work on the plot was completed. MINAG pursued arrangements for formalizing tenancy and use of the plot for a period of five years in the first instance.

2.4.2.2.3 Arrangements were finalized for a joint trip by MINAG and IICA technicians to visit CATIE, Turrialba, to review current work on cropping systems there.

2.4.2.3 Activity IV. XLJ.1.1.3 - Development of appropriate soil management practices for terraced hillside farms, and strengthening of the Extension Division of MINAG. This activity was aimed at ascertaining fertility levels of newly terraced lands and determining remedial measures to be employed for full expansion of the cropping system trials.

2.4.2.3.1 Six graduate technicians from MINAG (other than those trained in IV.XLJ.1.1.2) received in-service training in the following areas:

a) field plot design and establishment;

b) use of rainfall data for determining inter alia erosivity indices and predicting optimal planting time;

c) data collection;

d) data analyses;

e) data interpretation; and

f) preparation of technical reports.

This training is related to soil fertility, hillside farming of terraced lands, crop management, and evaluation of legume cultivars for hillsides.

2.4.2.3.2 A three day training seminar in hillside farming jointly sponsored by MINAG and IICA was held for professional staff of (i) MINAG; (ii) Banana Board; (iii) Coffee Board; (iv) Cocoa Board; (v) CARDI; (vi) UWI, and (vii) Meterological Division. Twenty (20) lectures were given in the areas of:

- soil conservation;
- food production for hillsides;
- legume production emphasizing increased yields; and
- socio-economic aspects of hillside agriculture.

A workshop followed on constraints of hillside farming which resulted in recommendation for future action aimed at the removal of these constraints. As a result of this activity, three papers were prepared as follows:

- Hillside Farming in Jamaica [19]
- Legume Trials on Terraced Soils [20]
- Fertilizer Studies on Peanuts [21]

2.4.2.4 Activity IV.XLJ.1.1.4 - Continued reinforcement of the operative units at Allsides in the areas of farming technology, programming, co-ordination and management. It is envisaged that this activity should foster the development of an institutional framework capable of implementing similar changes in other areas of the country.

2.4.2.4.1 Two field days were held at Allsides for national technicians to enable on-the-spot discussions and demonstration of improved technology in the areas of soil conservation, water management and farming systems. A total of 86 technicians participated.

2.4.2.4.2 Field days were hosted for extension staff from offices of the Western Division of MINAG.

2.4.2.4.3 One omnibus field day was held which covered all aspects of the project, namely:

- operationalization of the project;
- extension methods;
- home economics - using locally (Allsides) produced commodities; and
- social organization of inputs and discussions on advantages of these organizations.

2.4.2.4.4 After visits to the demonstration plots, twenty farmers offered their plots for commercial intercropping trials so that further demonstrations on increased production and productivity could be carried out during year three of the project.

2.4.2.4.5 The research plots demonstrated the paramouncy for a dynamic extension system which constituted the main discussion topic arising from the field day. This discussion conterplated the need for a social organization to institutionalize the technological gains made at Allsides. The considerations of the need for social farm organizations culminated in 30 farmers indicating a wish to become involved in a "pre-cooperative".

2.4.2.4.6 Monthly meetings of the MINAG/IICA Allsides Co-ordinating Committee were held. These meetings provided the basis for co-ordinating the Allsides project activities with those of the Parish and of the Western Agricultural Region.

2.4.2.4.7 Other meetings were held at the Allsides Project site with personnel from MINAG and other international organizations such as IDB, USAID, CIDA, CARDI and various U.S. Universities. Technicians from other projects, notably the USAID First Rural Development Project visited on various occasions to gain first hand knowledge of the techniques used and the technologies developed on the project. In this respect a team of five experts from Kentucky University (working through USAID on a base line study project in the areas of Research, Extension and Education) visited

Allsides.

2.4.2.5 Activity IV.XLJ.1.1.5 - Training of national personnel in hillside farming technology. This activity served to extend results of operations in the pilot area to other hillside regions in Jamaica and to train local professional technicians in hillside farming techniques specifically in areas related to soil conservation and improved cropping systems.

2.4.2.5.1 Arrangements were made with the Training Division of MINAG for the hosting of a residential course titled "An Approach to Agricultural Settlement of Hilly Lands". The course content and programme were worked out with MINAG. Lecturers were identified and arrangements were made for their inputs in the course. Discussions were held with the various Parish Administrators with a view to obtaining the nomination of the trainees (Extension Officers), two per parish. Trainees/participants were identified after which they were briefed on the arrangements for the course and were advised on the course content. Domestic arrangements were made with the Management of the Catering Division of the Training Centre. The course, lasting for two weeks, was held at Eltham, St. Ann, at which trainees numbered 26, lecturers numbered 19 and senior agricultural personnel of MINAG numbered 11. There were also participants from the Netherlands Government who are presently executing a Physical Planning Project in the Western Region of the country.

2.4.2.5.2 Four field days were arranged for the trainees/participants on the following subject matters:

i) Soil Types of Jamaica;

ii) Integrated Rural Development (Pinders River/ Two Meeting Watershed)
   a. Soil Conservation Works;
   b. Implementaiton of Farm Plans;

iii) Rural Planning; and

iv) Cropping Systems Research on Terraced Lands at Allsides Trelawny (GOJ/IICA Hillside Development Project).

In addition to the formal classroom lectures and field days, trainees participated in two workshops, namely:

a) Rural Planning; and
b) Planning Cropping Systems.

2.4.2.5.3 Resulting from the residential short course mentioned above a paper - the Proceeding of the course - have been published.[22]

2.4.2.6 Activity IV.XLJ.1.1.6 - Studies on marketing of principal hillside products. This activity was intended to develop accurate production and marketing figures for crops grown by the small hillside farmer at Allsides.

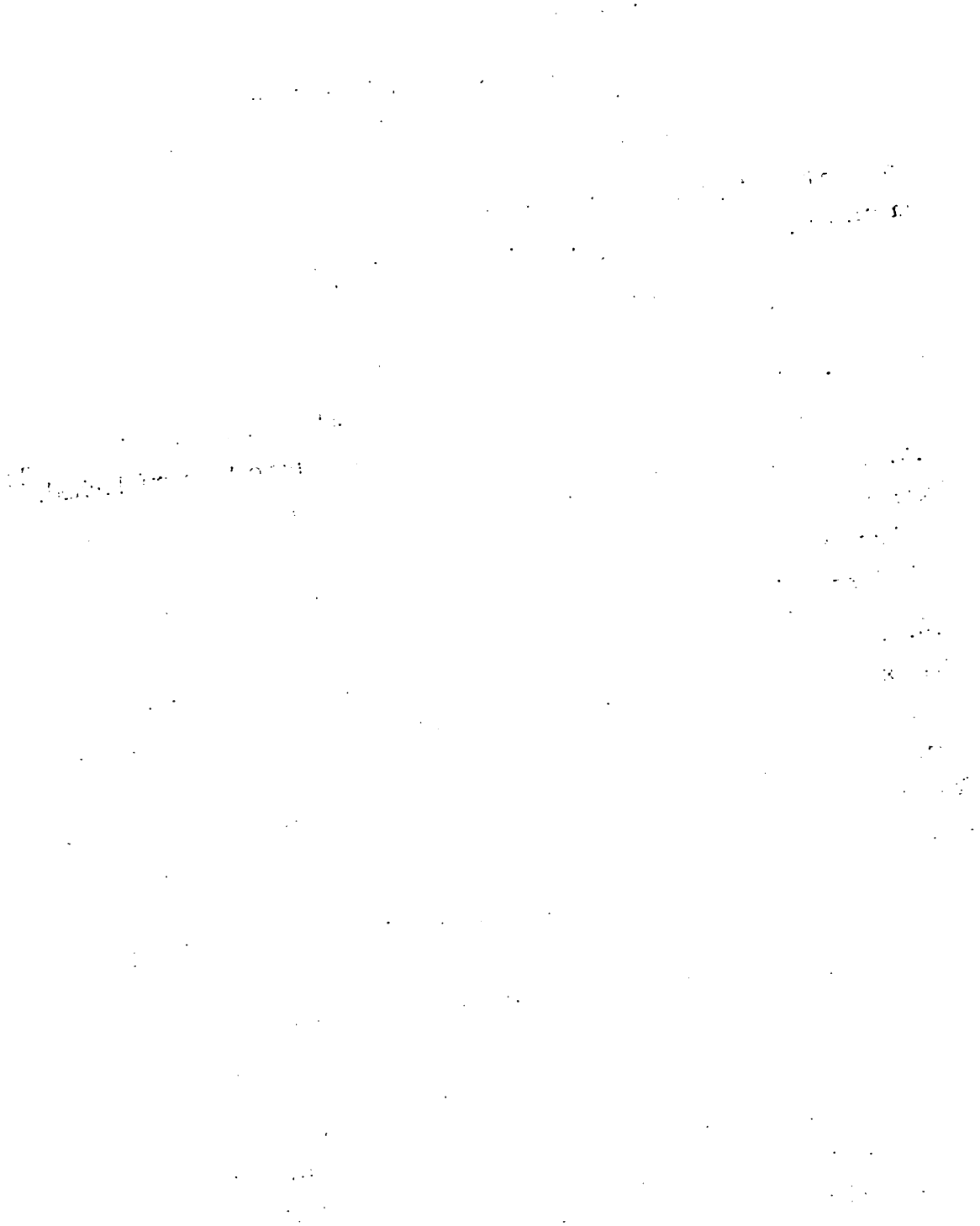
2.4.2.6.1 Four professionals of MINAG were selected to assist in the execution of the activity, and specifically in the preparation of documents on the production and marketing of onions, red peas, peanuts, and Irish potatoes. Outlines of the studies were prepared. Relevant data and information were collected from the following sources:

a) existing publications - official and non-official;
b) marketing outlet and production points;
c) farm surveys and discussion with farmers.

As a result two documents dealing with the production and marketing of peanuts and red peas were prepared.[23,24]

2.4.2.7 Activity IV.XLJ.1.1.7 - Up-grading of technicians on the marketing system for the purchase, handling and distribution of hillside agricultural products in Jamaica. This activity was intended to:

- develop an institutional framework capable of implementing similar changes in other areas of the country; and
- train local professional technicians.



2.4.2.7.1 Activity IV.XLJ.1.1.7 was implemented to provide background information which would be used in a marketing seminar. Arrangements were made with MINAG and Gerry La Gra for the latter to present a seminar to personnel involved in the marketing of hillside food crops. In the preparation for the seminar, Mr. La Gra reviewed existing documents and held discussion with various agencies in MINAG and elsewhere. A paper titled "The Higgler" [25] was used.

2.4.2.7.2 At the request of MINAG the planned seminar was changed in scope to that of a round table discussion to include only high echelon personnel of MINAG and other institutions which are involved in projects which have elements of marketing.

Prior to the round table discussions IICA arranged for and was involved in meetings between IDB, USAID and MINAG and set the stage for subsequent follow-up action. A basic paper titled "Elements of an Agricultural Marketing Strategy for Jamaica" [26] was submitted to the participants of the round table talks.

2.4.2.8 Activity IV.XLJ.1.1.8 - Strengthening of the Soil Conservation Division of MINAG. This activity was aimed inter alia at providing opportunities to the Director of the Soil Conservation Division of MINAG to observe soil conservation programmes and procedures in Central America as a means of broadening his horizons in the area.

2.4.2.8.1 Arrangements were made with IICA/Venezuela and IICA/Costa Rica to facilitate the visit of the Director of Soil Conservation, Jamaica. The Director visited CIDIA, the University of Los Andes, as well as Soil Conservation works in Venezuela. By invitation Manuel Paulet (i) visited the Soil Conservation Experiment Station at Smithfield; (ii) participated in a round table discussion with the staff of the Soil Conservation Division and IICA/Jamaica; (iii) visited Olive River to recommend potential alternative methods of soil conservation other than terracing. Regrettably, these recommendations were not made.

2.4.2.9 Activity IV.XLJ.1.1.9 - Promotion of domestic use of hillside products aimed at increasing food production and farm income, improved nutrition and the standard of living of approximately 300 farm families occupying about 622 acres of hilly land in the parish of Trelawny.

2.4.2.9.1 Discussions were held with Home Economists from MINAG and arrangements were made for the activity to be carried out at Allsides and its environs. MINAG assigned two Home Economists based in Trelawny to assist with the activity. The Home Economists obtained equipment for use in preparing various foods. A number of seminars and demonstrations were held between the Home Economists and trainees. Approximately 170 adult females and 11 female students were involved in the application of alternative methods in the preparation and use of hillside products. Due to the positive response from farm wives of the area these seminars are now features on a monthly basis.

2.4.2.10 Activity IV.XLJ.1.1.10 - Seminar on tree crops in hillside farming in Jamaica. The aims of this activity are:

- to increase food production and farm income, improve nutrition and the standard of living of approximately 300 farm families occupying about 622 acres of hilly land in the Parish of Trelawny; and
- to train local professional technicians.

2.4.2.10.1 Discussions were held with the Training Division of MINAG to develop the broad outlines of the proposed seminar for subsequent discussion with CATIE. Requests were made to CATIE to obtain the technical assistance of Messrs. Budowsky and Sylvain. For reasons still unclear to us, CATIE's participation could not be secured. Thus the course outline was finalized involving all national lecturers. Speakers were identified, contacted and requested to present their respective course material. Arrangements were made with administrative heads of the four regions for selection and nomination of course participants. Domestic

arrangements were made with the management of the Catering Division of the Training Centre. The course, lasting for three days, was held at Twickenham Park Training Centre, Spanish Town. A total of 85 participants received training from 16 specialists in the following areas: avocado, banana, citrus, coffee, coconut, cocoa, mango, ackee, naseberry, sweet-sop, breadfruit, soil fertility and land capability classification.

2.4.2.10.2 Additionally, a workshop was held to ascertain the problems of tree crop culture in Jamaica, and to recommend solutions. The proceedings of the seminar have been compiled and published. [27]

2.5 Year Three (July 1979 - June 1980)

2.5.1 Due to the change in the budgeting system of IICA, as well as to the fact that the first phase of the National Project was scheduled to end in June 1980, the activities for the period totalled eight. The execution of six of these activities began during the first sub-period (July - December, 1979) and was continued during the second sub-period with the addition of two others.

2.5.2 The activities, their respective objectives and results to date are catalogued as follows:

2.5.2.1 Activity IV.XLJ.1.1.1 - Third year establishment and maintenance of observation and demonstration plots on systems best adapted to hillside agriculture, aimed at further developing and refining production systems for newly terraced lands.

2.5.2.2 The promising cropping systems which resulted from the first two years of work have been and continue to be validated on a semi-commercial scale at the demonstration centre and on farmers' holdings.

2.5.2.2.1 Results have shown that the overall project goals of increasing (i) productivity, (ii) farmer income, (iii) nutritional levels and (iv) rural employment are now attainable at Allsides.

These results have constituted the bases for determining the economic viability of the PHILAGRIP Project, which will extend Allsides by an additional 450 hectares.

2.5.2.2.2 In consequence of the data obtained at Allsides, MINAG's high level policy makers have expressed their satisfaction with the achievements of the project so far. This is underscored by the official request of MINAG for an extension of the project. The target group - the Allsides farmers - has become increasingly convinced of the benefits to be gained in adapting the newly developed technology.

2.5.2.2.3 MINAG, recognizing the weakness and constraints of its agricultural extension in transferring the newly generated technology, requested both the Director General and Guillermo Guerra to provide a full-time Extension Specialist for the IICA/Jamaica office to reinforce and strengthen the necessary transfer of technology. This technical assistance was approved by the Director General during a meeting with the Minister of Agriculture in November 1979. IICA/Jamaica has subsequently prepared the terms of reference for this specialist. IICA Headquarters presented a list of C.V.s to IICA/Jamaica for the selection of a specialist. This has been done. The appointment of this expert is awaited. In anticipation of the necessity to upgrade the extension element of the project, a baseline document has been prepared on the subject of Extension.[26]

2.5.3 Activity IV.XLJ.1.1.2 - Establishment of demonstration plots for farming systems treated with soil conservation methods other than terracing. This activity was aimed at establishing soil conservation treatments other than bench terracing for the development of intensive cropping systems on hillside lands.

2.5.3.1 In executing this activity,

i) considerable time and effort were devoted to the identification and procurement of a suitable test site. This culminated in a site being identified at Olive River in the Parish of Trelawny;

ii). additional time was spent in preparing a lease agreement between the lessor, MINAG and IICA;

iii) a final agreement was eventually signed on March 14, 1980; [29]

iv) in the interim on the basis of the verbal agreement between the lessor (Derrick Smith) and the lessee (MINAG) permission had been given to proceed with the infrastructural development of the project site;

v) the land was made available for cropping at the time of reaping by the lessor of his established crops;

vi) the soil conservation measures other than bench terracing have been implemented, and the remainder of the area has been planted out to the crops which will be used for further demonstration. During the months of May and June two farmers field days have been programmed. One such field day has already been held for the purpose of:

a. creating awareness of the purpose of the project; and

b. demonstrating what has already been done.

2.5.3.2 This activity benefitted from technical assistance provided by a Korean expert who came to Jamaica as a result of a joint agreement between MINAG/Government of Korea/IICA/Jamaica. [30]

Already results have demonstrated the benefits of soil conservation and farmers are taking a keen interest in the project.

2.5.4 Activity IV.XLJ.1.1.3 - Demonstrating the viability of promising farming systems on selected farmers' holdings within the project development area, and strengthening the role of extension. The objectives of this activity are:

- to reinforce the role of agricultural extension in the project area; and

- to increase the productivity and production of certain food crops (yams, beans, potatoes) on farmers' plots;

2.5.4.1 In carrying out this activity:

- meetings were held between technicians and farmers to determine their field needs, and to determine a strategy of assisting them;
- farmers indicated that through a co-operative mechanism it would be easiest to transfer technology on to their holdings;
- a pre-cooperative organization was established with the co-operation of the Department of Co-operatives;
- a committee was selected by the farmers and accommodation was procured;
- a manager for the co-op was selected and trained; and
- through the pre-cooperative a mechanism to ensure the availability of badly needed inputs has been created.

2.5.4.2 So far technical assistance has been provided to 15 of the 20 selected farmers for specific demonstrations. As a result of this activity a document was prepared on the Allsides farmers pre-cooperative.[31] Notwithstanding the achievements detailed above, the rate of adoption of the improved farming practices is being seriously hampered due to the fact that the extension specialist has not been appointed.

2.5.5 Activity IV.XLJ.1.1.4 - Reinforcement of the operative units at Allsides in the areas of hillside farming technology, programming, co-ordination and management. This activity is aimed at providing continued support towards the development of an institutional framework capable of implementing changes similar to those at Allsides in other areas of the country.

2.5.5.1 The following was effected:

i) field days were held for national technicians who received intensive training on various aspects of soil conservation and cropping systems;

ii) monthly meetings were and continue to be held with standing members of the Co-ordinating Committee set up to ensure smooth execution of the project. This committee consists of the:
- Deputy Director, Western Division;
- Parish Manager, Trelawny;
- Project Extension Officers;
- Project Agronomist;
- Project Home Economist; and
- IICA/Jamaica professional staff;

iii) technicians of the hillside soil conservation projects e.g. from USAID, FAO-Norway/GOJ, Netherlands/GOJ visited frequently for observation and advice.

2.5.5.2 As a result of this activity

i) personnel of the operative unit obtained reinforcement in their skills;

ii) improvement in the co-ordination of the project was obtained; and

iii) there was an increase in the willingness of various technicians to become involved in similar projects elsewhere.

2.5.6 Activity IV.XLJ.1.1.5 - Reinforcement of expertise in soil conservation and watershed management. This activity is aimed at:

i) assisting the Soil Conservation Division to improve and consolidate measures for developing appropriate technology for newly terraced lands and hillsides which have been subjected to alternative soil conservation measures, e.g. hillside ditch, orchard terrace, individual basins, grass barriers, etc.; and

ii) assisting the promotion and generation of other soil conservation project profiles.

2.5.6.1 In carrying out this activity the following were done:

i) following intensive negotiations a soil conservation expert was secured jointly by GOJ, the Republic of Korea and IICA;

ii) the Korean technician became involved in the execution of this activity;

iii) training has been provided in soil conservation to two GOJ technicians and 25 farmers of the area;

iv) for additional information refer to achievement under activity IV.XLJ.1.1.2

2.5.7 Activity IV.XLJ.1.1.3 - Evolving systems for obtaining data and information on agro-socio-economic indicators of hillside farmers. The objectives of this activity are to:

- develop accurate production figures for crops grown by the small hillside farmer;
- obtain wider, clearer and more accurate knowledge of the value orientations and farmers' receptivity to:
  (1) soil conservation measures;
  (2) new farming technology;
  (3) modern marketing approaches; and
  (4) encourage farmers to use simple records.

2.5.7.1 Work on this activity has so far resulted in:

i) the selection of an area adjacent to Allsides in the Martha Brae Watershed in Southern Trelawny. This same area has been chosen by MINAG for the Pilot Hillside Agricultural Project (PHILAGRIP) being financed by IDB;

ii) the designing of an appropriate questionnaire which was used for obtaining 'universe' information for this area;

iii) the acquisition of estimates of the number of farmers;

iv) the assessment of slopes and soil types;

v) the designing of a questionnaire for the undertaking of an Agro-Socio-Economic Survey of the area, which was also field tested and finalized;

vi) the conduction of the Survey with assistance from MINAG;

vii) the collation and tabulation of the data; and

viii) the preparation and publication of a comprehensive report.

2.5.7.2 The results of this Survey constitute one of the bases for the preparation of the PHILAGRIP Project Document.

2.5.8 Activity IV.XLJ.1.1.7 - Preparation of a comprehensive report phase of the Allsides Pilot Development Project. The purpose of this activity was to prepare a technical report at the end of the first phase of the project.

2.5.8.1 Preparation of this report has begun; and selected results have been incorporated in the PHILAGRIP Project Document. A seminar titled "Pensando de la generación del futuro" was presented at IICA Headquarters in March 1980.

2.5.9 Activity IV.XLJ.1.1.8 - Strengthening of marketing institutions. The purpose of this activity is to monitor weekly prices paid for hillside agricultural products in the Christiana market which is a major outlet for products grown in the Allsides area. The execution of this activity will have a threefold effect:

i) to provide price scales which will assist in determining seasonal market trends;

ii) to furnish price information to farmers of the Allsides project. This will guide them in the setting of farm-gate prices for higglers; and

iii) to provide basic data for the development of a marketing information service for all products grown in the project area.

2.6 Appropriateness of Resource Use in Attaining Project Objectives

2.6.1 The activities detailed for years one, two and three of the National Project made excellent use of the resources available to the project. As evidenced in the previous sections of this report, a total of 41 activities were programmed and successfully executed during the first phase of the Project (1977-80). Further, the IICA/Jamaica professional staff in collaboration with MINAG professionals published 22 technical documents totalling 2206 pages during the execution of the first phase of the Project. These publications pertain to hillside agriculture in Jamaica and have been widely distributed within and beyond Jamaica.

Several papers have gained prominence as essential reference material for national planning and policy decision making, while others are used for training of technical personnel involved in other similar hillside development projects. It is worthwhile recalling the two main constraints which affect the execution of this and any other project in Jamaica today. These constraints are:

i) budgetary; and
ii) the on-going reorganization of MINAG.

2.6.2 In spite of the above constraints, the nature and composition of the activities were not altered. However, it was necessary to effect certain modifications in scope due to the inability to obtain all the programmed local counterpart resources (manpower and financing).

2.6.3 Arising from 2.6.2 this required IICA/Jamaica to be innovative in its endeavours to achieve the project goals.

2.6.4 It must be recalled that during the initial stage of project implementation there were significant changes and reduction in the IICA project staff, in terms of both direction and the technical personnel. Notwithstanding this, the project performance was not significantly affected.

2.6.5 The activities showed continuity and consistency at all times in terms of the target vis a vis the project objectives.

3. Impact of IICA's Project Activities and Goals on National Institutions

3.1 MINAG has used to advantage the results obtained from the project. The premises used in the development of the project and the design of project achievements, created during the first year of the project the basis for the preparation and implementation of the USAID Pindars-Two Meetings Project (Integrated Rural Development Project). The technical component of this project was to be contracted to IICA by recommendation of the first USAID agricultural experts who visited Jamaica to discuss that project (Charles Brightenbach and Peter Brittner).

3.2 This project has a total value of US$26 million. Additional mileage was gained by MINAG from the SFB Allsides project during the preparation of the GOJ/Norway Project. This project was later implemented as the GOJ/Norway/FAO Project because Norway does not provide bilateral assistance and it works through institutions of which the country is a member, e.g. FAO. This project has a total value of $2 million, in the first instance, and is at present dedicated to the training of agricultural technicians in soil conservation and systems of crop production.

3.3 The long and extensive discussions with the IDB culminated in January 1980 with the signing of another project which is predicated on the "Allsides technology". This is the GOJ/IDB/IICA Pilot Hillside Agricultural Project, PHILAGRIP, which in its first stage will cost approximately US$8.4 million.

3.4 At present IICA/Jamaica has initiated discussions with GOJ, the Honourable Prime Minister (and Minister of Agriculture) and now with the Embassy of Venezuela for the preparation and financing of a National Peanut Project for Jamaica. This was based on the successful results of peanut trials on terraced lands and under improved mixed cropping systems at Allsides. It is envisaged that this project will lead to an increase in farm income,

a reduction in imported oils and animal feed ingredients, and a saving in foreign exchange.

3.5 Prior to the implementation of the Allsides Project, there had been a dirth of knowledge on appropriate farming techniques which could be adopted by hillside farmers in a manner which would accommodate intensive cropping systems on soil-conserved lands. The principal objective of the national project, was to develop a body of knowledge designed to change the traditional pattern of farming in Jamaica on terraced lands. Consistent with this, the research and development efforts during the first phase of the project have amply demonstrated that it is now possible to obtain the targets of:

- increased farm income;
- increased on-farm employment;
- increased production and productivity;
- improved nutritional profile; and
- saving of foreign exchange.

3.6 This improved technology has been adopted by GOJ as an important element in formulating projects which will improve Jamaica's agricultural image and attract project financing from international agencies.

3.7 All the important and sensitive institutional variables have been positively affected by these activities. MINAG, as the source of normative policy making for the Agricultural Sector has accepted the criteria and technology of hillside farming which is influencing all the institutional variables. MINAG is allocating resources for the development of more and larger hillside farming projects, which will form the main body of a National Hillside Farming Development Project.

3.8 National and higher echelons of MINAG are aware of the need and urgency of hillside farming projects. However, the rate of execution is inhibited by inadequacies in the following areas:

i) identification of conditions specific to each potential project area for the whole country;

ii) studies of parameters and other elements for a sound food production-soil management hillside project;

iii) financing and human resources necessary for project preparation;

iv) identification of international sources for project financing; and

v) identification, budgeting and allocation of scarce national resources for counterpart services.

3.9 Among the indicators to be used for assessing levels of success in project area are, inter alia:

i) ecological factors;

ii) physical features;

iii) production potential;

iv) variety of crops which may be produced;

v) income generation potential;

vi) employment potential; and

vii) nutritional profile;

all of which have been positively affected following three years of implementation of the national project.

4. Review of External Factors Affecting Progress on Project Activities

4.1 There have been significant changes with respect to the availability of support services of GOJ in the implementation of the project. These changes have to a large extent been necessitated by budgetary constraints and by MINAG's continuing reorganization. These changes have reflected inadequacies of counterpart funds and manpower, particularly in relation to:

- construction of soil conservation measures; and
- provision of extension input.

4.2 During the first 18 months of the project, difficulties were experienced in obtaining a permanent core of experienced counterpart staff at the project site on a continuing basis. This situation impeded the initial rate of development of the project. However, there has been considerable improvement since then.

4.3 As the work of the project unfolded and its potential benefits became apparent, GOJ's acceptance of and resource deployment to this project increased.

4.4 It has been stated in various sections of this document that the greatest constraint is the budgetary allocation. Our chief counterpart agency - the Soil Conservation Division, not unlike other Divisions of MINAG, has also been affected by this constraint.

4.5 At different levels, the farmers are the direct beneficiaries and the GOJ the indirect beneficiary, both of whom have been positively affected. Indicators of this acceptance are:

i) at farmer's levels - the rate of adoption; and
ii) at GOJ's level - the use of the experience gained at Allsides in formulating similar or parallel projects.

4.6 The socio-political realities of Jamaica today indicate that more agricultural developmental projects which are predicated on Allsides be mounted to alleviate the problems of:

a) high open unemployment which at the time of this preparation exceeds 40% of the sectoral labour force;

b) low small farm income; and

c) low nutritional levels of rural families.

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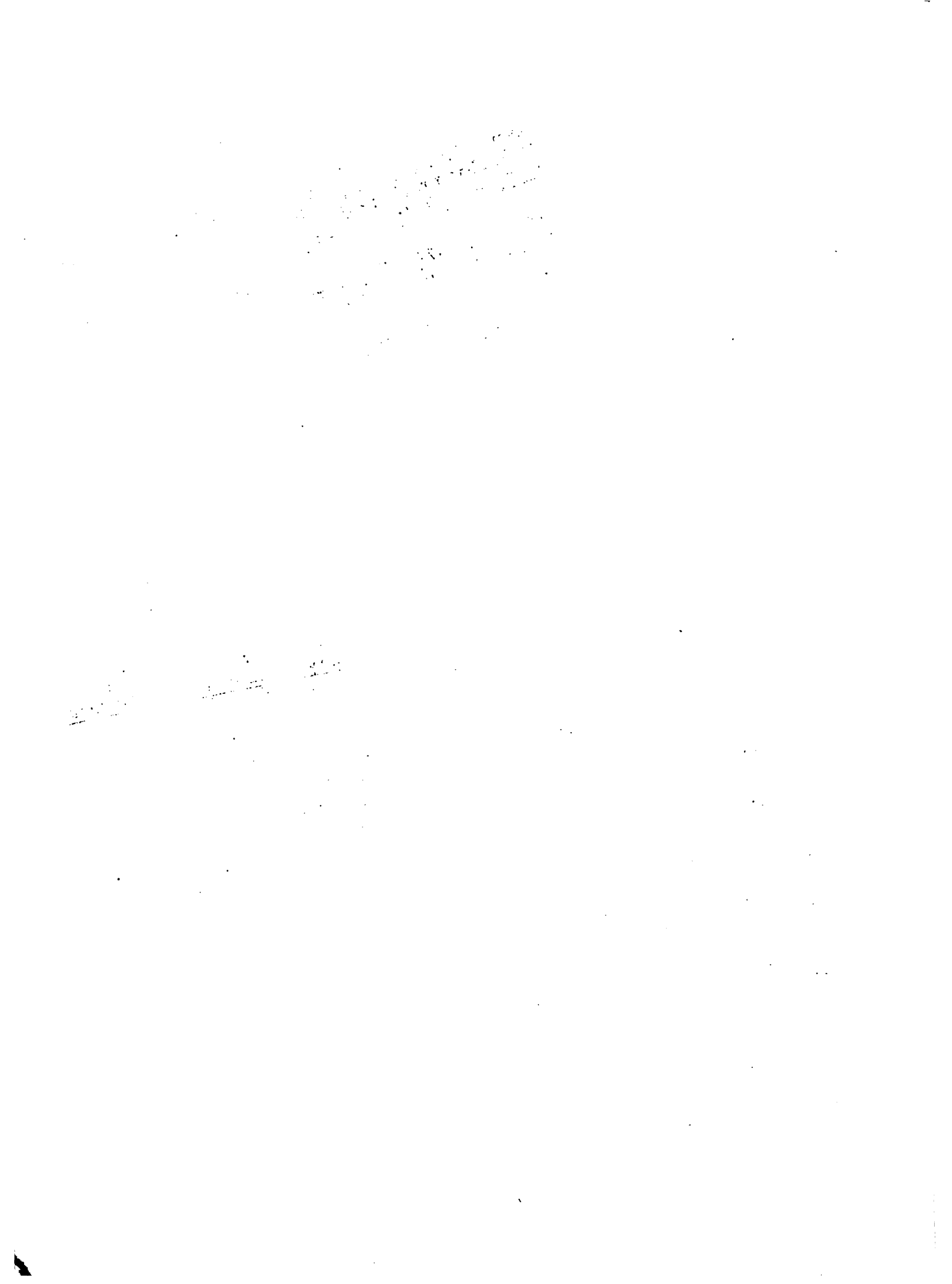

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PROJECT EVALUATION

HILLSIDE FARMING STUDY AND IMPLEMENTATION PROJECT

IN JAMAICA (ALLSIDES PILOT DEVELOPMENT PROJECT)

DOCUMENT #4

"THE PREPARATION OF PERTINENT CONCLUSIONS AND RECOMMENDATIONS"

PREPARED BY: Dr. Hugo Cohan - Economics Expert
Dr. Rufo Bazan - Soils Expert

PROJECT IV.XLJ.11

Hillside Farming Study and Implementation

Project in Jamaica (Allsides Pilot Development Project)

I. INTRODUCTION

In February, 1977, IICA launched a project in Jamaica called "Study for Implementing Agriculture in Hilly Zones" (Allsides Pilot project), with funding from the Simon Bolivar Fund.

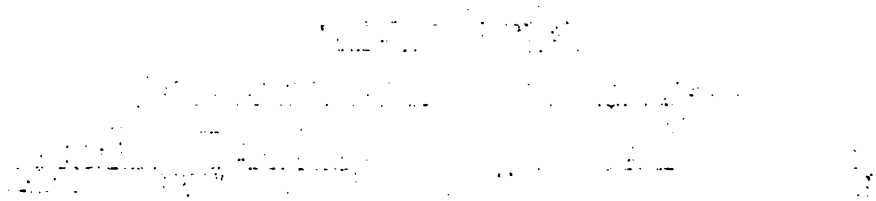
In June, 1980, a team was set up in Jamaica of specialists from the Kingston Office and IICA Headquarters, in order to work together for a week and draw up conclusions and recommendations for this on-going experiment.

This document is the final report of the IICA Headquarters personnel sent for this job.

It should be noted that, in terms of visits from Headquarters personnel in various capacities, this is one of IICA's most high-density projects on the basis of reports and opinions issued per unit of personnel, or on the basis of on-site costs. The work of the team set up in Jamaica in June, 1980 was thus facilitated by the availability of preliminary analyses, although these reports did not always reach similar conclusions.

This Evaluation Report will summarize a weighted viewpoint to help the Jamaica Office team realign its operations and help IICA direct the discussion on this project, which has provided extensive lessons on the possibilities and limitations of technical cooperation activities.

Those who have signed this summary feel that the evaluation of IICA projects cannot easily produce a simple, definitive classification of the project as "good" or "bad". Instead, the goal is to discuss



achievements and shortcomings, as objectively as possibilities permit, in order to help all those involved to derive the most valuable lessons for the future. Any effort to give a more precise classification would be useless and, more especially, would reflect only a highly subjective point of view.

The Allsides pilot project has assumed certain characteristics which make it extremely useful for the purpose of deriving lessons:

- The project document does not clearly define the responsibilities of the national organizations or of IICA. Nevertheless, these groups have maintained a clear, mutual recognition of their respective areas of work.

- The Office and the SBF project have grown up together, for this project was the core that gave IICA credibility for its work in Jamaica.

- The strategy of institutional reinforcement, widely used in other SBF projects, has been put into action and has inspired the joint efforts of national organizations.

As is common in Evaluation Reports, this document includes several appendices, as follows:

Appendix 1: Review of the project design (prepared by the Office of Evaluation, with complementary data provided by the Jamaica Office).

Appendix 2: Analysis of the current relevance of the project objectives (prepared by the Jamaica Office).

Appendix 3: Analysis of the progress and causal factors of the project (prepared by the Jamaica Office).

These three appendices, required in order to fulfill the norms of evaluation, are supplemented by the following:

- Appendix 4: Aide Memoire prepared in Jamaica by the joint Office/IICA Headquarters team.
- Appendix 5: Travel report of Hugo E. Cohan
- Appendix 6: Travel report of Rufo Bazán.

II. COUNTRY PROJECT

2.1 Background

The GOJ/IICA/SEF project does not distinguish between the country project and the IICA project. Nevertheless, it is clear that Food Production and Rural Employment are the primary objectives for Jamaica and therefore, for every rural project in the country.

National project objectives are covered in Appendix 2 (particularly on pages 12 through 14). Given the national objectives identified by the Government of Jamaica and IICA's PAMP in Jamaica, it is clear that IICA can contribute to existing aspirations for rural development. This includes improving our knowledge of the productive potential of hilly zones.

2.2 Design

The GOJ was given responsibility for extension and soil preparation. However, it should be noted that no specific scheme was designed for completing these actions.

2.3 Objectives and goals

The objectives and goals ascribed to the GOJ, although not explicitly discussed, were overly arbitious.

There was neither a specific design nor an organizational commitment for extension or for soil preparation (or for complementary work) and thus it could not be assumed that the projected goals would ever be reached. This was especially true in view of the organizational and budgetary problems facing the Government.

Due to the motivation of the GOJ and the communication between IICA and the national organizations, it was possible to overcome these shortcomings in part, although at a level of equilibrium inferior to that foreseen under objectives and goals.

2.4 Strategy

There was no pre-established strategy for meeting national commitments. The Coordinating Committee, made up of IICA and the national organizations, held pre-scheduled monthly meetings and ad-hoc meetings as necessary, which proved to be a useful tool for the joint GOJ/IICA strategy.

The implicit strategy of the GOJ Project has been the object of repeated criticism on the part of Headquarters personnel visiting Jamaica. This is based on the feeling that a single experimental field is insufficient to achieve any significant effects in terms of the well-being of the rural population. Nevertheless, the strategy is to start demonstrating the possibility of making productive improvements, and it can be conceived as a useful approach. Instead of attempting to achieve all good things within an ideal balance, it seeks to foster an imbalance that provides the incentive for complementary actions to meet newly raised expectations.

Allsides and the new Olive River experimental plot receive frequent visits from officials, technical specialists, and farmers, and reflect a clear-cut imbalance strategy. The visitors can see concrete achievements and observe actual results which, prior to the development of the project, existed only in the realm of speculation. This raises the question as to why the distribution of the information has been so limited, and it encourages visitors to seek solutions to the new situation. Many had foreseen that the problem of extension and adoption would eventually arise. It was originally included in the Project Agreement, which assigned responsibility in this area. However, now that the real potential exists, pressure to comply with this aspect of the Agreement has been reduced. Whether by design or by the force of events, the national project can thus be established, formalized, and executed as a direct result of a strategy that produced an imbalance by over-developing the project material.

In this area, it is appropriate to suggest that international technical cooperation personnel must acknowledge the difficulties that attend

any effort to demand a balanced approach, which would imply giving equal attention to all the factors required for the success of any project. In the extreme case, this would mean that the countries must plan and implement balanced development. This is not easy and is probably not feasible. There is no clear evidence that it is indispensable as a process. For some authors, an imbalance in the sense of making incremental decisions, creating new problems and solving them, is the only realistic description of the process of political and economic decision-making throughout the world. For others, rather than merely a reasonable description, it is the only appropriate standard of behaviour, especially for countries with few administrative resources. Regardless of whether the descriptive or the normative version is adopted, it should be recognized that in many countries the various related factors have never been effectively or organically executed.

This does not mean that IICA cannot or should not insist on balanced national projects as a prerequisite for providing cooperation in project formulation in order to make more effective specific contributions. But this is not always possible. Even when it is accomplished, high levels of effectiveness should not be expected, nor will all objectives be reached. If it were easy to formulate and implement these national projects, the need for technical cooperation would either become highly specialized and reduced or disappear altogether. For these reasons, the balanced view of development, implying our own approaches to Planning and Projects (national and IICA), has come up against a difficult reality which is not limited to Jamaica, where the need to provoke an imbalance has assumed particular importance. This imbalance must be brought about in subject areas characterized by:

- national-level concern;
- current national abilities for finding solutions; and
- concrete abilities in IICA to help generate solutions and to support the establishment of other temporary imbalances, on a higher level of social performance.

By design or by coincidence, the IICA/SDF/Jamaica project fulfills this concept of inbalance. Time, Office actions, and, above all, the response of the GOJ will tell us whether or not this desirable situation of greater social performance can be established at any given moment.

2.5 Project Review

The country project has not yet been formally defined, and it will require support from the Institute.

2.6 Results

National officials and specialists recognize that the projected goals for the country were partially achieved by the joint project.

2.7 Future actions and strategy

Several national projects for farming in hilly zones, receiving support from diverse sources, are at different stages of formulation and implementation.

A preliminary impression is that, in the framework of political, organizational and budgetary difficulties, the GOJ is endeavouring to organize a process to which IICA should contribute.

III. IICA PROJECT

3.1 Identification of the Problem and the Beneficiaries

The IICA project tackles the type of problem "the solution of which will make it possible to reach other goals".

IICA committed itself to a pilot experiment for an area covering 522 acres and worked by 300 farmers, a decision based on the following factors:

- some 150,000 farmers located on hilly ground have income problems;

- these hilly grounds cover 80% of the country's land surface area;
- the land is subject to severe erosion;
- terracing had been recommended to reduce erosion; and
- there was no available knowledge of profitable production-conservation methods.

According to preliminary plans, IICA was responsible for exploring and testing the existence and profitability of terracing production systems.

As the project developed, it was decided that other conservation systems would also be tested.

3.2 General objective

To cooperate with national organizations on:

1. The development of a body of knowledge on hillside farming and cropping systems conducive to changing the traditional pattern of hilly land farming.
2. The spread of that body of knowledge throughout the pilot area.
3. Extending pilot area results to the whole hillside region.

Of these three general objectives of the joint project, IICA was responsible only for the first.

3.3 Specific objectives

a. To develop a new system of production based on multiple cropping and efficient utilization of land and water resources.

b. To increase the productivity and production of certain food crops (yams, beans, potatoes, cassava, sweet potatoes).

c. To increase food production, income, and nutrition and improve the standard of living of approximately 300 farm families occupying about 622 acres of hilly land in the parish of Trelawny.

d. To develop an institutional framework capable of implementing similar changes in other areas of the country.

e. To develop accurate production figures for crops grown by the small hillside farmer.

f. To train local professionals.

Again, it should be emphasized that IICA and the GOJ agreed that the Government should have central responsibility for specific objectives c and d.

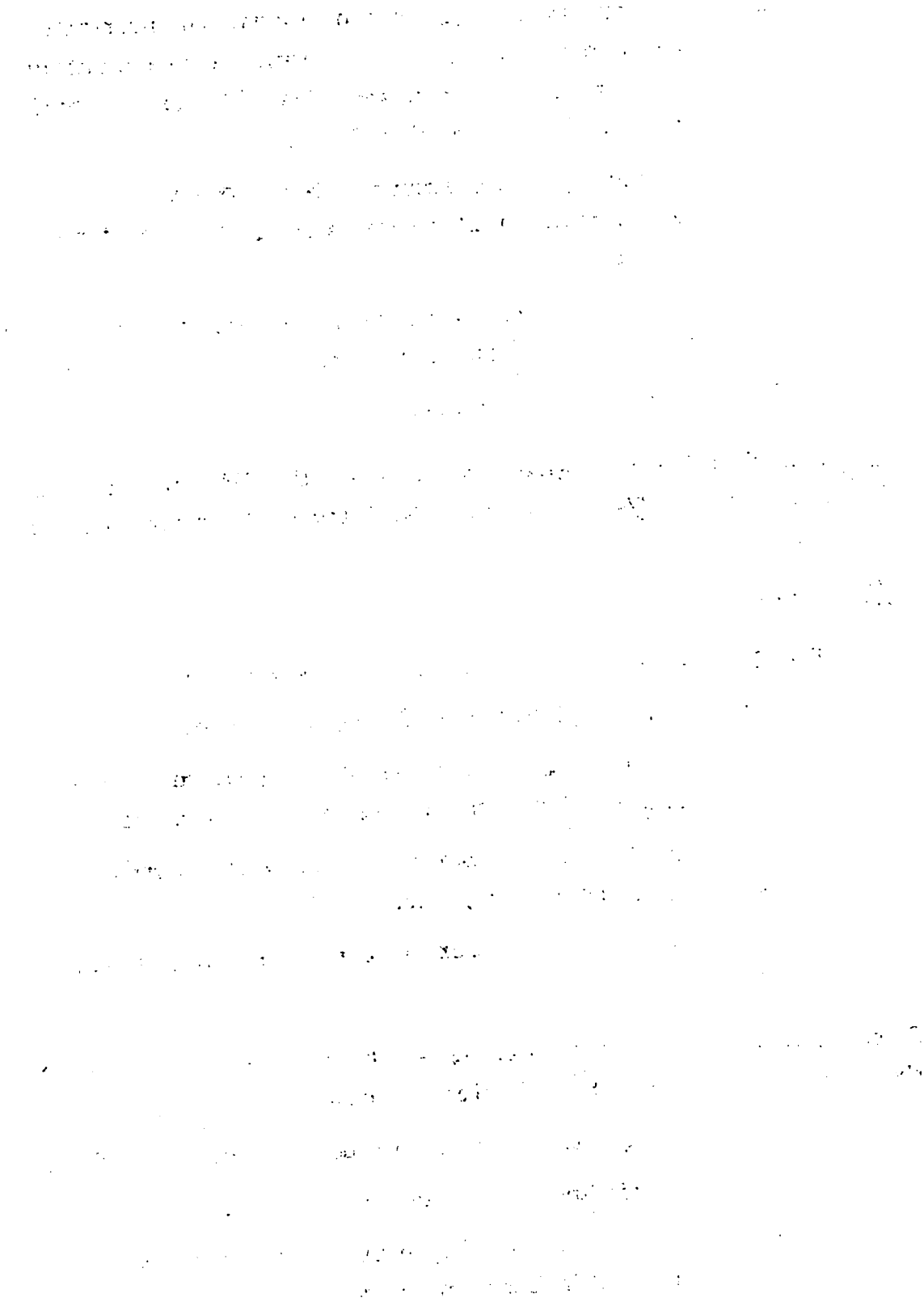
3.4 Strategy

The strategy of the IICA/SBF project is characterized by:

- on-site job implementation (tests and analysis);
- strong coordination with national organizations (a Co-ordinating Committee and frequent personal contacts);
- demonstration and discussion of results with farmers, specialists and leaders; and
- integration with all other projects of the IICA Jamaica Office.

To summarize, the institution building strategy pursued by the project, the model used for the SBF in Jamaica involves:

- demonstrating the ability to produce results in the field;
- making the findings generally available; and
- finally, helping to build up national capabilities for programming and implementing projects.



3.5 Project activities and accomplishments

3.5.a. Major actions

The project conducted pragmatic research of terracing production systems at Allsides, in accordance with the agreement with the GOJ.

The research is considered pragmatic because, although it was originally limited to small plots of land (15 to 30 m^2 each), those crops that did not show satisfactory results were quickly discarded, without making in-depth studies of the causes or solutions of the problems.

The nine systems that were retained after three years are now being tested on more realistic plots (405 m^5), and they should be implemented soon on farmer plots.

In 1980, a new site (Olive River) was selected for experiments on other conservation methods (individual mounds similar to those commonly used by hillside farmers, individual bench mounds, continuous bench mounds, grassy protection strips). The crops being tested are yams and yams with potatoes.

On the basis of final and in-process findings, an intensive programme was organized on both sites for visits from specialists and farmers and for short courses.

The budgetary break down for these findings is shown in Table 1.

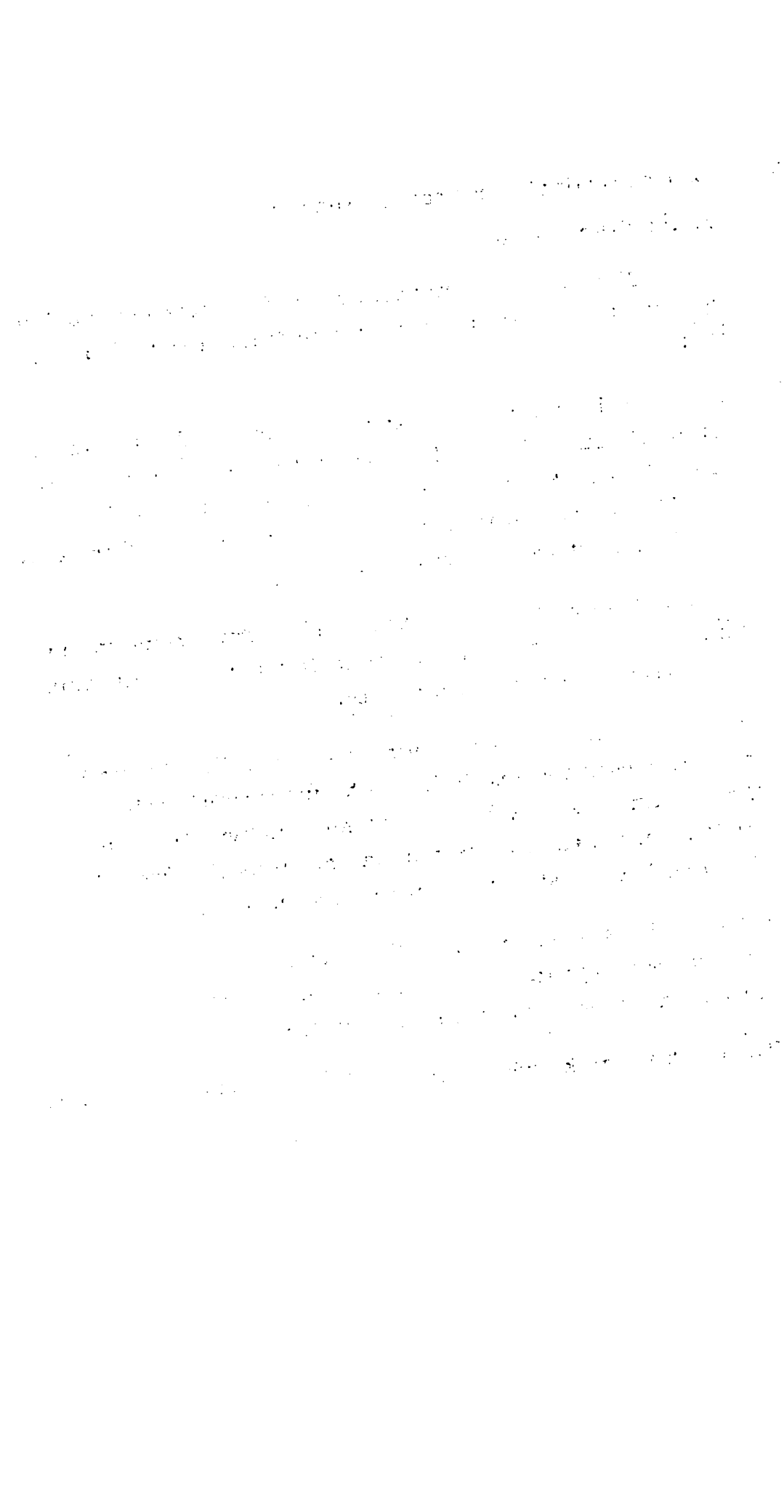


TABLE 1

BUDGETARY BREAKDOWNS FOR THE IICA/SDF/JAMAICA PROJECT

(in thousands of US$, rounded to the nearest hundred)

Fiscal Year	76/77	77/78	78/79	1979 2° Semest.	1980 Jan/Apr.	TOTAL
Personnel		20,8	26,0	29,1	18,7	94,6
Operations	9,8	32,2	34,6	20,7	5,7	103,0
Equipment	8,0	4,3		4,0		16,3
General Services	1,0	5,0	11,5	5,4	3,1	26,0
	18,8	62,3	72,1	59,2	27,5	239,9

3.5.b. Major accomplishments

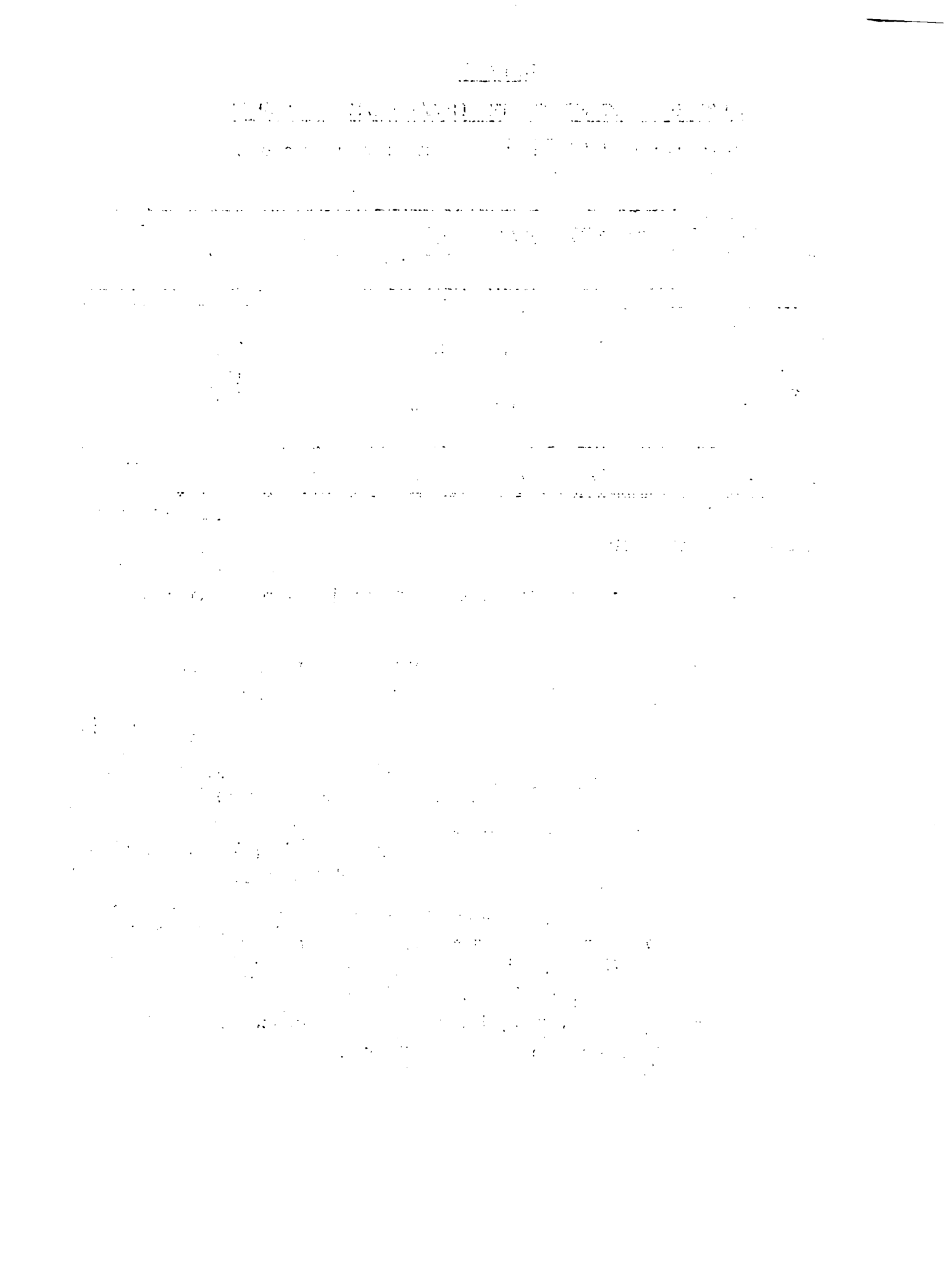
The major accomplishments of the project can be summarized as follows:

- a body of previously unavailable knowledge on profitable production systems for hilly zones in Jamaica, to make efficient use of soil and water resources.

- a new concern for spreading the use of the systems through field days (with some 1,000 farmer visits), six-week courses for students, regular visits, and seminars for specialists throughout the country.

- a proposal for increasing the target areas as an expanded pilot experiment, through a project to be financed by the IDB (prepared with strong support from IICA).

- the application of Allsides systems to experimental CCJ fields in Smithfield and Sweetwater.



- the dissemination of basic production system ideas to other GOJ projects, with various sources of international technical and financial assistance.

- recognition of IICA's work, and a positive image of the Institute for middle -and high- level officials of the GOJ.

- the growth of the IICA Office through complementary projects representing a valuable mutual contribution to the rural development process in Jamaica.

IV. CONCLUSIONS

As was noted in the Introduction, the conclusions presented here are intended to provide a useful contribution to the Office in Jamaica, the Simón Bolivar Fund, and the Institute as a whole.

4.1 The relevance of the project to country-level problems.

The country has, and will continue to have, serious problems of rural development. The creation, adaptation, and dissemination of know-how on soil conservation and management in hilly zones are, and will continue to be, an important problem.

The purpose of the country project, which does not exist formally, is to establish central coordination of the many actions that (even in the narrow area of soil management) are taking place throughout the country.

4.2 The relevance of the problem and of IICA's objectives.

The development of knowledge on profitable systems is, by its very nature, unattainable. For this reason, it is always a relevant problem and is always important to the objectives of the IICA/SBF project.

In spite of this, the inexhaustible nature of the process suggests that priorities should be considered.

In particular, the following points are worth noting (see Appendix 4, 5 and 6):

- testing the stability of systems for producers whose circumstances do not permit rotation;
- extending the tests and analyses of findings to other types of soils;
- planning the transfer of experiments to the Government, with a proposed working plan;
- organizing research and pilot testing in extension and adoption, as was done for testing productive systems.

4.3 Impact of the IICA Project.

Point 3.5.b. above covered the major achievements of the project.

The impact of these achievements, measured in terms of the adoption of systems, is difficult to establish and does not appear to be important.

Only twenty farmers can be identified as having made some form of adoption.

This apparent failure can be explained by recognizing that:

- knowledge suitable for dissemination is only now becoming available; and
- the extension work, which is the responsibility of the GOJ, has not been satisfactory. Few efforts have been made, and there has been a high turnover of personnel (four specialists in three years) and constant reorganization of the pertinent services.

4.4 The importance to the country and to IICA of solving the problem. We cannot overemphasize the importance for Jamaica of disseminating nationally developed profitable management systems among the farmers in hilly zones.

Clearly, in spite of this importance, the dissemination of farming methods that make rational use of available natural and human resources requires more than the simple availability of technology and more than the establishment of an extension service, for multiple other factors play a role (from the availability of production factors to price policies). Both the GOJ and the IICA/SBF team are aware of this limitation.

As noted in Point 2.4 above (Strategy), with the cooperation of IICA, the GOJ has generated a certain imbalance by demonstrating the viability of systems superior to those currently in use. The project does not provide for mechanisms to establish a new balance on a higher income level for producers.

Other GOJ actions, some of which have been conducted with IICA's cooperation, are attempting a process for genuine rural development. IICA has earned credibility and its cooperation with this process has been accepted. Nevertheless, any relatively integrated GOJ action would require technical and financial resources much greater than those that can be allocated to the Office, and the growing, often bilateral participation of other international assistance organizations has been noted.

4.5 Conclusions on the project design.

Any technical comments notwithstanding (see point 4.2 and Appendix 6)*, it is felt that the project was well designed, in terms of the available resources. The achievements over the three years are ample proof of this. At the same time, those possibilities which were not attempted reflect a prudent recognition of the limitations of a new Office which is not well known in the country and has minimal resources.

4.6 Evaluation of the efficiency of the strategy.

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* (The pragmatic, urgent nature of the research made it impossible to project future possibilities such as support centers similar to CATIE and CIP for studying the causes of, and solutions to, some of the problems detected in crops).

It is felt that IICA acted efficiently by devoting available resources to generate a concrete product for identifying IICA's contribution in Jamaica.

The magnitude of the imbalance that was created is reasonable in comparison with the GOJ's ability to disseminate the systems. This, of course, is no guarantee that the project target objectives will be achieved.

At the present time, it is felt that IICA, by demonstrating its abilities, has made more progress than the Government, which still has a difficult job ahead.

4.7 Institution Building

A large number of projects receiving various types of international support have been undertaken or planned in the areas covered by the IICA/SBF project*, and this suggests that the national counterpart organizations have been strengthened.

There is no doubt that, in fact, these projects and the recognition of all that has been attained with IICA's direct participation, have improved the official image of these organizations.

Nevertheless, the budgetary problems affecting the public sector, the uncertainty as to how to bring about massive adoption of the systems or of relevant aspects thereof, and the very magnitude of the support projects (in relation to the national absorption capacity) arouse doubts as to the nature of the new productive equilibrium of the sectoral public organizations.

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* (GOJ/USAID Rural Integrated Development Project, GOH/IDB/IICA Pilot Hillside Agricultural Project (PHILAGRIP), GOJ/FAO/Norway Hillside Project, the proposed Venezuelan/GOJ/IICA Peanut Project (VENAPEAGOJ).

The IICA/SBF project has never sought to reinforce organizations on the basis of some arbitrary conception of the institutional products most desirable in the situations foreseen for Jamaica in upcoming years.

4.8 Status of the allocation of human and financial project resources.

The IICA/SBF project will continue through late 1981, and no serious problems have been detected in resource allocation.

4.9 Internal and external factors affecting project development.

4.9.a. Internal project factors

One internal aspect involves, not the project itself, but the relations between Headquarters personnel and on-site personnel. The problem is the frequent appearance of contradictory opinions issued by personnel headquartered in San José, concerning the importance and quality of the Allsides project.

The inevitable subjectivity of evaluating the various stages of a project can prove to be a continuing source of irritation, which has frequently occurred in this case. When opinions are submitted in the absence of any uniform criteria, when the differences between these opinions are profound, and above all, when no homogenous conclusions are reached, the on-site personnel must rely on their own convictions to determine their course of action; and these convictions are affected by a steady stream of outside comments, often totally random in nature.

As stated in the Evaluation Documents prepared by the Jamaica Office (see especially Appendix 2 and Appendix 3), this difficulty at Allsides went beyond the appearance of disconcerting opinions. It led to technical consultation that turned out to be inappropriate for the project, and attempts were made to effect unilateral changes in the objectives of the Agreement.

The Jamaica Office provided broad opportunities for discussion, including a Seminar held in San Jose early in 1980. This, however, was not enough for Headquarters personnel to reach homogenous opinions and recommendations.

Aside from the minor suggestions discussed above (and examined in more depth in Appendix 6), mention should be made of the nature and quality of the work of the Director and the specialists from the Jamaica Office.

IICA's personnel have worked very well in the technical aspects of the SBF in setting up other Office projects, and in establishing ties with national organizations.

4.9.b. External project factors.

This discussion of external factors that have a negative effect on project development will only repeat and expand upon factors that have appeared earlier in this report. In particular:

- the inability of the GOJ to meet its commitments, a handicap recognized by the national personnel themselves;
- low levels of adoption, as a result of uncertain land tenure systems, difficulties in marketing and credit acquisition *, the age mode of farmers, and, in general, all the factors so common in developing countries that impede the adoption of new methods. The situation becomes even more complicated when the new system involves significant alterations of prevailing methods.

V. RECOMMENDATIONS

5.1 Continuing the IICA Project

It has been agreed that the project will last through the end of 1981. This should be long enough for achieving the stated objectives.

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* (It is estimated that 80% of the producers are in arrears on one type of credit or another, which makes them ineligible for new credit plans).

5.2 Recommended changes for upgrading the project.

5.2.a. Objectives and goals

It is suggested that concrete recommendations be made to producers, that a detailed evaluation of results be initiated, that tests be made on the stability of the systems, and that the transferral to the GOJ be programmed.

5.2.b. Strategy

The strategy must focus on the need to transfer the findings to producers, and the project as such to the Government.

Part of this work would be to analyze whether or not a new project should be proposed for expanding the range of ecological alternatives. This would be based on the comments made by R. Bazán (see Appendix 6) on the variability of soils and rainfall. The alternative would be to begin a project on the transferral option.

At the same time, another possibility to be explored could be setting up a project for cooperation in planning actions on hillside farming in Jamaica, over a period of approximately six months to a year.

These recommendations are presented only as suggested strategies for the project, a year and a half from completion, and for the work of the entire Office. It is hoped that the successful integration of Office-SBF actions will maintain its current momentum during the process of exploring whether or not and why a new SBF should be proposed.

5.2.c. Institutional impact

In order to achieve this, activities must seek to transfer the project to the country and, eventually, cooperate in the reorganization of the national approach to hillside agriculture.

An important task for the balance of the current SBF project is to plan and promote the transfer of IICA's project to the country. More broad-scale institutional cooperation, such as supporting the GOJ in organizing a national programme, would require Office reinforcement. To this end, a short-term SBF could be explored.

5.2.d. Resource adjustments

No major needs in this area are expected for the project.

It is recommended that the Office fill its opening for an Extensionist at least on a short-term basis in order to explore a relevant project. It is suggested that the traditional sales approach to promoting available technology be avoided, in favour of hiring someone capable of understanding the systems (whole farm systems) currently in use and ways of combining them with higher-level systems so as to determine the possibilities of adoption and the methods of achieving it.

5.2.e. Eliminating internal factors that have a negative effect on the project.

No internal negative factors were found in the project itself.

As for the problems of the San Jose/Office relations, identified above, it would appear appropriate to suggest:

a) that Headquarters personnel develop more consistent criteria on which to formulate opinions. This would provide a more manageable framework for processing out the subjective elements.

b) that the opinions of Headquarters personnel provide a uniform viewpoint for on-site personnel, based on thorough preliminary debate and frank discussion, as necessary;

c) that the visiting process, instead of producing random, inconsistent opinions, lead to specific recommendations for corrective action, when necessary; and

d) that all criticism and proposals for in-depth revision be made with the open participation of on site personnel.

The Allsides project provides an excellent opportunity for useful discussion for future IICA action.

As for the negative factors external to the project itself, and to the Headquarters Office relations, many problems were found. They involve the many elements of the difficult challenge of improving farmer income. They are factors which will not be easy to eliminate, Some of the project ideas suggested in this Report can help the GOJ identify these causes more accurately and take action to ameliorate the problems.

5.8.f. Recommendation on other Office projects

Because of the integration that was found in the Jamaica Office, there is no need to go beyond the comments and suggestions presented in this Report. It should be reiterated (see Appendix 4, point 5.4.4) that the Office would be well-advised to further its projects and actions related to hillside agriculture. In this sense, it is a cause of concern that the intensive efforts of the Office and the obviously wide acceptance of the project in Jamaica could be diluted by the existence of strong projects by other organizations in this field.

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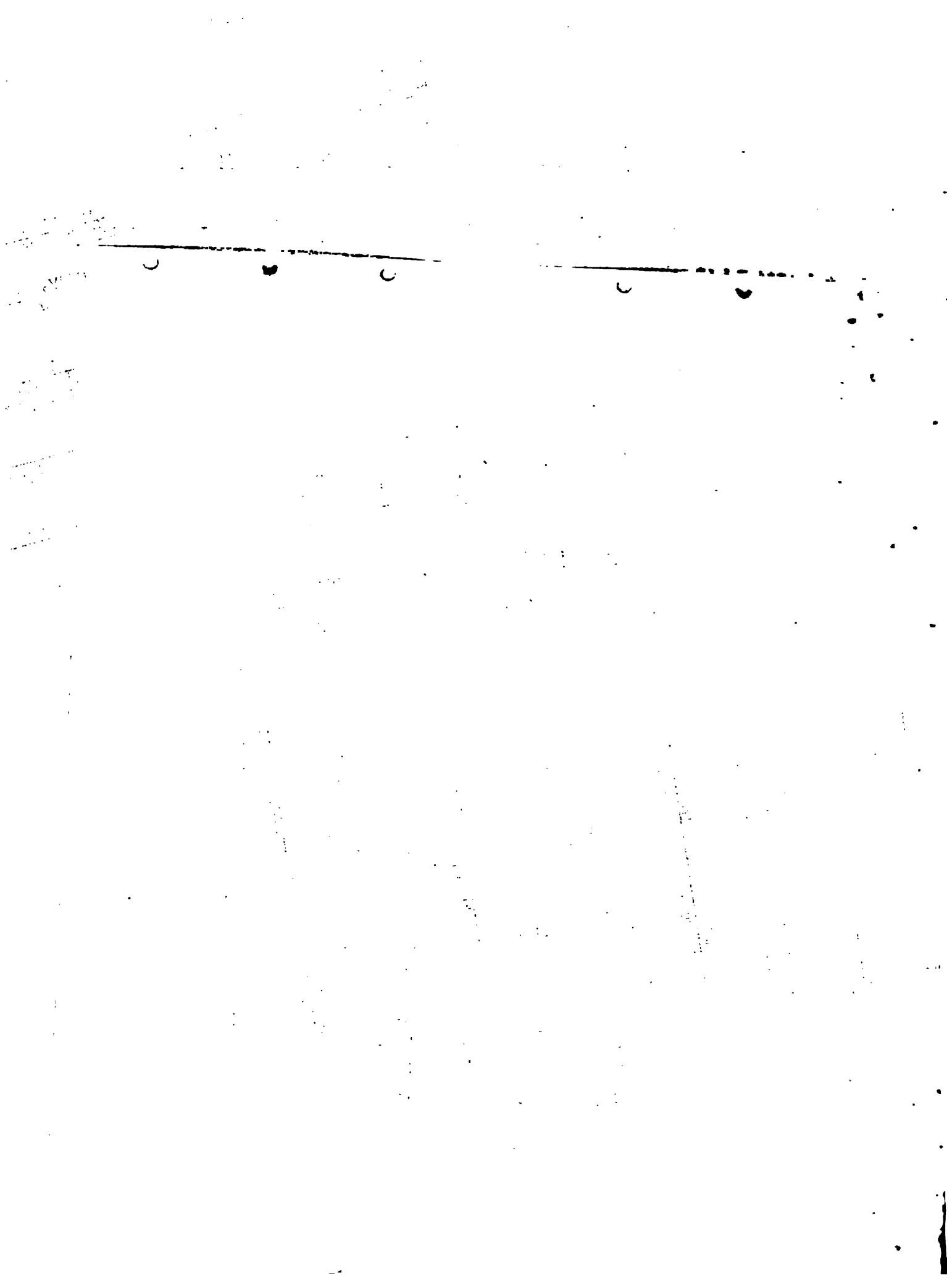

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PM-251
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Autor
FIRST PHASE ALLSIDES
PILOT PROJECT
Título
Fecha Devolución
Nombre del solicitante