

REVIEW of the Second
Integrated Rural Development Project
(IRDP)

Jamaica, Sept., 1981

R. V. Bernhart and Fred L. Mann

There is no reason why "integrated rural development" shouldn't work--provided that somewhere in it there is some genuine profitable productive activity which can pay for the integration, the welfare, and even a certain amount of flapdoodle. ... But production and profit there must be. Given that, the thing will burst through the preconceptions of the planners and find its own course.

--Hugh Bunting
Reading, 1981

Contents

I. SUMMARY.....	1
II. OVERVIEW.....	3
III. TECHNOLOGY ISSUES.....	10
A. Farm Practices.....	10
B. Land Treatments.....	13
IV. OPERATIONAL ISSUES.....	16
A. Credit.....	16
B. Marketing.....	19
C. Training, Education and Information.....	21
D. Small Farmer Organizations.....	23
E. Evaluation.....	27
F. Other Operational Items.....	30
V. MANAGEMENT ISSUES.....	31
A. General Management Issues.....	31
B. Staffing.....	34
C. USAID Technical Assistance.....	35
D. Peace Corps.....	36
VI. POLICY ISSUES.....	37
A. Politics.....	37
B. Tenure.....	38
C. Food Imports.....	39
D. Cost/Benefits.....	40
E. Time and Timing.....	42
F. Output Targets.....	43
G. Replication.....	44

Foreword

The writers reviewed the project, IRDP, in September, 1981. The issues and items that are dealt with by us in this report may have altered by the time it is printed and circulated. IRDP is a multi-faceted, fast-moving and rapidly changing effort.

We are impressed with what has been done and what is being attempted. Our comments on the issues are not intended to chide or carp about what has not been done or done less well. Our purpose is to be helpful and supportive of the basic goals to improve the hillside farmers' well-being and establish soil conservation practices.

In turn, we have received the full assistance in our task from all IRDP personnel, farmers, members of the Board of Management, Peace Corps volunteers, USAID staff in Kingston and staff in Washington, D.C. We appreciate their generous time-sharing and essential logistic support. Our task was also greatly helped by a wealth of available materials from earlier evaluations and special studies. The following is an expression solely our own, although we have borrowed generously from what has been already observed, reported and recommended.

The report which follows consists of a summary, an introductory overview, and separate chapters on issue areas: technology, operations, management and policy. The latter four parts detail issues dealt with in brief fashion in the first two parts.

I.
SUMMARY

Reviewing the Second Integrated Rural Development Project (IRDP) on a macro-level, we find that design weaknesses are being offset by the emergence of a strong group of small farmer associations, the Development Committees (D.C.s), functioning as part of the Jamaica Agricultural Society branches (JAS). Management problems inherent in this kind of organization for integrated rural development are not of a magnitude unexpected given long range goals, complexity of goals and real shortages of trained and skilled manpower. Short time span and proliferation of unrealizable numerical targets have been underlined in other studies. We agree. Attention to marketing has been late, but is being addressed. The larger issue of over-all Government of Jamaica policies viz agricultural imports must be rationalized within the government so that efforts to stimulate production such as this are not negated. The imposition of a land tax based on production potential could bring neglected properties into the program. The project has suffered more from fears of possible political intervention than from discrete acts of political interference.

We conclude that concentrated effort to foster and support the Development Committees, encourage the Board of Management and the new Director (when selected) to carry out earlier recommendations for strengthening staff with an operational Deputy, clarifying and using strong lines of authority from Director through watershed Assistant Directors to designated managers in each sub-watershed team, will do much to make the project more effectively manageable. Management training in record keeping, control of equipment and personnel is necessary and is being initiated.

The technology of farm practices is still in a nascent stage and requires development on working farm sites so that a useful series of farm practices can be offered the skeptical farmer. The technology of soil/land treatments requires continued experimentation to achieve lower costs. Certifiable results will require three to five years. The financing method for land treatments should be radically changed with

the subsidy concentrated on drainageways and other multi-farm costs, while direct on-farm earth-moving charges could be financed through long term low interest loans administered with assistance of the Development Committees. The present subsidy system as many have already pointed out, is an abomination. It is not that farm financing is sometimes delayed, most of it should not occur at all. As presently arranged, it tends to be a disincentive to the retention of the very practices it finances. The Development Committees can be used to recommend farmer-satisfactory alternatives.

The project has enjoyed evaluation and special studies as its demonstration character warrants. They have been most useful. The present project manager is collating previous recommendations and is undertaking the initiation of some of the more pressing. It is urged that evaluation of a continuing nature be operationally useful and as little intrusive in the farmer's life as possible. Ways of developing farm record systems with illiterate and semi-literate farmers should be explored. Only with farm records can useful results be derived relating to changes in practices and income. Concentrating on the farmers operating sub-demonstration centers would be a practical way to initiate realistic changes.

Replicate the activity not as an IRDP clone, but as an organic self-help growth spreading from sub-watershed to sub-watershed via formation of Development Committees within the JAS. The D.C. should be the primary agent to work with backstopping from small Ministry of Agriculture or Land Authorization teams and credit channelled through Peoples Cooperative Banks. By this means the remainder of Pindars Rivers and Two Meetings/Cave River can be completed, and then efforts moved to the next most critical watershed. But let us spend an additional 18 or 24 months beyond Feb. '83 tidying up the project at hand and beginning the use of first generation farm-level data on production and soil conservation.

II. OVERVIEW

The Second Integrated Rural Development Project sponsored by the Government of Jamaica and USAID Jamaica has been effectively underway since April-May, 1979 or about two and a half years. The period between February 1978 and spring of 1979 was used to acquire staff, equipment, and outside technical assistance. It was designed as a demonstration activity to provide experience and guidance for means to achieve in more effective ways an institutionalized device or system for assisting the small hillside farmers on the steep watersheds of Jamaica to achieve a better life while conserving the soil. Thus, the project's goals are to increase farmer production and income, and soil conservation. The project is very generally achieving these goals, although not on the ambitious (unrealistic) time schedules or scale originally planned or even on revised (1980) targets.

This report will attempt to provide a focus on these basic purposes of the project through an intensified upgrading of the activities now well-begun through assistance to small farmers organizations, the Development Committees (D.C.s) of the Jamaican Agricultural Society (JAS). It has been established through painful experience in Jamaica and elsewhere that programs which succeed are those that are supported by the beneficiaries organized into groups which are committed to those programs. All else is external and somewhat remote from the real-life concerns of the participants. The facade of activity of whatever nature rapidly fades from memory as the last deteriorating project vehicle departs the scene. This could happen to IRDP. It has happened in Jamaica to other efforts to help farmers through land settlement and soil conservation projects. This need not occur.

It is assumed that the farmer in Jamaica, as elsewhere, is a rational, economically motivated person susceptible more to group than government pressures. Further, it has been ascertained that at least six of the twenty-six Development Committees of the JAS branches (now formed in the twenty-two sub-watersheds of the Two Meetings and Pindars River watersheds) are beginning to function in significant and substantive fashion. These active groups are dealing with local problems of

marketing and road maintenance as well as land treatment maintenance in useful ways. This group action points the way to extending the D.C.s influence and use to the credit systems available to them. This is indeed a larger role than originally perceived (providing a convenient forum for extension lectures).

These small organizations for farmers need careful nurturing and support. Sub-watershed technicians must be present and available as resource personnel to provide factual material at the monthly meetings. The Development Committees have begun to find a substantive group of issues and needs that give them life, viability. They are not meeting to make some well-thought-of field assistant or home economist happy. They are meeting to share experience, to learn what is happening to their program (IRDP) and to provide information and guidance to the program managers so that the program may succeed and they receive the benefits. Self-interest becomes group interest. When well and properly informed, the D.C.s can become powerful instruments for effecting meaningful change.

The premise of the effort is that Jamaica's objective is to help their small farmers to a better life, providing more food from their own lands and saving their priceless heritage, the soil. The focus must be kept on that farmer and his local organization, the Development Committees of the JAS branches. Logically, the farmer is then concerned with the quality of technical know-how made directly available to him and to the D.C.s, through the sub-watershed soil conservationist, the agricultural extensionist, the forester, the home economist and the field assistants. Field assistants are of special importance in that they are often the only IRDP staff available at this level through manpower shortages and training assignments out of area.

It has been observed and reported that most of the sub-watershed personnel are generally under-qualified. So we come to another major need, intensive and continuous training of all staff and especially the sub-watershed personnel that they may more effectively assist and provide, in turn, training programs for small farmers and their organizations.

That this training be applicable, it is essential that the technologies of land treatments and packages of farm practices be farm tested

and cost relevant to the farmers who are to use them in the several mini-climates of the two watersheds. The experimental and demonstration work being carried out on the Demonstration Farms and the selected sub-Demonstration farms plots must be carefully monitored, measured, and reported so that activities achieving increased yields with minimized soil loss can be safely and widely disseminated--through training the sub-watershed extension network, through the D.C.s, and to the farmer-user. The technologists in soil conservation, forestry, home economics and extension at watershed and project headquarters are charged with the task of managing and conducting the experiments and field trials and then carrying out the training and demonstration exercises. The technologists then become the trainers in their subject matter specialties.

The foregoing requires an integration of roles and activities on the technical side of the problem. In addition, two major components of any farmer's life are market access and credit availability. The integration scheme must include ready access to reasonable credit to finance land treatments and farm production practices. The organizations for small farmers, the Development Committees, are at hand to help arrange smaller sub-groups of four or five farmers who could participate with one another as neighbors in the development of their initial and revised farm plans. This sub-group activity suggests a critical first step in the credit process to assure the 'do-ability' of the farm plans in terms of extent of soil treatments and the degree of innovation in farm practices as differentiated from customary and 'safe' practices. Peer consideration and review at this level will do much to assure not only the practical applicability of soil treatments and farm practice packages, but also will have a leavening effect on the kind and amount of credit sought. On the collection end, the same small group and the D.C.s can and should be expected to exert wholesome leverage on the borrower to pay to keep up his own credit rating, and the group's as well.

Small group participation and then Development Committee endorsement will facilitate credit processing through the technical and administrative channels deemed essential for final loan approvals. Once the system is in place, the technicians' skills upgraded, the subsequent review and consideration by senior technical staff and management can

become increasingly routine and perfunctory. The present cumbersome and time consuming exercise for credit gives ample evidence of current technical weaknesses at sub-watershed and watershed levels. Time and training can rectify this; plus, of course, weeding out staff who are better suited for other tasks.

The problem of marketing must be dealt with. The on-going establishment of Collection Centers is an essential first step. Some twelve are planned and five are newly completed. The D.C.s are the obvious management agency for these facilities. They can be the initial collection, grading, standardization, and in some cases, packaging depot for produce off the farm. Movement will be facilitated into the existing and emerging regional market centers. Problems of national food import and export policies can be influenced as the D.C.s learn their business as marketers and make their impact with quality production at expectable production levels, weather and other acts of God permitting. Farming is, and will remain, a chancy business.

The activity is concerned with the betterment of the life of the small farmer. The quality of that life can be greatly enhanced through better sanitation, improved nutrition, family planning and a host of other improvements that are generally allotted to the good works of the home economist. Although this activity as a discrete function was lately added to the list of activities to be 'integrated', it is becoming a welcome addition for the farm families being reached. Again, the Development Committees can and are being used to good effect.

Other 'integrated' activities include road building and improvement, a self-evident requirement for market access and rural development; potable water supply distribution and spring impoundment, another self-evident need for useful human existence. Two other activities, housing and a radio station, do not appear to be comfortably integratable into the IRDP. In the one case, housing, the program appears to be more of rural welfare relief than a substantive element in a self-help production program wherein rural housing could be an appropriate claimant for credit funds. The radio station is a useful adjunct in the information and extension program. Radio, as the only high-lighted information and education activity, may obscure the pervasive need for information and training of all elements at all levels with all possible media.

Up to now, training appears to have been largely concerned with overseas training. Although there has been need for overseas training, its great cost in the temporary loss of excellent manning strength while absent for training, is very hard to justify. Much needed and excellent training can be had at site by bringing in short-term experts and specialists, Jamaican and foreign, to conduct management and/or technical workshops and courses and provide on-site, on-the-job supervision and training.

Other 'integrated' activities in the engineering area, waterway construction and stream check-dams can be greatly assisted by a utilization of the Development Committees in initial planning and in maintenance of the established facilities. The D.C.s can be most helpful in assisting in the maintenance of farm practices and land treatments. Again, group pressure of an informed nature is a powerful development instrument. It is unlikely that serious land treatment maintenance practices will be followed without active D.C. support and pressure.

Marketing is the one major part of these integrated activities that flows away at the collection point level from the main project. All else continues to be directly affected by the smoothness with which the organization functions. The management has not been distinguished by such. There has been a recent turn-around in the consciousness of management to the need for orderly procedures, records, and responsible flow of authority and delegation of same. This must be encouraged to continue.

The institution of the Board of Management has been a major factor in reviving good management of the project. The experienced managers and community leaders who comprise the Board of Management are bringing to the IRDP a new sense of purpose, some well considered and specific management and administrative guidelines, and relieving the project of real as well as imagined political influences.

The foregoing should not be taken to denigrate the considerable achievements of earlier project management that took a most untidy package of wishes (goals and objectives) and a largely untrained group of staff people and assembled all in a new and untried organization and did make things happen. The IRDP became an operational reality, achieving some of the project targets, introducing dramatic and highly visible

evidences of project activity in the sub-watersheds, and stirred the minds of the farmers to the possibility that the government was interested in them. These were considerable achievements and the purpose of this paper is to suggest ways to build on those achievements.

Management and administration problems are of concern. The Interim Director has initiated a series of useful and needed practices: systematic professional review of all farm plans and credit; review of over-all staffing needs and particularly re-allocation of sub-watershed teams to take account of farmer work-load disparities (farm numbers per sub-watershed range from 56 to 391); initiating administrative controls per Lackey Report; and developed an excellent working relationship with the Board of Management. The Director is using this Board to set policy and resolve political issues. From a stall in April and May, 1981, farm plan and credit approvals have gone to 29 in July, 71 in August and 122 in September. All, with a much improved professional quality!

This has been an often studied and evaluated activity. Our findings, reported here, have benefited from these excellent studies. A word of caution is in order concerning evaluations. We urge that evaluation of the project be concerned with those things that directly affect the farmer: soil holding values of differential soil treatments and farm practices; on-farm real income derived from differing practices as offsets to costs of land treatments and farm practices; changes in tenure arrangements attesting to increases in income and support of land authorities to secure land for owner-operators and renters; and other readily observable indices of improved well-being. A simple farm record system is necessary, perhaps initially for the 50 Sub-Demonstration farms. Illiteracy and semi-literacy argue against a larger effort at this time.

Replicability (not to be confused with the cloning of IRDP as an agency, but the replicability of extending a system of land treatments and farming practices that will assist the small hillside farmers throughout Jamaica to achieve a significant improvement in the quality of their lives) is possible and necessary. More and better food, more income, greater access to market and conserving soil--these are all essential to Jamaica's welfare at costs which it can bear.

It is our conclusion that only through the mechanism of assisting the farmers in the creation and development of their own small organizations

can this program be spread in a cost effective manner. It cannot be spread in a wholesale manner. Critical watersheds should be first priority targets. Within these, the relevant ministries of government should concentrate their effort on any sub-watershed where farmers evidence significant interest for small farmer organization development aimed at these objectives. It is unwise to overwhelm local groups with a huge organization, but rather to work with and through existing divisions of the Ministry of Agriculture, Land Authorization, or JAS, to provide the necessary technical inputs. Credit should be made available through the Peoples Cooperative Banks which have branches throughout the island. Here, it is anticipated that the Development Committees could be the first level agency for stimulating savings and capital formation as programs of land treatment, farm practices, and marketing become effective.

All of the foregoing is 'do-able', has been done elsewhere and requires the patience, understanding and time required to achieve it. This assumes a management and administrative organization that is simple, flexible and responsive to these several well defined undertakings.

Finally, the government of Jamaica has an urgent need to rationalize its food import policies as they now seriously impede their own efforts in the IRDP. Further, tenure policy needs re-examination. An agricultural-use tax could be imposed on idle lands to induce the investor/speculator to put them into conservancy production programs or make them available through rent or sale to those who will put them to good use.

III. TECHNOLOGY ISSUES*

Farm Practices

The adoption of approved farm practices by the farmers of the two watersheds is still something to be hoped for. There may be some signal exceptions, but the operative word here is 'approved'. The mechanism is not yet in place to assure the availability of tested farm practices. The experimental and demonstration work at the research stations at Allsides and Smithfield is tentatively being tried on the five Demonstration Centers. For the most part, these model or Demonstration farms are being planted to traditional crops. However, they are not yet being used to good effect to demonstrate a variety of soil conserving land treatments.

Project management must give highest priority to on-farm field trials lest its extension program remain stagnant. Collaboration with the Allsides project needs to be effected with two way exchanges. The program should be extended to the demonstration sub-center farms. These twenty model operating farms (goal 50), should be assisted to set up a simple farm record system to provide necessary data for cropping evaluations, income returns, labor and other inputs to establish guidelines for continuance of the effort. Up to now, all of this is lacking.

We insert here part of a paper by Dr. Tom E. Davis, of Cornell University, Some Additional Observations on II IRDP, July, 1981. We urge its use to guide steps in improving farm practices.

3. The Project Paper does recognize, however that "to a large extent this project will depend upon the effectiveness of the agricultural extension program." (p. 31). It might have continued by saying that the effectiveness of the agricultural extension program would depend, in turn, upon the existence of new cropping patterns and inputs to apply on treated lands. The Project Paper suggest that the "experience carried out at (Allsides) will be relevant for both watersheds, particularly for Two Meetings," but "because of varying soil conditions and some critical micro-climate differences, the project will develop five replications of the Allsides station. ... The centers will be proving grounds for new crops and varieties." (P. 41).

* Technology (III) and Operational (IV) issues which are of most concern to us impinge on Management (V) and Policy (VI). Thus, there will be a measure of overlap in our discussion.

The apparent confidence in the superior productivity of the Allsides "model" and the implicit assumption that small farmers would be eager to adopt it was not shared by UNDP/FAO. They report that "the farmers themselves do not foresee radical changes in the cropping pattern within the watershed. In Pindars River, sugar cane will continue as the dominant crop. ... In Two Meetings, banana production will retain its importance (op cit, P. 142). The gains in agricultural output sufficient to produce a 27% rate of return on project investment was expected to be forthcoming by means of the addition of acreage newly planted in traditional crops as a result of the soil conservation treatment.

In any event, the "close co-operation" that was "anticipated between (Allsides) and project activities" (p. 41) never materialized. Project technicians seldom, if ever, visited Allsides, and Allsides technicians seldom, if ever, visited the Project. How did the five centers develop as "five replications of the Allside station." (p. 41). To quote from the final report of Agronomist assigned as a technical assistance advisor to the Project: "Up to this time (July 1981) no significant results and recommendations can be disseminated because data gathered are either incorrect or are not gathered on time. So statistical analyses are not feasible."^{1/} As a consequence, agricultural extension agents do not have a "technological package" that includes tested new cropping patterns, recommended times and rates of fertilizer application, or times and amounts of insecticide/ herbicide applications, etc. Not surprisingly, Norbert Powell and Harvey Blustain report only 21 of 90 farmers are intercropping properly; 2/9 of farmers are applying fertilizer correctly and 1/3 are not applying any fertilizer at all; and less than 25% are applying insecticide/herbicide.^{2/} To meet the projection and income targets established in the Project Paper and the evaluation documents, cropping patterns must change and yields must increase dramatically and this demands as a minimum a tested "tech-pak", and a change in project priorities from completing additional farm plans to working with farmers holding "treated" land on superior cropping pattern and agronomic practices, and maintenance of their soil erosion control "treatments".

4. Until such a "tech-pak" has been developed and tested and successfully introduced on "treated" acreage, there is no point from the standpoint of achieving project goals in utilizing scarce human resources and project funds which could be devoted to these purposes for expanding the project boundaries the acreage to be treated, or the number of completed farm plans. Although a good case can be made that selection of the project area in terms of watersheds, instead of political boundaries, makes little sense in a production-oriented, as opposed to a soil conservation-oriented project - and causes some obvious political problems in addition - an expansion of the project area to make them co-terminal with the

^{1/} End of Tour Report from Santiago Decanay to James Ford, May, 1981, P. 6.

^{2/} H. Blustain and N. Powell, An Assessment of the Second IRDP (June, 1981) pp 26 ff.

political boundaries can only represent utilization of remaining project funds that will make more difficult to reach the production targets established in the Project Paper and the evaluation documents of the MOA. What the presently excluded farmers in the area want is not simply a farm plan, but the chance to earn wages for implementing soil conservation measures on their land, for obtaining credit for which the farm plan is a pre-requisite, and perhaps access to a superior "tech-pak" when, and if, it is developed. But unless substantial additional funding is provided, the Project will have difficulty completing the soil conservation measures called for by existing farm plans and providing the credit and other inputs required by the cropping patterns called for by those existing plans. To include more acreage and continue to do even more farm plans at this point only further reduces those scarce resources.

Land Treatments

Soil conservation land treatments were conceived as the central activity in the Project Paper. 17,700 acres (all cultivated land) were to be treated. Of this, 4,600 acres were to be bench terraced (and of this 87% was to be machine terraced) with most of the remainder to be hillside ditched. As the project got underway, it became apparent that these magnitudes of treatment were unrealistic for several reasons:

(a) Bench terraces were costing three times as much as the Project Paper had estimated. For example, hand built bench terraces are costing J\$3,880 as compared to J\$1,249 estimated in the project paper.

(b) More costly hand construction of bench terraces had to be used in most cases because of the slope of the land, the size of areas terraced, and inaccessibility by machine.

(c) A number of farmers were not willing to participate, whereas the Project Paper assumed 100% participation.

(d) A much greater amount of staff time was required for each farm than had been anticipated in the Project Paper.

In March, 1981, USAID and Ministry of Agriculture agreed upon a lower number of acres to receive land treatment. Bench terracing was reduced from 4,600 acres to 764 acres, orchard terraces from 1,005 acres to 674 acres and Hillside ditches from 10,763 acres to 4,936 acres. A new kind of soil conservation treatment was added--agronomic methods, with a goal of 1,500 acres. Agronomic methods involves no soil movement (in contrast to all other treatments). Instead, it involves planting grass strips and soil mulching.

The revised goal for soil conservation treatments is 8,486 acres. To date, an estimated 2,300 acres have received soil conservation treatment. It is not likely that the revised goal will be reached by the project termination date of February, 1983.

The project paper emphasized the need for proper maintenance, especially during the first two years. It was pointed out that past failure of soil conservation efforts in Jamaica and other countries seldom has been due to poor construction, but rather to poor maintenance.

One control mechanism is to stretch out subsidy payments over a 2-3 year maintenance period. Another possibility is to involve the D.C.s in maintenance supervision. A good maintenance record in a watershed could be rewarded through some kind of award program to the D.C.--a certificate and/or a cash award. Still another alternative is to finance soil treatments with long-term loans as part of the farm plan packages. Multi-farm use waterways and other larger scale engineering efforts would continue to be subsidized. The thrust here is to achieve farm participation to ensure effective installation and maintenance.

The high cost of land treatments is a serious problem. Project management is aware of this problem but has not yet experimented with options for overcoming the problem, nor have they set up any system to measure (1) trade-offs between potential production income and costliness of alternative treatments, or (2) protective efficiency of the alternative treatments in terms of soil loss. The project must set up experimental and/or information gathering activities to obtain reliable data for measuring these two variables on working farms.

Another obvious means of reducing public costs is to reduce the amount of subsidy being paid and shift to voluntary participation. The Development Committees can be used to good purpose here.

The problem of low farmer participation appears to be due to several factors, some within the control of project management and some outside their control. Those within their control are: (1) farmer education and promotion, (2) active involvement of D.C.s in promoting, supervising and encouraging participation. Included in factors outside project management's control are problems of absentee ownership and insecure tenancies (year to year or squatters). Estimates of the percentage of farms that fall into these categories of tenure vary considerably. It appears to be significant.

From our discussions, we learned that the government of Jamaica has the authority under the Land Authorities Act and/or the Watershed Protection Act to require participation by recalcitrant owners, and to assure sufficient security of tenure (or compensatory payment in case of eviction) to year to year tenants and squatters to protect their investment in treatments. The Board of Management should initiate a study of this issue and proceed toward resolution in order to reduce this constraint

to potential replication. Again, the D.C.s can be used to develop information and support tenure changes.

The abundant evidences of use of land treatments throughout Two Meetings, and to a lesser degree, in the Pindars River Watersheds provides irrefutable proof of the effectiveness of the IRDP to date. The managers of the project can accept several severe criticisms leveled at the project and remain pleased with all that they have already helped to cause happen. They, the managers, are aware of the need for more effective maintenance practices and the need to make verifiable tests of the soil loss features of the different treatments. It is urged that the demonstration sub-Center farms be the test beds.

We recommend the excellent report already available from Drs. Harvey S. Blustain of Cornell and Norbert A. Powell of the Ministry of Agriculture in their study of June 1981 (Part I), The Impact of the Project Upon Farmers. Our observations confirm their findings and recommendations.

IV. OPERATIONAL ISSUES

Credit

Project activities in credit began in April, 1979. As of August 31, 1981, 455 loans totalling J\$1,021,361 had been approved, with disbursement amounting to J\$596,708. Some disbursement had been made on 324 of the approved loans. (See table on following page.) Loans are administered by the People's Cooperative (PC) Banks, of which four operate in the project area. Interest rate is 7%. Loans are for short (up to 2 years), medium (2-7 years), or long (8-15 years) term. Two-thirds of loans granted are medium term.

An approved farm plan is the first step in the application and approval process. Once the soil conservation treatment has been constructed, the farmer applies to the extension officer for the loan. The application then goes to the watershed credit officer for his approval. This officer must do a field inspection. The application then goes to a credit committee. Until recently this was a local committee established by the PC bank, consisting of project credit coordinator, bank manager, chairman of the bank's management committee, watershed credit officer, farmer's extension officer (voice but no vote).

Now, an external credit committee (sub-committee of the Board of Management) also must approve each loan. After all this approval, the loan closing exercise is carried out--security instruments executed, etc. Then disbursement is ready to begin. The watershed credit officer must approve each disbursement--some can be in cash, others are in kind.

The interim Director has been providing an additional review. His intervention caused a temporary slow-down in farm plan and credit approvals. The need for that review was obvious. Better, more professional plans are now being processed. With the Credit Sub-Committee's help, approvals were only 27 in July, 71 in August and 122 in September. Some 60 of the latter did not require credit. The new mechanism is working well. Early project loans averaged over J\$4000. The current average for all loans is J\$2244.74.

No clear understanding exists as to who is responsible for loan collection, although the legal creditor is the bank. Two obvious problems are: (1) the complex and time consuming procedure for loan approval (made even more complex by the new external credit committee) and (2) the lack of an effective loan monitoring and collection system.

SUMMARY OF LOAN APPROVALS & DISBURSEMENTS
 April 1, 1979 through August 31, 1981*

<u>PEOPLE'S COOPERATIVE BANK</u>	<u>NUMBER</u>	<u>A p p r o v a l s</u>		<u>COLLECTION</u>		
		<u>AMOUNT</u>	<u>AVERAGE</u>	<u>PRINCIPAL</u>	<u>INTEREST</u>	<u>TOTAL</u>
Christiana	192	392,905	2,046.38	11,196.41	9,076.70	20,273.11
Good Hope Kellits	115	324,737	2,823.80	4,215.68	4,310.95	8,526.63
Spaldings	131	265,895	2,029.73	6,315.35	5,396.30	11,711.65
Chapelton	17	37,824	2,701.71		50.00	50.00
	455	1,021,361	2,244.74	21,727.44	18,833.95	40,561.39

<u>PEOPLE'S COOPERATIVE BANK</u>	<u>NUMBER</u>	<u>D i s b u r s e m e n t s</u>		
		<u>IN CASH</u>	<u>IN KIND</u>	<u>TOTAL</u>
Christiana	138	124,812.62	156,632.73	281,445.35
Good Hope Kellits	81	58,645.71	40,562.53	99,208.24
Spaldings	96	81,760.09	126,554.34	208,314.43
Chapelton	9	5,615.00	2,125.00	7,740.00
	324	270,833.42	325,874.60	596,708.02

SUMMARY AS OF AUGUST 31, 1981

IRDP REVOLVING LOAN FUND ISSUES TO PEOPLE'S COOPERATIVE BANKS		616,151.74
TOTAL DISBURSEMENTS BY PEOPLE'S COOPERATIVE BANKS		<u>596,708.02</u>
UNDISBURSED IRDP REVOLVING LOAN FUNDS HELD BY PC BANKS		<u>19,443.72</u>
TOTAL LOANS APPROVED	455	1,021,361.00
TOTAL LOANS DISBURSED	<u>324</u>	<u>596,708.02</u>
CUMULATIVE APPROVED LOANS UNDISBURSED	131	<u>424,652.98</u>

* From 9/24/81 Project Director's Report for August to Minister of Agriculture.

As it now exists, this credit program is a limited income transfer scheme. The solution to this problem involves the question of dynamic participation by local farmer organizations. The local D.C.s (probably through a smaller sub-committee) should be responsible for receiving farmers' requests for credit, cooperating with the extension officer in assisting farmers to make out credit applications, and making recommendations to the bank for loan approvals. The D.C.s could also be responsible for monitoring and collection. An effective peer pressure system that might be tested is to tie continued access to credit of an entire D.C. membership to satisfactory loan portfolio performance of all borrowers within the area.

Marketing

The Project Paper was ambivalent about the degree to which marketing might be a constraint to improved earnings by farmers in the project. On the one hand, the agricultural marketing analysis describes the existing system as one of high costs and high risk, resulting in low prices and/or unreliable outlets to the farmer. On the other hand, the Project Paper program description concluded that availability of market outlets is not a constraint. The program description further proposed that JAS groups should be trained to increase their knowledge of marketing costs, to maintain good quality, to utilize storage, and to do direct contracting. This signals that JAS groups should have been encouraged to participate directly in marketing activities. Furthermore, a principal output specified in the project paper was "33 JAS organizations providing improved input, marketing and extension services to their members in the region."

Despite these suggestions in the Project Paper, marketing problems apparently received little attention by project management during the first two and one-half years of implementation. Subsequently, the USAID and government of Jamaica agreed to add a marketing component to project activities. Efforts now are underway to assist Development Committees of the JAS branches to establish assembly points and link in turn to the Christiana Potato Growers Association and other outlets to market their production. Five of twelve proposed Collection Centers are now completed. The D.C.s are preparing to operate them.

It is unfortunate that this activity was delayed until beyond the mid-point of the project implementation period. Much damage already has been done in terms of dampening incentives to farmers to maintain their soil conservation treatments and use improved technology to increase production. Often, farmers have been unable to sell their increased production or they have been able to sell it only at a very low price. Many farmers have become discouraged about increasing their production. The need for an efficient marketing system was dramatically indicated to us by the piles of rotting sugar cane remaining uncollected by the roadsides in the Pindars River watershed. It is imperative that the project make every effort to correct this situation as quickly as possible

and to institutionalize in the D.C.s the facilities and capacity to serve as the marketing link between farmer members and wholesale or other large lot buyers.

There is an existing system, the 'higgler' system. There are parts of other systems functioning in the project area, e.g., for bananas and potatoes. These leave much to be desired but do serve to point the way toward a more comprehensive system of collection, preliminary grading to standards, boxing, storage and distribution as now envisioned in the several Jamaica-USAID marketing projects.

Two questions remain. To what extent will the time lags caused by the inevitable delays in bringing the Jamaica/USAID marketing activities on stream affect IRDP? And, is there any reasonable way to enfold a significant portion of the traditional market people, the higglers themselves into the modernized scheme?

The IRDP is now being adversely affected by the malfunctioning market scheme. It can be hoped that any moves toward a more rational system will proceed with dispatch.

We commend the work of several of the D.C.s in their start-up plans to use the newly built Collection Centers as intended. The D.C.s are actively taking over the operation of the Collection Centers to supply an important link in the marketing chain.

Training, Education and Information

The IRDP is dramatic. A tour through the area reveals much accomplishment. Visitors, numerous visitors, come from afar to view the terraces, hillside ditches, neat rows of yams, citrus trees, coffee, bananas and so on. A film has been prepared detailing much of this. An excellent bulletin series has been initiated. A handsome training center has been established. A great amount of energy has been devoted to selecting, preparing and sending staff on overseas training. And, to cap this, a radio station is under construction to provide project coverage and outreach.

Additionally, senior technical staffs are working on simpler materials for use directly with the farmers. Many of these farmers are illiterate or, at best, partially literate. The needs are three-fold: (1) inform a larger external audience to spread the idea and maintain governmental support; (2) develop technical staff capability; and (3) inform, educate and persuade the farmer (a skeptical chap in the best of places).

An overall organized information, education and training program is a sorely felt need for the effort. The impending start-up of the radio station implies the need for quantities of valid informational materials on cropping practices, land treatment maintenance, market data, and a host of related topics in home management, nutrition, health care and so on. The present dispersion of material preparation needs to be focused and organized for a multi-media effort to ensure that as cropping practices, market information and so forth are developed they need to be presented to the several publics of the project to accomplish these several tasks: informing, educating and persuading to action. The training exercise, per se, must be a continuing one with all staff and personnel attached to the project directed to making the farmer a better producer, with more income, and conserving the soil he depends upon for his living.

This is a critical area that needs special attention. The bits and pieces are there, they need to be brought together. Training is not merely the awarding of 'plums' (overseas training). The Extension Department is the logical group to take hold of this, working with the Foresters, Home Economists, Trainers, Small Farm Organizers, Radio and other media specialists. Again, the primary outlet and target for all of this is the farmer and his Development Committee. All else is necessary as support.

It is noted that the 'care and handling' of visitors cuts severely into scarce senior and other staff resources. Although these visitations are a most sincere form of flattery, they must be managed and controlled to minimize interference with project activities. A modest planning effort can save staff energies and reward visitors with meaningful experiences.

Small Farmer Organizations

The project paper stressed the need for farmer participation in terms of individual farmer participation in on-farm soil conservation treatments, maintenance and technology change, as well as in terms of small farmer organization participation in education and information exchange, marketing, credit and community development activities.

Initially, managers visualized a peripheral role for small farmer organizations (e.g., as a vehicle for calling farmers together for extension meetings). Further, early major focus on moving dirt appears to have absorbed the energies of professional and para-professional staff, with a relatively low priority given to education and promotional activities for organizing small farmers and achieving their participation in the decision-making processes of project execution.

Small farmer organizational activities have been successful in re-activating some of the 33 JAS branches societies in the project area, through the creation of Development Committees. The role and participation by these groups appeared initially to have been limited to two functions: (1) as a convenient vehicle for holding meetings with project field staff; and (2) as a lobby group to project management for getting approval of spring entombment activities. More recently, D.C.s are assuming and being encouraged to play an active role in establishing and operating produce assembly points as the first stage in the marketing process.

Project management apparently made an early decision not to work with small farmers directly through established organizational structures, the JAS branches. Development Committees were established. These committees now are linked directly to the JAS branches (e.g., through interlocking leadership. They also have been organized to link to project officers.

Our impression is that not enough thought and insufficient action has thus far taken place in seeking involvement and participation of D.C.s in many participatory and decision-making roles related to project components. This is being rectified. Board of Management has approved the following suggested guidelines for D.C.s. These embody many of the useful suggestions proposed in earlier studies.

**SUGGESTED
GUIDELINES FOR DEVELOPMENT COMMITTEES
SECOND INTEGRATED RURAL DEVELOPMENT PROJECT**

1. REPRESENT ALL FARMERS IN AREA
 - A. Richest to Poorest
 - B. Women as well as men
 - C. No Political Interests
 - D. Each Geographic Section of Area
 - E. All age groups youth to elders
2. CONSIDER and IDENTIFY PROBLEMS
 - A. Tracks - Roads - Electricity - water
 - B. Spring Entombment - Water tanks
 - C. Collection Stations
 - D. Play grounds - Sports field - School grounds
 - E. Community Centres - Clubs - Social Activities
3. HOUSES
 - A. Determine need for Assistance
 - B. Recommendations to II Integrated Rural Development Project
4. CO-OPERATIVES
 - A. Buying
 - B. Selling
5. ARRANGE FOR EDUCATIONAL MEETINGS
 - A. Call upon Extension Personnel
 - B. Request help from II Integrated Rural Development Project Officers
 - C. Schedule Field Days
 - D. Tour Sub-centres & Demonstration Areas - Arrange Transport
6. MAKE RECOMMENDATIONS FOR:
 - A. Selection of Sub-Centres
 - B. Utilization of Agricultural Inputs
 1. Fertilizers
 2. Seeds
 3. Nursery Stock
7. DISSEMINATE INFORMATION TO PROJECT FARMERS
 - A. JAS - Meetings
 - B. Special Farmer Meetings
 - C. Church & School Groups
8. BE PREPARED TO EXPAND
 - A. Number on Committee
 - B. Formation of Sub-Committees
 - C. Area and/or Activities
9. SERVE AS SOUNDING BOARD FOR:
 - A. New Ideas
 - B. New Programmes
 - C. New Directions

10. ANALYZE AND EVALUATE
- A. Proposals
 - B. Facts
 - C. Background Information
 - D. Programme Results

NOTE:

1. The Committee should feel free to pursue any endeavour of interest to farmers in the II Integrated Rural Development Project.

2. Each member of Committee should stand ready to sacrifice time and effort for good of Committee and Project Farmers.

3. The aim of Committee should be one of strengthening local J.A.S. not one of competition.

4. The Committee should feel free to request Project Officers and Management to intercede with higher Authorities if necessary.

5. The Extension, Soil Conservation, Home Economics, and District Officers are Exofficio members of each Committee within their sub-watershed and as such are expected to attend the Committee meetings.

The Development Committee device is working. A total of 26 have been organized (goal 25). The Jamaica Agricultural Society (JAS) considers them an active part of their own effort and not as competitive organizations. It is proud of some of the early achievements and the D.C.s are helping JAS to revive otherwise moribund branches. 27 of the 35 JAS branches in project area also have been revitalized. Obviously, all 26 D.C.s are not 'barn-burners'. At least six and perhaps eight are functioning in significant ways to accomplish the task of involving the farmer and assuring his participatory role in the process. These active D.C.s are showing the others what can be done.

For instance, a recent meeting of one of the D.C.s (Bailleystown) considered a serious list of issues and dealt with them in an astonishingly responsible manner. These issues included:

(1) Reporting on efforts to secure access across private lands to link a rehabilitated farm track to the main road.

(2) Consideration of a spring entombment project, its costs, who would benefit, could local labor be volunteered and what did IDRP want from them to do the job.

(3) Marketing problems with bananas, dilemma apparently caused by shift in English import tastes and need for opportunity for new plant varieties to meet changed market needs.

(4) Operation, use and control of the newly completed produce Collection Center. It was agreed to charge nominal fees to employ a local manager-custodian for weighing, rough grading, storage and handling of potato and yam crops.

(5) One hapless farmer asked for funds to cut weeds on his terraces. In quick order three other farmers gently chided him. First farmer then asked permission to "clarify" his question and, in effect, totally withdrew it. (No sympathy here for failing to keep your maintenance agreement.)

(6) Extended discussion of useful ways to continue JAS and D.C. working relationships. (Officers of JAS very much present even though not resident within project boundary.)

(7) Role of D.C.s in facilitating work of IRDP. How to get more and continuing good technical help from IRDP.

(8) Discussion of farm plan approval hold-ups, worrying to group. (Unhappily, no one present was then aware that log-jam was being broken and results would be apparent before next meeting.)

Two general observations: The Small Farm Organization staff officer present did not obtrude or lead, he served as a respectful and respected person throughout, as did the acting sub-watershed chief, a field assistant; and there was absolutely no 'windmilling' or other kinds of posturing.

It is useful to note that Drs. Arthur A. Goldsmith and Harvey S. Blustain of Cornell University have prepared an excellent study on The Rural Development Committee, Feb. 1980.

Evaluation

There have been many evaluations and special studies of IRDP as befits a demonstration activity. There have been many excellent observations and specific recommendations made. We do not take issue with any one of them but instead commend all of them for serious review and consideration by project managers.

This is, in fact, what is presently occurring. The interim Director has taken all of the studies in hand and is undertaking an exhaustive review. In this he is using the help of the Data Bank and Evaluation Division of the Ministry. For starters he has the excellent study prepared by Prof. Alvin Lackey, Management Study, July, 1981. This study was developed with the active participation of senior staff of the Data Bank so that they have been completely involved in the exercise.

Other evaluations by the original AID team (Curtis, et al. Jan., 1980) and the several DAI studies jointly recommended other useful management as well as training interventions.

A baseline survey was completed by the Data Bank and Evaluation Division of the Ministry of Agriculture in July through October, 1979. Variables collected are:

- (a) productivity and income of farmers in project area
- (b) soil conservation
 - (1) amount of land treated
 - (2) effect on rate of soil erosion
 - (3) number of participating farmers
- (c) availability of food in the area
- (d) farmer participation in local organizations
- (e) land tenure structure and land use patterns
- (f) on-farm and off-farm employment
- (g) rural amenities
 - (1) housing
 - (2) electricity
 - (3) potable water
- (h) marketing structure and problems
- (i) amount of forested land.

To this list should be added the following:

- (a) intensity of credit utilization
- (b) extent to which extension services reach and are utilized by farmers.

Data was collected on credit utilization, but not on reach and utilization of extension services.

The base line survey appears to be adequate for comparison with later surveys for a number of the identified variables. However, it and later surveys cannot be relied upon to provide adequate micro-economic data on enterprise and whole farm costs and returns. Since improved standards of living of small farmers is the project objective, and increased production the project purpose, an adequate evaluation must measure these variables.

To do this, the project needs to institute a farm records program on a case study or sample basis to measure changes in these variables over time. One possibility would be to keep farm records on all Demonstration Sub-centers. Another (or an additional) option would be to enroll farmers in a farm records program on a voluntary basis, or by paying a small fee to them for the first couple of years.

With some modification, the small farmer record book utilized by an earlier Jamaica supervised credit program could be used. With appropriate training many farmers could keep their own records, with only periodic consultation by a farm management para-professional who would in turn have access to a professional farm management specialist.

Another option would be to institute as a prerequisite to receiving soil conservation treatment subsidies an agreement by the farmer to keep farm records under project supervision. The D.C.s could serve as the mobilizing and monitoring mechanism for these farm records.

A system of farm records will provide data for reliable analysis of on-farm costs and benefits for evaluations of the project.

We commend a portion of the succinct remarks of Dr. Tom E. Davis of Cornell University from his paper, Report on the Proposed Evaluation of the IRDP, Spring 1981, pp. 13-15.

A Plan of Work for Evaluating the IRDP.

To summarize, the Data Bank and Evaluation Section has collected baseline data from a sample of farmers in the Project area, and is committed to conducting two additional farm surveys, one approximately half-way through the project period and another at its termination. While the questionnaire does not attempt to measure all aspects of change in "quality of life" of the farm family, and very little of the effects of the Project on the broader community, it does provide information about the gross value of farm production, which is the goal established in the Project Paper as the principal basis for evaluating its success.

It is not a simple matter to obtain reliable data in this area, particularly since the farmer is asked to recall production, acreage planted, spoilage, etc., over the previous 12 months period. Since there are no resources to visit the farmer frequently during the year, the alternative approach must be to attempt to get the farmer to keep records, or at least record some items of information. If this is to be accomplished, the services of the extension officers must be enlisted. They must be given some guidance as to the type of information that will prove useful, and a list of the farms that fall within the sample. (To ask them to introduce record-keeping on all participating farms might become a Project activity, but it is not necessary for the evaluation process). This should be done immediately. The actual farm survey should be conducted in January-February, 1982, but the data will refer to calendar year 1981. January to February coincides with a dry season and was selected by the senior staff of the Project as an optimal time without reference to need to improve the quality of the production/price data through improved or newly introduced record-keeping.

The same sample and questionnaire used for the 1979 survey should be retained for purposes of comparability. Only questions that have failed to produce useful information should be discarded. Questions to be used as replacements should be in the 1977 questionnaire. The presumption is definitely against introducing totally new questions at this time.

... Each program component should be encouraged to propose those measures which appear most relevant to those whose work is being evaluated. One of the objectives of any evaluation is self-evaluation, and self-evaluation starts with the development of evaluation criteria and measures. This process should not be delayed if the evaluation process is to "feed back" into Project decision-making. Additional resources may be required to carry out these evaluation activities; finding suitable individuals will probably be a greater limitation than the availability of funding.

Other Operational Items

The Home Economics component is a useful addition. The staff appears well prepared to use this opportunity to ply their valuable skills. They are exploiting the resources of the Development Committees, are working on simple information kits for non-literates and are developing a simple survey to facilitate their educational and development work. The Home Economists would welcome a centralized multi-media and training shop to augment and support their activities.

The Livestock program will move. There is farmer demand for assistance. A major problem is developing livestock programs that can work within the constraints of orchard, forestry and cropping programs and without damage to land treatments.

Both of these newly added components have little experience on-site for definitive observations. What we did see, we concurred in.

The Forestry component of the program appears to be moving well given constraints of acquiring holdings and tenure. The senior Forester has managed his resources well and has even managed a means to circumvent some of the confusion attendant on the new casual labor rotation scheme through contracting out needed work. The Board of Management has endorsed this innovation and it is now something that the senior Soil Conservationist is considering for his casual labor requirements on the Demonstration Centers.

Rural Housing, no matter how desirable, appears as a rural welfare issue and one that could have been omitted from IRDP.

V. MANAGEMENT ISSUES

The concerns and problems of management per se have been mentioned several times in this report. Given the 'integrated' nature of the IRDP this is but one element that is inextricably interwoven with all others. Hence to deal with it separately involves no more arbitrariness than any other issue.

General Management Issues

Take one novel and complicated idea, integrated rural development: add one brand new organization, IRDP; place in rapidly developing and strained politico-economic society, Jamaica; mix well and rapidly. Result, mixed. Some refreshing development of terraces, hillside ditches, new crops and practices; and, some operational disappointments result. The need for continual tinkering with the mix, the timing and the organization are indicated. But there is a reasonable amount of work going forward. It is visible and measurable in terms of terraces, ditches, waterways, farm track improvements, houses, and a pattern of emerging agricultural order discernible on the hillsides; plus, the ubiquitous presence of one or more IRDP staff and their motor-bikes or pickups throughout all of the project area.

The headquarters building itself is often the scene of total confusion with the newly implemented program of rotating casual labor teams on a bi-weekly basis. Add to this: a part-time interim Director, part-time USAID monitor, change of project Director, change of principal USAID monitor, change of principal USAID officer, departure of all technical assistance personnel provided through USAID contract, and a major government change. Is it a wonder that momentum was lost, that the project stalled for a bit during the late spring and summer of 1981? The true marvel is that it did continue to operate at all, and it did.

Having said this much, we hasten to commend the interim Director who has done more on a part-time basis than many others could accomplish full-time through his personal executive skill, his ability to command other Ministry of Agriculture resources, and his respected position as a member of the Board of Management.

The Board of Management device is working well. They have gotten familiar with the program, worked through some detailed operational concerns and are now settled down to their basic task of providing sound over-all policy direction and, most fortuitously, serving as a healthy insulator for political intervention. The project has had and continues to need active political support and the Board provides that liaison.

The interim Director is in process of carrying out a needed list of significant management reforms that include but are not limited to the following:

- * Preparation of a series of progress target charts being developed by Data Bank to assist senior staff and managers to control progress.

- * Preparing sub-watershed budgets and plans, locating all farmer cooperators, kinds of soil treatments, maps, crop practices.

- * Developing new set of project output targets to reflect project experience and available resources.

- * Discussing with staff the assignment of specific officers to be responsible for specific functions.

- * Disaggregating project budget and preparing new statement to facilitate use (loans, grants, Jamaican appropriations).

- * Preparing master registry of farmer cooperators and locating missing farm plans.

- * Preparing to review all farm plans for revalidation or revision, proceeding on sub-watershed basis.

- * Developing criteria for on-site need-oriented training.

- * Revising credit/loan statement.

- * Requiring that project reports to Ministry of Agriculture and Board of Management be more descriptive with better quantification.

- * Having Data Bank prepare list of all project documents and reports to ensure full sets available in project HQ and Data Bank.

- * Setting up a management review system in consultation with senior staff.

- * Completing all functional (task) statements for sub-committees of Board of Management.

- * Actively seeking new Deputy Director and preparing classification of lines of authority from Director to Watershed Assistant-Directors to newly designated sub-watershed team leaders.

This is indeed a plate full. In the event that a new Director is shortly appointed, the interim Director will continue to sit on the Board of Management in his own right as Deputy Director of the Forestry Division of the Ministry of Agriculture. He also is determined to assist the new director in other ways as needed. (The Director of IRDP sits on the Board of Management as a full member by virtue of that position.)

Staffing

The project has not been able to recruit to full strength at the middle technical and management levels (field officers - JSA graduates). Most of these positions have been filled with minimally qualified new graduates or on an acting basis by para-professionals. As of August 31, 1981, there were the following vacancies:

Senior Soil Conservation Officers	5
Senior Extension Officers	3
Home Economists Officers	4 (of 12)
Soil Conservation Officers	14 (of 20)
Extension Officers	2 (of 20)
Field Assistants	3 (of 18)
Office Clerks	6 (of 20)
Other Clerical	6 (of 23)

We conclude that more complete staffing during project implementation to date would have had only marginal impact on progress in achieving planned outputs. A more efficient management structure that relies heavily on strong Development Committee and JAS branch participation could achieve greater output with less staff.

Management is considering the reorganization of staff by sub-watersheds for promotion and for implementation. This will tighten operational control for more effective staff use.

Each sub-watershed could receive an intense promotional campaign from a highly qualified mobile team put together and trained specifically to promote the changed emphasis on participatory action. Perhaps 2 to 3 teams of 2 to 3 professionals/para-professionals each could be used. They could take on 2-4 sub-watersheds at a time and work with and through D.C.s in education and promotion of the "new phase" of the project; to achieve dynamic participation by D.C.s and turn over initiative to them; to institute referenda; to institute farm management; to institute marketing functions; to process credit applications and approval functions; to institute shared control of treatment maintenance and inter-farm cooperation in treatment construction.

USAID Technical Assistance

Project officers tend to link most of the projects' problems to the loss of the contract team of technicians. The technicians departed, a new committee management system was set up, the project Director who brought the activity into being was changed, some overt political hooliganism occurred, a major change in the recruitment of casual labor was imposed, and the effect on a not too well organized agency was indeed strong, to put it lightly. Too much is attributed to the efficacy of the foreign technicians but they doubtless did have, and would have continued to have, a leavening effect on the changes that have been brought about.

The time lag in the replacement of the technicians has been unhelpful to the project. All due and prudent speed is being followed by USAID and the Government of Jamaica to insure early recruitment of well qualified personnel.

The lapse has provided a time to thoroughly reexamine technician requirements. The present proposal to bring on board two full time technicians in agricultural extension (agronomy and small farmer organizations) and one in farm management (familiar with mini-fundia agriculture) appears sound to us. These two would be supported by a staggered assortment of functional specialists on short-term assignments as needed.

USAID cannot rely on these contract technicians for its normal monitoring role. More importantly, an assigned USAID staff officer can assist in advising in the many administrative and management reforms that are underway or being considered. The USAID staffer can be a valuable resource for the project management. By being on-site two or three days each week he/she will soon become a valuable information resource between the farmers and the staff, the staff and senior officers and also the Director and the Board of Management. Common sense and a modest grasp of the essentials of good management are the prerequisites for this USAID officer. USAID is actively working on this.

Peace Corps

The seven volunteers now working on the project are a credit to the Peace Corps and the U.S. They are fulfilling important roles in a variety of assignments. IRDP appears completely comfortable with them. They can serve as useful role models.

Continued Peace Corps involvement with the project should be encouraged.

VI. POLICY ISSUES

Politics

It is no easier to separate political influence from government programs in a democracy than to separate prurient beliefs from some of our more rigid religious groups. With a major change in the government of Jamaica it was inevitable that there be shifts in major policy job holders and serious reviews of all major policies. The resultant uncertainties generated have given rise to a spate of rumors; some genuine, though isolated, acts of political hooliganism; and, in general, have had more imagined than real effects on the project.

The uncertainties were real and have had an adverse and expected negative influence on staff morale and production. There were some real occurrences--five drivers and one field assistant in Pindars River were summarily dismissed on the allegation of opposition political activity in the election. The rumor had it that all 27 drivers and most of the lower level technicians and field assistants had been removed. Threats have been made to some of the senior staff that their political credentials were not in order. To date, they remain on board. It is expected that there will be changes as new management pursues its examination of roles and functions. It is not expected that these changes will have been politically connected.

In democracies, political change leads to policy changes, that is what democracy is about.

Tenure

The land-holding pattern reveals numerous parcels and tracts of unutilized land apparently being held for speculation/investment purposes by absentee land-holders in Jamaica or far-off New York, Miami or London. This has been reported to be a major constraint on implementation of coherent land drainage systems and waterways from cooperating farms to and through neglected lands. It has also been a major constraint on afforestation on steep hillsides.

Sufficient legal authority does exist in the Land Authority Law of 1951 and the Watershed Protection Act of 1953 to require proper use of lands in the public interest. Again, as in most democracies, the government is loathe to exercise these powers.

It is urged that the Board of Management consider the tenancy issue, use the Development Committees for base-level fact-finding and resource recommendation and proceed within the laws now on the books to rationalize soil conservation in critical watersheds. Consideration might be given to an agricultural-use tax on neglected lands to promote use or transfer by lease or sale to farmers who would farm them.

Food Imports

Current policies of the Ministries of Commerce and Agriculture appear to be at odds on the issue of food imports. Most democracies struggle with the dilemma of food production and reasonable farm income; and low-cost food for the non-farm consumers. Newly released, 1980-81 food import restrictions have caused disruption in some of the planting practices in the project. This must be rationalized. This is an issue for Board of Management consideration and recommendation to the government. We urge that the views of the D.C.s be incorporated in the recommendations of the Board of Management.

Cost/Benefits

Considerable concern exists in USAID and the Government of Jamaica about the high cost of the project, and soil conservation treatments in particular. We too are concerned about the relationship between costs and benefits, but we do not believe that replicability depends upon a particular ratio of costs to benefits. Most observers agree that comparing the number of farmers adopting treatments to total project cost (or even to direct costs of treatment) is an overly simplistic means of assessing replicability. There are at least four reasons for this:

- * Some of the costs should be attributed to the public good in terms of down stream benefits due to reduced siltation and water pollution, road protection from slides and cave-ins, as well as protection of the land resource base for future generations.

- * This is a pilot project; thus part of the costs should be attributed to experimentation (R&D).

- * To the extent that employment generation and community development components could not be integrated into a project without the key activity of soil conservation to organize around, some direct costs of treatments should be charged to these and other outputs.

- * The project is also a training operation for technicians and staff in developing group techniques for improved farm practices and soil conservation.

The down-stream affects of soil conservation practices are numerous and varied. The U.S. Bureau of Reclamation assesses this at 40% to 60% of the cost of work without either training or demonstration components. Dr. Tom E. Davis of Cornell (Spring of '81), Evaluation of IRDP, noted that a wide variety of arbitrary statistical assumptions can be used in socio-economic project costing. We should not lean too heavily on numbers that may not mean much.

We conclude that the relatively high cost of treatments to date does not a priori make replicability infeasible. Some attractive lower cost options for soil conservation are being tested. Also, with appropriate data recording and analysis, more accurate returns information

can be generated. This can lead to a more realistic assessment of the proportion of direct costs that a properly educated farmer might be willing to bear. The project focus must now shift from moving dirt to these aspects. We believe that if this is done, cost effective methods that permit replicability will be confirmed.

Time and Timing

There are several aspects of the project that point toward a need to extend the project completion date by at least eighteen to twenty-four months. The rationale is--(a) the original project period was not realistic when assessed in terms of project purposes and output magnitudes. The UNDP/FAO study that was a precursor to the Project Paper called for a ten year project. (b) Negative economic conditions in Jamaica have impacted negatively on the benefits anticipated for farmers. The failure during project design and early project implementation to recognize the need for early market improvement has exacerbated the problem. This has resulted in much less enthusiastic farmer cooperation than might otherwise have taken place. (c) The project never has been adequately staffed with experienced professionals. This has slowed project progress. (d) Recent re-organization of project management has caused (what can be expected to be temporary) losses in project implementation efficiency. (e) The recommendation that local organizations be developed to take on major responsibility for activity implementation needs a minimum of three to five years to develop. (f) More critical is the fact that more time will be needed to carry out corrective action in terms of institutional and organizational consolidation of physical gains made to date in order to secure a viable after-life for activities now being carried out under the project.

A smaller but more tightly integrated project staff is anticipated as a result of extending the project completion date combined with the changed emphasis recommended.

Output Targets

IRDP staff and USAID have realistic views on the problem of target setting and adjustment. This could have been a sticky issue were it not for the seasoned experience of the project implementers in taking cognizance of unanticipated constraints and the need to adjust accordingly.

The Data Bank and Evaluation Division of the Ministry of Agriculture using the newly published 1979 Baseline Survey is currently reviewing this issue and preparing recommendations for project management.

Replication

This demonstration or pilot project is providing valuable lessons on how to go about the task of helping to uplift the hillside farmer while preserving his (and Jamaica's) land resources. It is easy, now, after several years experience to point out weaknesses in project design. This is precisely why 'demonstration' projects are carried out. We should learn how things can be done, how they might be done better but differently, and how they should not be done at all.

One semantic weakness of the design was in the use of the word 'replicability', implying the potential for 'cloning' IRDPs throughout the rest of the country, each organization, management and technical staff and so on just like the other. Not at all, 'replication' in the development business might better be served by the word 'adaptability', carrying forward the intent that what works well in the demonstration on watershed areas will be adopted, adapted and applied in other watersheds as individual needs suggest and as available resources of personnel, funds and local farmers dictate.

Jamaica cannot afford to let its hillsides wash or blow into the sea. Limited resources of finance, skilled manpower, and time, are available to the country. Unskilled manpower on the land is available, the farmer. Early work, 1953 and on, has identified and classified the watersheds in terms of the criticality of soil loss.

The Second IRDP is an excellent on-farm, operational test-bed to find and demonstrate improved and new cropping practices and effective soil conserving techniques. Experience in the Two Meetings and Pindars River watersheds with mobilizing and involving farmers through the Development Committees points the way to a possible, practical and fundable means for dealing with the soil erosion and hillside farm production problems.

The Development Committees are limited purpose, small groups dealing with problems of great and immediate local farmer self-interest. As such, they have the farmer's attention and support. Given modest, but appropriate technical assistance, project can then provide minimal subsidy for materials for construction of multi-farm-use drainage, such as cement, culverts, tiles; access to reasonable credit; access to

market with improved farm tracks and roads; extended market system to sub-watersheds by evolving Collection Centers as primary gathering, weighing, sorting and holding place. Jamaica can deal with this kind of program on a watershed by watershed basis.

Project costs should be concentrated on construction materials, and limited machinery use. It is quite difficult to make extensive and effective use of heavy equipment on rough hillsides and fractionated holdings. The other major overhead item would be for augmented soil conservation, forestry and agricultural extension teams assigned to a watershed for approximately ten year periods. (This time span should be helpful in assuring local on-site staff residence.) Organizing Development Committees can be primarily a volunteer activity of neighboring D.C.s. Work on land treatments can be volunteered by cooperating neighboring farmers. There is little possibility that any government could carry on the present (IRDP) subsidy cost arrangements throughout all its critical and sub-critical watersheds. The watershed management team, as part of overhead, would consist of the locally assigned Ministry technicians with clearly designated managers and minimum essential administrative records for control. Regular public and social services would continue in the selected areas such as public health, education, and home economics. These services would be greatly augmented and supported by active D.C.s.

After a watershed has been selected, efforts should be concentrated in sub-watersheds that manifest a willingness to organize for voluntary joint labor to carry out project purposes. Start with the 'do-able' and progress to the 'move-able'.

There are other possible alternative approaches for extending the hillside production and conservation program. We make no effort here to prescribe, only to urge that other options be considered.

Anticipated availabilities of additional credit (World Bank) and the extended marketing system (USAID) argue for continuance and extension. The Government of Jamaica must rationalize food import policy. It must also support local efforts to bring neglected properties into the program. A 'production potential' land-use tax is a possible lever.

We are not sanguine about the speed or the neatness with which any of this can be done. But considering the alternatives, it is a cost

effective way to proceed. It uses available resources of technicians, credit and social institutions. The Jamaican farmer will cooperate when he sees his personal self-interest at risk. In this, he is at one with his fellow-man. This is not a neat project. Nor is it a neat problem.