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INFORME DE EVALUACION DEL PROYECTO:

Hillside Farming Study and Implementation Project in Jamaica (Allsides Pilot Development Project)

PROJECT IV.XLJ.11

June 1980

Rufo Bazán
Hugo Cohan

INFORME Nº. 16

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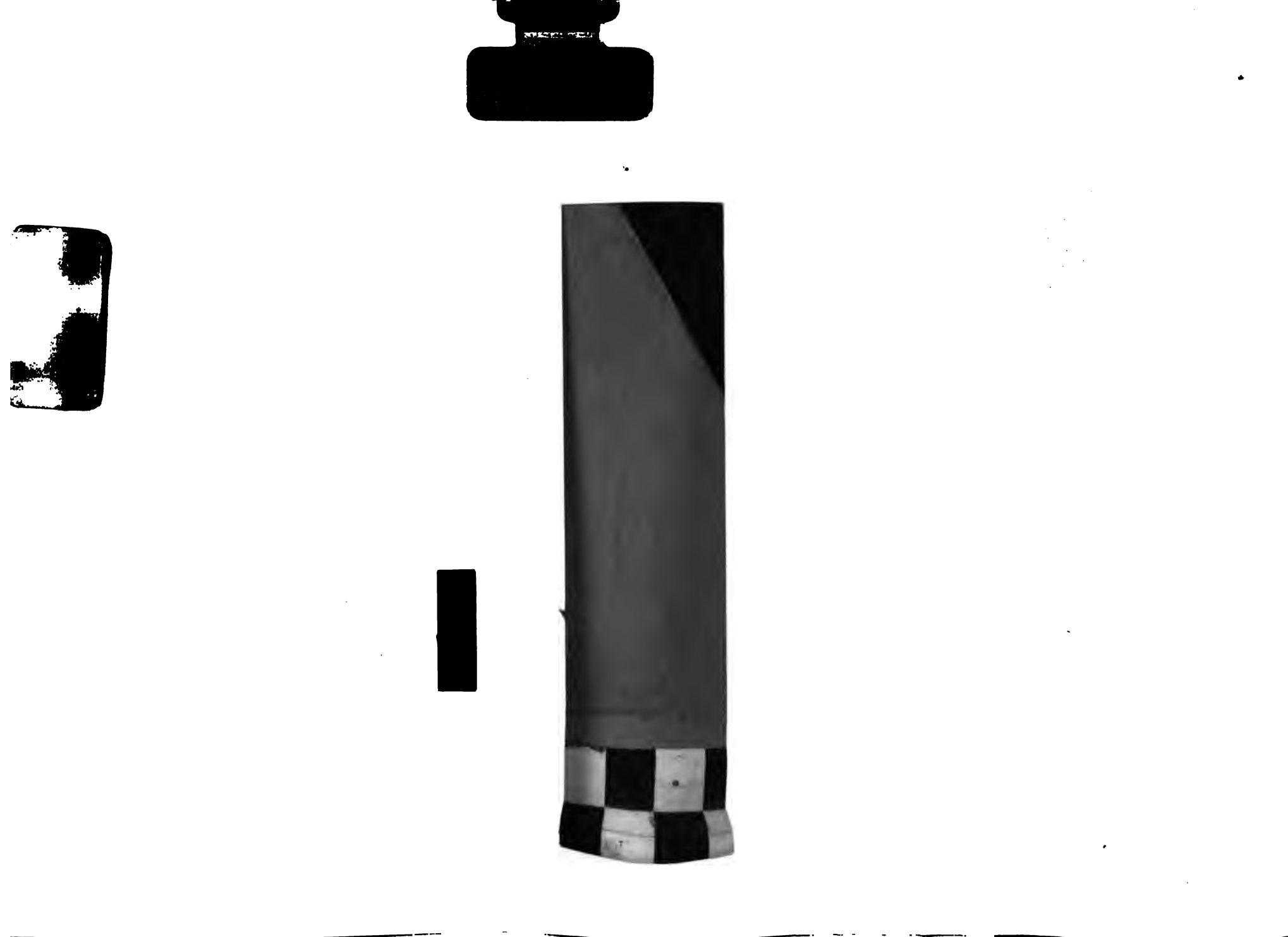

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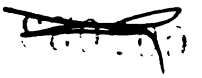

PROJECT IV.XLJ.11

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 ongoing 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/SBF 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 PANP 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 ambitious.

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 overdeveloping 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 behavior, 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 imabalance 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/SBF/Jamaica project fulfills this concept of imbalance. 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 endeavoring 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 622 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 Coordinating 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 thase 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 program 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/SBF/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 GOJ 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 develcpment 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

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

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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.)

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.

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

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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 (VENAPEPOJ).

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 has worked very well in the technical aspects of the SRF 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 adquisition*, 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.

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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).

This should be long enough for achieving the stated objectives.

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 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 program, 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 favor 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 critera 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 negatives 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 OOJ 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.

ANEXO N° 1

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 program of soil conservation. IICA's help was requested to provide adequate farming technology for newly terraced lands.

1.1.2 What is the magnitude of these problems?

There is high rural unemployment (estimated to be over 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 labor is culturally undesirable and considered of low status. It is hoped to develop improved farming hillside, technique to enable use 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?

Direct beneficiaries are the small hillside farmers.

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 hectáreas), 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 rapidamente en los años recientes 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 sus 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 the GOJ is planing emphasis on improving the technique for intensive 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 technolocy for extension to small farmers.

- In recognition of this IICA's assistance was sought by GOJ to develop production systems for newly terraces lands in the Allside area (the F.S.B. Project).

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 Integrated Rural Development Project."

- IDB/GOJ/IICA are considering a pre-feasibility study for a proposed "Pilot Allside Agricultural Project"(PHILAGRIP). It is expected that this study will be followed by a $2.5 million (pilot-cumfeasibility) 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 institutional actions which could approximate a conventional definition of a national project?

An ambitious national programme has alredady been launched by the Ministry of Agriculture, Agro-Forestry and Soil Conservation.

The Allsides Agricultural Development Project (FSB) is conceived as a sencond 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. Increased productivity and production of food crops in the area of the project.

2. The development of appropriate farming systems on these treated areas (IICA-FSB).

3. Transferring the technology to private farmers with accent on the small hill farmer. (GOJ-MINAG).

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 assistance in developing systems of production for newly terraced lands.

IICA has been proviiding training opportunities for 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 winder application.

MINAG's training units have been cooperating with IICA on a number of projects. Accordingly, IICA has executed a number of projects. Accordingly, IICA has executed a number of trainning courses in Hillside systems of production for research Extension and production staff and has programmed additional ones to accommodate the increasing number of staff who should be exposed to this training.

The Production Unit of MINAG (new Production and Extension) was created specifically to promote increased food production as part of the Emergency Production Plan Initiated in 1977. 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. MINAG's new structure is composed of three groups: Production and Extension, Personnel (includes training) and Research and Development (4 research stations including ontreach services).

Country-wise 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:

MINAG is working along the lines of the GOJ with priorities in food production and rural development. There is a good body of technicians, woking with reasonable leadership and well defined programs. Yet, the financial problems of the GOJ a rather recent change in structure and frequent turnover of personnel have limited its goal achievement.

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 impedimento 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 agricultores. 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 cuencias, desarrollado y llevado a cabo desde hace 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 investigación agrícola, el cual ha debido efectuarse al mismo tiempo, parecía que iba a ser dilatada por un año más. Esto era para facilitar la formulación final, la 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. Este nuevo proyecto, prevee cubrir 43.000 has. de tierra de ladera en nueve localizaciones.

1.2.5 Which institutions are asigned priority and why?

The Soil Conservation Division, MINAG

Other groups providing complementary inputs would be the overs with extension responsabilities:

- the Research and Development Division
- the Production an Extension Division
- the Personnel (training) Division

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

- Extension Services
- Marketing
- Credit
- Legal (tenancy) solutions

1.3 The objectives and goals of the 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 weter 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.

It is to be noted that the agreement did not clearly specify the responsabilities for different objectives and goalsm since it has both the National and IICA's project.

The basic idea, though, was clearly understood by both parties: IICA's-F.S.B. project was to test and develop production systems.

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

Yes, they do fit an Line III, although they only include the technology creation portion of IICA's programs.

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 joint 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

   Again, ti is to be noted that the IICA-FSB project is to be responsible soleby for product number 1.

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 program?

Yes, it is.

Yet it is to be recognisedhat the institutional approach is understood in this project to require actual IICA's work in the field, as a proof of its capability and a demonstration to national institutions of how to do things. The participation of these institution is assued through permanent contacts, including formal periodic meetings. Trial plots will be established over the 3-year period on 3-acre plots on which ten (10) systems are being tested 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 Division 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) sites 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.

Eventually, a new site (Olive River) was obtained and systems of soil conservation are already being expermented.

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 Agricultura (JSA) final year students for whom special short courses (three weeks) One periodically arranged under IICA's supervision. Additional storage space was constructed by MINAG.

- During 1977-78 a total of 489 technicians was reached: through visits at Allsides.

- 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 at Allsides.

Anciallary trials 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 attended field days

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

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.

1980: The production systems are being tested on alternative soil conservation systems at Olive River.

1.4.3 What activities were programmed for the past year?

1979-80:

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

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

IV.XLJ-113 Demostrating the viability of promising farming systems on selected farmers holdings within the project development area; strensthening 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 an 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 - Jun 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)

IV.XLJ.11 See specific objetives - Programming

IV.XLJ.112 It will consist of establishment and maintenance of co-opping systems (demostration plots) on lands which have received soil conservation tratment other than terracing

IV.XLJ.113 It will consist of establishment of viable farming systems on portions of selected farmer's holdings within the Allsides area.

IV.XLJ.114 This activity will hold field days for national tachnicians of the region, the parish and Ministry office, as well as to visit the Allsides station.

IV.XLJ.115 Under a tree partite arrangement between MINAG/IICA/Government of south Korea a Korean expert in soil conservation and watershed will be jointly sponsored.

IV.XLJ.116 It will consist of complementary and open-endid interveens with farmers in order to obtain wider, charer and more accurate knowledge of the value orientations and farmers' receptivity.

IV.XLJ.117 This activity is aimed at identifying, listing, describing, and cataloguin pests and diseases affecting cropping systems and other crops.

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

This information is not available.

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.

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.

1.4.10 Were changes made over the past three years in the workplan? (if so, what and why).

This information is not available.

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 (this can only be done with MINAG's agreement)

b) The use of conultants for the project, as agreed with MINAG and depending on approval at central head quarter.

c) Obtaining and deploying physical resources.

In all these cases, he can only make proposals to the Director of the FSB subject to prior agreement with MINAG.

1.5.3. Who has responsibility for specific IICA project activities?

Primarily A.M. Wahab

1.5.4. What is their authority with respect to:

a) The nature of project activities (as indicated in 1.5.2.)

b) Personnel from national institutions (no authority)

c) The use of FSB resources on project activities (free, on the basis of Manual Operative Programs approbed by FSB's Director)

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

Weekley meetings of IICA's staff. Monthly regular meeting with National coordinating commitee, which can be called to special meetings, on needed, by IICA's Director in Jamaica.

1.6. Working relationships with national institutions with whom IICA project staff should related?

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

Soil conservation, MINAG's division in Kingston or in the field.

1.6.2. How aften and how are these contacts made?

As often as needed.

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

The understanding is clear. All operational problems are freely discussed and solutions cooperatively sought.

ANEXO N° 2

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 seving/earning of foreign exchange.

1.2. Despite specific efforts to accelerate project preparation in agriculture, the implementation and execution phases have been continuosly 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 Agricultura - 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 N° 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 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 1968/69.1/ 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

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.

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.2/ The country is divided into 33 principal watersheds.3/. These watersheds have

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

2/ The National Atala of Jamaica 1971, p.8

3/ IICA/Jamaica Publication N° 111-1
Stennett, H.R. "Watershed of Jamaica and Considerations for an Ordinal Scale of their Development", July 1979.

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 hte 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.

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.1/

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;

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

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.

1.9 Steps being pursued to redress the problems identified by IICA/Jamaica 1/ since its conception 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 personnal of MINAG.

1/ Country Level Action Plan (PANP) IICA/Jamaica, February 1978

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.

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 foreigh 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 1/ 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.

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.

1/ IICA/Jamaica Publication N° 11-6, p. 38
Henry, D.D. et al "Agricultural Extension Service in Jamaica", 1979

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 falls 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 Simon 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 menner:

	1971/73	1974/75	1976	1977 1/
(%)	3.9	-0.4	-6.7	-4.0

1/ Inter-American Development Bank, Jamaica, Socio-Economic Report N° GN 1086-2, p. ii, July 1979

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 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 A-lsides 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"1/. 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.2/.

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).

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

2/ 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 Allaides 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)1/ the following priority areas were indentified:

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)".2/

1/ Op. Cit., p. 71

2/ Allsides Project Document, Miniatry 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 ot 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 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)1/ 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.

4.18 The impact of the GOJ/IICA Allasides 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 and "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;

1/ IICA/Jamaica Publication N° 111-4
"Agro-Socio-Economic Sample Survey of Allsides - Trelawny, Jamaica"
September 1979

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 Volley 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 Worl is the distance between the macro-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 demostrated 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 areas already identified across the island, declaring each watershed a management unit, in the belief that this would result in a more hilistic 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 conaumption.

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[1/].

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:[2/]

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

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

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

- Hillside Farming in Jamaica
- Legume Trials on Terraced Soils
- Fertilizer Studies on Peanuts

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 contemplated 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 coordinating 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. Univesities. 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. Trainess/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.

2.4.2.7 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 and 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" 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 basis paper titled "Elements of an Agricultural Marketing Strategy for Jamaica" 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 of Manuel Paulet

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 (Pindars River/Two Meeting Watershed)

a. Soil Conservation Works;

b. Implementation 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 classroon 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 - has been published.

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 potaotes. 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.

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 and 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 featured 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 nutritions and the stadard 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, sour-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.

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 pahse 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 were 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 censequence 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 adopting 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.

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;

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 held for the purpose of:

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

b. demonstrating what has already been done.

A total of 156 persons including farmers and their wives attended.

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.

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 feld 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. 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 hald 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 ther 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 was 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.1.1.6 - 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 on the research and development data obtained during the first 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 higgiers; 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 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 endeabours 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 SBF 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 lend 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 fitst phase of the project have amply demonstrated that it is now possible to obtain the targets of:

- increased farm income;
- increased on-farm emplyment;
- 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 areas 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 mainly in 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 Division 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.

May 15, 1980

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APPENDIX 4

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 schedule, the documents were reviewed, interviews were held, field days were attended, and working sessiones 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 desing 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 form 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 bojectives and goals as spelled out in the Agreement with the GOJ.

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

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

c) gave 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 abded to the 1981 programme to deal with:

a) the preparation of a comprehensive final report on the

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c) gave 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 abded 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 demostration farms to MINAG including a proposal of priorities for future adaptive research fot he 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 poblems involves a series of Goverment 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 assiting 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 meaningfull it is imperative that MINAG should not cease its endeavours to provide adequate Extension Agents for this project.

APPENDIX N°5

SC/AP-066
June 9, 1980

To : Enrique Blair, Associate Deputy Director General For Planning

From : Hugo E. Cohan, Head, Prospective Planning and Policy Division

Subject: Report on trip to Jamaica

1. As per your instructions, I was in Jamaica with Rufo Bazán from June 1 to June 7. This unscheduled trip was made to replace Dr. Lombardo on the evaluation team for the SBF Allsides Project (now, "Allsides-Olive River").

2. The project appeared excellent to me because:

a. It has generated an easily identifiable producto for IICA.

b. It has provided vital information on one of Jamaica's priority needs.

c. It has stimulated the further growth of the Office.

d. It has stimulated the Government to generate several similar projects.

e. It has generated recognition and technical respect by the Government and other international agencies for IICA.

3. Since this project was developed to generate technological information, it has the usual limitations: how to reach the farmer, how to resolve all the problems that hinder the country's rural development. Extension services, which are the Goverment's responsibility, functioned slowly. Nevertheless, the SBF project fulfilled the proposed activities with flying colors, despite the existence of some unclear points in the Agreement.

4. Bazán and I will describe our suggestions and remarks in greater detail in Document N°4 of the Evaluation. We explored Juan A. Aguirre's information, among other things. For the time being, I think a copy of the Aide Memorie we hurriedly completed last Friday in Jamaica and some additional ideas of mine will suffice.

5. Dr. Wahab should spend some time, perhaps in San José, organizing his materials and preparing and preparing an audio-visual which generate the credit that IICA and the SBF deserve.

6. The Office in Jamaica should be expanded to include the services of an extension agent who is very familiar with the even linguistically difficult local farmer. "Extension" should be understood to mean being based in the Farm System and then determining how to transfer the technology now available. My ideas on the subject are summarized in the paper you area already aware of which was presented in Guadaloupe. Perhpas hiring a consultant for six months would make it possible for the Office to define its project, paying special attention to what the Government can and wants to do. There are currently several hypotheses on the limits to the adoption of technology, which should be analyzed before making a commitment to a project in this area.

7. I also think Dr. Wahab should start drawing up recomendations in reference to this extension agent.

APPENDIX 6

TRAVEL REPORT

1. General Information:

a.	Technical expert	Rufo Bazán
b.	Department	Tropics Committee
c.	Unit Assisted	---
d.	Destination	Jamaica
e.	Fiscal year 1980	From: June 1 to June 8

2. Purpose of the trip:

Allsides Project Evaluation

3. Work Description:

The Mission was performed with Dr. H. Cohan.

An Agenda, prepared by the IICA/Jamaica Office and submitted to the consideration of the "evaluators", included the following:

- study and discussion of existing documents
- field trips
- interviews with functionaries from national and international offices
- final discussion of conclusions and recommendations.
- to start with, Documents 1, 2 and 3, which are required for the evaluation, were studied. Document 1 was prepared by the Headquarters Evaluation Office and does not meet qualifications for inclusion in the Final Evaluation Document. It must be carefully reviewed and corrected.

The other documents were very carefully prepared in detail by the IICA/ Jamaica Office. It is clear that existing documents were meticulously reviewed for their preparation.

In addition, 24 publications by the IICA/Jamaica Office on the Allsides project were also studied. As a whole, they constitute a valuable collection of information on the Project.

The field trip to the Allsides Project was combined with a "field day", to which many representatives from international and national agencies

as well as some farmers and university students, were invited.

The visit to the Project site provided us with a close look at the status of the research, and, more significantly, permitted us to withness the high degree of national-level interest in the Project. Comments were always very positive, acknowledging the expertise IICA has acquired in hillside farming. We also visited the recently established experiment at Olive River, located near Allsides, where other soil conservation alternatives are being studies, as will be described further on.

While in the field, we also had time to interview some farmers from the area, as well as the Extension Agents who work with the Project (one in Soil Conservation, and one in Agriculture). National functionaries interviewed were all involved in one way or another with the Allsides Project, or at least were very familiar with it and kept up to date on it. For example: Dr. Stone, Permanent Secretary; Mr. R. Russell, Director Data Bank and Policy Review Division; Mr. D. Henry, Extension Division Chief, MAG; Mr. R. Baker, Director Crops and Soils, MAG; Mrs. G. Baker, Crops and Soils Division, MAG; Mr. J. Suah, Director CARDI/Jamaica.

Of the representatives of the international agencies, only the IDB was visited, regarding the PHILAGRIP Project.

Finally, an Aide Memoire was prepared jointly with Aitken, Wahab and Johnson, which examines important aspects of the evaluation (see Annex 4).

4. Remarks:

General Aspects

The Project, from the point of view of its conceptualization, design and implementation in the field, has been very successful, and its impact at the official level is very evident. IICA's expertise in hillside farming is widely recognized, and has earned IICA considerable credibility for promoting other projects. The impact on farmers is harder to discern: it would take a good number of interviews to determine, and this would be more appropriately the work of national technical experts.

Operationally, and especially in the field, IICA/Jamaica's actions go beyond the general scope of IICA's policies. Because of the prevailing circumstances, IICA not only indicated what had to be done, it also went on to demonstrate how it should be done. Doubtless, this decision was fundamental to the success of the Project. It also earned IICA the respect and recognition of national officials.

An important aspect of the IICA/Jamaica Office is that, in general, its country actions revolve around the Allsides Project, and it is thus difficult to separate the IICA project from the country project. This is not meant as a criticism, since IICA's actions in this case are clearly in line with the conditions and needs of the country. It is possible, however, that we are drawing away from IICA's general policy guidelines in this case.

The Project's objectives were very optimistic and obviously have not been completely fulfilled, as, for example, in the case of the number of families to be reached by the Project, or in terms of institution building, where important factors beyond the control of the Project and related to the policies of the country's organization, etc., played a significant role.

The primary objective, which was to develop technology for hillside farming, has been fully met, despite the brevity of the time available (3 years), and all the limitations of technical personnel, etc. At this time, Project results are available at the experimental site where they can be seen and avaluated, and where interested persons can study, observe and discuss them.

Having reached this point, the next concern should be how to achieve the impact at the national level that these results deserve. This will be discussed in greater detail further on. The concern should also address another important issue, that is, the transfer of Project management to MAG, and the continuity of Project actions once SBF funding is terminated.

Another important point relates to the Project's impact is the fact that it generated several similar projects managed by other agencies like AID, FAO, the Government of Norway and others. Hopefully, these other projects, wihich receive more funding than Allsides, will be successful, although thus far results have not been very encouraging.

Other details on the Project are presented in Document N° 4, which is being prepared by H. Cohan, and contains the observations and remarks resulting from the evaluation, and thus need not be repeated at this stage.

Technical Aspects

Technically, the Allsides Project has developed satisfactorily. About 14 different alternative systems were tested in the field during the three years. These were submitted to a selection process whereby "non-functional" systems were rejected (such as those where corn and vegetables were present). The 9 most promising systems were kept and are currently undergoing additional field testing.

I believe the selection of promising systems was a good choice, as was the change from testing on small plots (3 x 5 m. or 4 x 8 m.) to testing on larger plots (405 m2).

Precisely J.A. Aguirre based his economic projections on the results obtained from the larger plots, and this data is now being used for preparing the expanded project which will be submitted to the IDB.

By selecting systems and expanding the size of the experimental plots, the project fulfilled perhaps its principal objective, that is, of developing new multiple crop production systems and making more efficient use of land and water resources.

A considerable body of knowledge now exists on hillside agriculture and on production systems specifically adapted to hillside conditions, which can stimulate improved and/or changed patterns of traditional hillside agriculture.

It is also worth mentioning that, because of limitations of time and technical personnel, Project field actions concentrated on experiments defining promising systems; other aspects, especially those dealing with the generate recommedations for the farmers that not only include the usual agronomic points like seed, population, production factors, etc., but also the time-use aspects of the systems, that is, the number of crop cycles the systems can sustain with stable yields.

This is an important point, considering that the production units of the hillside farmers are usually less than 2 hectares in size, and farmers can't afford to change their crop sites frequently ar researchers can, and often they cultivate continuously the same site for as long as four years. Thus, it is essential that recommendations to the farmers include the length of time a system can be effectively used.

Another related point is the definition of crop sequences or rotation of systems; including leguminous forage and other plants to improve and add organic matter to the soil. Experiments in this area have not yet taken place, due to the limitations mentioned earlier.

Another objective that has been fully met involves the training of national personnel in project field activities. Progress reports indicate the number of field days offered and the number of technical experts, students and farmers involved in each activity. Other training mechanisms used were seminars and technical events. Unfortunately, it is impossible for the project to determine the real impact of this training, although, since its beginning, four MAG counterparts were trained to manage the project at the field level; three, having acquired the knowledge and techniques, were absorbed by private enterprise, and the fourth is the projects current field manager.

Other project objetives dealing with institution building and technology transfer (most inportanbly to the 300 families living in the Trelawny country project area), have not been fully met, once again, due to forces beyond the project's control. Public administration, and especially the Agricultural Sector, have been undergoing structural changes, which have drained the Project of necessary support. This has also hampered MAG's development of skills for its eventual take-over of Project management, and consequently, project management is still primarily in the hands of IICA personnel. Given the circumstances, this was the only alternative for implementing the work plan, and in the end, ensured the success of the project.

Prevailing conditions make it difficult to accomplish the objectives of technology transfer. The foremost mission was to develop systems, but for these to be transferred to at least the families in the Project area, an additional mechanism would be needed, based on Agricultural Extension and planned around a clear understanding of the project. This mechanism has been and is inadequate throughout the entire country; it should be sufficient to note that the Extension Agent/farmer ratio is on the order of 1:600, without even taking items like Extension Service Priorities into consideration. Two Extension Agents work with the project; one is from the Soil Conservation Service, and the other from the Ministry of Agriculture. Their services are insufficient for the work that must be done.

Although a good number of farmers in the area have adopted some practices developed by the project, it is not significant considering the expanse of area to be covered and the number of farmers who could benefit from the generated technology.

New perspectives are appearing for giving greater impetus to the technology transfer process with the PHILAGRIP Project submitted by IICA to IDB.

It will involve approximately 854 acres in the Martha Brae Basin adjacent to Allsides. I think this aspect of transfer is a logical complement to the Allsides Project, since it is not sufficient to only generate technology. Technology is being generated on a relatively small portion of the country's total land surface, and thus, its impact on improving food production will be limited unless results are expanded to new areas. The Allsides Project occupies a total of 622 acres (with 3 acres actually under experimentation) within Jamaica's so-called "breadbasket area", thus named because of its highly productive soils. The region is the greatest food-producing area in the country. Its soils are of sedimentary origin, slates, conglomerates and tuffs, with some inflerence of yellow limestone formations.

The principal physical characteristic of the soils developing from these rocks is their depth. From the chemical point of view, they are of very low fertility, both because of their advanced degree of development and their high susceptibility to leaching heightened by their excellent physical condition. The depth of these soils appears to be their most favorable characteristic, and enables them to be terraced for conservation and erosion control.

A careful examination of the country's geological maps shows that the formation that has originated the soils of the breadbasket area is very limited and accounts for approximately 10-20% of the country's total land mass. Although steep and hilly lands predominate in the country, one cannot assume that the conditions at Allsides exist everywhere. Geological maps clearly indicate that white limestone (sedimentary) prodominates in the country, expect in the eastern region, where there is a predominance of igneous and metamorphic rocks like Andesite, Porphyrites, Gronodiorites, Sepentines and undifferentiated metamorphic rocks, always accompanied by outcroppings of white limestone.

Logically, soils that develop in different regions of the country reflect the characteristics of their parent materials. The soils' general degree of development is very advanced and gives them a certain similarity in chemical composition, topography, etc., which should be considered carefully. For example, soils developing from white limestone, which even near Allsides show rocky outcroppings, indicate very shallow soils. This may prevent the duplication of Allsides results.

These consideration on the geology and soils of Jamaica indicate that the transfer of Allsides' results will require a very careful delimitation of similar areas, from the ecological point of view (rainfall and temperature) and from the point of view of topography and soils. Small-scale farmers live on hilly terrain throughout the entire island, and it will be the job of the technical experts to delimit the characteristics of each region before trying to transfer the Allsides results, and make any necessary adaptations. The new PHILAGRIP Project takes place on soil conditions similar to those at Allsides, thus facilitating the transfer of results. One weakness of the Project is that, to date, although a wealth of data, field results and computer-generated information exists, no concrete recommendations have yet been formulated for MAG, responsible for the technology transfer, to subsequently pass on to farmers. The researchers must prepare sets of recommendations (technology packages?) which are concise and clear, to facilitate the transfer of these results.

Three years of research can produce good recommendations. They need not be considered definitive, since all recommendations are temporary and subject to periodic review.

Technically, I think expanding the Allsides research to Olive River was a wise decision, since other soil conservation practices besides terraces must be studied. The studies at Olive River can thus produce concrete evidence. The different treatments being studied are:

1. Individual mounds with yams.

   This is the control treatment and corresponds to the farmers' practices.

2. Individual mounds on hillside ditches, with yams in association with other crops.

3. Continous mounds on hillside ditches with yams in association.

4. Same as #3, with protection strips of Napier grass.

Erosion has recently begun to be measured for these treatments. The following is the data on the tons of soil lost/hectare during the month of May:

Treatment 1	=	82.8 T/ha.
Treatment 2	=	43.5 T/ha.
Treatment 3	=	18.7 T/ha.
Treatment 4	=	15.0 T/ha.

These results are self-explanatory and show the drastic differences between what the farmers "can" lose using their traditional practices, as compared to results when management techniques are used.

Unfortunately, terraces (which is the technique used at the Allsides Project) have not been included in the experiments at Oliver River because of insufficient land. It would have been interesting to have done so.

Finally, I feel that technically, the project will in no way resolve the country's food production problems, although it has created very solid bases to this end. It has also created good foundation for institution building. Clearly, the Project has earned IICA credibility for its expertise throughout the country, and good references for establishing other projects. Furthermore, its success has generated similar projects managed by other agencies like AID, FAO, etc., which, however, unfortunately lack IICA's experience and expertise.

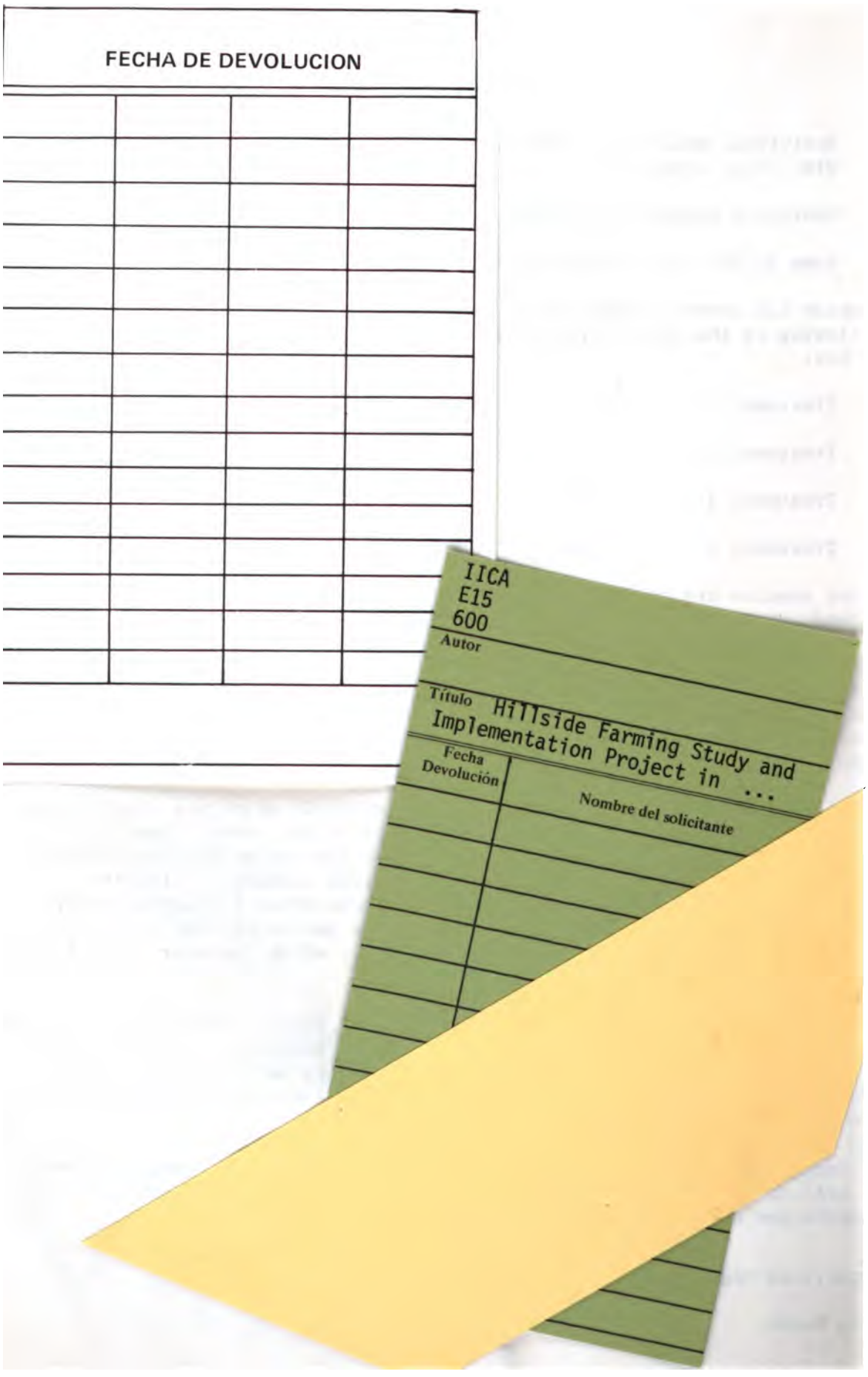
A final remark on the evaluation mechanism. I do not think the preparation of 3 pre-evaluation documents is justified, at least in the case of the Allsides Project, concepts, questions and answers were often repeated and only served to overload the office work. A single pre-evaluation document would easily have sufficed.

In conclusion, I would like to thank Drs. Aitken, Wahab, Johnson and Woo as well as all the administrative staff at the IICA Office, for the cooperation during the evaluation mission.

5. Authorized signature:

Rufo Bazán

6. June 24, 1980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