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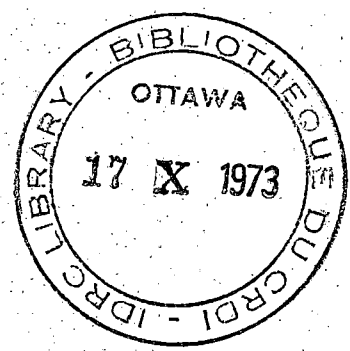
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SOME THOUGHTS ON IDRC'S ROLE IN
SUPPORTING RURAL DEVELOPMENT PROJECTS
IN
LATIN AMERICA

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005774

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I. On agricultural development.

In recent years the concept of agricultural development has been broadening. Instead of focusing mainly on attempts to increase production through the transference and adoption of modern technology and mechanisation, a more inclusive approach is evolving which takes into account socio-economics factors. This more general concept views agricultural development as a process leading toward improved levels of living for the large number of rural people whose livelihood depends on agricultural pursuits.

Experience over the past two decades has shown that effective linkages between increases in productivity, employment and income distribution are not automatic consequences of growth in production. These linkages usually need to be created through specific policy measures inducing structural changes which emphasize, coordinate, and create the supporting institutions necessary for small individual family farms to progress. Experience further suggests that when the institutional structure is not changed, the income benefits arising from the use of new technology are likely to enrich those who already hold the bulk of national agricultural resources while peasant farmers fall further and further behind.

To prevent this from occurring, government service and marketing institutions usually need to be reformed so that inputs and the knowledge of how to use them can become more widely available. Credit, fertilizer, market and technical information need to be presented in combinations relevant to a farmer's situation and by people who understand his motivations and actions. Such institutional reorganization is extremely difficult to achieve and has rarely taken place.

A substantial number of rural development efforts in developing countries around the world have experimented with various types of schemes based on the introduction of new technology and on community organization. Most of these programs have reached relatively few farmers and have only been able to do so at a high price per farmer benefited.

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In Latin America proposals and solutions to this situation have often been conceptualized but in practice they have usually not been successful on an operational scale much beyond that of pilot projects.

II A Background of Prior Efforts.

A considerable background of information on experience in rural development is available to draw on. Much of the documentation on this experience, however, is long on policy suggestions and generalizations but short on the actual methodology of how to carry out and develop a rural development program. This information can be found in the literature dealing with various approaches to improving the rural situation. It is possible to note certain emphases in attacking the rural development problem and the following would seem to be major foci of these efforts:

- 1) Extension
- 2) Supervised credit
- 3) Colonization
- 4) Land and agrarian reform
- 5) Rural Development Projects of the Puebla type.

These various approaches are not mutually exclusive either chronologically or in the principles involved in their methodology and program development. A brief comment on each of the above will serve to indicate what seem to have been successes and shortcomings in each approach.

1) Extension. Many of the organizational aspects of extension efforts in Latin America have resulted from an attempt to bring about a wholesale transfer of extension philosophy and methodology from the United States. At the heart of these programs is a notion that the basic task is one of communication and persuasion. While this may be appropriate to modern agriculture in an industrial nation where people

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are more highly educated and more widely experienced in entrepreneurial functions, it ignores the economic, institutional and other situational constraints that tend to limit the utility of such strictly informational and/or educational programs for a majority of the farmers in developing areas. The tendency has been to see the modernization process primarily as one in which modern technology is transferred to backward nations or backward sectors of nations without considering that development is principally a process through which ideas emerge and are tested and adapted within the specific problematic situation of a particular region or nation. For this reason many of the recommendations of rural community outsiders, be they foreigners or nationals, have been irrelevant to local conditions and have, of necessity, failed to have much impact. These failures have tended to be repetitive since foreign assistance has generally included little in the way of evaluation or research in designing program approaches.

The extension programs which appear to be most effective are those which provide a package of services to the farmer. These have generally been associated with a commodity program for a product that is industrialized (sugar beet in Chile) or exported (coffee in Colombia). The strength of such programs is based upon an assured market and supply of an input package and technological information. While this type of program can be effective with a crop necessitating central processing, it is more difficult to introduce a similar approach for the staple food stuffs such as corn, beans or potatoes, etc., that a majority of the farmers grow.

2) Supervised Credit. Supervised credit programs usually endeavour to bring institutional credit to the small farm agricultural sector and at the same time stress the educational aspect of extension by supervising the use of this credit. Often such programs have been organized as crash programs to bring about rapid change assuming that, with some knowledge and limited credit, rapid improvements could be effected in the small farm

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sector. Unfortunately, this approach usually disregards the problem of bottlenecks in the delivery of credit, whether it be in the form of cash or physical inputs, and in the provision of relevant production information. The lack of such inputs and markets has contributed substantially to the limited expectations of most small farmers in Latin America and the lack of any widespread success in credit programs.

Recent evaluations of various credit programs have shown that little has been accomplished by supervised credit programs alone in altering the conditions of farmers in the low income sectors of developing countries. If supervised credit programs are not combined with a general program of economic development which includes public works, education, technical assistance, storage and marketing facilities, etc., the result appears to be that farmers remain dependent upon a continuous supervised credit program which very quickly takes on a welfare agency type existence. It becomes principally a way of providing short-run assistance to small farmers without changing output expectations and with little change in physical output results.

3. Colonization. Colonization has been thought by some people to be a solution to the minifundia and low income problems of those Latin American countries that still have large expanses of unsettled territory. Most present day colonization programs and their support seem to be related in one way or another to pressures for agrarian and land reform. Experience with various kinds of colonization programs ranges from spontaneous settlement where no support is given to the settlers to a few projects where a full range of assistance has been given including help in clearing the land, providing homes, and making available services and facilities. Directed settlement is an exceedingly expensive undertaking requiring an inordinate amount of national resources, both financial and professional, in relation to the number of farmers it can service. Spontaneous colonisation, on the other hand, lacking any kind of structuring, is less costly but tends to leave farmers very much in

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the same position economically as they were before except in very exceptional cases. Much of such colonization has been an outright failure.

A detailed study of colonization in the Llanos of Colombia, concluded that directed settlers were no better off socially or economically than were spontaneous settlers even though the spontaneous settlers had moved on their own and had received no outside assistance. This implied that few benefits were derived from the assistance given to the directed colonizers. Land appeared not to be the real limiting factor of production. Most of the settlers had sufficient land yet their level of living was still very low.

Receiving more land may be a necessary condition to improve the lot of many farmers in Latin America but it is not the only factor involved in farm incomes and may be of less importance than has generally been assumed by some of the advocates of colonisation and agrarian reform.

4. Land and Agrarian Reform. Another postulated solution to the problem of maldistribution of income in the agricultural sector has been that of land reform. Such reorganization is intended to serve the function of transferring land ownership directly or indirectly to those who actually work the land. Land reform has usually been achieved in practice only after prolonged political struggles and sometimes only after bloodshed. Experience in those countries where land reform has been carried out, however, indicates that of and by itself, land reform does not create conditions required for a "big step forward". In fact, the conditions created in the wake of land reform have, in certain cases, become serious obstacles to development and productivity has actually declined.

In Latin America, land reform has seldom achieved its main objective of increasing production by the farming masses and assuring their more

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equitable participation in the growth of their national economies. There are certain very understandable reasons for this. One is that land reform has not been accompanied by all the other steps necessary to achieve development. Peasants and estate workers, for the most part, do not possess the skills and capabilities required to manage by themselves the land they have been given or have taken. Ownership of land does not create an independent entrepreneur capable of operating a viable farm. To become this, the peasant farmer needs a supporting system that will help him develop self-confidence and supply him with the services and the knowledge that had hitherto been the prerogative of estate owners and managers.

A number of the Latin American agrarian reform programs acknowledge the need for more than mere land reform and speak of a more comprehensive 'Agrarian Reform' in which the most important elements in the man-land equation are the worker or peasant himself and the supporting services available to him rather than the land he farms. The limited success and the failures of many land and agrarian reform programs are attributable to the same lack in operational methodology, understanding and trained personnel to carry on such programs that plague small farm development efforts. In either case, the ways and means of developing qualified operators of family sized farms for identifying the proper technological improvements and combinations of inputs and for establishing the necessary institutions and services at the community level are of prime importance.

5. Rural Development Projects of the Puebla Type. The Puebla project in Mexico and similar programs elsewhere are attempts to bring about substantial increases in production on small farms. Their objective is to attack the problems of transforming areas of traditional subsistence agriculture into commercial production and to accomplish this task at a cost which developing nations can afford to pay. The oldest of these projects in Latin America, the Puebla Project, has been an attempt to develop and test strategies for quickly increasing yields of a basic food

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crop, in this case corn, on the fields of farmers producing at subsistence levels.

The strategy envisioned in the project is essentially a simultaneous and integrated attack on the many problems limiting farmer use of adequate production technology. Program activities are expected to rapidly introduce any of the following essentials for change that are lacking in the area:

- a) high yielding maize varieties,
- b) information on optimal production practices,
- c) effective communication of agronomic information to farmers and agricultural leaders,
- d) adequate supplies of agronomic inputs at easily accessible points at the times when they are needed,
- e) crop insurance,
- f) favourable relationships between input costs and crop values,
- g) adequate production credit at a reasonable rate of interest and
- h) accessible markets with a stable price for maize.

The program seeks to conduct applied research on farmers' fields and to convince farmers to use a package of improved practices. It works closely with political leaders, agricultural agencies and suppliers of agronomic inputs.

The organization philosophy of the Puebla project envisages the discovery and dissemination of information as an integrated effort in which there is constant interaction and feedback. This means that the action program has to be directed by a team of well-trained scientists who live and work in the project area and co-operate closely with each other in carrying out the field trials, demonstrations, farm meetings, etc., that are needed to achieve the goals of the program. Initially it was hoped that a specific overall model could be defined and field tested. It soon became apparent, however, that although an adequate general strategy was

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necessary, success or failure within the overall strategy would depend on a large number of subjective and 'ad hoc' decisions taken within the context of a fairly flexible structure.

It was recognized that the kinds of decisions needed would require highly developed skills in giving appropriate weighting to various factors at different points in time. The only way that this decision-making aspect could be taken into a model would be to recognize that a basic requirement is to select staff who have both the vision, initiative and personality characteristics needed to work well in a group effort and adequate basic training in the discipline for which they will have primary responsibility. Equally important is the ability to identify opportunities and limiting factors and, especially in the case of the co-ordinator, the ability to make prompt decisions on priorities.

While the principles on which the Puebla project was established are admirable, and the staff very capable, the project appears unlikely to achieve its 5 year target of an 80% adoption rate for the new technological package being offered and a 100% increase in corn production. The initial response was very encouraging but adoption rates then leveled off and after four years only 18% of the area planted in corn in the region was influenced by the project and only 11% of the farm family heads had adopted the new technology. Yields of corn also failed to reach the target levels.

The reasons for these disappointing results are being sought and evaluated very carefully. Some of the questions which are being asked in order to evaluate and further develop the Puebla project are:

- 1) Was the package offered to the farmers the right one?
- 2) What level of risk was involved?
- 3) Was a crucial link in support activities ineffectual or omitted?
- 4) What were the attitudes of farmers toward the team members and vice versa?
- 5) Is the number of adoptions of new technology a satisfactory measure of the success or failure of a development effort?

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Similar problems are being faced by Puebla-type Rural Development Projects in other Latin American countries and in response to the need for a coherent understanding of what research priorities should be, IDRC initiated and sponsored a workshop seminar to discuss and define some of the relevant issues.

II Current status of Puebla-type projects: The First International Seminar on Rural Development Projects.

The current status of Puebla-type Rural Development projects was reviewed and analyzed at a Seminar which took place in September, 1972, in Bogota, Colombia. This Seminar brought together field staff from 12 different rural development projects in 6 different Latin American countries. Most of these rural development projects were relatively new and based their operating philosophy principally on that developed by the Puebla Project.

Two contrasting viewpoints on the strategy of rural development were evident from the Seminar discussions. One, basically the Puebla approach, held that increased agricultural production through the introduction of new technology was the major key to rural development. The other, presented arguments for a broader approach involving a social welfare function. It assumed that new technology had only a limited income effect by itself and that positive efforts were needed to improve levels of living and income distribution through infrastructural changes and education as well.

Some similarities and differences were noted in all the projects under discussion. They were all concerned with traditional minifundia areas which lacked resources of land, capital, education and other inputs. All were trying to mobilize technical, physical and human resources to accomplish changes that would ultimately lead to higher rural incomes. All shared the view that the way to provide this increased income had to

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be through increased agricultural production based on new technology applied and researched at the local level. In order to have a significant impact this new technology needed to be rapidly introduced on a majority of the farms in the project area. All projects concurred on the importance of co-ordination and co-operation between institutions, producers and technicians working together towards the goal of rural development.

Differences noted were often the result of varying ecological conditions and agricultural production systems between countries and regions. The needs of people in various projects also varied. There was some variation in organization and operation of projects and differing opinions on the methodology of approaching and working with farmers through group formation and in their scope of activities. Some projects used credit as an integral part of their program while others were dependent for credit on an outside institution thus requiring special co-ordination. Various levels of integration into national, regional and local programs were evident but only one project was a private effort.

The Seminar highlighted a number of priorities and problems in this type of rural development project. Prominent amongst these were the following:

- 1) Government support for rural development projects is fundamental for their effective operation. In the absence of this support the necessary inter-agency co-operation is unlikely to be achieved and it becomes difficult if not impossible, to provide the wide range of services necessary for a broad spectrum development involving roads, health, marketing, production, education, etc. In the five countries which have Puebla-type projects

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at the present time, the strongest national support appears to exist in Colombia and Peru. In both of these countries this type of project is being considered as the basis for future national agricultural extension activities.

An example of attempting rural development projects independent of the national institutional structure is provided by the project in El Salvador whose success in increasing corn production led to a considerable over-supply with a consequent market collapse. Production activities were not integrated with the credit structure and market organization in the country and this had disastrous effects for the project's farmers. The El Salvador project was not strongly supported by the Government and may, therefore, be an atypical example. However, this experience should still be noted to enforce the point that Government support is a necessity. It is possible that in a country such as Colombia, where there is strong national support for this type of project, similar efforts could be developed by non-Government agencies. However, Government support for the objectives of such projects would appear to be absolutely essential.

2) The development of a strong farm-level organization also appears to be essential. This necessitates some form of group structure and various projects are employing different approaches to this problem. Probably one of the most successful is that used at Puebla itself where credit is distributed through farm groups which are collectively responsible for any defaults in payments. The need for a group structure is also emphasized by the limited number of farmers that the project staff can visit in the difficult terrain in which most of these small-farm projects operate. In the absence of any type of group contact, it is unlikely that the field staff of a project will be able to contact more than a limited number of the farmers in an area.

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3) Trained leaders possessing the proper motivation and empathy for farm people are essential for the success of this type of program. Many of the field staff actively directing present Latin American R.D.P.'s have received training in Mexico and been imbued with the Puebla philosophy. This philosophy involves more than a package of working techniques and it appears that both the attitude and the empathy toward farmers which are found in the Puebla team have been transferable to other Latin Americans training with them.

4) Past training efforts have leaned very heavily on the experience of Puebla and it would appear that a great deal would be gained by staff working in rural development projects were they to spend some time studying other projects of this nature as well. This is particularly apparent in Colombia which has 6 projects, each one of which has developed some original ideas in approach and methodology. A need exists for in-service training both at the team level, where a group of project staff could exchange experiences, and at the disciplinary level, where discipline specialists from various projects could compare their experiences and methodology. The absence of this type of training seems to indicate that a great deal of useful information is not being spread and utilized as effectively as it might and progress is being retarded.

5) A further weakness on the training side in all projects, except for Puebla, is the lack of close relationships with national training institutions. Most faculties of agronomy and veterinary science conduct their training programs based on models that were handed down to them some years ago by foreign advisers. As a result of this situation, most students are not being trained for a world in which they will have to deal with small farmers' problems. Rural Development Projects are beginning to provide the sort of information which could enable the Universities to train people more able to help

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the small farmer. However, unless the Universities become more closely associated with these projects a dialogue will never be established and it will constantly be necessary to provide specialized training for graduates before they are suitable for participating in rural development projects.

6) A related situation applies to national agricultural research activities most of which are directed towards providing information for large farms and plantation agriculture at a time when pressure for agrarian reform suggests that the future of large farms in many parts of Latin America is questionable. Since researchers' career prospects frequently depend on the number of papers that they publish, they prefer to work on the level lands and uniform conditions of experimental farms rather than on the hillsides where small farmers make their living.

An essential component of the rural development projects has been their on-farm research activities which have served both to provide information and to convince farmers of the advantages of changes in technology. Most of this research has been carried out by young agronomists with very limited research experience and little or no support from national research organizations. Indeed, in some cases, departments of research have resented extension and development services engaging in research activities. It is essential that this situation be changed if high quality research is to be put into rural development programs.

7) The rural development projects' research methodology is currently very weak in many sectors. This is particularly true in the Home Economics and livestock fields where project activities so far have been little more than the traditionalistic extension approach. There are major difficulties in carrying out on-farm research programs especially with livestock, since the small farmer frequently possesses only one or two cows and two or three pigs. This indicates that there is a need

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for research stations to be set up in situations where they can simulate small farm conditions so that appropriate data can be extrapolated from these conditions rather than from experimental farm conditions which frequently bear little relationship to small farms. In the agronomy sector, where research methodology is more advanced, work is needed on problems of how to design and evaluate experiments related to the improvement of little understood 'associated cropping' practices so commonly encountered in the small farm agriculture of Latin America.

8) A better understanding of evaluation programs is needed. In some cases evaluators appear to be evaluating on the basis of their own sense of values and to have a limited understanding of farmers' motivations. More thought needs to be given to how much and in what ways attempts should be made to influence these motivations in association with the introduction of new agricultural practices.

9) Delivery systems for getting information to small farmers do not appear to be very clearly understood. Given that traditional extension philosophy usually fails, there is a need to define what method of communication can be successful. One thing is clear, however, and that is that it is imperative to ensure that project outreach staff are attempting to deliver an acceptable package of goods. This has not always been the case.

10) The need for strong interagency linkages is stressed repeatedly in this document. Such linkages are currently weak in most rural development projects. A major reason for this is that a great deal of inter-agency jealousy exists and there are major practical problems in any agency trying to take the lead. Colombia has made particularly promising progress in this respect with regard to the various agencies involved in agricultural development and has appointed an inter-agency co-ordinator. However, this still does not overcome the need for much closer linkages with agencies in the education, health and social welfare fields. This is a very

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important issue that can only be resolved at the national level.

11) At the international level there is considerable room for dialogue in defining the role of foreign aid. In the past this 'aid' has consisted largely of advisers who have brought a technology and approach that often failed.

Undoubtedly the appropriate technology needs to arise from within Latin America and not to be superimposed from without. Within this framework the precise role for external support needs re-examination.

12) In view of the intense pressure to develop the rural sector in most parts of Latin America another important issue is to define how a rural development program should be started in the absence of any technology suitable for a project area. Many governments are not willing to accept that after making the decision to go ahead with this type of project it may require one year of training and two years of field work before any worthwhile results at all can be seen. Colombia is confronted with this problem in that with its earliest project barely two years old and with a very limited number of appropriately trained staff, political pressure exists for the establishment of 75 - 100 of these projects in a very short period of time.

13) Since it now appears that one of the crucial problems of the 1970's will be that of employment opportunities, consideration needs to be given to the implications of rural development projects in terms of employment generation. Also, the income effects of these projects on other sectors of the economy needs a close examination.

14) Rural development projects are usually sponsored by agricultural agencies strong in research expertise but with limited experience in production economics. It is important that the production strategy which is developed in rural development projects is based not only on terms of physical production but also in terms of profitability.

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15) The situation in El Salvador, already referred to, where cereal prices dropped 40% in the calendar year 1971 due to surplus production, also warrants discussion in terms of projects based on increasing productivity. It must be recognized that the poor transportation and communication systems in many rural areas make the cost of transporting surplus production prohibitive. A project such as Caqueza, which is situated close to Bogota, does not suffer from this problem but most of the other rural development projects are confronted with it.

16) The Livestock sector may offer one possibility for disposal of surplus production. In the Colombian projects, for example, almost half of the farm income originates with livestock. However, most of these livestock are raised on a minimal input system and at the present time price relationships between crop products and animals do not make it attractive to feed crop surpluses to livestock unless the crop price falls considerably. Even when this happens, small farmers probably don't have enough knowledge or flexibility to take advantage of any opportunities presented.

17) A final point of considerable concern in relation to small farm development projects is that of how farmers can be motivated to participate in the project and to take the responsibility for its continuation once it has been successfully established. Clearly the politicians and civil servants alone can not solve all the problems of small farm agriculture. It appears that they can help to provide the institutional framework for improving the conditions of the small farmer and indeed this may be a legitimate social welfare-community development function of the government. However, where success has been achieved it has been very closely associated with outstanding leadership both at the technological and at the farm level. While the Puebla experience has indicated an approach that is apparently successful in training and motivating technologists to work in this type of program, there is very little understanding of how to motivate farmers themselves so that they can successfully carry on the program once it has been initiated. The answer to

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this problem may lie in a whole new approach to the question of rural education and to an understanding that simple rote memorization of the alphabet, multiplication tables, the history of the country and the religious doctrine does not necessarily equip the peasant to understand alternative modes of production or to pursue these alternatives. However, a changed approach to rural education presents many problems, most of which lie outside of the field of responsibility and action of the agency responsible for agricultural development. This leads us right back to the first point in this summary that without strong governmental leadership and co-ordination, the likelihood of success in rural development programs is very limited and no amount of foreign credit or technical assistance is going to make much difference unless there is strong national support, leadership and co-ordination.

The above discussion identifies some of the difficulties confronting Rural Development Projects. It poses important questions to be considered in defining the role of IDRC in supporting rural development efforts and its understanding of the ideals and the experiences of other current and past rural development projects.

IV ICA, Caqueza and IDRC

The Rural Development Project of Eastern Cundinamarca, (Caqueza) was initiated early in 1971 by the Colombian Institute of Agriculture (ICA) with the objective of developing methods and procedures more apt, flexible and economical for reaching small farmers than those commonly used in traditional rural extension work. The idea was to find ways of promoting and facilitating the rapid diffusion of technical knowledge available through ICA and thought to be useful to small farmers. ICA subsequently received financial and technical support for the project from IDRC in order to intensify and amplify this initial work.

The objectives of this first stage of IDRC support for ICA rural development efforts in Caqueza involve (a) staff training (b) the collection of up-to-date base data relating

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to the project area in order to establish a bench-mark for evaluation of progress purposes later on, and (c) the testing of new technological ideas and improved management practices in the project area.

While IDRC support for the ICA program began in July, 1971, it was not until early 1972 that the project was fully staffed and Canadian technical personnel were on the site. Many of the necessary programming ideas and approaches were new in Colombia and consequently a considerable amount of time was required to structure the program. Prior attempts at rural development had almost always been dictated from higher echelons or by foreign advisors. This one sought to develop a Colombian philosophy of rural development from the grass roots level by Colombians themselves based on their own realities. Lessons learned during this process have contributed to a restructuring of ICA itself from a large-farm oriented organization with a North American extension service type program toward one deeply concerned with developing more effective methods of reaching small farmers, improving their production capabilities and thereby improving their standard of living.

The idea of carrying out research trials on small farmers' fields and incorporating the farmer himself into the process was, in particular, a new one to researchers used to doing their work on experimental farms and consulting a library of foreign agricultural research publications for ideas and supporting information. Another new concept which has evolved is that of the inter-relationship between research, training and development. ICA now envisages that its small farm research activities should serve to provide training material that can be used to improve the quality of development work at the small farm level. This integration of the three major divisions of ICA, Research, Training and Extension, is being effectively implemented, probably for the first time, through their involvement in this type of project.

In spite of the slow start, results are now beginning to come out of some of the research and other activities of

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the project team. A baseline socio-economic study involving more than 600 farm families has been completed. Seven Master of Science graduate degree theses and two undergraduate level theses have been undertaken in the project area and are related to project research priorities and needs. For the first time in ICA, student research has been integrated into an operational action program and after initial encouragement by IDRC technical experts, Colombian professionals are undertaking supervision of these studies. Three professional and three sub-professional personnel from the project have received training in other parts of Latin America and the project director visited the Puebla Project in Mexico and several others in Central America. Subsequently, two of the professionals were granted scholarships, based on their performance in the project, and have proceeded on to study for higher degrees outside the country. Inservice training at various levels, farmer field days, and community organization meetings have been further common activities in the project.

Field research has resulted in several reports and some interesting results are beginning to appear. For example, sample package agronomic recommendations in Caqueza do not seem to ensure a complete acceptance of a new technology. From a study of supervised credit it was found that farmers only partly adopted a new technological package. A method has been developed whereby it is possible to calculate the partial benefit of each component of a package and relate it to the risk involved in adopting that practice. This should lead to the design of varying extension techniques in relation to each practice. One idea to be tested in this context is that these practices might better be introduced one at a time over several cropping periods until the whole package has been completed rather than introducing them all together at one time.

This year's field data will allow identification of the effects of different inputs on production levels with greater precision and the setting of priorities for extension and further research activities. Developing the ability to

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measure expected benefits will be of great value for evaluation of specific project activities.

To date, the first stage of the Caqueza project has been a training exercise and an orientation for both Colombians and IDRC personnel. It has also served to establish an excellent working relationship with a major agricultural institution in Colombia and to develop a good deal of mutual understanding and respect. Research results in hard factual terms may be somewhat less advanced than had been hoped for and methodological work is still at an early developmental stage, however, the basis has been laid for potential rapid advances in these aspects in the near future. There is a limit to how much any group of people can learn and adapt in a given period of time and this limit is being pushed in the Caqueza Project. This is particularly true of the project professional and sub-professional team who have had to learn a great deal about working with small farmers in a co-operative way, rigorously evaluating program results, and being flexible enough to change programing and techniques when current activities fail to give satisfactory results.

In the following paragraphs a number of questions are raised with respect to focus and operation in the current project which have implications for both IDRC and ICA policy regarding rural development projects. Many of the comments are still questions for which no clear answer has as yet been evolved. These are dealt with under 5 headings:

- 1) Co-ordination, 2) Research and Methodology, 3) Evaluation,
- 4) Extension, 5) Staff Training.

1. Co-ordination. It has been stressed that national level support is imperative in the development of any rural area. Inter-institutional linkages are usually very poor in developing countries and a good deal of co-ordination is necessary to get effective involvement of non-agricultural as well as agricultural institutions. The Caqueza area has still not achieved this sort of co-ordination. It still needs to be worked out who can and will co-ordinate institutional

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linkages. An off-shoot or appendage to this question is how or whether non-Government agencies can also be effective and integrated into a national rural development effort. A further policy issue at the national level concerns the definition of guidelines for acceptance, co-ordination and control of external aid for use in rural development projects. At the international level IDRC has already taken a lead by initiating a series of workshops and a dialogue with other Agencies but at the national level a local agency must fulfil the leadership role and external efforts need to be integrated to support national goals, which, in the final analysis, should serve the private and collective goals of rural people and communities.

2. Research methodology. Except for crop production, research methodology in Caqueza is weak or lacking. This is especially true in non-production activities but even in the agronomy sphere, the methodology for research on relationships of cultural practices such as associated cropping is very deficient. The methodology of evaluation is progressing, but a good deal of thought and effort is still needed in giving direction to the Home Economics and livestock production programs which currently are little more than repetitions of traditionalistic extension programs whose past record is not encouraging.

The Home Economics program in particular is having difficulty defining what should be done and then how best to achieve its stated objectives. The project Home Economics staff all young, inexperienced and ill-prepared to undertake the disciplined sort of activity and program evaluation which is required to develop a better focused program. How this problem can be solved is a major concern in the project at the present

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time since it is generally agreed in ICA that rural women and their homes are integral components of the rural development scene. This is only one aspect of research on the socio-economic components of development which need clarification and where it is difficult to identify what problems should be attached first in order to give the greatest input with the least effort and expenditure of resources into understanding the development process. It is still necessary to define in a practical, applied and limited manner what the content and meaning of any socio-economic problem-oriented research related to agricultural production should be.

The following is a list of research priorities which are presently being worked on or are contemplated for the near future:

- economic and agronomic inter-relationships involved in associated cropping and multiple cropping practices utilizing production functions
- Adaptation of improved seed and plant varieties
- Development of improved technological packages and methodologies for their introduction to small farmers.
- Discovering ways of integrating the small farmer into the development process and having him participate in an active role
- Studies of plant and animal management practices to improve efficiency and output.
- Studies of production costs on small farms and cost benefit relationships of predominant agricultural practices compared with improved practices.
- Development of efficient extension, communication, evaluation and regional coordination systems.
- Definition of evaluation standards by which the impact of any or all of the above on a rural community can be measured.

3. Evaluation. From a research point of view this is probably the most important, and yet the most difficult aspect of rural development projects. It is easy enough to measure the amount of credit given in a program or the number of

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adopters of a new technology but it is infinitely more difficult to evaluate the impact that such credit or the adoption of that new technology is having or has had on an area. Obviously, parts of any such evaluation are quite subjective and this raises questions of how objectives are to be defined and what values are to be used as a basis for defining those objectives. This activity is an important and essential component of rural development project management if any understanding of, and new insight into, the rural development process is to be gained. Economic studies are also a necessary part of the evaluation procedure in order to evaluate the effectiveness or ineffectiveness of various strategies under a variety of differing conditions.

4. Extension. The focus of extension*, it seems, needs new definition and orientation. Farm problems should become the basis for this activity rather than the existence of a new technology which is to be transferred without adequate on-farm testing. A large number of questions exist regarding extension logistics. In each project area questions will have to be answered regarding how extensive an area can be served effectively and how many farm families, and hectares of land are involved. How large should the extension team be? What delivery systems are likely to be most effective and how can information about new inputs and cultivation techniques be communicated effectively? What is the most effective use of credit and how can it be introduced in a useful way?

Most past extension activities have attempted to work through farm organizations and other farm groups. At the Rural Development Projects Workshop considerable discussion revolved around the questions of group participation, group formation and identification, and the factors which make a group effective or not.

* Maybe a new word needs to be invented to replace extension which has odious connotations in many quarters.

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Answers to the above type of question require a great deal more field research and evaluation and will rely heavily on the experiences of field workers and their sensitivity to the needs of the people with whom they are working. Somehow, whether on an individual basis or in groups, farmer participation must be generated. It has often been said that peasant farmers are resistant to change, however, more recent work is beginning to conceptualize this resistance as an act of self protection defined as 'risk aversion'. It has been shown that farmers will change if the change is related to their aspirations and does not entail an undue amount of risk. One of the big sources of difficulty is ignorance on the part of those working in development programs regarding how to spread new knowledge. For this reason extension agents must understand the attitudes and mental orientation of farmers and adapt their approach and instruction to the farmer's needs. This part of the program therefore is difficult to formalize into a set approach since it depends so much on the understanding, flexibility, motivation, and background of individual extension agents.

5. Staff training. It would seem that a crisis is looming on the horizon for ICA in this aspect of its activities. If many more new rural development projects are to be initiated there will be a shortage of trained staff to man them. Existing extension personnel have not been trained in the broader co-operative concepts of rural development projects and hence will need some retraining when ICA puts into effect its policy to change district extension offices into Rural Development Projects. Many new people will also need to be trained since even the six projects which ICA now has are not adequately staffed. If the best trained personnel are spread too thinly it is certain that they will not be able to be effective in their endeavours.

Any immediate expansion of Colombian rural development projects ^{should} involve the development of an integrated training program associated with research and development activities

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in operational projects. In-service training is needed at various levels oriented both to project staff as a team, stressing co-ordination of activities, and to disciplines, stressing information and methodology. The objective of this training should be to give project staff, new personnel coming into the system, possibly some university professors, and other ICA professional and sub-professional employees who will be working on small farm problems, an opportunity to gain practical knowledge and experience in the field under the guidance and supervision of personnel with more experience in methods of working and communicating with small farmers. These short courses should involve reorientation and retraining to help personnel unfamiliar with Rural Development philosophy and technique to understand and work in rural areas on small farm problems.

Facilities are presently being constructed in Caqueza for a regional activity and training centre but the actual programs have not yet evolved. At the present time more data and information are needed to carry out an effective and useful training program, however, once a program is set up it will serve to generate some of this information through "learn-by-doing" training activities. Present research will soon provide some vital inputs as well.

Another important need in the preparation of viable training programs is more disciplinary co-ordination and dialogue within ICA as well as interdisciplinary co-operation and integration between the ICA training school and relevant University faculties. The problem of rural development is an interdisciplinary one and every effort should be made to develop a staff training program which reflects this reality. University association is needed in order to develop an integrated program of studies and research oriented towards rural development problems so that future graduates will be better equipped for working in Rural Development projects and contributing to solutions for small farmer agricultural problems.

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V. Caqueza - A second stage

When IDRC first became involved in Caqueza, it was one of three such projects, however, during the short period of time which has elapsed since then, ICA's program has expanded. Caqueza is now one of 6 Rural Development projects and there are plans to change all ICA Extension Offices to Rural Development Projects as rapidly as they can organize and staff them. Indeed, the Colombian Government has made political commitments to develop 75-100 Rural Development Projects by 1975. Such rapid expansion will be very hard to achieve and it does raise some questions in relation to what must be done to prepare for this expansion and how best to do it. Colombia doesn't have nearly enough people adequately trained to lead and participate in so many projects.

The above has very strong implications for the nature of IDRC's role and co-operation with ICA in building up an effective small-farm based rural development program. Such grandiose plans could spell disaster for all rural development projects by diluting present expertise and resources to the point where they would be ineffectual. One response that IDRC could make to this situation in continuing its support for ICA would be to give support to the Caqueza project and develop it as a "Model Project". By pressuring ICA to put as many as possible of its best people on the project team and giving them strong support methodologically from IDRC personnel located in Colombia, it is possible that a good deal of success judged in "model project" terms could be achieved. In light of prior experience with model projects and discussion in this paper, however, it is clear that this approach would lead to little that was new or innovative on the part of IDRC in seeking to understand and help influence the process of rural development.

Originally it was anticipated that the Caqueza project and its activities would serve as a model for the development of future projects of this type. Further study of this concept and, to a certain extent, experience in Caqueza, has led to a questioning of the efficacy of a "model" in any formal sense. There have been many model projects reported on in development literature and

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aid programs around the world. Usually these programs have been prototypes or attempts to develop prototypes of what could be done through a specific integration and organization of various national and foreign resources in working with low-income rural people. While there have been many variations on this theme and various levels of success have been achieved in reaching the goals of improving agricultural production and rural living standards, very few, if any, of these efforts spread to adjacent areas or became part of a national program for rural development. The reasons for this are legion and need not be elaborated upon here, but the main ones seem to be rooted in the fact that such projects have served only as interesting experiments uncoordinated with national realities, policies and commitments.

Much has been learned in all of these experiments which can be useful in further attempts at rural and agricultural development. The principal lesson is that rural development is a dynamic process and it is this process and its various components which should be the object of research and experimentation. If the process is understood, techniques can be developed or discovered to hasten and ease this process. Where these discoveries are the result of national professionals working with small farmers and helping them to find solutions to their own problems, the impact is likely to be much greater and more firmly rooted than anything introduced from outside the actual rural system and extraneous to it. For this reason emphasis in the Caqueza project has shifted from a relatively static "model project" approach to a more flexible "systems" approach concerned with understanding the processes involved in rural development and finding ways in which this knowledge and experience can be transferred to other people working in other locations on similar problems. This is also the basic approach being taken by both ICA and IDRC representatives in discussions on a draft proposal for a second stage to ICA-IDRC collaboration in rural development efforts.

It might also be noted at this point that past foreign aid for rural development has often been based on the creation of new organizations and new structures which the donors and administrators of this aid feel will be more amenable to their mode of operation and less of an administrative jungle than national institutions. These new institutional structures seem never to die out, even after the foreigners have left, and tend to create even more administrative

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jungles to sap the strength and dilute the effectiveness of scarce national resources. Nowhere has this proliferation of institutional multiplication been more evident than in the sectors related to rural development and in the training of people for this task. IDRC appears to have gained a good deal of influence in the short time it has co-operated with ICA and this influence can now be used in preparing a second phase of ICA-IDRC collaboration to support greater co-operation and co-ordination between national institutions and programs rather than to create new ones.

One area of endeavour where this co-ordination is of prime importance in the immediate future of Colombian rural development programs is in the development of an adequate and integrated national training program to prepare personnel for positions in rural development projects. Attempts are being made to bring the relevant Colombian Universities and the ICA Post Graduate School into the picture in a co-operative and integrated way. This will take some time but unofficially movement in this direction is taking place as a way of improving the training of Colombian young people interested in agriculture and orienting them towards problems of the small farmer. Hopefully, this kind of co-operation in the training of students in various aspects of agriculture will avoid considerable retraining later by involving them early in their professional formation in programs and studies related to small farm agricultural systems as opposed to the present large farm North American type farming systems orientation of training programs. In the long run this is likely to be the most effective and least wasteful use of limited national resources and, potentially, more is likely to be accomplished than by setting up a completely separate training program for rural development workers isolated from already existing training programs and expertise in the country.

The same principal as expressed above in developing an effective training program is also true in terms of research activities. ICA needs to refocus much of its research orientation from large farm and experimental station orientated investigative activities to problems more closely related to those faced by small farmers. It appears that this restructuring is beginning to take place and it would seem that IDRC's discreet co-operation and support in this restructuring can have a significant long-term impact in this aspect of Colombia's rural development thrust. This can be done by involving the

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IDRC field research personnel working in ICA with ICA research and training personnel and trying to draw the ICA people into research projects related to small farm rural development. The main focus of these research activities is likely to centre on the processes involved in the introduction of new technology to farmers and their acceptance of it, the screening and development of appropriate agricultural production packages, and the evaluation of the impact of this new technology as well as the increased income resulting from it on the rural community in economic terms. ICA's role in this restructuring, of course, is a much more direct and organizational one.

IDRC's role in support of Colombian rural development efforts should therefore be to co-operate with ICA by providing financial resources and research expertise for tackling and studying the problems and processes involved in inducing positive change and development in rural areas. It appears essential that the use of these resources be associated as closely as possible with the development of a national effort to formulate rural development policy and effective action programs. It has been shown repeatedly that progress at the field level will only have short term results unless it is backed up by support at the national level with respect to institutions and policy.

What is being said, in more explicit terms, is that IDRC originally began supporting ICA's rural development efforts by backing a specific project as a model expecting to develop a package approach which could be transferrable, relatively intact, to other locations. Experience has now shown that this is not a viable approach 'per se' and that an understanding of the processes involved in rural development and how to influence these processes is at the heart of any transferrable knowledge. At the same time the needs of ICA have expanded with the introduction of plans for a much larger number of rural development projects. In order to staff these new projects a large number of people will need basic training and retraining over the next few years.

The intention of ICA in discussions with IDRC representatives now is to develop a second phase to ICA-IDRC rural development collaboration involving support for activities beyond the scope of the Caqueza project.

This support is expected to take the form of funds for training programs and scholarships at four different levels and the development of a system

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through which information gained in any particular project can be transferred relatively rapidly to others which may find it of use. Training of new people at the professional level and research on specific problems are to be integrated by providing funds for more masters and bachelors level theses to be done in various rural development projects on problems directly related to project needs. Short courses for retraining of professionals and sub-professionals are also to be provided for so that these people will be better able to organize their programs and understand the importance of working more closely with and listening to the farmer himself and his family.

The second phase of IDRC support for ICA is not, therefore, just a second phase of the Caqueza Project but rather involves support for and collaboration in a broader more comprehensive rural development program at a national scale. The expatriate research personnel IDRC is providing for ICA, however, will continue to concentrate their research efforts in the Caqueza project area but the results of their efforts will be utilized in training and action programs at the national level. This will provide opportunities for a wider impact of IDRC support. It will also allow for greater liaison with other projects and institutions with the result of bringing a wider experience to bear on research activities.

In summary it is suggested that in the second stage of IDRC-ICA collaboration, the Caqueza Project should be used as a main field station but should endeavour to feed the results from the field work at Caqueza and elsewhere into a Research/Training network based in the Research Division/Post Graduate Training School complex at ICA's headquarters near to Bogota. The field research results should be used for training of field personnel and for the re-orienting of national agricultural research. Both of these activities need to be linked into the development of a new approach to undergraduate and graduate training dedicated to providing a service to the Colombian small farmer. A principal objective of this approach is to aid in the creation and evaluation of an integrated agricultural research/training/rural development system sensitive to appropriate information feedback and oriented to the needs and problems of Colombian small farm agriculture. While the emphasis here has been on training of professional and sub-professional personnel to work in RDP's, it is assumed that the purpose of this training and research is to

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provide a better service to the small farmer, oriented to his needs, and helping him to achieve his aspirations.

VI. A RURAL DEVELOPMENT RESEARCH NETWORK

Discussion in this paper began with a brief consideration of the scope and meaning of agricultural development. This was followed by a review of some prior efforts to bring about rural development at the small farm level and then by a consideration of the goals and effectiveness of Puebla-type rural development projects. The third section of the paper considered the status of Puebla-type projects, their needs in terms of inputs and research, and some of the lessons learned from experiences in developing and managing this type of rural development effort. The fourth section dealt more specifically with past ICA-IDRC co-operation in the Caqueza project and raised a considerable number of questions which have implications for both IDRC and ICA policy regarding rural development projects in general. These questions were discussed under the five headings of Co-ordination, Research, Methodology, Evaluation, Extension and Staff Training. The fifth section outlined a program approach for a second stage to ICA-IDRC rural development collaboration based on what seems to have evolved from the preceding discussion regarding international co-operation, ICA-IDRC inter-relationships, and Colombian needs in expanding their rural development network.

The final section of this paper will attempt to further extrapolate the implications and directions indicated for IDRC co-operation in rural development efforts to a broader international Latin American framework.

A. Seminars and Workshops

The justification for such an approach arises from the conclusions reached at the first International Seminar on Rural Development Projects which took place in Colombia in September, 1972. This seminar indicated that although there are many similarities amongst this type of project in different countries, there are also major differences which arise from varying local conditions. The seminar identified the need for examining these

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similarities and differences both at the cross-country and at the cross-project level in order to derive a better understanding of the rural development process at the small-farm level in Latin America.

The seminar also provided a framework for the establishment of a network of rural development activities. The participants from 7 Latin American countries formed an Association to continue the type of interaction, co-ordination and co-operation that was initiated between projects and between countries through the seminar. They, furthermore, asked IDRC to provide some support for the maintenance of this network.

To this end, preliminary steps have been taken to organize a second seminar in Mexico in 1973 and Peru has offered to host a third one in 1974. The first seminar dealt with a rather general orientation to rural development projects and served an important liaison role. It is anticipated that future international seminars of this type will focus on more specific aspects of research methodology and action programs so that in-depth discussions can follow. In order to provide the necessary focus, AFNS is structuring some smaller workshops which will bring together disciplinary experts in crucial fields related to rural development. Initially these workshops will concentrate on the questions of research and training. The findings of these two workshops will provide the basis for working papers which will be discussed, principally by field level staff, at the second International Seminar.

One workshop, scheduled to take place in Peru in June, 1973 will bring together the Directors of National Agricultural Research Institutions in order to discuss the role of these Institutions in providing a research backup for small farm development programs. As indicated earlier, research carried out in these institutions has been generally more beneficial to the commercial farmer than the peasant farmer since programs are based on North American models. Hopefully this orientation can be redirected to some extent and the workshop should offer an opportunity to Research Directors to discuss and plan how and what changes should and can be made in National agricultural research programs.

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A similar type of workshop is scheduled for Colombia in March, 1973, to concentrate on agricultural training programs, particularly from the standpoint of involving National Universities. At present these Universities are training agricultural graduates for a world that is vastly different from that of the small farmer with whom many of them will have to work. Structuring a change in this training program will be difficult since agricultural education is dominated by people who were born in the cities and who have obtained their higher degrees overseas. Many of these people have never lived or worked in a small rural community and hence their understanding of the problems of small-farm agriculture are liable to be minimal. This workshop is intended to serve as a forum for presentation and discussion of ideas and concrete viable proposals for overcoming these difficulties.

The seminar and workshop program provides a unique opportunity for the development of collaborative research projects and for the evaluation of the research findings by a multi-national multi-disciplinary group. The crucial difference between this type of workshop and seminar and previous activities in this field is that the principal participation at the workshops is by people who are responsible for developing national policy in the field under discussion. At the seminars, the findings of these policy-makers will be exposed to the views of the field staff who are responsible for implementing the policy. IDRC's role in this process is essentially a catalytic one involved with identifying participants and making it possible for them to come together. It is essential that we avoid imposing an alien culture on these meetings and that at the same time we endeavor to help develop the concept that the Latin American peasant farmer is something more than merely an object to be studied.

Apart from catalysing the action necessary to bring about policy and institutional change and from having the opportunity to study this change while it is taking place, IDRC can also fulfil an important research role through the rural development network which is being established. A number of crucial issues for discussion and research have been identified and it is anticipated that some of these will form the basis for further workshops. Hopefully, work will be done on these problems in National Rural Development programs in order to provide results and inputs for International Workshops and

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seminars as well as for local ongoing development efforts.

B. Research Priorities

The list of research priorities and ideas which follows is given only as an indication of the sort of research opportunity which is available to back up and feed into rural development project efforts. Knowledge of these things is important for an understanding of how rural development is brought about, how changes should be induced, and what new knowledge is necessary. However, it can not be overstressed that the initiative must lie in the hands of national policy makers to undertake this research and identify their priorities in light of national needs which must include the small farmer and rural communities.

1) Production Functions. It would seem useful to obtain a better comprehension of the nature of production functions under associated cropping conditions. Most of the knowledge on production functions relates to monoculture cropping and little is known about the appropriate relationships within typical small-farmer associated crop production systems. An understanding of these relationships would appear to be essential when considering the introduction of new technology since many of the associated cropping systems have evolved over long periods of time and depend on a very intricate and precise balance between the characteristics of each crop, the time of planting, and the cultivation practices used by the farmer. Increasing production of one of the crops may not necessarily mean that overall production or overall income will be improved, especially if some aspect of the intercrop balance is upset.

2) Risk aversion. The traditional wisdom in agricultural development has, for a long time, accented traditionalism and unwillingness on the part of farmers to change. This viewpoint is now changing to one which recognises farmers' ability to manage resources in a precarious environment and then looks to other restrictions such as lack of management information, credit, and ready access to inputs and markets as restrictions on this ability. Being in a precarious economic situation the farmer cannot risk the vagaries of the many, to him, uncontrollable factors affecting his livelihood some of which he does not fully understand. Enquiry into the relationships

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between this risk factor and the many variables involved in agricultural production is necessary to arrive at an understanding of the problems encountered during the introduction of new or improved technology and to give some guidance to research efforts concerned with the discovery of improved practices appropriate to small farms.

3) Non-farm income. In many small farm areas off-farm income is an important aspect in the livelihood of farm families. This income may come from working on larger farms, in small towns nearby, or by migrating to cash cropping areas at particular times of the year. More needs to be known in the rural development project areas about these income relationships and the effect they have on work patterns and organization of production activities on small farms. More needs to be known as well about the effect that off farm contacts have on the adoption and continued utilization of new technology. There is some evidence that off-farm employment opportunities reduce the risk factor experienced by farmers attempting to improve their lot through adoption of new technology and it may be necessary to consider the scope for non-farm income as a factor in identifying areas most suitable for rural development projects.

4) Credit. Credit is thought in many circles to be a severe limiting factor in the productive activities of small farmers. Several recent studies have shown, however, that credit is not as crucial an input into small farm agriculture as has generally been assumed. In and of itself it does not bring about development although when introduced at the proper time and within the proper context it can be a very useful input. Research is necessary on the relationships and timing involved in credit programs related to rural development projects.

5) Farmer Extremes. In order to define more clearly what is meant by the term "small farmer", some research might be done by way of case studies on the extremes of what is generally categorized as "small farm". This knowledge should be of use in focusing on improved development programs and more effective research on small farm problems.

6) Cross country Benefit/Cost Analysis. Some concern was expressed at the

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RDP International Seminar that rural development projects which try to integrate a broad range of services and activities as opposed to a strictly production oriented program, will experience an inordinately high cost per individual farmer or farm family who benefits from the program. This cost factor is a very difficult one to evaluate and study but research is needed on how the effects of various development programs can be evaluated in cost/benefit terms. It would also be very useful to do cross-country and cross-project comparative studies in terms of benefit costs in order to evaluate the economic effectiveness of various approaches and programs.

7) Health Delivery Systems. Several of the projects now functioning and projected for the future have a health delivery system component integrated into their overall rural development plan. Probably the most advanced group in this regard is the one operating out of the Universidad del Valle at Cali, Colombia, in Candelaria, a community close to the Norte de Cauca project of ICA. Caqueza and other of the ICA projects lack a specific health system input and ICA would like to develop the capacity, through co-ordination with the national Health Ministry, to provide health services in the areas where it is working in association with the rural development projects. Consequently, the draft of an ICA proposal for a second stage to IDRC-ICA co-operation contains a request for support in developing an adequate, economical, and applicable health delivery system program in co-operation with already existing efforts. The health sciences division of IDRC will be undertaking this aspect of rural development research in co-operation with AFNS and the relevant Colombian agencies.

8) Rural Education. Educational delivery systems in most Latin American rural areas leave much to be desired. It would be profitable to incorporate some activity on rural education within the total framework of rural development projects. However, activity on this front needs to be initiated within the projects themselves. Since IDRC first became involved in Colombia, the Institutional linkages between the various entities associated with rural development have improved considerably, particularly in the agricultural field. Hopefully, the general educational system will start to become involved and a rural education component will be able to be built into the ICA projects. At the present time, however, the absorptive capacity of project personnel

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for further ideas and institutional linkages is being strained and it will be necessary to move slowly on this front until the local participants, i.e. the rural community, push for such an involvement.

The foregoing has been an indication of the kinds of research and information programs which appear to have definite and direct relationships with understanding and solving rural development problems in Latin America. Past experience has shown that effective measures to come to grips with these problems cannot be obtained by detached and uncommitted research programs. Active participation in the actual development process is a necessary requisite for researchers and institutions alike. It is for this reason that the workshops and seminars to be held on an international level seek to bring together people actively working at both policy and field levels of responsibility. These people can then share their experiences of both successes and failures under various circumstances and evaluate the significance and implications of this knowledge for continuing efforts in small farm based rural development.

On the other hand, in and of themselves, IDRC sponsored seminars and workshops are not likely to generate enough hard factual well-researched information without some other mechanism to back and support national research and training programs. The types of activity referred to in this document will involve new experiences for many of the researchers and professors who will be expected to help develop and carry them out. IDRC research personnel in Colombia will be able to collaborate in solving some of these problems and to provide a certain amount of basic research information in co-operation with their ICA colleagues. CIMMYT in Mexico, which is involved in Agricultural Economics research directly related to small farm agriculture, is already associated with the training and research network as is the Chapingo graduate school nearby.

Some further exterior co-ordination and technical input could also be of great benefit if structured properly. Agricultural research in Latin American research centres is generally very weak on economic evaluation and agricultural economics training is presently minimal. Since many of the issues indicated in this report as being basic research fronts involve Agricultural Economics, it seems logical that efforts should be made to strengthen this aspect of

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research and training programs. Some initial thought and planning on the part of IDRC program personnel has been directed toward structuring a co-operative program to overcome this weakness.

The program envisioned would involve establishing informal liaison between several Latin American Universities or Research Institutes and the identification of one or two Agricultural Economists in a Canadian University who have Latin American experience. The Canadians would serve in an advisory capacity in developing adequate graduate and undergraduate training programs and assist in some of the more difficult Agricultural Economics research. They might also serve as partial advisors to graduate students doing thesis research on economic evaluation and other problems related to agricultural production relationships. There is a possibility that several Canadian graduate students might be integrated into the program on specific research topics associated with action programs in order to build up some Canadian expertise on rural development problems while making a positive contribution at the same time.

The specific relationships and organization of this kind of collaboration have yet to be worked out; however, it is anticipated that through the recently formed Association of Rural Development Projects, a network can be established for this purpose between Chapingo in Mexico, ICA Graduate School and the National University in Colombia, and La Molina Research Centre and Graduate School in Lima, Peru. Should it prove possible to develop similar, or complementary, training and research programs in these institutions and maintain liaison between them, undue overlap could be avoided in research efforts on common problems. At the same time comparative studies under differing conditions could be undertaken more easily. A Canadian Institution could possibly provide some of the lacking technical expertise needed in the field of Agricultural Economics by collaborating with Latin Americans on solving problems related to evaluation of results of programs and activities developed in response to the needs and aspirations of rural communities.

These are only some of the possibilities which might emerge from this kind of cross-country institutional collaboration. IDRC's role would again be a catalytic one by identifying individuals and institutions

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interested in and capable of carrying out the kind of collaborative work envisioned above and by providing funds where necessary to support their activities along this line.

To summarize, this paper suggests that IDRC's rural development activity in Latin America should cover three main fronts:

1. A continuation of support for ICA (Colombian) rural development efforts in which IDRC's main role would be to help develop a Colombian research/training network which would involve the main training and research personnel of ICA. It would use Caqueza, and to a lesser extent, other rural development projects, as research and testing grounds for new technology and for providing data for training materials.
2. Sponsorship of a series of workshops and seminars which would enable both the policy makers and the field staff in RDP's to come together at regular intervals to develop policies of change and to evaluate the findings of field research activities destined for small farm programs.
3. Encouragement of a Latin American research network through sponsorship of multi-national programs which would examine some of the key issues related to the success of rural development projects in economic terms.

It should be stressed that the basis for all these programs and the objective of rural development in general is to serve the needs of the farm family and provide them with opportunities to realize their own development. It is important not to lose sight of this fact in the midst of the current wave of enthusiasm for rural development programs.