AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523

BIBLIOGRAPHIC INPUT SHEET

FOR AID USE ONLY

1. SUBJECT CLASSIFICATION

A. PRIMARY: Agriculture — AE10-0000-0000

B. SECONDARY: Agricultural economics

2. TITLE AND SUBTITLE

A method for isolating agricultural and agribusiness investments in the rural areas of developing countries

3. AUTHOR(S)

Williams,Simon

4. DOCUMENT DATE	5. NUMBER OF PAGES	6. ARC NUMBER
1970	114p.	ARC MX338.1.I61b

7. REFERENCE ORGANIZATION NAME AND ADDRESS

Int.Mktg.Inst.

8. SUPPLEMENTARY NOTES *(Sponsoring Organization, Publishers, Availability)*

9. ABSTRACT

10. CONTROL NUMBER	11. PRICE OF DOCUMENT
PN-RAA-490	
12. DESCRIPTORS	**13. PROJECT NUMBER**
Factor analysis Investments Mexico Private enterprise	**14. CONTRACT NUMBER** CSD-2477 Res.
	15. TYPE OF DOCUMENT

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

October 30, 1975

Mr. Richard T. Wood, Manager
Document Systems
Xerox Commercial Microsystems
3853 Research Park Drive
Ann Arbor, Michigan 48104

Dear Sir:

Returned herewith please find our document identified as PN-RAA-490, the input sheet, and the microfiche-grid.

The page 15 missing in the document, is lacking in all copies we have been able to locate and compare with the one returned from your office to us. We believe the work was issued with this page lacking in all copies.

Since the contract under which this document was prepared for A.I.D. has been terminated five years ago, there will be no opportunity to request an issuance which has more defined print composition.

We accordingly request that you proceed with micrographic processing for this title in its present state and format. You may photograph a copy of this letter following the input page, as a disclaimer, if you feel that action is necessary.

Yours sincerely,

John L. Hafenrichter

John L. Hafenrichter
Documentation Coordinator
Technical Assistance Bureau

1111X
335.1
b

FINAL REPORT

AID CONTRACT csd/2477

Project Title - Factor Analysis for Accelerating Agricultural Productivity in Less Developed Countries

To: Project Monitor
Technical Assistance Bureau
Office of Agriculture and Fisheries
Agency for International Development
Washington, D.C. 20523

From: Simon Williams
Principal Investigator
International Marketing Institute
16 Garden Street
Cambridge, Massachusetts 02138

Date: March 1, 1970

A METHOD FOR ISOLATING AGRICULTURAL AND AGRIBUSINESS INVESTMENTS IN THE RURAL AREAS OF DEVELOPING COUNTRIES

March 1, 1970

PREFACE

This report on methodology is part of a unity which includes:

1. A concept of the role of private investment as one element in the general attack on world hunger and rural depression, as stated in the articles included in Appendix A;

2. Report No. I, AID contract csd/1477, titled, The Feasibility of Private Investment in the Integrated Production of Corn Grain, Milk and Swine on Small Farms in Jalisco, Mexico. dated April 1, 1969, hereafter referred to as the Feasibility Report.

To avoid needless repetition, since much of the methodology is illustrated by and reasoned out in the Feasibility Report, the latter is often referred to in the following pages. It is expected that this report on method will go only to those who have already received the Feasibility Report. Should this not be the case, the Feasibility report may be obtained either through AID or by requesting a copy from the International Marketing Institute.

I. INTRODUCTION

The work done under AID contracts csd/1477, from October 1, 1966 to April 1, 1969; and, csd/2477, from July 1 (in effect from April 1), 1969 to December 31, 1969, has been essentially concerned with working out a method of profitably using -- and hence widely attracting -- private investment capital in projects which at once:

1. involve small-scale agriculturalists who normally do not have access to credit from private banking or other private institutional sources and who are inadequately served by public agricultural credit organizations;

2. increase productivity while at the same time relating this increase to an efficient and effective marketing system;

3. are self-sufficient, that is, are profitable as private enterprise without public subsidy and without special protection under existing law;

4. are consistent with public policy in such matters as agrarian reform, land tenure, dietary goals, use of irrigation water, among others;

5. sharply and quickly augment the real wealth of the farmers and ranchers involved insofar as their land holdings may be

capable of producing a return on investment;

6. introduce diversification and expansion of wealth producing means beyond basic high efficiency farming and ranching; and,

7. provide a mechanism by means of which those who initially risk investment capital and human resources, transfer, in an orderly manner both ownership and management of the assets created to the rural people whose lands and/or labor are engaged in the enterprises.

The rationale for isolating for special study the problems of peasant agriculture and the role of private, profitable investment ------ particularly when the investment on large measure comes from foreign sources ----- in dealing with certain aspects of hunger and rural poverty in the underdeveloped countries, is explained in some detail in three publications, namely:

. Williams, Simon. Private Investment in World Agriculture. Harvard Business Review, November - December, 1965.

. _____. Essentials for Private Investment in World Agriculture. Proceedings of the First International Agribusiness Conference. Available through the Chicago Board of Trade, Chicago, Illinois. May 10-12, 1967.

• _____. Popular Capitalism - A Selective Route to Agricultural Development. International Relations, Journal of the David Davies Memorial Institute of International Relations. Thorney House, Smith Square, London S.W. 1., England. Volume III, No. 7, April, 1969.

For convenience of review the articles from the Harvard Business Review and from International Relations are included in their original form in Appendix A.

It was clear from the field work which preceded the article in the Harvard Business Review that if the concepts expressed were ever to be reduced to investment action and if this action was ever to be widespread, then two developments were prerequisite. First, an actual project had to be brought into existence which demonstrated in concrete terms that what was said ought to be done, could be done. Second, the project chosen had to create a model or prototype, both in form and in the method used for its identification, capable of adaptation to varying conditions throughout the third world.

Indeed, it was felt that in the long run, a methodology be means of which investable projects can be isolated in a practical way from the complex and subtle aspects of the agricultural sector of a country,

is more important to describe than is the feasibility of one project, even a prototype which gives substance to procedure. In the end, the prototype is truly unique. It is the methodology which gives thrust to the attraction of capital to a multitude of projects and it is this multiplication of enterprise around the world which is the ultimate goal of the work sponsored by AID.

With this in mind, working out methodology has been the primary objective of the work in Mexico, even though for reasons given in the Introduction, the Feasibility Report was written first.

II. GENERALITIES

Before going further, I feel the need to express myself about this report in very personal terms, lest what follows appears too pat.

I feel a real danger in writing this report. The implication is that the methodology being described can be precisely described; that there is a neat package of "dos" and don'ts" to be given to anyone who can then proceed to readily find his way to a project, as though following a road map.

True, I believe this methodological report can be useful as a guide to others or it would not be written. Yet, as all who work in the field know, it is very hard, if not impossible, to get across just how you go about your task. As a matter of hindsight what one did in a particular case can be described precisely but while this is illuminating to all concerned, it neither describes the action in the next case nor makes of all readers better project developers. What I am trying to say is eloquently and elegantly said by Saul Alinsky (see Harper's Magazine, January, 1970, The Professional Radical, 1970, by Marion K. Sanders)

"It's very hard to get across how an organizer works-- being loose and free, not really knowing himself what the issues are going to be. He knows that in life you go with the action and that you consciously look for hooks and handles that you grab hold of, that you can twist and turn and pull and get the reaction that is so important in building...."

"People ask me, 'So you're going to organize the middle class? How are you going to start? What are you going to do?' How the hell do I know. All I know is what every good organizer knows -- you react to all the action with a reflex. How do I use this to build an organization? Maybe a year from now I can tell you what really happened...."

Of course, Alinsky was over-simplifying even while making a fundamental point. Surely, each of us brings method to the next job based on all of past experience and whatever the weakness of the method in a new situation, if it worked somewhere else its details can be useful to all doing similar work. Yet what I want passionately and in all sincerity to convey is that as I describe what was done in Mexico and what the experience seemed to teach, what is written is but a guide-line, not a handbook. I cannot quantify or make precise the content of those moments when it was decided to stop talking with legal counsel or with political leaders; when it was decided that one of two good sites would be selected for concentrated action; how we reacted when a marketing situation, constant for many years, dramatically changed and changed the whole aspect of the Model Corporation; why we became confident enough of farmer cooperation to risk a flat statement that they would cooperate; or, even at a more basic level, why we have persisted. After three years of work, a conflict between the head and heart has developed that often obscures the real reasons behind conviction and commitment.

So, reader, beware. We know, those of us who have been steadily involved in the work in Mexico, that the tool we present for your use works for us. But since we cannot present "us" to you in useful detail, we may not be describing the tool with sufficient accuracy for general application. In a way, then, our description of methodology is kind of a game of test yourself. As you read and as you sense what is unwritten, be honest with your valuation of the emotional and intellectual resources you command before you agree in any way that this report is useful to you, your program, in your situation.

In giving consideration to the following methodology of project identification, several generalities which underlie the entire procedure should be stressed:

A. What is described is not an invention. None of the parts of the proposed methodology are new. Each may be found in its essence, alone or in combination with some of the others, to be part of a successful project -- or more than one -- in some part of the world. What has been attempted is to extract out of past experience a set of functional components which, when organized into a flexible corporate structure, seems marvelously adapted to the establishment of profit-making enterprises operating in the rural areas of developing countries surging with agrarian reform.

B. The methodology suggested is clearly limited in application even though it is argued to have widespread utility. In no way is it the intention of this work to claim that the answer has been found as to how to attract private venture capital and attendant management into agricultural development. Surely, there are already and will be other methods. Neither is it suggested that the totality of problems embraced by the development process are going to be solved by private investment. Agricultural development demands far more resources than are commanded by private enterprise. Indeed, since only a small fraction of private sector resources is liable to be freely released for the purposes of development, one may state categorically that the public sector will dominate development activity as far ahead as one can safely foresee.

More than this, projects identified as viable by the method employed in Mexico, while they may be numerous, are not going to be overwhelmingly abundant. Though everywhere to be found, such projects are going to touch the lives of a minority of poor and hungry people for many years to come. More often than not, rural situations will be found too primitive to support commercial ventures.

On the other hand, it should be stated that behind the work being reported lies the firm belief, based on world-wide study, that there are enough investable projects in agriculture in Africa, Asia and Latin America which can be packaged attractively and sold to investors, to utilize all of the private capital which realistically can be expected to flow directly into agricultural development. These projects, it is argued, should be given highest priority, now, in any attempt to attract private investment to participate in the general attack on hunger and poverty.

C. The methodology described confines itself to that type of Project which directly and immediately involves land use, although with minor shifts in emphasis, the system of inquiry can be generalised so that project identification may arise anywhere along the line of economic activity from farmer to ultimate consumer.

In many situations, the most effective use of investment capital in accelerating agricultural development will, at first, be off the farm, e.g., in warehousing, in transportation facilities, in processing plants, among other types needed to establish order in the marketing process and to ensure adequate conservation and distribution of surpluses of raw agricultural product. Further reference will be made to the importance of analyzing systematically the marketing arrangements which characterize an agricultural area, as a guide to establishing investment priorities before undo effort is concentrated on achieving higher production.

D. <u>While systematic, the methodology to be described is in no way the product of "systems analysis", as this term is conceived to mean nowadays.</u> Except modestly in the design of some plot work relating to testing corn growing practices, no sophisticated mathematics has been used. No mathematical model building has been attempted to visualize the interplay of variables. This is not a matter of disbelief in the importance of systems analysis as a research tool. Rather, after many discussions with those engaged in attempts to expand the application of this mathematical tool, it was agreed that the state of the art is immature and of questionable value in dealing with the queer mix of quantitive, semi- (or dubiously) quantitative and wholly qualitative variables such as characterize the rural areas of the third world. Beyond doubt, this situation

will change in the years ahead. For now, something less perfect and more intuitive must do and can do, granting that added risk must be taken into account in a reasoned presentation to investors*

E. The methodology, while emphasizing the "here" and "now", is neither meant to be a rejection of educational processes and free will, nor to form the basis for a suggestion that further research is unecessary to achieve the goals of agricultural development. Rather, the attempt is being made to accelerate the process of application of research far enough advanced that one may predict within reasonable limits of risk the results of commercialization. This acceleration process imposes several demands, two of the most significant being:

1. that the awesome range of biological variables requiring endless study be dealt with serenely and with some confidence that their interactions, while far from being wholly understood, are manageable; and,

* An interesting and relevant example of the state of the art of judging a potential overseas investment may be reviewed in an article: Stobaugh, R.B. How to Analyze Foreign Investment Climates. Harvard Business Review, September - October, 1969. No matter how sophisticated the technique, answers remain indicative, not absolute. Discussions relating to rural agricultural projects are complicated by far more qualitive factors than those concerned with industrial investments.

2. that under certain conditions of social and economic evolution, rural people can be persuaded by monetary incentives to participate in change before they fully grasp the system of which they become a part. Philosophically, this viewpoint may offend those to whom any kind of manipulation of human beings is dangerous and immoral. Yet, in a very basic way, everyone engaged in development work has decided in advance of tackling his job that change is desirable and that this end, perceived in the specific terms of a given task, justifies a predetermined means. The fact that a project may then proceed toward its goals by first educating participants to the point of freely expressed desire to change does not fundamentally alter the conviction, preconceived, that the end is "good". Thus, the challenge to "goodness" lies in the character of the end and the quality of the education. Educative processes, per se, are neither inherently good or evil; they may end up being either in the eyes of the observer.

The methodology under consideration in this report takes the view:

a. that accelerating economic development among rural people is a good end;

b. that to delay this speed-up until people accept it out of full understanding can be bad;

c. that full understanding can often only be achieved when teaching is based on actual experience demonstrating in concrete terms achievements which otherwise would remain conceptual and vague;

d. that the management of human beings is inherent in technical assistance and, despite the dangers in any system which deliberately manipulates people, trust can and should ....indeed must be placed in the motives, ethics and experience of the agent of change, as well as in his determination to work in the best interests of the local constituency; and,

e. that the best protection against over-management and arbitrary control is the quality of rural people themselves. A plan for rural development should not attempt to carry too deeply and too long into such issues as to how the people shall use newly created wealth for personal or community development. It will simply not be the case when a site qualifies as being ready for commercial development (see page 45 of the Feasibility Study; criteria of site selection will be discussed in further detail in the pages to follow in this methodological report), that the people at the site will fail to be intelligent and with strongly held goals for family and community improvement. Just as a developer must integrate trust of himself into the design of his project, so he must integrate

faith in those being helped that they will be the best masters of new resources created for their use. It is enough that a project free people of the bonds of poverty and the restraints of the battle for survival. It is enough that a project allow people the freedom to choose among alternative ways to use their income and organize their lives.

F. The methodology demands more expertise than any one man can be expected to contribute. It is suggested that every project search will lead the investigation not only into technical and economic feasibility analyses covering a variety of processes and services, but, as well, into legal, financial, social, cultural and political matters requiring the knowledge and insights of many different people. A well trained generalist with broad experience can and should be able to integrate inputs from experts in all these fields. He may even be able to obtain, through reading and interviews and field observations of practice, a great many specialized facts. However, project search will be restricted and superficial to the extent that the budget limits the use, as staff or as consultants, of experts who have the time to apply themselves thoroughly to project analysis. The methodology under consideration is expensive to apply. Budgets, per project, can easily run from $50,000 to $100,000 per year. However, it only takes a few

successful commercial projects to pay off the cost of rejects. Lesser efforts do not really effect savings. Investors will either reject the results as being inadequate for a decision or, if they do generate investor interest, call for the study to be repeated and expanded.

G. For the purposes of this report, a project is defined as: a commercial agriculturally-based private enterprise, self-contained legally and operationally, conducted for profit, which for its start-up requires an initial input of capital, technology, management and training from sources other than the farmers themselves, the ownership of which is conceived to pass ultimately to the farmers or ranchers or workers (or some combination of these) whose lands and labor contribute to success.

With the foregoing generalities in mind, methodology is presented in the following pages from two interlocking yet distinct viewpoints, namely:

III. Policy as method, covering matters which give directions to and set boundaries for the search for projects.

IV. Procedure as method, covering activities from which the facts basic to an investment decision emerge.

III. POLICY AS METHOD

A. The agriculturalists to be dealt with are to be small-scale in their operations.

There is no rational basis for a precise definition of "small-scale". However, the isolation of people who fit this category is not a particularly baffling procedure if one avoids attempts to be quantitative. Generally speaking, not only are land holdings comparatively small but, as well, the income from the land is low and techniques of production are simple and traditional among the small-scale farmers and ranchers. Moreover, such operators are either peripheral to or wholly outside of the systems of commercial financing of both crop season and longer term credit. Another way of saying this is that these people are heavily or totally dependent on individual money lenders for credit and almost always must pay usurious rates of interest on loans.

B. The people to be involved in the system are already to be deeply and obviously involved in the processes of social and economic change. Stated from another viewpoint, this policy says that private investors are not to be primary agents of change.

Before a site lends itself to an investable project, at least some advances in the physical, social, political and economic aspects of the area must be evident. The fact of prior public investment in roads, schools, power, water, communications, personal security, among other factors in the infrastructure, must be clear. That is, a basis for a commercial enterprise must exist. More than this ... more than the physical manifestation of infrastructure, the people at the site must have demonstrated response of a constructive nature to the changes wrought by prior public investment, e.g., parents support the thrust toward better education; farmers have entered to some degree into the marketplace and are well aware of a range of financial transactions wherein money is the means of exchange; access to new technology has been followed by at least some change in practice; the elements of social and political organizations exist, which, in turn, are reflected in a general improvement in community life.

Again, there is no way to define meaningful quantitative measures of the progress whose presence is demanded. But, as with the difficulties of describing a "small-scale" farmer so that he is precisely differentiated, a lack of precision is not critical to a decision that a site is worthy of detailed feasibility study.

Careful observation and common sense will soon combine in the minds of experienced observers to define the state of readiness of a site for new and rapid change of the type private enterprise might introduce. At the outset of project identification, all that is needed is a reasoned, even if strongly subjective basis for suggesting that the cost of feasibility analysis is justified and that private investors will not be burdened with high cost infrastructure, or with long delays occasioned by tough resistance of traditions to change, or with fears about personal security.

It should be noted at this point that in placing both emphasis and trust on the estimates of "experienced observers" two kinds of expertise are called for, namely:

1. expertise in discerning and evaluating the extent of and the reaction to the developing infrastructure in rural areas with an agricultural setting; and,

2. expertise in the nature of profit-making enterprise so that a description of the current state of development at a site may be interpreted and weighed with the criteria of performance most important to investors and to management in mind.

These different kinds of skills may or may not be found in one man and it is of vital importance that an absolutely honest assessment be made of the competence of the staff seeking to apply the methodology under discussion. Many a potentially sound agricultural investment scheme has gone down the drain for lack of astute orientation to the demands of a business operation. Conversely, many an expensive feasibility study made by businessmen and their representatives has been fatally weakened by superficial, often erroneous estimates of how effectively people and their environment are interacting to accelerate or to retard the process of change.

C. Projects are to concentrate initially on applying existing but ineffectively utilized reasearch and technology.

It is to be remembered that the proposed methodology is directed to attracting private investment capital into agricultural development as quickly as possible. Time is considered of the essence. Therefore, in emphasizing the opportunity to capitalize on the investment already made in research and improved technology, it is not meant to suggest a stoppage or a slowdown in new research. Obviously, this would be self-defeating in terms of the future. Rather, it seems logical to give first priority in the use of scarce resources of money and management to the application of knowledge ready at hand. By "ready at hand" is meant knowledge which has evolved within a

project area through the efforts of competent people working within realiable institutions; knowledge which reflects the adaptability of practices synthesized from the general state of the art to local conditions.

D. The single overriding criterion of project feasibility is to be the marketability of product.

The point needs no laboring here that the greatest disincentive to investment in improved agricultural practice has been and remains an unsatisfactory return. Failure in this respect is the result of many factors, ranging from low efficiency in the use of new technology; high interest rates on invested capital; too many middlemen driving down the return to the producer and forcing up the price to consumer; heavy losses between the land and the market due to theft, rot, insects, rats and other kinds of quality degradation and quantitative waste; disorganized buying and selling methods; inadequate distribution of consumer goods; among others.

Whatever the reasons for the disincentives to investment one finds, analysis must reveal that a profitable marketing mechanism can be conceived within the price-profit, legal-political limitations which exist, before the project can be imagined as having commercial potential and a recommendation made which justifies the cost of a feasibility study.

Note: throughout the literature on agricultural development, the plea is made constantly that as a first step toward progress, a "fair" price, by which is usually implied a higher price, be guaranteed to the farmer as a necessary incentive to invest in improved practices. No doubt, in many or perhaps most cases, this is a necessary step to be taken by Government. However, higher prices for raw materials may neither be a feasible goal of public sector nor a necessary device to ensure profitable rural investment. Again and again it may be demonstrated that by correcting other weaknesses in the production-marketing system, the current price structure is quite capable of yielding handsome returns on investment. Indeed, at times this is possible even while dropping consumer prices. It is against the conviction that this is so in countless unrealized opportunities that the work herein reported is set.

E. Land based activity is to minimize investment and maximize service, at the outset, when cooperation is being sought and risk of continuity is highest.

As is detailed in the Feasibility Report, the method of corporate operation conceived involves farmers placing their land under management, voluntarily, by means of contracts which exchange services, e.g., credit, technical assistance, marketing, for an agreement to sell all surpluses to and through the service corporation. It may also be noted from the Feasibility Report that investment during the first year of commercial operation is held down. This is to permit a test to be made of the validity of Feasibility Study forecasts that the farmers will cooperate and will honor their commitments. In any situation calling for a large amount of money to be advanced as crop season credit, a policy which minimizes potential loss is vital.

This policy takes a realistic position vis-a-vis this fact: no matter how thoroughly the farmers in a project area may be studied to asses their creditability, there is only one way to find out if prior judgements were correct, namely, extend credit and see what happens (this issue is discussed at some length in pages 37 to 55, in the Feasibility Report). Since short term practice credit may rapidly build up to a size as big or bigger than the investment itself, "seeing what happens" can, in the eyes of the investors being asked to pioneer in agricultural development, appear to be very risky. This leads directly to the following two policies.*

F. Short term practice credit is always to be closely supervised and feasibility analyses are always to allow for the necessary costs.

G. Short term practice credit is always to be guaranteed by third parties to the maximum extent possible, at the outset of a project.

---

* While hardly to be included as a matter of policy, the approach to private investors in rural development in the Third World makes no naive, idealistic demand on people or institutions with money that they "ought" to do anything. If the methodology being described works, it will do so in part because capitalists are dealt with in their own terms, withal in a project area entirely new to them.

The implications of a demand for supervised credit need not be labored. Experience in Mexico and throughout the world has forcefully demonstrated the fact that supervised credit works and unsupervised credit does not, especially during the early years of a shift from traditional to modern agricultural practice.*

Yet, even a policy which provides for supervised credit may not be enough reassurance to investors that the risk of an overwhelming loss is sufficiently reduced. The particular group of farmers in a project may have no credit history, though their neighbors may. Extrapolation from general experience to a specific site can be less than convincing. Thus, policy G, as defined above, must be introduced. Policy G is at once one of the most important and most difficult to implement and requires great flexibility and creativeness in dealing with potential guarantors throughout the public and private sectors of both national and international origin. Some discussion of the means of providing guarantees in Mexico is included in Chapter 3, Part VII, of the Feasibility Report. Additional comments may be found in Section IV of this report.

---

* To validate the conclusion that supervised credit can greatly reduce and even eliminate short term credit losses in Mexico a study was made of a wide variety of credit operations conducted by both public and private organizations. This study, supported by both AID and The Ford Foundation, is being readied for publication as a book, hopefully to appear late in 1970.

H. <u>Farming operations are to maximize the use of labor, at the outset</u>.

This policy is less obvious than first meets the eye. It seems to suggest that mechanization is to be avoided so that in the process of modernization there will be a minimum tendency to disrupt cultural patterns of life before men find a satisfactory alternative way to use their time and their talents to constructive ends.

It is true that very often new high levels of productivity combined with new, low or no cost marketing methods, can be achieved at a handsome profit with little or no displacement of the labor traditionally employed by the farmer (or rancher). This is so when the impact of improved seed (or improved stock), plant population (stocking density), fertilizer (or superior feeds), herbicides and insecticides (or veterinary care) and scheduling dominates any role mechanization can play. Where this is so and where commercial practice can be so based, of course, such systems are to be emphasized. Credit and technical assistance rather than long term investments can then play the superior role.

But great care and sophisticated analysis are called for to be sure that what at first glance appears to be a practice which de-emphasizes human labor is not, in reality, the best way to increase labor demand. For example:

. Replacing animals and hand labor with machines in land preparation, planting and the application of fertilizer and pesticides may be the only way to obtain full return on the investment in superior practice. By balancing reduced labor demand at the start of a season with dependence thereafter on traditional methods of tending and harvesting a larger crop, labor demand over the year may increase even though it is differently spaced. While this may call for a certain adjustment in life style, the compromise is minor and the benefits major.

. The use of machines may be the only way to have enough power, available fast enough, to produce two or more crops per year (or whatever the cycle), on lands traditionally producing but one. Here, energy balance struck between the inputs of machines, animals and people can not only dramatically increase the efficiency of the land but can, as well, sharply increase labor demand.

I. Non-farming operations which diversify vertically, that is, which up-grade raw materials and increase return to the farmers, are to maximize efficiency, profit and competitive ability, independently of any concern to favor labor intensive over capital intensive enterprises.

These operations, which will be new to the local environment, are intended to increase income to higher levels than can possibly be

reached by farming alone, no matter how good the practice, when land holdings are small. As well, they are intended to spread the risk of crop failure or falling prices and to build permanent wealth-producing assets which become owned and operated locally. Where they may, their goal is also to put better quality foods at lower prices on the market. To succeed, such enterprises must utilize the most modern technology and management techniques possible. Obviously, their development will increase employment directly and through their demand for local services. But the trend in agribusiness is to mechanize, even in so-called "low labor cost" areas. The cost of training goes down; quality control is easier and better; administrative and social benefit costs go down; output is more easily managed; space is more efficiently utilized; the benefits of scale are more readily at hand. This trend need not always be evident to make the point that so long as projects are intended to be transferred wholly or in large part to the ownership of those whose lands and labor contribute to success, then the objective must be to create an asset worth owning. The need to provide jobs in rural areas of the Third World must never be lost sight of, but response cannot be sentimental when the goal is a profitable, growing, self-sustaining, locally valuable asset. If rural peoples all cannot be employed then it is far better, at least, to extend the opportunity to own a part of the wealth produced by more efficient capital instruments of production. To have neither work nor income is the worst of all alternatives.

J. <u>Whether in monoculture, in horizontal diversification (more crops than one), or in vertical diversification (up-grading raw materials), preference is to be given to products familiar to the culture.</u>

As with all policies affecting procedure in the search for investable projects, this one, too, must be applied flexibly. On occasion, it may well be that all that can be done to effect change for the better is to introduce an exotic crop and its derivatives and go to the trouble (cost) of opening a market. Examples of commercial potential which illustrate the point are common enough in Mexico, as they no doubt are throughout the world: in the Yucatan, it is clearly necessary and all public institutions and the farmers themselves agree, to replace henequen with crops never before grown and marketed in the area if the agricultural sector of this tropical State is ever to be revitalized; as new dams are built in heretofore remote barren places, exciting opportunities are presented but these are dependent on introducing wholly novel technology and marketing methods to the local people.

In such cases, start-up is slow. Return on investment may have to be deferred for fairly long periods of time. The cost of training is high, as is the cost of land perparation and market development.

Closer interaction with government than might otherwise be necessary or desirable, from the viewpoint of private enterprise, may be required to help underwrite early, heavy costs, directly or through the use of low cost financing, tax exemption, market protection, among other incentives. In turn, calling on the use of incentives demands honest and rigorous analysis to determine the real cost/benefit relationships of a project to the national economy.

None of the foregoing are necessarily negative factors affecting a decision to invest. However, there is usually available abundant knowledge about how to increase production and profitably improve the distribution of products currently basic to a culture, in short supply and actively traded. More often than not, it is simply easier, cheaper, faster and more important to concentrate private investment attention on the application of such knowledge, first.

> Note - It cannot be overemphasized that the work herein reported attempts at all times to relate sensitively to this fact: before large amounts of private capital are going to flow into agriculture in the underdeveloped countries, particularly where some form of partnership with large numbers of small-scale farmers is envisioned, the pioneers must be attracted. The first significant amount of risk capital must move and demonstrate success. Once this happens, more risk will be taken; a longer term view of return on investment will be taken; and, projects will start at earlier and earlier stages of rural development. Therefore, the policy under discussion and others closely related to it, focus action on the most easily done, the most readily apparent and the most promptly profitable ventures.

K. <u>Projects are to avoid exaggerating dependence of the farmers on a single crop or product, particularly under temporal farming conditions and where prices are controlled by forces beyond the influence of management.</u>

This policy is closely related to but nonetheless distinct from policies I and J, preceding. Actually, a condition might exist wherein management would be strained to accomodate policies J and K simultaneously. That is, the only way to avoid over-dependence on one crop may be to introduce an exotic second crop. Such a situation would demand rationalization of all the costs and benefits liable to flow from the scheme and no formula can be laid down to solve the problem mechanically.

Or, as is the case with the Mexican Model (see the Feasibility Report), diversification may be delayed. Here the choice was made that diversification of the sources of income would best proceed <u>after</u> a new practice of corn production was introduced even though greater dependence than ever would develop temporarily on the market for one crop. In this instance, still keeping policy K in mind, it was judged that the farmers could only be moved under management quickly if they dealt with a system of farming and marketing which was familiar. Moreover, while the price of corn is outside of project control, the price is high and fixes a

floor by means of a government purchasing program. In turn, this price control reduces the risk, insofar as price is concerned, to zero of a short range increase in dependence on one crop.

Whatever the variations in choice to be found from site to site, the fact remains that there are few places in the world where with adequate capital and competent management all farmers need remain in a one-crop or a one-product economy. The argument offered by this program to attract private investment capital into rural development is rooted to the conviction that by carefully applying all the policies defined in these pages to site selection, profit and security and economic growth are ensured by production increases which are possible, by waste reduction which is predictable, by improvements in product quality which are certain and by diversification possibilities immediately at hand.

L. Land ownership is to be avoided; land management is to be central to any farming operation.

Land ownership by those who are not resident members of the agricultural community is antagonistic to the thrust of the agrarian reform movements which characterize Africa, Asia and Latin America. On the other hand, it is widely accepted that management services,

arranged through programs of supervised credit and bailment contracts which control the marketing of surpluses, can strongly support such movements. There is simply no purpose to flying into the teeth of winds of change. True, in some countries, e.g., Brazil, Iran, land ownership may at first be best to get a project off and running. In the short run, the governments of these countries may encourage investment in the land, as well as in other parts of the food supply system. However, population and political pressure of an irresistable order of magnitude would appear to be inevitable and a project which starts with land ownership ought to have clearly stated in its charter and by-laws the intent and the means to pass this ownership on to local farmers.

Land management can serve another important purpose than that of making off-farm investors acceptable and private investment among small-scale agriculturalists workable. As well, it can reduce or eliminate the negative impact of land fragmentation on production. Where fragmentation is most advanced; where one farmer may come to own scattered splinters of land or where a farm family may have cut up its meagre holdings again and again to accomodate the needs of sons and sons-in-law, the sale of such property to outsiders is most powerfully resisted by both cultural and political forces. Land management schemes, by aggregating parcels without

affecting proprietorship, can elegantly adapt to both desire and need ... the desire to hold rights to the land and the need to increase production and income. Not only is it to be said that such schemes "can" work. They do work. Once the question of land rights is eliminated from the minds of peasant farmers and their governments, it has been demonstrated again and again that farmers willingly enter into programs of supervised credit and controlled marketing, yielding sovereignty over their practice to an outside agency, public or private, in favor of increased income.

M. At the outset, project initiation is to depend more upon financial incentives than upon a prior full understanding and acceptance of what is being assayed.

This policy arises from the convergence of three streams of thought:

1. A desire to save time, to move forward speedily in attracting investors into agricultural development. No matter what is done, finding, analyzing, financing and putting into operation projects in agribusiness is tantalizingly and often frustratingly slow. To add the time it may take to educate farmers to all aspects of a complex new economic system, if this time is not needed or can be foreshortened, is abhorrent.

2. Farmers who are selected for inclusion in a project because they satisfy Policy B, above, are believed to be most responsive to financial incentives. If a project is capable of generating significant increases in farmer income, fast...and if a project is capable of a steady further increase in cash income, then getting continuous farmer cooperation in the change process and gaining the time needed to educate for deeper and broader understanding of what is going on, is relatively easy.

3. Full understanding and hence lasting fealty to a new economic system, it is believed, is more efficiently and effectively attained by means of participation in the system at work than by grappling with the system as an abstraction. Thus, if a project as it grows in complexity uses change as the basis for organized learning experiences, the farmers will come to know and value and nurture the enterprise created in their interest.

Again, as with all policies being set forth, this one has no hard and fast boundaries, no rigid criteria for judging just how much advanced explanation is necessary to start a project off on the best foot. Rather, this policy holds up a red light before those who in large majority over the decades of technical assistance have made of prior understanding and free choice based on knowledge,

an orthodoxy in rural development. Policy M challenges. It accepts the risk of being labelled "manipulative".

N. Profit levels which delimit feasibility are not to be set in advance of study.

There simply is no magic number making a project acceptable to investors, in terms of net return on equity or on any other basis. Projects must be profitable. This is basic. But having stated this, the amount of profit may vary, depending upon the interaction of several factors, as, for example:

1. Who invests - the term "private investment" is to be broadly interpreted to include individuals, manufacturers, banks, commercial organizations, foundations, religious institutions and any others not a part of government but having capital to invest. Further, even public agencies, national and international in character, qualify as a source if they have been established to permit investment of public funds alongside private enterprise. Obviously, the attitudes, needs and goals of such a diverse body of investors will differ widely and must be accounted for in setting profit levels. Indeed, in joint ventures, return to the several partners may be agreed upon as variable if a particularly creative and flexible approach is necessary in putting together project financing.

2. Legal restrictions - this limitation needs no elaboration.

3. Custom - acceptable levels of profit may differ from country to country, even in marketing identical products. These customary profit margins must also be considered in relating feasibility to location.

4. Demonstrable and believable risk - risk will vary, in time and in place, depending on a host of factors, e.g., the perishability of product; how price is influenced; inflationary trends; political stability; degree of personal security at the project site; among others. What is important in bringing risk to bear on a decision affecting profit is that each element of risk being considered be defined and its quantification fully explained. Worldwide, private investors in both industry and agriculture have made much of risk without either facts or solid reasoning to make contentions believeable. Insistence cannot be allowed to substitute for carefully documented explanation, in rural development, where the extraction of profit will be regarded with the greatest suspicion.

5. Secondary benefits - this ties to point 1, above, "who invests", but is worthy of separate notice. For some investors, particularly those who are otherwise commercially engaged in the area, the profit made on an investment in an agricultural

development project may be important only as a symbol of the value of capitalism. What may be of greater long range concern is protection of a franchise to do business in the area as private enterprise, as well as stimulation of the rural economy so that the market for the investor's primary products grows dynamically. It is well known that private enterprise is constantly under query in the countries of the Third World. It is also well known that poverty in rural areas of these countries sharply curtails the size and growth of market opportunities for all manufactured goods and all commercial services. These factors, admittedly qualitative but still very tangible, can and should influence a final decision on an acceptable level of project profit.

6. Farmer benefits - "acceptability" of a level of profit relates to three points of view namely, that of farmer, of investor and of host government. The farmer will not challenge or be led to challenge management so long as his net return is relatively large when compared to prior income and his share of the profit can be shown to grow. The investor will make a judgement in part based on cost in money, time and effort to provide to the farmer the gains the project seeks. The nation will take a position based on a judgement that the benefits to its farmers are worth the price of the interest charged by investors for the use of their resources. While this oversimplifies the thinking of

each concerned party, nonetheless the conclusion would not change with further elaboration: the calculation of project profit must harmonise the views of all, not merely those of the investor. It may be well to add, too, that those charged with the professional task of project development should not insert their personal views as a fourth party. Their job is to integrate objectively the felt needs of those who are the active elements in an ongoing project. Helping to articulate these needs and in communicating from one to the other is the task. Taking a partisan position can be both confusing and self-defeating.

O. <u>In order for a project to be considered feasible and desirable, it must be possible to conceive a practical mechanism for expanding the base of ownership at a reasonably fast rate, to include farmers and laborers whose lands and work contribute to profitability</u>.

There are three reasons for the inclusion of this policy. <u>One</u>, it is considered essential if private enterprise, financed by capital derived from off-farm sources, is to be acceptable to the governments of developing nations. <u>Two</u>, it is deemed necessary if the income of rural peoples is to increase beyond the ability of small parcels of land -- or the ability of limited work opportunities -- to generate income, even when under intensive modern management.

Three, it is felt vital if real wealth is to accumulate in rural areas. A more detailed expression of the thinking behind this policy is found under point 6, pages 465-468, in the article on Popular Capitalism, attached hereto as a part of Appendix A.

P. Projects are to take every advantage of existing incentives encouraging private investment but, as well, are to seek in every practical way to reduce demands on public resources to a minimum.

One objective of seeking private capital as a catalyst in rural development is to extend the impact of scarce public resources. To this end, projects as defined in this report should be self-sustaining.

However, the ways in which public and private enterprise can and do interact to encourage (or discourage) the flow of risk capital into an economy, are legion. Ofttimes, incentives offered by a government can function to attract capital without creating any -- or much of -- a new demand on the use of public monies. For example: low cost crop insurance, at subsidised rates, may be available to help guarantee short term credit and when taken out by the management of a private enterprise hardly adds to the public tax burden; special tax benefits may exist for agriculturally related business and so long as the business generates new, even if reduced, taxes,

it should properly take advantage of this type of subsidy; low interest short and/or longer term credit may be available as part of a general agricultural development program and there is certainly no reason to seek for higher cost money. In other words, those seeking to accelerate the movement of private capital into rural development projects should deliberately seek out ways to utilize public incentives.

On the otherhand, opportunities exist in every country to take advantage of public programs in a way which may maximize profit but which are to be discouraged. They defeat the purposes of finding a role for private enterprise in rural development. For example:

> In Mexico, the Government buys and sells corn at fixed prices in order to maintain a floor under the price of grain in the open market. The objective of the program is to ensure more cash income for the small farmer who characterizes the corn belt of the country.
>
> When the Government buys corn, it is meant to accept grain only from these small, essentially non-commercial farmers. Actually, little control is exercised and both larger farmers and intermediaries take advantage of the system, particularly at the peak of harvest when the price on the open market does drop somewhat below the government price. In effect, the impact of the public price support program is reduced with an attendant disservice to the nation. Obviously, the Model Corporation described in the Feasibility Report could plan to sell grain to the Government. Policy dictates that it will not. To do so would be draining away scarce public funds from areas the Model cannot help. There is no need to do so, since enough profit is potential to serve all the needs of those involved in the Model.

Q. <u>One test of feasibility is to be that a project can be implemented without any change in existing law</u>:

This policy is not meant to imply that national and international laws are above the need of modification. Quite to the contrary. Anyone dealing either with private investment or with development economics can and should challenge binding practices which are outmoded, overly rigid, impossible to administer, one-sided and otherwise obstructive to progress.

But changing law is a ponderous slow-moving process and not necessarily one which can be operated effectively by private investors. To the degree that rural development is a political-emotional issue, changing the law is made even more difficult. Further, until private enterprise demonstrates its worth as a revolutionary instrument for modernization and enrichment among traditional agriculturalists and their communities, pioneering investors can carry little weight among lawmakers.

Experience throughout the world indicates that despite the shortcomings of the law in any country where private enterprise is permitted at all, new and enlarged investments can be made and the resultant enterprise can flourish. Hue and cry to the contrary, thousands upon thousands of profitable ventures in Africa,

Asia and Latin America, testify to the ability of tenacious and creative entrepreneurs of local and foreign origin to live within the law. While admittedly "living within the law" at times may seem a mockery to an observer and a game with very flexible rules to a player, the fact remains that there is no need to defer all or even a major part of the private investment which is necessary and which is economically feasible to make, until the law is reshaped to some idealized form.

> Once again attention is called to the sense of urgency, the sense of getting started, which underlies the program being reported. Policy Q, relating to the law, arises out of this urge to get moving, to get the first significant body of private capital to work in rural sectors of the world. All law changes with time. All elements in a society play a role in such change and the importance of their role is consistent with political power, related in turn to resources, numbers, visibility, a following and leadership. Private investors concerned to deal with rural development must begin their task before asking special sanctions for their work...and they can begin by dealing head-on with the legalities as they are. Impact will be all too slow anyhow. To hesitate in the never, never land of wishful thinking about change in the law is to get lost in indecision.

R. Project size is to be small, with "smallness" defined less in terms of money than in terms of manageability.

It is a truism among private investors -- and should be among public agencies -- that after all other elements of project feasibility are put together into what appears to be an attractive

enterprise, the key to a decision to invest is the management capability which can be put in place. No one will ever be able to count up the cost in project failure, operational loss, delays, heartbreak, disillusionment, distrust and unrealized opportunity relulting from bad management or project size which defied management. The point needs no elaboration here. Suffice it to say that those who put projects together to place before investors must see clearly that competent management is available and, as well, that within the limiting factors of the environment in which a project is to be located, the management task has been described realisitically. What needs to be done for the poor in a given area must not be confused with the ability of single projects to be all things to all man. The larger a project; the more men, money, physical assets, product, area and politics are involved, the more quickly one approaches the limits of manageability, especially of a profitable project. Judgements here must be very hard-headed.

S. Projects are not to attempt to take responsibility for all aspects of development in the communities affected.

Achieving selected goals, such as the provision of more and better foodstuffs at acceptable prices; sharply increasing retained income; creating assets which generate income from a diversity of sources; and, establishing competence in the management of new

technology and new organizational structures, are all that should be expected of a project. It may be, on occasion, that contributions can be made to population control, better nutrition, better general education, home and community development, political organization, among other "good" ends. But, as a matter of policy, in bringing a project into being, there should be careful avoidance of overstating its justification....of stretching objectives to make it seem that a commercial venture can or should take full responsibility for all desired economic, social and political change.

To some, this policy may seem contradictory and to cut off the developer from development just at the time when he is most needed to ensure the fruits of his work from dissipation (see footnote on page 65 of the Feasibility Report for relevant comment on this point). However, it is argued that too often projects, concerned with full awareness of the totality of problems plaguing the rural poor, are seriously weakened by attempts to make them be all things to all men.

> I suppose that a policy such as this one boils down to a reflection of personal bias. There is no proof to offer one way or the other. My personal bias is this: all that I am interested to do is to help free what men I can from their bondage to poverty and physical debility, so that they may

> have greater opportunity to choose between various life styles, just as I have that freedom. Beyond this, I am reluctant to go in any deliberative manner. While I believe in individual freedom of choice as a goal, I have no hard and fast conviction about what is best in social, political, legal or economic organization...I feel very shaky about suggesting how children should be raised or how homes should be designed or how people should use their spare time or money. In working in the field, my heart has been warmed and my optimism buoyed up by the intelligence and sensitivity of rural people, however ignorant they may be. Their hopes seem like mine. Their stated goals seem completely defensible. I prefer to leave achievement along these lines to them.

T. <u>During the study phase of project development, investment promotion is to begin as an integral part of method.</u>

The search for capital and attendant human resources should not wait until after a feasibility study has been completed. This inevitably causes a delay, often a long delay. In turn, the study may then appear out-of-date, dulling interest. More than this and perhaps of greater importance, if investor interest is not generated early...indeed, if potential investors are not involved in the original study itself...they are liable to be distrustful and proceed to make another study on their own. This is costly and time-consuming. As well, it tends to separate contributors whose combined insights are necessary for a well integrated analysis. The specialists sent in by investors may too narrowly perceive

cultural, social, political, legal and national economic factors; the specialists originally in the field may similarly have too limited an appreciation of technical, managerial, marketing and corporate financing factors affecting feasibility.

For investor participation to be marshalled early, those who have first line responsibility for project development must, as a part of their method, carefully analyze the nature of a new investment opportunity when it comes into view to define what kinds of private enterprise are logically involved:

. what kind and how much of technical, financial, organizational and marketing know-how are likely to be needed;

. who has this know-how;

. from among those who have the know-how, which ones might be thought to have the greatest interest due to prior investment policy, location of activities, range of technology, versatility in organization, publically stated corporate goals, participation of management in public affairs, political sensitivity, among other kinds of evidence related to self-interest and something beyond.

Once potential investors have been identified and after reasons why they should be interested have been reduced to a cogent presentation, the effort to make contact and to persuade them to cooperate must be considered a part of the cost to make the feasibility study. The temptation will be to defer this cost. Policy states that this temptation is to be avoided.

IV. PROCEDURE AS METHOD

The policies defined in Section III, it is believed, have universal applicability. However, no set of procedures used to reduce these policies to practice can be as widely useful. Each project arises out of a unique environment. The techniques used to implement policy must, of a consequence, vary from case to case. Thus, while the following historical review of the procedures used in Mexico during the evolution of a Model Corporation (see the Feasibility Report for details) may be illustrative and to some extent useful to others, they cannot be taken as being definitive.

A. Detection of a Possibility - At the time this work began, no country or type of agricultural enterprise had been preselected. In a general sense, what was being looked for initially were these factors:

1. a country with a traditional form of peasant agriculture, wherein a project, if developed, would be representative of the type of enterprise capable of initiation anywhere else in the world;

2. a body of knowledge created by an authoritative local institution which predicted a large increase in productivity if

applied, in turn predicting a high enough level of profit on the required investment to satisfy the demands of investor, farmer and host country;

3. political and currency stability;

4. familiarity with and acceptance of private enterprise as an integral aspect of the economy;

5. familiarity with and acceptance of foreign investment as a desirable even if controlled part of the economy; and,

6. considerable prior experience by United States private enterprise in the host country.

It is to be remembered that the project in Mexico is the first in a program which hopefully will extend to many projects in many places. It is also to be recollected (see the article from the Harvard Business Review in Appendix A) that a basic assumption of the program is that capital from the United States will be necessary if private enterprise is to play a significant role in agricultural development. Being a pioneering venture, as well as one meant to attract the attention of entrepreneurs from the United States, it was felt best to avoid engagement with <u>all</u> the difficulties known to face private enterprise in the Third World. Thus, for example, political and currency stability were sought even though it is clear that neither of these variables are under control more often than otherwise. Familiarity with conditions in the host country by American investors was also

> considered basic to the success of this first project even though one could not depend upon this condition if the program were to be expanded.
>
> Despite how these choices magnified the differences between Mexico and most other developing nations, it was felt that a prototype set up in rural Mexico did face conditions common throughout the world. Agrarian reform is a dominant political theme. Traditional agriculture, poverty, exclusion from bank sources of credit, disorganized marketing, back-breaking debt, usury in money lending, inadequate public services, all these and other characteristics of rural backwardness feature much of the hinterlands of Mexico. Surely, it seemed, most of what had to be learned to implement policies of Section III could be learned in Mexico, even while eliminating certain critical variables to be faced elsewhere, later on.

With these factors in mind, Mexico began to loom large as a possibility. This possibility became more attractive when contact was made with the International Crop Improvement Center (CIMMYT) in Mexico City. CIMMYT is an outgrowth of the work done by the Division of Agricultural Sciences of the Rockefeller Foundation in cooperation with the Mexican Agricultural Research Institute (CIMMYT is cosponsored by the Ford and Rockefeller Foundations). What was found was a large body of research data indicating increases in per hectare yield of corn grain, under selected temporal conditions, of the order of magnitude of 4 times and higher. More than this, a keen, driving interest existed within CIMMYT to accelerate application of this knowledge. To encourage setting

the model project in Mexico, CIMMYT offered to provide agronomic expertise as its contribution.

Immediately, the first glimmerings of a project well adapted to program policy came into view. A fourfold or greater increase in yield held out the promise of sharp increases in net income. A temporal system of farming meant embracing areas of traditional practice, small-scale farmers and poverty. The data to be applied came from an impeccable source and had been derived from field research in the country to be served. Technical support for the project development team would be available. The crop was an integral part of the culture and economy of the people. The market was large and even at first glance was clearly disordered and offered profitable opportunities for producers who could better organize distribution. The project would have to adapt itself to agrarian reform and a strongly held nationalistic view of justice and revolution in the "campo"... yet, the economy of much of rural Mexico was faltering and there was widespread public and private recognition of the need for innovation if the rural sector was to be galvanised into a more dynamic state of growth. Mexico had a hard currency; it was politically stable; it supported a mixed economy in which private enterprise and public corporations existed side by side; and, Mexico was familiar territory for a large number of U.S. agribusiness corporations.

B. Preliminary Legal Inquiry - Once the idea of a pilot project in Mexico crystallized out of discussions at CIMMYT, legal counsel was retained to determine with care whether the type of project envisioned was in any way blocked by the constitution, the general laws of the country governing private enterprise, the specific laws relating to land use and agricultural practice, or, by the nature and operations of any pre-existing institutions established by the Government to implement the Agrarian Codes as written and later modified after the Agrarian Revolution of 1913. Legal opinion was encouraging as noted on pages 25 through 28 of the Feasibility Report.

C. Preliminary Investment Promotion - Upon receipt of legal opinion, a decision was made to locate the pilot project in Mexico. Before the start-up of field work, however, the first steps toward investment promotion were taken, in the U.S., keeping two things in mind: first, the program to be symbolized by the pilot project depended upon the attraction of U.S. capital; and, second, the model, as it evolved, needed the critical participation of management so that all the questions investors might ask would be anticipated and answered in the feasibility report, eliminating the need for ever more study.

It took two months of full-time effort to create what was called the "Management Advisory Committee". Fourteen corporations, all

in agribusiness, all with international commitments and all with manufacturing and/or distribution experience in Mexico, agreed to participate. The spread of competence covered: seed, poultry, beef and pork, grain handling, farm equipment, tropical agriculture, energy products, fertilizer, agricultural chemicals and food processing technology. Two additional areas of competence were sought, namely, agricultural financing and animal health, but time became pressing and before such participation was achieved, it was decided that the Committee was large enough and could serve its purposes adequately. In return for an assurance that the Committee would meet no more than three or four times a year for review, critical discussion of progress and to offer recommendations guiding the field work in the most appropriate directions, each corporation assigned a top management person to the Committee and agreed to cover the expenses in time and money to have this man attend meetings. Of course, in reaching these agreements, it became possible to open the doors of each corporation to visits by field staff. In turn, so long as this type of contract did not become a nuisance, this informal arrangement held out the chance to deepen and broaden the technical competence of the field team, should a lack be felt.

It is important to note that "top" management representation was sought. True, each member of the Committee brought to bear invaluable technical assets and, in an important way, might better

have been a technical person. However, more significant to the objective of forming the Committee was the desire to have members reflect the investment policy of their organizations. The strategy of investment promotion at the very early stage in project development was to lead the study into a form wholly acceptable and understandable to those who would decide to invest, even while establishing with these very men a deep appreciation of the philosophy behind the program and the details of the prototype project.

D. Site Selection - The next step was to venture into the field. The location of a site was in part determined by the data supplied by CIMMYT, the critical limiting factor being rainfall. The rainfall required focussed attention on the westerly part of the State of Jalisco. Immediately, options became more limited.

Policy dictated that a market had to be in view for any increase in production of grain. Policy also demanded that attention be given to diversification potential, which, in turn, could only be seen through an analysis of the market for new crops or for up-graded agricultural products. Reaction to these policies could only be to place Guadalajara at the center of any marketing plan. Guadalajara is the second largest city in Mexico. Its population is almost 1.5 million. It is a vigorous market within itself and in terms of export to and import from other parts of the country. Rising wealth

within the city is changing and broadening the market for foodstuffs. Clearly, the dynamics of the model project, based as it was to be on marketing corn grain and an as yet undefined diversified line of products, had to give priority to marketing opportunities in Guadalajara.

Given these criteria, namely, minimum rainfall and remaining within economic transportation distance from the main market, a search was made within a circle around Guadalajara, using a radius of 100 kilometers as a limiting boundry. The choice of 100 km. was largely arbitrary and was selected after an examination of the road systems radiating out of the city, average hauling charges by truck and rail, vehicle maintainance costs and the costs of labor attendant to transportation. At this stage, these costs could only be related to their possible impact on the delivered price of grain and a cut-off point of roughly U.S. $4.00 per metric ton for transportation was used to set a limit on distance.

Thereafter, what was searched out were sites which:

. historically were the most certain to get the minimum rainfall required each year (700mm);

. were served by reasonably good roads, usable during wet and dry seasons;

. showed definite and promising signs that the people were well into the process of change, such as electricity, potable water, schools, trade for money within and external to the site, use of some of the inputs of modern agriculture, shoes on the children, windows and doors on the houses, among others;

. were in a traditional corn culture; and,

. were sufficiently poor that the project, if successful, would have an impressive impact on income.

This search lasted roughly four months. Three likely places were selected from among many examined. At each site, arrangements were made to test the new practice on several hectares. No rent or payment for labor was offered. Rather, all of the inputs, plus technical assistance were given free and it was understood that the entire harvest belonged to the farmer once it was weighed. No marketing service was included in the deal. No problem was met in finding the land. These field tests, in addition to validating the predictions of CIMMYT, were intended to help introduce the project staff to the people.

As will be further noted in the following pages, market analysis and a study of the cultural-social-economic characteristics of the

people at each site were started simultaneously with the demonstration plots. As a result, one site was dropped before the end of the first crop year, 1967. Here, it was found, political violence overspread the several communities involved as a group of younger men made a determined effort to overthrow those who had held local political and economic power for many years. There seemed no purpose to get caught in the cross-fire of this fight.

In practically all other terms, the other two sites were equally attractive. One was selected, finally, because the lay of the land lent itself more readily to management. From any point in the valley, the entire area of arable land could be seen. The most pragmatic and the most poetic of observers had no trouble at all in imagining a commercial venture capable of administering the area. This was considered a vital aspect of the choice since part of procedure was to encourage visits by any and all who might in some way help bring the project to fruition. One view, it is said, is worth a thousand hearings. This is particularly true when the view speaks eloquently of the ends in mind.

D. Market Analysis - The procedures followed in this regard required no innovation and concerned themselves with these factors;

1. the market for corn, past, current and forecast, including amounts, sources, prices, methods of trade, in Guadalajara;

2. the influence of the Government corn purchasing program on price structure and marketing procedures, especially in such rural areas as typified by the site chosen;

3. the real return to the farmers at the site from the sale of corn; and,

4. diversification possibilities based on the needs of the Guadalajara market in particular and, where relevant, the Mexico City market.

A detailed discussion of the results of market analysis is included in the Feasibility Report, pages 107 through 133 and 137 through 143.

F. Step Two in Investment Promotion - Step One in the Political Inquiry - Coincident with the search for a site and the start-up of market analysis, a Mexican Advisory Committee was brought together in Guadalajara, comprised of four leading members of the business community and a representative of the Department of Economic Planning of the State of Jalisco. The project and the concepts in which it was rooted were explained and discussed and on and off thereafter these men gave advice and direct assistance in:

. meeting the Governor and the Federal Secretary of Agriculture both to explain the project and to get a reaction to its acceptability;

. introducing the project widely among business leaders in Guadalajara, with the idea that at a later date they might give serious consideration to investing in the Model Corporation;

. introducing the project to those at the top of the Catholic hierarchy in Guadalajara (at the time, the only Cardinal in Mexico was in this city; another has since been appointed in Mexico City) so that understanding help might be solicited, if necessary, to get the cooperation of the local priests in the site valley; and,

. maintaining a clear sense of urban Mexican attitudes toward rural development.

G. General Feasibility Analysis - Once the site was selected and market analysis was initiated, feasibility study proceeded simultaneously along five additional lines, namely:

1. Political inquiry continued in a very quiet, informal way, using as a consultant a political economist with a long and

successful diplomatic and research history of performance throughout Latin America. A summary of this inquiry is to be found on pages 29 through 36 of the Feasibility Report. As a matter of procedure, it was deemed prudent and adequate to probe the political issues with utmost caution, for several reasons. First and foremost, it was felt, any notion that outsiders were suggesting to Mexico how to resolve its rural problems was to be avoided at all costs, lest pride be touched at its most tender spot and rejection be out-of-hand. Rather, the project was identified as an experiment of international character which happened to be located in Mexico. Should the project succeed, it was emphasized, Mexico could adopt it in concept if it chose and could take credit for encouraging its development as a Model; should the project fail, there would be no onus attached to the nation. Secondly and of considerable importance, it was anticipated that a formal overt study of an issue as sensitive as agrarian reform would tend to restrict response rather than open the way to a full expression of concerns, of awareness, of the desire for innovation and of the potential for project support within the federal agencies and within the dominant political party.

2. Legal inquiry continued, leading toward the construction of policies and by-laws and organization fitting to the objectives of the project and Mexican law. The results of this work are discussed

in the Feasibility Report on pages 57 through 61, where the mechanism for the Transfer of Ownership is outlined; pages 71 through 77, where Taxes and Other Incentives are discussed; and, in documents on file which spell out a model corporate charter and set of by-laws, should the Model Corporation be developed. Further, in the financial projections charted in the Feasibility Report, legal counsel participated in decisions bearing on depreciation schedules, legal reserves, taxes and profit-sharing.

3. Cultural inquiry was begun, utilizing the skills of an anthropologist, to probe such matters as how best to gain farmer cooperation; the actual financial base line from which increases in income could be measured in the future; the quality of social organization and the motivations most moving in the minds of the farmers, their wives, their children and others in the community; attitudes toward change and outside agents of change, whether from government agencies, private Mexican institutions or foreign sources; among other factors critical to acceptance of the project initially and for its maturation over the years. Again, nothing innovative characterized this study. The anthropologist was completely bi-lingual, with long field experience in Mexico, though from the United States. However, he utilized Mexicans exclusively to interview. Prior to any formal interviewing, many weeks were spent in the four communities at the

site*, merely chatting, getting a feeling for the people and the environment and letting the interviewers become familiar to the people, attending "fiestas", eating in homes, meeting the priests and school teachers, and, determining formal and informal patterns of leadership. Questionaires were used and modified again and again as new or better lines of inquiry revealed themselves. The data were analyzed by hand, not machine. As expected, far more data were accumulated than were useful to the ends of the project and while efforts were made to discipline the study to avoid tempting but scholarly queries, the rein was held loosely since it is difficult to know in advance everything to ask which might lead to valuable practical guidelines. The cultural inquiry stretched out over all of 1968. There was no reason to hurry, since crops were being grown and other facets of the study were still in process of exploration. It seemed best to keep talking, noting contradictions of the testimony, making corrections and letting time breed the easy familiarity and mutual confidence so important to assessing the truth of what rural people say to outsiders.

The results of the work reveal themselves throughout the Feasibility Report, especially on pages 37 through 56, which cover a discussion

---

* During 1967, when three sites were under consideration, this phase of the work covered the communities in each place. It was not until 1968 that all attention was concentrated on the one site finally selected for follow-up.

of the question, Is the Model Acceptable to the Farmers? Other relevant pages to review are 68-70, touching on continuity after the withdrawal of the outside investors; and, 87 through 106, which analyze short term credit needs and risks.

4. Technical analysis - procedure here covered two aspects of the system of production introduced by the model:

a. growing corn - in 1967, about 12 acres were put to the improved practice suggested by CIMMYT. Results evidenced an increase in the average yield in the valley from about 25 bushels/acre to about 86 bushels/acre. In 1968, to better assess soil variability and to get more farmers involved, 16 plots, each of 2.5 acres, were scattered over the valley. Harvest results ran from about 54 to 130 bushels/acre, satisfying the study team, at any rate, that given average rainfall (about 800mm), the improved system worked and that an average yield of 90 bushels (5 metric tons per hectare) was a reasonable basis to use in financial projections. During these two crop years, technical guidance was provided by CIMMYT. A full-time agronomist, Mexican, a graduate of the National Agricultural University with 15 years of extension experience, was taken on to supervise the field work. As part of his task, regular meetings were held in the communities at the site to explain the details of the new practice.

An important point of procedure should be noted at this time.

Anyone familiar with rural development work, upon scanning the Feasibility Report, will recognize that the Model is complex in structure and not easily understood in all its ramifications, even by professionals in the field, let alone by uneducated "campesinos". It was decided, therefore, on entering the site with corn growing demonstrations, to base interest and acceptance entirely upon explanations of the nature and financial benefits of an improved system of grain production.

All other aspects of the scheme, such as diversification, managed savings, fixed assets, training, shared profit, among others, were set aside to be brought up much later, indeed until after the commercialization of corn growing had commenced. It was thought that once cooperation at this level was achieved; once credit was flowing; once real gains in income were tangible and the responsibility of the farmers clearly expressed, it would be easier to introduce next steps in project evolution.

Thus, in truth but as only part of the truth, the farmers were told that non-government people outside the valley were interested in helping to increase production and income. First, however, the story went on, these outsiders needed to determine the yields made possible by new technology - hybrid seed, fertilizer, pesticides, plant population, proper timing -- and needed to be assured that the people were interested and able to apply the new system when directed by a technical supervisor. The notion that low cost credit would become available and that an improved marketing mechanism would be set up to maximize farmer returns, were also touched upon but not labored. Some emphasis was placed on the need to get out of debt to the money lenders mostly to let the farmers know that this problem was understood and that great sympathy existed for the plight that heavy debt and high interest rates created and perpetuated.

This approach has proven adequate to build firm confidence and a most cordial relationship between the farmers and project staff.

b. diversification into milk and pig production - as the Feasibility Report indicates, these two product lines were selected as the basis for diversification. In each area, a consultant was brought to Mexico from the United States to lay out a plan of production, including costs and financial projections.

5. Financial Analysis - using inputs from the anthropologist, lawyer, tax specialist, financial specialist and political scientist, the three basic financial requirements of the project were defined, analyzed and means suggested through which they might be met. These three include: a)short term credit financing; b) financing transfer of ownership; and, c) financing equity and long term loans.

In a way, financing the transfer of ownership was the simplest problem to resolve, since once profit was assumed, use of the trust mechanism, as described on pages 57 through 61 of the Feasibility Report, quickly suggested itself out of legal precedents in Mexico.

Short term practice credit, long term borrowing and equity financing are inextricably related and tough to house in some theoretically functional system the word "theoretical" is used deliberately here since all that has been possible to date is to identify alternatives

and sound out opinions about each -- until a corporation actually exists for the purpose of commercializing the model, it is impossible to say which alternative will finally work best. The key is a means to reduce the risk attendant to providing short term credit to people who have no other collateral than their crop and a history of personal integrity (or no history, awaiting the chance to write one). There is no question that equity capital and long term loans will flow into a project of this type if the spectre of seasonal losses can be eliminated. This is discussed in Chapter 3, Part IV, of the Feasibility Study. Ways which were suggested by the study to reduce risk on short term credit are outlined in Chapter 3, Part VII.

From a procedural point of view, the intriguing aspect of the financial inquiry was the range of opportunity to innovate in relationships to a wide variety of institutions which come into view. For example:

. A federal institution offering crop insurance through which some losses due to natural factors beyond the control of farmers can be recovered. The premium is subsidized to encourage farmers to use the insurance and hence make credit available to them from both public and private sources. Too, a private source of credit to campesinos - whether "ejidatarios" or "pequeño

proprietarios" (see Feasibility Report, page 20, for a definition of the ejidal land tenure system in Mexico) can be named the beneficiary of such policies.

. A new form of credit insurance issued by private insurance companies which, under Mexican law, can not issue crop insurance.

. Public agricultural credit banks which can provide up to 100% guarantees against losses to private enterprise which supplies short and long term loans to farmers in an approved project.

. Public agricultural credit banks which can participate in a credit program and have the authority to subordinate their loans to those of private lenders.

. Private agricultural credit institutions capable of venturing more deeply into novel risk situations than can public or private banks.

. Credit organizations, implemented by Mexican Law, in which a group of farmers agree to take joint responsibility for the individual debt of members.

At this point, a decision on procedure was made which had a fundamental impact on the forward history of the project, at once: delaying its full commercialization at least until the end of 1970; bringing into being the probability that Mexican sources of capital would take a position of far greater importance than had been envisioned earlier; and, in an exciting, almost dramatic way, ensuring the success of the program symbolized by the project, that is, a program of attracting large sums of U.S. private capital in rural agriculture development, even should it turn out that the model project fails to materialize.

The decision was this: the effort to organize capital in the U.S. would not be based simply on attracting capital into the Mexican Model Corporation but rather would use the principles illustrated by the proposed Model to sell the idea of broadly based rural agricultural development company, devoted to seeking out, studying, financing and ensuring management of profit-making enterprises anywhere in the food supply system from farm to consumer, so long as the design of projects included up-grading income and spreading ownership among rural peoples. Then, if success attended this effort, investment might or might not flow into the Mexican Model; either way, the program that it was intended to launch by setting up the project in Mexico would be launched.

The reasons for such a decision were two in number. First, and of paramount importance, the project in Mexico was never intended to be an end in itself. No project anywhere should be that important. Failure of a project should be expected, even the first and maybe the next several in the string a development team may put together. If the principle is accepted and a commitment made to popular capitalism as a seclective route to rural development, then, as a project emerges which structures the approach and captures interest, the promotion of it should go beyond it, if possible.

Recognition of what is possible was the base of the second reason to act as was done. During the first two years in Mexico, as a result of response to reports, published papers, talks of conferences and a steady flow of visitors, it became very apparent that the private sector of the U.S. had within its community of managers a deep concern about world hunger and worldwide poverty. This concern sprang from a variety of sources. Public policy in the U.S. was pressing for more action by private enterprise. Corporate investments overseas led to awareness of the causes of political disorder, of limited markets and of legislative threats to doing business at all in the developing nations. Corporate managers -- not all by any means but in considerable number -- as educated and ethical men were personally concerned. In total, the time seemed right to attempt to fuse these concerns into concerted action, focussing resources of money, know-how and manpower on the problem of rural development.

Having made the decision to attempt investment promotion on a large scale, subordinating the Mexican Model in the presentation to the broad concept, it was then decided that the only practical way to make progress was to gain the support of one outstanding private institution in the U.S. and then, using its authority among its peers, to gain the support of others. In effect, what was said was that the field team, though capable of putting a concrete program into the hands of those with money and other critical resources, had limited capability in terms of contacts, budget and authority to reach top management throughout the U.S. and to force investment decisions in any reasonable length of time. This concurred with opinions held among members of the Management Advisory Committee who agreed that what was being sought required a direct approach to the very top of corporate management by others of equal rank...and that a first decision to put capital to work in the manner suggested would very favorably influence similar decisions by others.

The result of all these considerations was that in mid-1968, discussions were started with officials of the Bank of America, in San Francisco and in Mexico. Without leading this text through the many steps which were taken in the months to follow to attract first interest and then commitment by other leading corporations in agribusiness, it is enough to note that on January 26, 1970, the

Latin American Agribusiness Development Corporation (LAAD) was announced as an operating company, capitalized at $15 million. Appendix B includes a copy of the news release issued that day which gives some indication what LAAD is and proposes to do.

> When talk first began about what turned out to become LAAD, consideration was given to forming a company which would venture into Asia and Africa, as well as into Latin America. It was finally deemed wiser to concentrate on one region...a big one geographically, at that.....in order to learn how best to operate. Success in one area, it was agreed, would be most likely to lead to the formation of other institutions elsewhere, formed to do the same kind of a job.

It is to be emphasized that the shareholders in LAAD have made no promise to invest in the Mexican Model. Indeed, they have not been asked as yet even to consider such investment. However, a proposal will be made at the proper time, hopefully late in 1970.

7. Step 4 in Investment Promotion - As the effort to form LAAD began, it became apparent toward the end of 1968 that many months were going to pass before an operating company would exist. To protect the investment already made in the building of the Model and in winning the confidence and cooperation of the farmers at the site, the program of corn production on a demonstration basis was continued into 1969 but on an enlarged scale, to give

evidence of growth in interest on the part of those outside of the valley, (90 acres, roughly in one bloc, were placed under management).

At the same time, cognizance was given to the notion that even if LAAD were to become operational in 1969, it would be far simpler for funds to flow into the Mexican Model Corporation if a local partner already existed through which to extend funds in a joint venture. Therefore, promotion was directed toward the creation of a local development company, with minimum capital, whose only concern at the outset was to support the establishment of the Model. To achieve this goal most quickly, it was thought advisable to work directly with U.S. agribusiness companies operating in Mexico. The managers of these branches, it was felt, would be able to comprehend what was being attempted and would see it to their advantage to participate directly in rural development as evidence of corporate concern for national economic growth. Results verified these feelings. By September, 1969, a new corporation came into being, called Fomentadora Rural, S.A. (Rural Development Corporation), capitalized at 40,000 pesos (U.S. $3,200), with a charter and by-laws exactly patterned after the recommendations of legal counsel working on the organization of the Model Corporation itself. Five shareholders participated. Thus, in one simple, inexpensive move, the Model was established in essence and in miniature. Fomentadora Rural, S.A. de C.V. would readily become the operator of the Model when the latter was blown up to full scale. A tangible basis was brought into

existence on which to build the support of Mexican capital. Legal means were established to enter into credit-technical assistance-marketing contract with the farmers in 1970; and, a very modest expansion in budget was made available to the project team during the last months of 1969.

Before carrying the description of Fomentadura Rural and the procedures followed to utilize its existence in implementing the project in 1970 further, it is important in following what has happened to the project to back up into a discription of several events which took place in 1969 and what response was made to these unexpected happenings.

8. Reacting to Unexpected Threats to Survival - At the beginning of the 1969 crop year, it was taken for granted that full-scale commercialization of the Model would be attempted in 1970. The first and least important occurence to modify this calendar was drought, the worst in a generation and yields throughout the entire State dropped from 90% to 30%; project demonstrations fell of in yield by 50% to 80%. Drought is to be expected. Indeed, in the plan of the Model, two bad years out of ten were forecast. But the fall-off in yield in 1969 was greater than anticipated and demanded a critical evaluation of its impact on financial projections and its impact on the practice of farming used. Up to this time, it

had been assumed that the new high levels of yield upon which the economic feasibility of the Model was partially based could be obtained without changing the traditional practice of preparing the land with animals and crude plows and harrows and of planting and applying agricultural chemicals by hand. The drought challenged this assumption. A review of conditions which prevailed during the season indicated that had the land been better prepared, had seed and fertilizer and herbicide been more uniformly and more promptly applied, better results, despite the drought, would have been obtained. In turn, this led to the conclusion that another year of demonstration farming would be highly desirable, with a shift toward partial mechanization, before proceeding to commercialization.

> There was some gain to the project, long run, as a result of crop failure in 1969. By showing no sign of discouragement and, indeed, by announcing an enlarged program for 1970, the serious intent of the project was reenforced in the minds of the farmers. This has been evidenced by widespread comment made to the staff agronomist from among the people of all the communities involved.

Perhaps the drought alone would not have forced a delay to 1971. What also took place to make the delay inevitable, was a fundamental change in the marketing procedures available to the farmers. As described in the Feasibility Report, Chapter 3, Part VIII, Mexico

operates a government corn purchasing program to put a floor under the price of grain. To participate, a farmer must deliver grain to a receiving warehouse. Over large areas of rural Mexico, including the valley site of the Model, no such warehouses have been close by and it is the middlemen who buy grain from the campesinos at low prices, who transport to the nearest receiving points and who have benefited most from the support price. This fact, among others, was utilized in arriving at a price to be paid to the farmers by the Model for grain equal at all times to 100 pesos (U.S. $8.00) less than prevails in the marketplace at the time. This farm price, projected to remain close to 800 pesos per metric ton, was estimated to be higher than the average received by farmers over many years past and to be attractive.

In mid-1969, the Government announced an expansion in its program of construction of receiving warehouses. The new ones were to be scattered throughout rural areas inadequately served. One of these was placed exactly in the center of the valley site of the Model. This meant that from harvest time 1969 and thereafter, the farmers would have two sales options: to the Model at from 800 to 840 pesos/ton; to the Government at from 900 to 940 pesos/ton. Granted, when all of the financial incentives to be offered by the Model are added up (see Chapter 3, Part III of the Feasibility Study), each farmer is still far ahead financially by taking 100 pesos less per

ton from the Model. Still, to a farmer at the subsistence level of existence, money in hand is far more attractive than money he might net later on... or so experience would seem to indicate.

So the project was faced with the need to probe more deeply than ever before the attitudes and understandings of the farmers. Would they see the long range values of technical assistance, average higher yields, low interest credit, getting out of debt to the money lenders? Despite the obvious advantage to them which arithmetic could illustrate, nothing could be taken for granted.

With all of the foregoing in mind, it was decided that 1970 must be used as another study year. However, at the same time, it was decided to take the project out of AID and put it into the framework of private enterprise, making of the program in 1970 as much of a true miniaturization of the commercial Model Corporation as possible. In this way, if 1970 was encouraging, the Model could be initiated based on a running start. As this final report to A.I.D. is written, the project for 1970 has this form:

a. Fomentadora Rural, S.A., will be the operator of the project and its capital will be tripled, at a minimum; as well, investors from the wholly Mexican private sector will be sought. Credit and technical assistance will be extended through contacts

calling for repayment of loans. These contracts will call for marketing all surplus through Fomentadora Rural, at a price equal to 100 pesos less than the corporation obtains.

b. A supporting fund has been obtained from Agricultural Missions, Inc., of the National Council of Churches of Christ, U.S.A., to enable the project to include the services of a rural sociologist, an experienced, successful Mexican. This man will be central to the determination of attitudes vis-a-vis the changed marketing system in the valley. He will be responsible for the attempt to get farmer cooperation in 1970.

c. Additional supporting funds have been made available by a grant from the Foundation for Education and Social Development (Boston, Massachusetts). This grant will be administered by IDEAS, Inc. (Institutional Development and Economic Affairs Service, a non-profit institution headquartered in Washington, D.C., of which the writer is an Associate Director).

d. 25 farmers, controlling 100 hectares (250 acres) are being asked to cooperate by forming two to three "solidarity groups" wherein the group is jointly responsible for the debts of the individual members (see page 100 of the Feasibility Report for detail on "solidarity groups" as a form of credit union in Mexico).

e. If these 100 hectares can be contracted, the land will be prepared by machine and planting, first fertilization, and the application of pre-emergence insecticides and herbicides will be done by machine, as well.

f. Once the "solidarity groups" are formed, they will be used by the resident sociologist and resident agronomist as forums to go deeply into the concepts behind the whole project.... more deeply than had originally been planned....so to get a sense for the odds that the Model can proceed in 1971 with sufficient farmer backing, despite the presence of the public warehouse and its offer of a higher price for grain.

g. If by mid-1970 all looks good, efforts will be concentrated on fully capitalizing the Model for Phase I, starting with the crop year of 1971.

APPENDIX A

International Relations

VOL III

No 7

APRIL 1969

THE JOURNAL OF . . .

THE DAVID DAVIES MEMORIAL
INSTITUTE OF INTERNATIONAL STUDIES

7/6

POPULAR CAPITALISM — A SELECTIVE ROUTE TO AGRICULTURAL DEVELOPMENT

SIMON WILLIAMS

This article is about the nature and implications of an experiment in agricultural development, located near Guadalajara, in the State of Jalisco, Mexico, but meant, if successful, to be applicable to some part of the rural sector of any of the less developed countries of the world.[1]

The heart of the experiment is conceived to be a mechanism which pumps private capital from the outside into selected rural areas, to establish profit-making ventures free of public subsidy and within the food supply system. Conceptually, the role of investment capital is envisioned as one which catalyzes the creation of self-sustaining agribusiness enterprises; which increases food supplies while simultaneously increasing distributable wealth and ensuring a broad base of wealth sharing; and, which ultimately administers the orderly transfer of ownership and management from outsiders to the rural people involved.

In elaborating on what is being done in Mexico, for what specific purposes, it is necessary to touch upon world hunger as a crisis in human affairs and upon other matters such as agrarian reform, the inevitability of small-scale agriculture, profit-making among the depressed and the relative importance of production versus marketing in programming agricultural development. Since every one of these and related themes is calculated these days to arouse passion and to split an audience into extremes of advocacy and antagonism, it is well to deal with them first and, hopefully, set the Mexican project against a background which keeps its focus clear and which facilitates understanding of its modest aims.

The work began as part of a search to find an answer to this question: what can private, profit-making corporations do, more directly than in the past, to accelerate the application of existing and improved practices of growing, harvesting, conserving and distributing foodstuffs, throughout the hungry areas of the world.[2] The question was deemed important by those who asked it because of a deepseated concern with the so-called "world hunger crisis".

This concern sprang from several sources. For some years, out of humane considerations primarily, United States agribusiness firms had been giving of their resources, in a very sparing way, to public agencies dealing with the problem, e.g. gifts of fertilizer, occasional grants of money for research and training, and, some-

[1] The project in Mexico has been supported since October 1966, under the terms of a research contract between the International Marketing Institute and the United States Agency for International Development.

[2] The early years of this inquiry, from 1964 through 1966, were sponsored by the International Minerals and Chemical Corporation of Skokie, Illinois, U.S.A.

times, technicians, management personnel and technology to be put to work on a specific overseas project. But awareness grew, as public discussion of the issue became constant and widespread, that charity was at best an inadequate and at worst an irresponsible gesture.

In facing the query, what more is there to do, management had to reckon with several facts. One, with the exception of a limited number of companies, few corporations knew enough about the realities of the world hunger situation to deal with it creatively and on a large scale. Two, what was known flatly stated that whatever the means used, greater participation meant a deep involvement in the social, cultural and political aspects of life in a host country; this carried with it somewhat frightening implications. Three, it was not necessary to measure precisely the magnitude of the problem to realize in advance that the amount of money needed for agricultural development around the world was immense and that if this money was going to be found, the larger share would of necessity have to come from the United States. What should — what could the share of business be in light of prior commitments and management responsibility to stockholders?

It was necessary early to come to grips with the issue of "crisis". Both the analysis of the problem and the planning of appropriate new action were, and remain, affected in fundamental ways by the view held as to the nature and, indeed, as to the reality of a crisis component in the matrix of variables to be rationalized. Several conclusions were soon drawn. First, it became unquestionable that a critical situation does exist. No statistical device can average out of being the millions of underfed people readily seen in the cities and countrysides of the world. No quibble over the meaning of starvation or malnutrition can wash away the disease and suffering of the hungry. Second, it was concluded that hunger alone, appalling as it is in magnitude and quality, is not, nor will it be, decisive in generating an adequate response to the emergency.

By themselves, hungry people arouse compassion and generate crises in terms of localized misery. They may stir philanthropic action, sometimes on a large scale as, for example, the Food For Peace grain exports from the United States to India and other countries. These programs may alleviate but they do not eliminate hunger. Furthermore, they tend to decline with time for political and economic reasons and because beating one's breast over the pain of others is a tiresome exercise. The hungry may inspire heights of oratory and may illuminate the pathway to transient political power, but, so far, these are responses without serious impact. Hungry people who are not violent in their search for alternatives simply do not seem able to generate the kind of crises that demand and receive attention. Without a recognized threat

to personal security, those who "have" remain singularly indifferent and uncommitted to sustained action on a meaningful scale in the interests of those who "do not have".

Herein, it was decided, lies the crisis. The hungry people of the world are no longer prepared to be passive. Their plight has become the heart not only of political demagoguery but, as well, of violent politics. Their response to revolutionary appeal has become sweeping, universal, angry, threatening and enduring. In observing the actual and potential upheaval of the hungry, in one's search for an adequate response, it is clear that hunger is but one side of the issue. Hunger is always the partner of economic and social depression. Feeding people is not enough. The entire quality of life among the hungry and poor must be elevated if those concerned with peace and world security would develop a powerful counterthrust to revolution and warfare. Yes, it was concluded, there is a crisis related to hunger, but feeding alone will not remove it. Whatever is done to bring about more food where the hungry are, must, as well, bring about economic growth among these people. They must become convinced through practical experience that there is an alternative to violence in the search for a life worth living.

Looked at this way, it is apparent that however important they may be judged to be, the traditional form of private investment in the agribusiness sectors of the underdeveloped countries is not adequate in a political sense. This is not meant to derogate the value of such investments which should continue to be made on an even larger scale. Enterprises which provide better seed and animal stock; store, process and distribute food; make available modern technology in the form of agricultural chemicals, chemicals for animal health and machinery; enrich the diet with synthetic amino acids, proteins, vitamins and other additives; open up new scources of food as by culturing bacteria on petroleum-based substrates and by aquaculture; among others, play a vital role but one traditional to capitalistic enterprise. They tend to be capital intensive. They distribute to rather than share with those in the agricultural sector. Their interface with the people tends to be with a limited number of employees, a limited number of suppliers of material and service and a limited number of customers who have already begun to emerge from a state of subsistence. Except indirectly, such enterprise is deliberately non-political and does not engage itself directly with the problems of rural peoples.

Thus, in addition to its more traditional approach to investment, *if* private enterprise is to participate seriously and directly in the attack on the hunger-depression-political instability problem, some significant amount of capital and management must be allocated to rural sector investments wherein the objective is not only to increase food supplies but, as well, is to create locally-

owned wealth producing institutions which: a) increase income in the rural areas; b) provide a diversified means for such income to increase in time; c) offer incentives to people to protect and nurture the enterprises created, e.g. by becoming owners and managers; d) offer incentives to those with superior capacity to reach ever higher in aspiration and performance; and e) conserve scarce public resources for infrastructure construction.

In reckoning with a thrust into rural development, private enterprise must accept the fact of land fragmentation and the difficulties this raises in maximizing raw material production and distribution efficiencies. There is no looking back, where, through tradition or agrarian reform, small-scale agriculture is a way of life. There is no stopping the trend toward parcelling out the remaining arable tracts of land (or those which will be reclaimed from the deserts and jungles in the future) in small units, in the face of population and political pressure. The challenge lies not in changing land tenure systems but in dealing with them; not in wasting energy passionately wishing that small-scale farmers and ranchers did not exist but in applying managerial talent to aggregating their resources to a profitable end.

While not all investments in rural development need be land based, they will be land related and will be involved ultimately with poor people. Yet, to be realistic, private investment, by its inherent character, must yield a profit. Without a profit, the use of private capital becomes philanthropy, and philanthropy, as has been noted, is not to be depended on, in size or continuity. To make a profit in the marketplace of the poor and hungry will seem to many to be despicable; to revolutionaries it will seem abominable; and to politicians it may seem intolerable. Does this create an impasse? Maybe. Not necessarily. It depends on whether or not investment for profit can be convincingly demonstrated to be a revolutionary means of achieving social and economic reform.

By definition, "revolutionary" implies sudden change, overthrow . . . in action the revolutionary must be flexible and must generate widespread support to sustain himself. He is usually in the minority at the outset. He must husband scarce resources in the attack on entrenched forces. He must strike where the odds [illegible] success are greatest. He must seek success in situations where [illegible] has been learned by activist and observer encourages repetition with less and less effort. He must be innovative, true to the beliefs that engendered his heresy yet not doctrinaire and confident in his skills without being arrogant. By extension, this defines the parameters of private investment projects which pioneer in rural development and which will be permitted to demonstrate their value. Their impact must be dramatic. They cannot be all things to all men at once, despite the urgency of the changes sought. They must be highly selective, seeking at first for the easiest route to success. They must have the character of prototypes, so to

speed their adoption elsewhere. They must have a broad base of popular participation, at least in a local sense. They must adapt flexibly to legal restrictions on innovation yet they must stretch what is possible to the limits of critical interpretation . . . and they must be prepared to fight for change when the entrenched power is maintained by fear, not by statute.

At first glance, it may seem impractical, if not impossible, to reduce these demands on private investment to operational terms. How does one begin to isolate an investment project that fits the rules of the revolutionary game of popular capitalism? While no one final method has been worked out to fit every situation, the experience in Mexico has led to some procedural guidelines which seem to have universal applicability:

1. *Seek out modest-sized enterprises which have the character of prototypes and plan for multiplication.* What is meant by "modest-size"? Indications are that throughout the world there is far more opportunity to incite development with investments ranging from $100,000 to $1,000,000 than to do so with multi-million dollar enterprises. Perhaps it has been true that in the past a major frustration facing would-be investors in world agriculture has been the scale of investment sought. The realities of market size, market dynamics, infrastructure construction and human organization are all too often limiting and must be dealt with realistically.

No doubt, there are large scale projects to be developed as in the case of the reclamation of the Indus River basin or the reclamation of arid zones near the sea by massive desalinization-irrigation schemes. But these are not common. Capital requirements are enormous and require unique arrangements between public and private sector institutions. They are long term from conception to implementation. They still leave untouched, in fact and by inspirational demonstration, the masses of rural people. They do not provide for local ownership and cannot draw significantly on local people as managers. Their very size may precipitate out unforeseen problems bearing on the total ecology of the area, as, for example, changing in a rapid and dramatic way the balance between disease and insect resistance and susceptibility; or the bird and rodent population; or the quality of water downwards from the drainage.

2. *Seek out sites where the people are well advanced in the process of change from traditional to modern ways of life.* There is a temptation upon first becoming engaged with the problems of rural peoples to be sentimentally drawn toward the most impoverished. Private enterprise, at this moment in history, must be very hard-headed about this selection process. It is an unfortunate truth that the majority of peasants and the majority of communities in which they are embedded are in such primitive circumstances that it would be foolish to attempt to involve them

in commercially viable activity. Roads and schools have yet to be built; personal security cannot be guaranteed; marketing arrangements are too antiquated; and cultural restraints on dealing with outsiders are too powerful. These people and their progress simply must remain a public responsibility for an indefinite time.

Despite this, there are millions of rural people who have advanced well into the modern world and who are ready for the forward thrust that capital and management can generate. There has been a major public infrastructure investment in roads, schools, security, marketing and financial channels which has put these people into the money economy and in close contact with modern technology. It is where one can find such people that private investors should concentrate their interest. There are more than enough such people to occupy all the private capital liable to flow into rural development in the years ahead. To reach beyond them is an irresponsible use of a scarce resource.

3. *Seek out available technology; at the outset, avoid research and concentrate on the full use of existing knowledge.* The need for more facts upon which to base agricultural progress is never-ending. This no right-thinking person can deny. But it is also true that there is no country in the world today where the potential for progress in the agricultural sector is bottlenecked because of a lack of technique and a lack of technological inputs. Certainly, critical shortages of agricultural chemicals, farm equipment, building materials, vehicles and machinery, among the legion of other basic requirements of modern agriculture, exist. But too often these shortages are cited in national terms and fail to note where, indeed, they are available and at prices which are subsumed by the value of product in the marketplace.

Any student of world agriculture soon despairs over the tragic gap which may be seen everywhere between knowledge about how to increase food supplies and current practice. It is imperative that private enterprise concentrate its skills in the conversion of knowledge into profitable practice on this type of transfer. This will contribute to pay-off on past research investment. It will reduce the new capital outlay required. It will contribute to the speed with which impact can be achieved.

4. *When projects have a land base, that is, when farming and ranching are integrated into a scheme, avoid land ownership.* Criticism and concern over land fragmentation have become so sharp in recent years that the only answer to the inefficiencies of small-scale agriculture seems often to be to do away with peasants, aggregate their landholdings and produce on what are labelled "efficient sized units". To think in these terms is a waste of time. Agrarian reform movements characterize every country in Latin America, Africa, and Asia. Under the pressure of population growth, tradition and violent agitation (or the threat of violence), small landholdings will inevitably become more conspicuous in

the years ahead, despite all the hue and cry to the contrary. Some countries, such as Brazil, may move more slowly than others toward this end, but all will trend this way. Private enterprise, as a partner in revolution by peaceful means, must deal with land tenure systems as they are and avoid the accusation of neo-colonialism.

In point of fact, no invention is required to deal with small-scale farmers. In the first place, as has been shown in Japan, in Taiwan, and elsewhere, when labor cost is low in real terms, that is, in terms of what the producer actually is paid, yields per acre on tiny plots of ground may be as high and as economical to achieve as on large, modern, mechanized farms, given equal accessibility to the money it takes to buy good seed and attendant chemical inputs. In the second place, precedents may be cited from all over the world noting success in aggregating land by means of management control without resorting to a change in ownership. In such operations, farmers enter into contracts with suppliers of credit and technical supervision to produce and market as though they were employed labour. Practice is dictated and traditional procedures which are inefficient and ineffective are eliminated. However, the producer remains not only the owner (or, under communal land tenure systems such as the ejidal system in Mexico, the "owner in effect" even though not the legal owner) of the land but also the owner of the production from his particular piece of land. While he abrogates some sovereignty, he gains in all other ways.

5. *Seek projects by working backward from the marketplace. Marketing opportunity should dictate production emphasis.* An examination of the marketplace should proceed through an ordered series of analyses:

: *First*, systematic market analyses which should lead to the identification of specific, existing but unrealized opportunities to sell profitably the agricultural produce known to be adapted to the area, in raw, semi-processed or fully processed form.

> Agricultural development has tended to concentrate resources on production problems. Yet, every food market of the under-developed nations is characterized by serious disorder which can not only wipe out gains in land productivity but, as well, can impede in distressing ways the effective utilization of traditional production. This is not to deny that increased crop and animal production have helped in many important ways. However, evidence is mounting that unless market analysis and the establishment or ordering of distribution systems precedes or at least runs parallel to increases in production, extravagant inefficiencies with attendant losses or even chaos in the marketplace can result.
>
> There is no better illustration of the point than the after-

math of the recent gains in wheat and rice production in India, Pakistan, and The Philippines which have received so much and such glowing publicity. Without detracting in any way from the exceptional research and application achievement these gains represent, it is sobering and thought-provoking merely to quote from one expert observer (Olen W. Salisbury, *Marketing Problems for Indian Foodgrain Production*, War on Hunger — A report from the Agency for International Development, Volume II (12), December, 1968):

"... With the advantage of good monsoons last year, followed by generally adequate winter rains, foodgrain production rose to about 100 million metric tons. This bountiful harvest, while extremely welcome, focuses attention upon an aspect of agricultural production which at present is or should be cause for alarm in the near future. This problem is the inability of the existing market complex to cope with the anticipated volume in the areas of sales, transport, and storage.

"Using a projection of 120 million metric tons ... by 1973 ... with 30% moving to urban centres throughout the nation ... there will be a minimum quantity of 36 million tons to be purchased, stored, transported, and sold ... in terms of gunnies, it is 360 million which, if laid end to end would circle the earth eight times at the equator. In terms of railway cars it is 1,500,000. In terms of trucks, it is 6 million truckloads. In terms of farmer sales transactions at the present average of 4 quintals per sale, it is 90 million individual sales transactions. In terms of storage space it is more than two million cubic feet.

"... the magnitude of the marketing operation is tremendous and unless the marketing apparatus is modernized, it will not be possible to move this bulk without shocking losses which would be tragic for India".

One need not seek for such massive marketing inadequacies to locate data which supports the demand that equal if not higher priority be given to marketing as to production in the thrust of both private and public resources in agricultural development. Waste in current production alone justifies the position — waste at harvest, waste in storage, waste in transport ... waste in quantity, waste in quality, waste in capital investment, waste in human energy.

In cognizance of these facts, private enterprise especially would be foolish and imprudent if it were to fail to put the market first in the search for investment opportunity.

: *Second*, with markets in mind, the size, needs, pricing arrange-

ments, distribution mechanisms in effect, and location of the market should focus on where in the line or lines between producer and ultimate consumer an investment appears to be most logical.

: *Third*, once a logical point of entry into the production/supply system has been perceived, the feasibility of an investment should depend upon the harmony to be found or conceptualized in practical terms between the technical, financial, political, socio-cultural and legal factors which govern: a) the acceptability of private enterprise in the host country; b) the risk to the investor; and c) the kind of day-to-day problems which inevitably will be faced by management and which, in the final analysis, will determine whether or not the input of effort and emotion is at tolerable levels.

: *Fourth*, the desirability of the investment, once it is judged feasible, should then be assessed in terms of how many of which class of people are to be benefited, in what manner, e.g. better diet, improved health, higher income, self-sufficiency, renewed hope, political power, community development, among a host of other considerations, more or less subtle.

: *Fifth*, the decision to invest, after a project has been identified, proven feasible and agreed upon as being desirable, should, as a final step, be made on the basis of alternatives available and the results of comparing the cost-benefit relationships of any of a number of projects which are liable to be up for investment consideration at the same time. Private investment capital and the skilled management it requires will always be in short supply relative to the agricultural development needs of the world. Choosing to invest "here" and not "there" will always, of a consequence, be demanded of management. Such decisions are likely to require the most austere discipline of all, on the part of investors. At this point, the needs of poor people may stand out high in contrast to the needs of capitalists. Denying one group in favour of another may seem harmless, even sinful and is a far cry from a decision within a business to invest or not to invest in corporate expansion. But business cannot be all things to all men. Wisdom, prudence, and the push of responsibility will demand that choices be made . . . making choices will hurt.

6. *Create projects and in a reasonably short period of time start to widen the base of ownership, leading to full ownership at the local level and total withdrawal by the foreign investor.* There are two fundamental reasons for the inclusion of this rule of the game. One, it is the only way that credibility will be attached to the idea that capitalists are prepared to use their resources to help achieve the revolutionary ends of agrarian reform. Two, it is the only way for real wealth to accumulate in the rural areas of the underdeveloped world. Without acceptance by a host government and without the growth of economic freedom among the poor, there is no purpose to attempts to put more capital to work

anywhere in the agricultural sectors of Latin America, Africa, or Asia . . . at least no development purpose.

There is no need here to labor the point that capitalism is suspect in all of the poorer nations of the world. This is a fact, and little that has been done by private investors or by the western countries in recent times has dispelled suspicion. Within the so-called "third world", capitalism appears as a more and more exclusive system of development, with wealth accumulating in fewer and fewer hands relative to total population. True, the actions of some governments and some powerful individuals in third world countries may have encouraged this exclusivity, partly out of greed, partly out of naivity, partly in response to pressure and partly for the lack of internally organised alternatives. Nonetheless, in a broad political sense, there is an ongoing deepseated struggle within the governments of the developing countries and within national institutions, e.g. the Catholic Church and the Military Establishment in Latin America, to keep from being dominated by the dynamism of foreign capitalistic enterprise.

Nowhere is this resistance to private profit-making investment tougher than in the field of agriculture and in dealing with the rural poor. These are "the people" These are the ones who inherited the burden of colonial exploitation. These are the keepers of tradition, guardians of all the mystique that goes with land and the freedom to till the land. These are the people at the base of all life, from whose efforts life-giving food and income-generating exports derive. Freedom from exploitation among rural people is the symbol, somehow, of freedom from national exploitation, and if true freedom does not exist then, at least the appearance of freedom must be maintained at all costs.

Thus it is that no matter how elegantly and eloquently we may describe the power of capital to bring about agrarian development; no matter how fervently we may plead the case that among capitalists there are some who are ready to share their resources and skills to good ends; and, no matter how convincingly we demonstrate to the less sophisticated that profit or the interest earned on investment capital is merely an organic part of the growth processes generated by investment, still more is required to gain universal acceptance for the thrust of private investment in world agriculture. No one can be certain as to what appeals will work in different circles. However the flat promise that what enterprise is created will return to local ownership, supported in clear terms by charter and operating policy, is a minimum prerequisite to acceptance.

But gaining credibility and early acceptance by this means, in a way is of lesser importance than the long range objective of accumulating real wealth in agriculture regions. As traditional rural economies are brought into the modern world, capital rather than labor increasingly becomes the engine of wealth production.

If the people whose labor is replaced by the instruments of capital do not, in the transition, come to own these instruments, not only is a subsistence form of life perpetuated but it is made worse . . . worse psychologically for the lack of work; worse physically for the lack of goods. At the Sixth Annual National Conference of the Catholic Inter-American Cooperation Conference, held in New York City late in January, 1969, on the theme "Human Rights and the Liberation of Man in the Americas", one speaker summed up the issue this way (Brian Beun, *Diagnosis of Economic Freedom in Latin America*, Adlai Stevenson Institute of International Affairs, Chicago, Illinois)

> " . . . there are two basic factors involved in the production of wealth. The first, the human factor, is represented by labor in all its forms while the second, the nonhuman factor, represents capital, defined as machines, structures, productive land. The role of each of these two factors in the production of wealth is determined by the current state and application of technology and by management practice. Technology is the primary agent of economic change. As such, technology represents the process by which man harnesses nature through the use of his capital instruments and makes nature work for him. Hence, technology acts only upon the capital (nonhuman) factor of production. The result is the increase in the productiveness of capital at an accelerating rate which in turn paves the way for putting more of the nonhuman factor into production. If capital and technology produce the bulk of an economy's wealth and income is distributed on the basis of productive input, the individual can hardly reach his goal — an affluent level of income — solely by means of his labor. Wealth, in short, is the product of capital.
>
> "As development proceeds, this process continues in an accelerating spiral. Since labor produces only subsistence, the purchasing power of the broad population remains limited. Consumption, of a consequence, cannot keep up with production. In order to establish some temporary balance, a forced re-distribution of income is undertaken by artificially elevating the price of labor through legislation or coercive bargaining — usually to many times its competitive market value. This in turn brings on inflation and provides additional incentive to use more and more capital intensive/labor saving technology.
>
> "In an age when technology will increasingly play the dominant role in the development process, the already huge but ever growing labor force is not a resource (as it was during the industrial revolution in England and America) but a liability. This again underscores the basic

truth that in the less economically developed countries of Latin America, wealth (i.e. technology and capital), to the extent it is generated, is and will remain the product of capital while subsistence is and will remain the product of labor.

"For all of the interrelated reasons discussed above, it is apparent that new forms of economic organization and systems to finance the growth of such organizations must be devised if modernization is to benefit the lives of the broad masses of the people and, in so doing, provide some measure of increased economic freedom as the basis of their economic livelihood".

The experiment in Mexico is an attempt to apply the foregoing rules in a field situation, to demonstrate their practicality. Without attempting to relate all the rules in logical sequence to the design of the model as it has emerged over the past two and one-half years, the following summary presents a generalized picture of what is being attempted.

Before entering Mexico, the design of the model was conceptualized around a land-based activity, wherein a farming community would be central to the operations. This was an arbitrary decision; investment, obviously, might usefully enter a food supply-rural development system at another point. However, it was deemed best to tackle the most difficult and most significant issue first, namely, how to increase productivity of small-scale farmers even while increasing their income and their capacity to produce and own wealth.

In Mexico, the project began to crystallize out around a body of research data supplied by the Mexican Agricultural Program of the Rockefeller Foundation and the Mexican National Agricultural Research Institute. These data indicated that by following a prescribed practice involving hybrid seed, fertilizer, herbicide, and insecticide, it was possible to increase yields of corn grain in areas of rainfall exceeding 700 millimetres per year from 1 metric ton per hectare to 4. The cost of the improved practice seemed clearly and profitably covered by current market prices for grain.

The rainfall requirement defined by the research limited the location of the experiment to several regions of Mexico. One such location was adjacent to Guadalajara, a city of over one million people and growing at a rate of close to seven percent per year. No alternative site offered such a dynamic and large market to deal with, and specific site location work began, coincident with a detailed study of the market for foodstuffs in Guadalajara.

A site was selected fifty kilometres from the city. A main highway traversed the area, facilitating transportation. Electricity was available. The land was apparently good and promised to respond to the new practice. Corn growing was basic to the local

culture. Yields were low, and methods of farming were traditional, yet it was evident the people were well into a transitionary period and that public investment in infrastructure had been proceeding for some time. There were attractive schools in each of the two largest villages (three villages are in the area).

Several tractors were located among the horses and oxen. The use of hybrid seed, fertilizer, and agricultural chemicals was not uncommon; and all the farmers were aware of and eager for the benefits of modern technology. Money was simply not available; nor was technical supervision. The economy of the area was based on cash transactions. The farming area was compact, covering about 6,000 hectares — small enough to envisage tight management control yet large enough to be considered an adequate commercial demonstration. In total, the valley seemed ideal. Potential impact on the local economy could be forecast as being dramatic. Potential cash flow from increased productivity, if marketing presented no undue problems, seemed large enough to satisfy investor demand and the demand for major local benefits.

Simultaneous with site selection, market analysis revealed that the grain could be sold, that the price for corn was in a more or less stable condition as the result of a federal government price support program and that the corn surplus of Mexico was not a true surplus in terms of demand but was a reflection of a faulty distribution system which kept grain in sufficient quantity and an acceptable price from consumers throughout the nation. As well, critical shortages of raw milk and meat came into view which enabled the design of the model to be redrawn to include a program of diversification.

With a market in view, the problem of organizing the farmers was then studied in depth. The new system of grain production was introduced on a demonstration basis. This proved that yields could indeed be increased as predicted (yields up to 7 tons per hectare have been obtained). In the act of proving out the new practice, the confidence and cooperation of the farmers were also gained. A team led by a social anthropologist examined every aspect of the culture and concerns of the farmers, their families and their community leaders. The attitudes and policies of state and federal government officials were determined by interviews both with officials and with prominent Mexicans outside of government but who were — re — well informed and sensitive to political issues. Legal questions were probed with the help of distinguished Mexican lawyers. Methods of financing were outlined with the help of leading commercial bankers. At every point where law, politics, marketing organization, production possibilities, financial arrangements, and cultural variables intersected and interacted, the design of the model was changed to adapt to reality. Out of all of this effort, the structure of an enterprise grew and, as this article is written, has this outline:

1. An investment of $1,000,000 is proposed, to be made over a four-year period.
2. The enterprise will be put together in two stages. *First*, taking three years, 4,500 hectares will be brought under management. with the target of 5 tons per hectare of grain production. The corporation will supply all credit for the cost of the new practice, as well as technical supervision and marketing administration. All farmers in the system (90 percent of the 625 now farming an average of 8 hectares each) will be under contract to sell their surpluses through the corporation. At the end of the first year, the *second* stage will start with construction of a dairy and a piggery. The grain operation will be based on the use of farmer labor and his traditional equipment. Change will involve only the use of improved seed and agricultural chemicals. No labor will be displaced; there will actually be an increase in labor demand. The dairy and swine operations, on the other hand, will be as modern as modern technology permits. They will concentrate on maximizing profit and will not cater to the needs of the unemployed in the valley.
3. A stock corporation will be formed. At the outset, all control is held by the investors. The investors, in this case, will be of both United States and Mexican origin, but the latter will represent off-farm business interests. When the voting stock is issued, another block of stock, equal in value but with ownership not specifically designated, is also issued and placed in a Trust. The Trust, under Mexican law, will be administered by a National Bank and the Trustees shall be distinguished Mexicans from both the public and private sectors who have no investment in the corporation. The Trust device initially symbolizes (and sets up the implementing device) the intent of the corporation to vest ownership in the farmers.
4. As profit is generated, a calculated part of after-tax income is paid into the Trust and begins to buy the stock held by the Trust. Each farmer's stock purchase is in proportion to the amount of grain he delivers for sale during the first four years. In other words, each farmer earns his share of ownership in proportion to his contribution to profit. Since all farmers produce grain, grain production for sale becomes the common denominator of the calculation.
5. The feasibility analysis of the integrated enterprise predicts these results:
a. Within three years, farmer income from the land is tripled, on the average;
b. Within 20 years, farmer income is increased by an average of 1,000 percent and, at that time, the farmers or their heirs become owners of $1,000,000 in assets, in the form of buildings, equipment, livestock, and cash in the bank;
c. By the time the farmers become owners, they will also have

(continued on page 481)

(continued from page 470)
been trained to operate the establishment, and it is for this reason that 20 years (one generation) has been selected as a reasonable time for the transition of ownership.

d. Based on an equity of $500,000, the investors can take out this equity in from ten to twelve years and earn, in after-tax profit, over 20 per cent per year, averaged over the entire 20 years of participation.

It is impossible in the space of this article to present every facet of what is a complicated, though hopefully, understandable project. At the present time, attention is concentrated on raising the investment capital. Keen interest is being shown both in Mexico and in the United States. It is the vision of the author that sometime in 1969 dreams will be converted to reality, study will culminate in action, and the proposed corporation will become an operating entity.

Private Investment in World Agriculture

By SIMON WILLIAMS

SIMON WILLIAMS *is an independent consultant in the field of economic development. For the past year and a half, under the sponsorship of the International Minerals and Chemical Corporation, he has been studying the problem of world hunger and the dynamics of world agriculture.*

REPRINTED FROM
HARVARD BUSINESS REVIEW
NOVEMBER–DECEMBER 1965

Harvard Business Review

NOVEMBER/DECEMBER 1965

VOL. 43, NO. 6

Edward C. Bursk: EDITOR

JOHN F. CHAPMAN, *Executive Editor*
VIRGINIA B. FALES, *Managing Editor*
DAVID W. EWING, *Associate Editor*
G. SCOTT HUTCHISON, *Associate Editor*
STEPHEN A. GREYSER, *Assistant Editor*
T. K. WORTHINGTON, *General Manager*
ERNEST D. FRAWLEY, *Controller*
RAY RING, *Art Director*

Editorial, Business, Circulation Offices
Soldiers Field, Boston, Massachusetts 02163
KIrkland 7-9800

Annual index is published in the November-December issue. Contents are indexed in the *Business Periodicals Index* and *Bulletin of the Public Affairs Information Service.*

BUSINESS REVIEW BOARD

GEORGE P. BAKER, DEAN, *Ex Officio*
ROBERT W. AUSTIN, *Chairman*
RAYMOND A. BAUER
EDWARD C. BURSK
PAUL W. CHERINGTON
GORDON DONALDSON
BERTRAND FOX
RALPH W. HIDY
WINFIELD G. KNOPF
E. ROBERT LIVERNASH
HOWARD RAIFFA
PHILIP THURSTON
FRANK L. TUCKER
ARTHUR N. TURNER
RICHARD F. VANCIL
CLARK L. WILSON

HARVARD BUSINESS REVIEW

November-December 1965, Vol. 43, No. 6 Published bimonthly by the Graduate School of Business Administration, Harvard University. Printed in U.S.A.

Second-class postage paid at Boston, Mass., and at additional mailing offices.

Subscriptions $10.00 a year in U.S.A. and Canada; $15.00 a year elsewhere.

© 1965 by the President and Fellows of Harvard College.

6 **ACHIEVEMENT MOTIVATION CAN BE DEVELOPED**
David C. McClelland

26 **GUIDES TO INTERNATIONAL OPERATIONS**
William S. Barnes

49 **IS BUSINESS LETTING YOUNG PEOPLE DOWN?**
Peter F. Drucker

56 **THE R & D ENTREPRENEUR: PROFILE OF SUCCESS**
Harry Schrage

70 **DIAGNOSING THE MARKETING TAKEOVER**
Philip Kotler

73 **OPPORTUNITY IN FOREIGN BONDS**
Robert Garrett and Michael F. O. Harris

81 **EXPLOIT THE PRODUCT LIFE CYCLE**
Theodore Levitt

95 **PRIVATE INVESTMENT IN WORLD AGRICULTURE**
Simon Williams

106 **DETERIORATION IN TOP EXECUTIVE PAY**
Arch Patton

119 **STRATEGIES FOR SELF-EDUCATION**
W. R. Dill, W. B. S. Crowston, and E. J. Elton

131 **MODULAR PRODUCTION — A NEW CONCEPT**
Martin K. Starr

143 **WHO IS TO BLAME FOR MALADAPTIVE MANAGERS?**
Harry Levinson

160 **THE CASE OF THE PUNCTILIOUS PRESIDENT**
Joseph J. Hansen

Private Investment in World Agriculture

— for the sake of worldwide economic and social stability, as well as a sound financial return.

By Simon Williams

During the next several decades the only large and continuing overseas outlet for the private investment capital piling up under U.S. management may be in agriculture in Latin America, Asia, and Africa — in farming; in processing and conserving basic crops; in distribution systems; in the multiplication of superior seeds; in the manufacture of fertilizer, pesticides, and implements; and elsewhere in the complex of enterprises required to produce and supply more and better food for the peoples of these areas.

Moreover, it is likely that unless there is a major movement of private foreign capital and management into agriculture and fishing in the overpopulated and underdeveloped countries of the world — and *soon* — all existing external investments and market franchises in these places, no matter of what type, will be threatened with extinction. Certainly no new private investments will be feasible or desirable.

Threat of Famine

The threat can be simply stated: *the world is faced with the likelihood of a massive famine, on a scale unimagined in the past.* In 1965, over half the people suffer from hunger or malnutrition; in some countries of greatest need, physiological starvation is the daily outlook for as many as three fourths of the population. Disease, physical lethargy, a sense of hopelessness, and economic stagnation are the result. In turn, these debilitating conditions form a substratum supporting political restlessness, stimulating irrational behavior, and energizing an increasingly frantic search for alternatives. The passive response of ignorant, hungry people characteristic of the past is now rapidly giving way to a demand for something better as education and agitation reach deeper and deeper into their minds.

This is the case in 1965. What is the forecast for the years ahead? It is conservatively estimated that during the next 35 years world population will double and that nothing short of famine or war can alter this fact. Birth control — the ultimate, rational, regulatory mechanism balancing supply and demand — cannot hope to be effective on a universal scale before the early years of the twenty-first century. Meanwhile, we must face such harsh facts as this one: During the past five years, despite the distribution of huge quantities of surplus food from the advanced countries and despite every other effort made by national and international agencies of financial and technical assistance, the gap between existing hunger and available food has widened, particularly in Latin America and Asia.

One may be appalled by the difficulty and urgency of learning how to feed 6 billion people by the end of the twentieth century when it is so obvious that we are doing a shockingly poor job of feeding 3 billion now. One need not preach doom to be insistent, even passionate, in stating that the persistence of hunger among half the people of the world — a half which in less than two decades will be larger than the current whole — will be intolerable to the human spirit; that violent political disorder will erupt; and that economic activity, within the United States and anywhere else, will be disrupted and threatened at every turn.

Admittedly, it is an oversimplification to put the blame for all of the trouble spots in the world on hunger and its twin, poverty. But for those who doubt or who would reject the fundamental importance of these malignancies to the torment plaguing country after country, a systematic field examination is in order. Forget books and articles and speeches. Go see! The evidence is incontrovertible; the prospect is frightening.

Investment Opportunity

The opportunity is less apparent. The idea of investing for profit in areas of hunger at first may seem macabre. Why is it so important and defensible? Three facts stand out:

(1) There is enough knowledge, and there are enough physical inputs (e.g., better seed, fertilizer, pesticides, power equipment, implements, storage and processing methods, and transportation techniques) to increase output from land and sea and to improve the means of conservation and distribution, *if applied*. Certainly there are shortages on site, particularly of fertilizers. Certainly more research is needed, particularly in adapting high-yielding varieties to local ecology. But on millions of acres of land and over large areas of water, now farmed and fished inefficiently, the know-how and critical materiel are at hand today to boost production sharply, fast, and profitably for all concerned.

(2) To bring about the application of know-how and physical inputs fast enough and on a large enough scale, an investment of billions of dollars must be made every year from now on. This investment must be made largely on the land and in partnership with millions of small farmers who dominate both agricultural activity and political thought in the hungry nations. And there is not enough money or skilled management in government institutions to handle all this investment. Much of the capital and direction must come from private investors.

(3) In dealing with millions of small farmers, the introduction of credit to finance new practices and to decrease the cost and risk attendant on change is as important in the use of investment capital as bringing in the know-how, the materiel, and the management. In years past, the idea of extending billions of dollars in credit to ignorant small farmers, few of whom were (or are) able to offer traditional collateral security, would alone have killed an investment program in world agriculture. Today the picture is changing. Experiences in many countries with directed and supervised credit are proving that small farmers will repay loans promptly and fully, and "that in the great majority of cases no other securities than trust and potential for increasing agricultural production and income (based on farm planning, supervision and follow-up) are required to ensure repayment of loans by small farmers." [1]

Public vs. Private Funds

A more detailed analysis of the agricultural development process reveals that two distinctly different types of investment are required. First, there is investment in the economic infrastructure — the roads, dams, harbors, schools, security forces, legal institutions, research stations, communications networks, and other physical and institutional requirements prerequisite to establishing an environment in which production can flourish. Second, there are investments in actual production facilities — in farms and factories and related marketing organizations.

Investment in the infrastructure is a public function. No one seriously argues this point. Rarely are private capital and profit involved, except in some instances of contracts with private builders or in the generation and distribution of power or in communications. However, the reality facing every developing nation, no matter what its political predilections, is that there just is not enough money in the public till to satisfy the demands for infrastructure development. This being the case, what chance is there for ample public investment in production? Politicians might wish it otherwise, but the governments of underdeveloped countries cannot do the whole job for agriculture without giving up many of the symbols of power and prestige so dearly cherished. While this sacrifice can be argued as being thrifty and wise, it simply will not happen in the foreseeable future.

[1] An interesting summary of credit experiences in Brazil, Mexico, and India is presented in *New Approaches to Agricultural Credit*, FAO Agricultural Development Paper No. 77 (Rome, 1964).

In addition, it is being learned the hard way that it is costly and inefficient for governments to own and operate production facilities, whether collective farms or fertilizer plants. Again and again, lack of production incentives and lack of real purchasing power have combined with bureaucratic rigidity to yield minimum results, often with extravagant financial losses, high prices, and low quality.

This is not a politically directed exposition. *It is an observed fact that pressure now exists in all countries to find new means, consistent with social and political aspirations, to encourage the private sector to take greater responsibility for agricultural production.*

Foreign Capital — A Must

The question is: How can such investment be achieved? Any probe of the economics of the nations needing the most money reveals three additional facts:

(1) There is not enough private capital to affect agriculture significantly.

(2) Those who control what private capital there is generally are not interested in agriculture, even though they may have been or are landowners. In their eyes the risk is too high, politics too central, and the return too low in comparison, for example, to money put into real estate speculation or into the operation of protected industries.

(3) The private sector of most of these countries, where there is one, is traditionally not philosophically motivated to help the myriad of poor small farmers in a direct, partially altruistic way. So, with private capital required and little internally available, the resort must be to foreign capital and the management which comes along — and much more of both than is now being supplied.

This is not to say that private capital from international sources and even a sprinkling of local money are entirely absent in backing improvements in farming practice in underdeveloped countries. U.S. companies such as Anderson-Clayton and Company, California Packing Corporation, Campbell Soup Company, H. J. Heinz Company, International Milling Company, Dole Corporation, United Fruit Company, and Ralston-Purina Co., as well as a number of agricultural chemical, fertilizer, and farm machinery companies, have broken new ground around the world in encouraging increased production of superior quality. They have introduced modified plantation schemes, directed and supervised credit, technical services, and marketing agreements, among other techniques. Individual entrepreneurs from the United States have done wonders here and there in bringing poultry and egg production up to commercial scale, as they have also done with specialty crops like shrimp, strawberries, and tree fruits. Indeed, it is from the history of such investments by American, English, and other West European businessmen that this article takes a large part of its inspiration.

But what has been done is not sufficient in magnitude or diversity. It does not go far enough in overcoming the limiting role of the small farmer or in supplying pressing local needs for basic foodstuffs like grain, oilseeds, fish and meat, eggs and milk, and others. (Note the difference between these foodstuffs and the so-called commercial crops. The latter — e.g., rubber, cocoa, tea, cotton, other fibers, citrus fruit, pineapple, sugar — have absorbed most foreign investment in the past and have usually been produced for shipment abroad or to the cities.)

During the next two decades foreign investments in agriculture must generate far more production for consumption where the hungry and depressed people live; it must catalyze far more capital formation in rural sectors among those presently impoverished and ignorant who are working tiny parcels of land; and, ultimately, it must be the stimulant encouraging the flow of local private capital into farming and related production facilities.

What all of this really means is that large amounts of private money from the United States *must* lead the way. It is only in the United States that private capital, skilled management, dedicated foreign policy, and personal conscience combine in the proper mixture and in sufficiently large quantity to give hope to the hungry world — and to ourselves. It would be comfortable if foreign aid via the government had done or could do the job. It has helped, but it cannot be the prime mover. It would be nice if more free enterprisers from Western Europe and from Japan or other centers of private wealth, advanced education, and technical know-how would carry a large share of the burden. But there is *no* evidence that they *will* take the initiative or share the risk attendant on the pioneering role.

Overcoming the Obstacles

There are two obstacles to private investment action in world agriculture:

(1) The use of U.S. capital and management, operating for profit and as free enterprise on the land, will be totally alien to the public commitment of leaders of most countries in Latin America, Asia, and Africa, where agrarian reform and social justice have been stated as goals achievable only through public institutions.

(2) Investment in farming in the hinterlands of remote countries, in partnership with large numbers of small farmers speaking another language, will be totally alien to the thinking and structure of most U.S. corporations.

It is a strange modern paradox that the needy nations must be sold a means of helping themselves even though it will not cost them a cent. Yet this is the way it is. Widely preached social ideologies, often embedded in newly enacted laws, are hard to change. Memories of colonial exploitation are recent and alive and a danger to politicians. The tactics of machine salesmen and promoters from East and West have not helped, for they have flooded these countries with a number of so-called development projects which have been very costly mistakes. Ignorance, pride, and arrogance go hand in hand with newly found power, diffusing the impact of intelligence, sincerity, and training.

It is a truism that to gain acceptance of any project involving outside technical and financial assistance, no matter how well motivated, requires a great deal of persuasion applied gracefully, skillfully, and persistently. A decision to invest in world agriculture will bring with it full responsibility for management to persuade the foreign government to allow the project to proceed and even to give it policy blessings from on top.

What is the selling point? How can U.S. capital and management be made acceptable partners in land-use reform? In my opinion, there is only one way: *in the hungry nations, every one of which regards itself in the midst of a truly revolutionary movement toward freedom and justice for all, profit and free enterprise must be made recognizable as revolutionary instruments with which national aspirations are achieved.*

It is one thing to say this. It is another to do it. After looking intensively at the state of agriculture throughout the world, I am convinced that if every project adheres to certain ground rules governing political and social as well as economic feasibility, private U.S. investment can be made acceptable to the government of any country which is open to Western capital, no matter what its institutional and philosophical form.

Ground Rules

What are the ground rules for private investors? What purposes do they serve?

1. *Accept lower returns and higher risks.*

The decision to invest must be motivated primarily by the desire to increase food supplies and to stimulate rural economic development. Profit should be considered as the key unlocking the treasury rather than the superior goal — as justification for the use of corporate funds but secondary to the technical and financial assistance provided. The importance of this policy, which at first glance may seem a semantic quibble, is that it permits an investment decision based on lower profit and higher risk than would otherwise be true. Further, this policy allows real value to be attached to gains in worldwide economic and social stability. In this sense, investment in agriculture becomes a down payment on an insurance policy that "business as usual" will proceed in the future.

2. *Withdraw in 20 years.*

Investments in agriculture must be thought of as short-term, e.g., 20 years, by which time the enterprise becomes wholly owned by the farmers involved in the changed practice. In 20 years, the original equity capital should be fully recovered (actually recovery should require a much shorter time), and a substantial profit earned per year in addition. In 20 years, there is time to deal with one generation of children and to help train a cadre of local talent quite capable of taking over. This takeover is fundamental to the revolutionary use of outside capital. It is basic to making the case believable and acceptable. The goal must be seen as building a peaceful, lively, and viable economy for the nationals; it is not to buy a permanent position from which to extract profit endlessly from the labor and land of the masses.

3. *Avoid land ownership.*

Projects must avoid land ownership and taking a position vis-à-vis patterns of land tenure. Rather, the effort must be to bring groups of small holdings into large, unified operations. That is, based on the crop, the market, the

6. *Protect farmers against usury.*

One of the ingrained evils of agriculture in the underdeveloped countries is the system of money lending at excessively high rates of interest. This has helped keep farmers in perpetual debt. It has forced crop prices down and food prices up. It has deadened hope that surpluses mean a real gain in income.

During the years of partnership between small farmers and U.S. investors, this system must be fought by every means. One method is to make it legally impossible for farmers to sell or to use their shares of corporation stock as collateral for loans. Another means is a sustained adult education program which brings the beneficial results of corporate effort into focus.

7. *Keep the investment door open.*

Even while protecting farmers from the usurers, it is important to keep the door open to equity capital from *national* sources. It has been observed earlier that such capital will be limited in amount and reluctantly invested. However, the sooner some of this money can be encouraged to flow alongside that of the U.S. investor, the better. A deliberate attempt to induce even token investment by local management must be a part of the long-range policy of the pioneering American. Even very limited joint participation at the outset can be critically important in winning policy support from the government and, later on, be the means through which local private resources take increasing initiative.

8. *Make benefits proportionate to the yield.*

Investments in farming actually mean investments in marketing, and perhaps in manufacturing in due course of time, since the farmers still own or control their land. The farmers and the investor profit from the sale of surpluses and processed commodities. Shares in the corporation, therefore, must be based on the yield of each farmer, the truest measure of his contribution to total earnings. Since every investment will concentrate first on a new practice aimed at increasing yield without basic change in traditional use of labor, the first shares distributed on credit and paid for out of surplus must be distributed in direct proportion to what each farmer delivers for marketing.

In time, the first stages of mechanization will call for farmers to begin to share their labor. In such a case, the share of each farmer in the combined yield must be adjusted for his labor input and an agreed-upon scale of value attached to different skills. Finally, when mechanization is completed, further shares must be distributed in proportion to the percentage of ownership accumulated by each farmer.

Understanding of this increasingly sophisticated sharing scheme will not come easily. In the early years there will be less of a problem, since farmers have always understood the balance between the surplus produced and income. Full advantage must be taken of the time so gained to build understanding of future cash flow distribution. This will be a real challenge to the investment field staff.

9. *Stay with existing demand.*

Private investors must deal first with foodstuffs for which there is a demand. Shifts in current patterns of crop production and food consumption are needed throughout the world. Some of the most exciting gains in land productivity have been achieved on research-and-demonstration farms with exotic crops. But introducing a new taste, getting acceptance for a different texture, odor, color, or method of cooking — even in the face of dire hunger and malnutrition — has been shown to be a costly, often baffling process among tradition-bound rural peoples on all continents. The need is greater to increase production of foods that will be readily consumed. First things must come first, even though the temptation to tackle the minds of men and the evils of malnutrition will often be great indeed.

10. *Go slow with mechanization.*

The first new practice or process developed by investment must be applicable *without significant displacement of labor.* If it is strategically possible to generate an early increase in human labor demand, as, for example, by extending the use of the land to more days per year (multiple cropping), so much the better in gaining acceptance. There is no question that to feed 6 billion people 35 years from now, capital in the form of better seed, fertilizer, pest control, and mechanical sources of power is going to replace manpower. It must. But population pressure is most onerous in rural areas. And officials working on national development plans everywhere insist it is possible to increase agricultural output even while increasing farm employment.

The issue is tricky and not subject to direct

negation. Until it can be proved that agricultural output can best be increased in the underdeveloped countries by replacing human labor, and that the extra wealth produced can be shared justly, the point will remain moot. Fortunately, spectacular initial increases in production are possible over large areas of the world by the use of inputs which do not require a basic change in the tools or the labor applied by the farmer. Investing in such practices, to begin with, provides the time for transition to mechanization — the time to create alternative uses of displaced labor and to promote ownership by the farmer of the machines which replace him, guaranteeing him income, if not work.

11. *Diversify, diversify!*

As noted, solving the problem of world hunger is not merely a matter of increasing yield. When capital becomes more important than people for maximum production of a given crop, the income of the people displaced must be protected. One way to achieve this is to use U.S. capital to put ownership in the hands of the laborers displaced. The rules of investment already urged for sale of stock and restriction of benefits to farmer stockholders are intended to bring about just such a "capitalist" revolution.

To complement such a revolution, investment in world agriculture must be aimed at diversifying the rural wealth-producing system, both to generate off-farm employment and to bring the rural sector more fully into the total economy as a hedge against inflation, price fluctuations, and general depression. There are few areas in the world where dependence on one crop, produced once a year, is absolutely necessary. Multiple cropping and horizontal diversification into other products are often a real possibility, if explored carefully, and evidence is available to guide the way. Also, it is apparent in many places that when the quality and quantity of raw material can be guaranteed, vertical integration with the manufacture of semiprocessed or fully processed foodstuffs is highly profitable.

The best proof of the feasibility of vertical diversification is the fact that during the past ten years investment in fruit and vegetable canning, in wet and dry milling grain, and in sugar refining, among other forms of food processing, has sharply increased on all continents. In many cases investment has involved foreign private capital. The usual plan is to enter into purchasing contracts with farmers who are helped by the extension of technical services, and to grant credit often in the form of seed, fertilizer, and pest control chemicals rather than in cash).

12. *Use local technicians and trainees.*

One key to a successful agricultural investment in backward areas is the use of a native technical staff, speaking the same language and arising out of the same, or at least a closely related, culture as the farmers. This staff must be used at the outset to sell the idea of participation on a voluntary basis; thereafter, daily contact will be required to introduce and supervise new practices. U.S. personnel should be at a minimum both for practical and psychological reasons; when possible, only critical background control should be in the hands of Americans.

This twelfth rule may be the most difficult of all to follow. In some parts of the world, for example, in Africa, the rule may require considerable modification if the game is to be played at all. There is a serious shortage of trained agronomists, in quantity and in quality, throughout Latin America, Asia, and Africa. There is practically a total lack of farm management personnel. There is an absolute lack of local talent to administer complex agro-industry enterprises.

Still, the situation is far from hopeless, and much can be done to approximate or even match the demand for talent. Newly created agricultural colleges and technical institutes are springing up around the world. Overseas training also is being made available to larger numbers of students from underdeveloped countries. In some countries — for instance, Mexico, Colombia, Brazil, Chile, Pakistan, India, and the Philippines, among others — a modest but substantial reservoir of newly trained agronomists exists which is not being used most effectively. This, too, is a prospective resource.

In planning staff recruitment, shortages of native personnel can be relieved in these ways:

- Concentrate on the employment of new graduates, and invest in highly specialized crash training programs to develop skills closely related to the new practices being introduced. In a situation in Brazil, for example, one American company was intent on increasing cotton production among the multitude of small-scale suppliers to its gins. It hired 40 new college graduates in agronomy and put them on a farm to grow a crop of cotton, which was up to then a purely abstract exercise for all of them. By farming one season under supervision, these young men became reasonably expert, far

more so than the farmers they were to deal with. In the second season, 25 of the best men were at work in the field. In five years, cotton production was doubled over a wide area. Inexperience was largely overcome; salary incentives overcame initial reluctance to go into the field; and career opportunities outside of the government were opened up.

¶ Work closely with the research institution which supplies the data for appraising the investment risk. A new form of dynamic interaction between public research agencies and private investors is highly desirable. This can take the form of technical guidance of inexperienced staff; it can also substitute directly for lack of seniority and authority in the early stages of development.

¶ Provide the incentives needed to attract staff people. Such incentives are salaries competitive with industry; titles which carry the symbol of prestige; defined career opportunities which may include managing enterprises created through diversification; and in-service training opportunities, particularly those leading to management skills.

¶ Reach out beyond country borders into related cultures, where unique opportunities exist to do so. A classical demonstration of this possibility has resulted from the exodus of technical personnel from Cuba. Now scattered throughout Latin America, many Cubans are making vital contributions to education, research, public administration, industrial management, and agricultural growth. It is doubtful that all Cuban refugee talent has been effectively absorbed into the developmental process in Spanish-speaking countries.

When language and culture cannot be closely matched, careful study may reveal other means of using foreign personnel having a high level of acceptance. For instance, Israelis are warmly accepted in parts of Africa; Taiwanese have been effective in other parts of Asia; a Mexican wheat agronomist is being eagerly welcomed into Pakistan.

I do not mean to minimize the staffing problem. I do argue, however, that world shortages of trained manpower are no cause to freeze investment action in agriculture at present levels. There is plenty to be done with the human resources in hand; in the doing, a universal stimulant to more and better training will result.

13. *Yield the glory and take the blame.*

Profit, free enterprise, capitalism — these and other terms inevitably associated with a program of international private investment in agriculture originating in the United States will arouse passionate debate and touch many governments at their sensitive political hearts. It is a must, therefore, that the first projects in each country emerge quietly. Moreover, even though it is necessary to get government approval, as a matter of policy, every effort must be made by the investor to keep political leaders from being identified publicly with sweeping agreements or promises, if that is their wish. When success is clear, then these leaders should be given the opportunity to "point with pride." Conversely, management must be prepared to take the brunt of any criticism.

Naturally, this neat division of reward and penalty is easier to promise than achieve, where there is a free press. However, when the investor expresses an understanding and willingness to do whatever is possible in dealing with subtle but real political problems, he will find it easier to win approval.

Education for Action

While the rules I have described arise logically out of the successes and failures in innumerable attempts to change agricultural practice, and while they reflect the content of hundreds of interviews with agricultural authorities in many countries, the first investments designed to incorporate all of these rules have yet to be made. It is likely that few such investments will be made until the barrier of the unknown is removed. How is the U.S. corporation to learn to accept the alien nature of investment in farming in far-off places with strange customs and language and in close relationship with ignorant, often primitive small landholders?

One might assume that experts in agriculture should take leadership here. Indeed, some experts, particularly those within the Food and Agricultural Organization of the United Nations, are trying. Unfortunately, the training and experience required to do the job are not adequate. This is not to say that among the fine talented people who know the promise and the needs of world agriculture one cannot find men who are eloquent and assured; men who can persuade the most reluctant and disbelieving that social customs, language barriers, and other alien characteristics in the final analysis find a common denominator in man himself; men who have learned that in trust and respect, in tears and laughter, in shared failure and success, one finds a way to relate closely with small farmers everywhere. However, these men lack a background in private enterprise.

Most specialists in the agriculture of underdeveloped countries, whether from the United States or not, come from government agencies and universities. They have had little reason to wrestle with the attractions of risk capital; they have rarely organized their data into economic and technical feasibility reports with cash flow projections, such as are prerequisite to a management decision to invest. The prospect of taking responsibility for investment promotion on an international scale is frankly baffling to these people. Whatever their growing awareness of the need for investment, the agriculturists of the world are a long way from being able to do anything about it. This is not a criticism. It is a fact, stemming from the historic position of agriculture as a public-sector problem.

If U.S. management is going to learn about world agriculture and if the necessary facts are to be put at its disposal, self-help is demanded. Many ways can be imagined to facilitate this educational process. Four stand out as having universal applicability. In combination their preinvestment cost would be low.

Better Focused Discussion

The population explosion and world hunger are being discussed more widely, by more top managers, than ever before. However, much of what is talked about is too general; too many projects put to management for support call for charity, not entrepreneurship. The problems are being more elegantly described each passing year, but little attention is focused on the real possibilities for action, in specific terms, consistent with management's primary task of earning a profit.

It is time, therefore, for management to introduce new content into the discourse. Country by country, the particulars of agricultural research and development need to be brought into focus. It is certain that, given a hearing, authorities on every aspect of the food problem of each nation will come to management and abstract out of their lifetimes of study and work the essence of what is meaningful to agricultural development. But it will remain up to management, most of the time, to put the pieces together into a picture of investment potential.

U.S. management is in a magnificent position to learn fast — faster than any other segment of our society. Already corporations are spending millions of dollars and countless precious man-days each year attending and sponsoring meetings. It has been clearly demonstrated that the prestige of our major companies combined with their willingness and ability to cover costs can command an audience with leaders from anywhere. This is a unique privilege vested in management; it calls for a thoughtful response. I suggest that in the exercise of this privilege, highest priority be given to the means of moving private investment into farming enterprises throughout the underdeveloped parts of the world.

Initiative in Research

Corporations with international divisions and overseas operations have a special opportunity both to learn and to help build a communications bridge between U.S. investors and agriculturalists. By seizing the initiative in making contact with research centers, two things can be accomplished. For one thing, access is gained to what is known, and this knowledge can be interpreted and fed back in light of the current economic and political situation. Food, fertilizer, and agricultural chemicals and implements companies do this now and can testify to the advantages gained. A less obvious but vitally significant result of going to the research centers is the contribution which can be made in guiding the reorganization of existing data into a form usable by a potential investor. This guidance, if patiently and persistently applied, can have important long-range effects. It can:

- Accelerate the output of good investment prospectuses.
- Call the attention of directors of research to investment aspects of a research program.
- Call the attention of scientists to the critical gaps in the data that must be closed before investors can be interested in a particular new practice.
- Contribute to the training of specialists in the preparation of feasibility reports.

Investment Promotion

Another way to influence agricultural research institutions around the world to formalize investment promotion, and so put useful data into the hands of management, is to deal with them indirectly.

Technical and financial assistance to these institutions, originating in the United States, is all-pervasive. The U.S. government, directly through the Agency for International Development and indirectly through large-scale support

given to the World Bank, to the Inter-American Development Bank, and to the United Nations; almost every land grant university in the country (with and without sponsorship by the government); and the foundations, such as Ford and Rockefeller — these, among others, have been pouring a constant flow of men, know-how, and money into the design, construction, organization, operation, and staff training of research and educational systems throughout Latin America, Asia, and Africa.

The moment is right to push for a better job of investment promotion. To push effectively, the first and continuing need is for liaison between the minds of leaders in the private sector and leaders of our technical and financial assistance programs. When these two groups have interchanges of ideas and information, management must do more teaching, less learning. The needs of a private investor in agriculture prior to making a decision have to be spelled out in detail. The kinds of skills important to competence in feasibility analysis must be categorized. The help that can be extended by management in training personnel and in assembling data (e.g., its ability to release staff men for short-term assignments to research and educational institutions overseas) will have to be made clear, or there will be no tangible way to begin to implement the plea for change. Above all, the serious intent of management to take a hand in efforts to improve world agriculture must be stated unequivocably.

More Contacts & Interaction

If all the lines of action described in this article are pursued, the next decade will see a stream of good, solid, professionally prepared investment project proposals in agriculture flowing out of every continent to the United States. While some proposals will move directly to management as a result of interrelationships between individuals, far more will need an organized channel to facilitate prompt presentation and follow-up. This is the lesson learned from the recent history of technical assistance in the field of industrial development. It is safe to say that during the past 20 years, thousands of feasibility studies have been completed in the underdeveloped countries by U.S. technicians. In the non-agricultural field, these countries have been studied to death.

Yet what has happened is that the majority of reports have gathered dust rather than investment. They remain in the offices of government agencies. Few people know what to do with them; the few that do rarely have the money to pursue a systematic program of investment promotion. This situation must be avoided in agricultural development. The world cannot afford such extravagance.

A forum is needed where investor and promoter can meet, each seeking the other out eagerly and with warmth, making the finding easy and graceful. It is doubtful that the proper forum is to be found in the thousand and one board rooms scattered over the United States, although final action will take place there. If board rooms were the forum, each presentation would have to be made so many times that the selling cost would be prohibitive; also, for the promoter, telling the tale too often can deaden enthusiasm. It is also doubtful that any existing organization of American business interests provides a suitable forum. The purposes of present organizations are already self-engrossing, and none is concerned with the search for overseas investment, let alone investment in agriculture in underdeveloped countries.

I suggest that a wholly new organization is needed, solely concerned with the promotion of private investment from the United States in world agriculture. The ideal structure for such an activity still needs a lot of design work, but one concept is emerging. The reasoning underlying this concept is as follows:

Since investment in farming overseas will be new to most U.S. companies, the need is for a separate investment corporation, the shares of which would be owned by companies wishing to participate in the development of world agriculture along lines suggested in this article. Establishment of this organization would free the primary investor from administrative responsibility.

The investment corporation would be the instrument both to bring the opportunity into view and to follow up with investment itself. It would serve to pre-screen proposals. When a proposal seemed worthwhile, it would bring together stockholders for a hearing. Depending on the type of project, selected stockholders or all stockholders could be invited to a presentation. The investment corporation, in following up, could use paid-in capital or could turn to its membership for additional funds; also, it could turn to particular members for know-how, management assistance, or other resources.

Such a holding company representing the intent as well as the resources of the U.S. private sector to accelerate agricultural development would be the

ideal forum for investment promotion, especially during the early years of an investment program. Enough working capital should be made available at the outset so that experts with prepared proposals could be brought as guests to the United States.

Conclusion

It is often argued that agriculture in the hungry depressed countries will never develop as fast as is necessary until their leaders commit themselves to expanding it. Without this commitment, it is true, the allocation of strategic resources, already meagre, tends to spread out in so many directions that little progress is made toward any important goal.

Despite the fact that agriculture is usually the largest producer of wealth and engages the majority of people in Latin America, Asia, and Africa, it has proved hard to get strong commitments from national leaders. Rural problems are big, complex, and seemingly intransigent; rural people are the easiest to disregard, despite vehement protestations to the contrary and despite a torrent of corrective laws that are elegant in theory and almost impossible to implement. In the first flush of national planning, industrialization seemed a quicker, more manageable route to riches, full employment, self-determination, and international prestige.

Not until lately have the limits and dangers of an all-out thrust to industrialize at any cost, in the face of sharply limited markets and widespread inexperience, become generally recognized. The validity of arguments which give agricultural development the highest priority in national planning is beginning to take hold among political leaders around the world. Recent national plans are giving agriculture a greater share of both public funds and the anticipated input of private capital. In terms of commitments by politicians, therefore, there is more reason to be hopeful for agriculture than in many a year.

But political commitment to improve agriculture will be meaningful only if the means of doing the job are available. Internally generated resources are going to be inadequate for a long time to come. International public sources of funds are also going to be inadequate; debt-servicing alone is already becoming a back-breaking burden among the depressed nations, despite very low interest rates. Public funds from all sources will be inadequate not just in quantity but also in quality; that is, they will not supply the experience, the motivation, or the competence that can put capital to work to make more wealth.

This means one thing: A commitment to help must come from those who control the great private capital resources of the world. It must come from those who have the money, the patented and secret know-how, the productive capacity, the technical talent, and the management skills. Unless these people and companies commit themselves and follow up with action, one of two events seems inevitable: either mankind will fail in its efforts to feed itself and chaos will result in the scramble for survival; or privately held resources will be expropriated, legally or otherwise, as a stopgap measure hiding public bankruptcy.

As I have tried to show, a commitment by private investors to devote part of their resources to world agriculture is really far easier to make and act on than might at first seem. It can be done entirely within the context of profit and free enterprise. It can be done by reducing the vast whole to manageable parts. It can be done in steps which lead logically to expansion. It can be done in the context of any political and social system. The elements which are strange and forbidding can become familiar and homely, if not by direct contact, then by seeing them through the eyes of men who can be understood and trusted.

Investing in world agriculture is the greatest, most implacable, and probably the most exciting challenge ever issued to U.S. management. Meeting it will result in the most magnificent demonstration yet made, far grander even than the almost unbelievable story of the United States itself, of the revolutionary concept of modern capitalism.

. . . . Every man shall eat in safety
Under his own vine what he plants; and sing
The merry songs of peace to all his neighbours.
— William Shakespeare, *King Henry VIII*

APPENDIX B

LATIN AMERICAN AGRIBUSINESS DEVELOPMENT CORPORATION

NEWS RELEASE

For information contact:

Bank of America

For Immediate Release

NEW YORK, February 9 -- A new investment company designed to promote efficient production, processing and distribution and contribute to the profitable development of agriculture in Latin America was announced today by 12 major corporations who are the organizing shareholders.

The venture, with an authorized capital of $15 million, will be known as the Latin American Agribusiness Development Corporation (LAAD).

In announcing its formation the board of directors of the new organization said LAAD expects to increase food production and rural income by the profitable application of investment capital which will lead to a broad base of local ownership.

In carrying out company objectives, the strategy of LAAD will be to invest in new and existing enterprises which produce, process, transport, distribute and market agricultural products.

Key investments within a country will be determined by market analysis and may involve production and processing facilities or service facilities such as warehouses, transport lines, and distribution agencies if these reduce waste and simplify marketing.

The plan for the organization and operation of LAAD has been under careful study since late 1968, the organizers said. Those joining the development corporation as equal partners are: Adela Investment Company: Bank of America: Borden Inc.: Cargill Inc.: Caterpillar Tractor Co.: CPC International Inc., (formerly Corn Products): Deere and Company: Dow Chemical Company: Gerber Products Company: Monsanto Company: Ralston Purina Company: and Standard Fruit and Steamship Company.

The board has elected Fred S. Orth, vice-president of the Bank of America, operating out of San Francisco offices, as interim president of LAAD. It has named Donald J. Kirchhoff, executive vice president, Castle & Cooke, Inc., as its chairman and Paul F. Cornelsen, president of Ralston Purina International, as vice chairman.

The management of the new corporation will have access to the expertise of its shareholders, all of whom have active operations in Latin America. The policy of LAAD, the board said, will be to enter into joint ventures with local partners whose knowledge of marketing and financial arrangements, customs, national laws and politics will be of fundamental importance for the acceptance and success of any project.

A statement issued by the directors said:

"LAAD, as an investment corporation capable of finding, analyzing and financing projects and providing management guidance, expects to build a bridge connecting existing know-how with actual practice.

"LAAD shareholders also recognize that the creation of profitable enterprises alone does not guarantee an increase in real wealth in rural Latin America. Rural people must come to share widely in the ownership of the enterprises established by outsiders in order to stimulate the local economy. Therefore, the investment policy of LAAD emphasis the transfer of wonership to local people as quickly and over as broad a base as possible."

Operating headquarters of LAAD will be in Latin America at a place to be selected after a period of operating experience.