THE TROUBLE WITH GOALS OF SMALL FARMER CREDIT PROGRAMS

(AND HOW TO GET OUT OF IT)

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In reading the Spring Review evaluations, one is impressed with the number of important achievements which receive little attention. Because these items have not caught the fancy of the evaluator, they are not presented in enough detail to give an idea of what brought them about. It is not that resoundingly successful programs are being described as failures. Rather, the decisionmaker, implementer or evaluator seems to be watching his program through a lens of traditional evaluating criteria which tend to block the perception of significant developments. This precludes any questioning about how these developments came about, and how the lessons they teach might be fed back into the program. Hence the small farmer credit program that is a mixed outcome of success and failure--as most such programs are--is often deprived of positive feedback about its own, sometimes unexpected, outputs. In this paper, then, I want to (1) show how it is that objectives have come to cause such problems of perception, and (2) point to some of the unnoted lessons that seem to be emerging from the small farmer credit experience.

I - Goals and Their Problems

The objectives or goals of small farmer credit programs (SFCPs), and the concerns about their performance, seem to fall into three broad categories. One has to do with the economic efficiency of the activities financed by credit, a second with the ability of the program to serve a hitherto neglected portion of the rural population, and the third with the viability of the institution through which SFCP funds are administered. The three can be referred to as the pursuit of efficiency, equity, and institutional viability. They are basic to almost all small farmer credit programs--explicitly, or implicit in the position taken on certain issues, as discussed below.

Confronting Goal Conflicts

Most of the issues around which the evaluation of SFCPs has revolved--default, interest rate, supervision, profitability, lending criteria, technology, etc.--do not belong exclusively in any one of the above three categories. Indeed, different policy positions with

respect to any particular issue were expressed frequently in the Spring Review workshops, depending on the goal context from which a person was speaking. Substantial default rates, for example, were considered highly undesirable, and to be avoided at all costs, when one was concerned about institutional viability. At the same time, however, persons felt strongly about taking a soft stand on default, when speaking out of an equity concern for accomplishing a transfer of income that was considered otherwise difficult.

Similarly, raising of the interest rate on small farm credit from subsidized to market levels can be persuasively argued, when one has the viability of the credit institution in mind. Such a measure also fits within the pursuit of the efficiency goal: a profitable technology should be able, by definition, to withstand a market rate of interest. The interest rate, however, is also very much at the center of equity concerns: subsidized interest rates on small farmer credit, despite the drawbacks, are considered one of the few politically feasible avenues of subsidy in existence.

The issue of lending criteria also elicited varying responses in the workshops, depending on the goal context of the moment. With institutional viability in mind, the credit institution's preoccupation with the borrower's repayment capacity was considered justifiable. The issue takes on a slightly different cast when couched in terms of efficiency goals: if the technology is right, repayment, supposedly, will be no problem. Ability to repay will be a function of the successful application of a profitable technology, and not necessarily of the pre-existing repayment capacity of the borrower. Thus, the repayment capacity problem, according to the efficiency-minded, gets solved if proper attention is paid to profitable technology.

A look at the repayment issue through equity "lenses" brings yet a different response. Lending criteria based on concerns about institutional viability would be seen as resulting in the exclusion of the less-established farmer, thus undermining the basic strategy of such programs. Moreover, the efficiency argument about repayment criteria and profitable technology is looked at as unrealistic: lending institutions, when given the chance, will always select the more established farmer in order to increase the probabilities that their books will look

good, thereby insuring their own survival. From the equity point of view, then, institutional behavior will be determinant--profitable technology or no. The problem must be faced head on, from this point of view, by the imposition on the institution of rigorously equity-oriented criteria of lending.

Much of the controversy in the discussion of SFCP lending results from the different answers that these three different goals evoke. Indeed, the disappointing results of many SFCP programs, and their evaluations, may be caused to some extent by the failure to recognize that their underlying goal structure is quite problematic. It is not that the basic goals of efficiency, equity, and institutional viability are mutually exclusive, or highly incompatible. Rather, the pursuit of any one of these goals will often require significant compromise of another, or a reworking of program design so as to cause less damage to the compromised goal. If these goals continue to be put together in SFCPs as an inseparable threesome, then there needs to be some recognition and working out of the problems that result from that combination.

The pairing of the equity and efficiency goals is particularly problematic. The CADU project in Ethiopia provides a classic example of the kind of problem that can result from failure to recognize and accept the difficult challenge of combining two goals (Ethiopia, Holmberg). CADU was one of the few programs which was successful in promoting the adoption of modern inputs and increasing the yields of farmers. At the same time, it was just as much a disaster in that the adoption of modern techniques and resulting increases in outputs led to an increase in the value of land, great interest in increased production by large landholders, and the resulting eviction of smallholders by those who wanted to consolidate their lands, and cash in on the new innovations.

The central importance of this CADU outcome is that the disaster was a direct result of the success. An improvement in terms of efficiency was the direct cause of a loss in equity. It is not that such an outcome is unusual. To the contrary, its very expectedness needs to be made explicit at the time the objectives of such a program are being laid out, so that various decisions can be made: whether there are ways of lessening the

equity loss; whether certain losses in equity are a reasonable cost to pay for the projected gains in efficiency; whether there are other equity gains that might counterbalance the direct equity losses; whether there are ways of building into the program an assurance of these gains; and whether the equity-efficiency conflict might be diminished by, for example, altering the chronological sequence of the program design.

The CADU program, like many others, couldn't have asked these questions because it was not recognized that it had set out to achieve potentially conflicting goals--equity and efficiency. To unite them without considering their incompatibility is to set oneself a terrible trap: one raises the expectation that they are compatible and easily achieved <u>together</u>. This precludes the possibility of working on program designs that seek to minimize their incompatibility. Hence small farmer credit programs frequently end up being damned for having failed on one of the two counts--because, as is rarely noted, it may have been successful on the other.

The evaluation of the agricultural credit scheme of Sri Lanka is another example of this unavoidable damning (Sri Lanka, Gunatilleke). In contrast to CADU, the Sri Lanka program is criticized on efficiency grounds, though it seems to have made notable progress on equity grounds (see p. 12 below). Similarly, the High Yielding Varieties (HYV) programs made their success on efficiency grounds and, like CADU, were criticized for failing on equity grounds (e.g., India, Hendrix, Sen). Given the technology of the HYV--the need for irrigation and the special sensitivity of output to divergence from recommended input proportions--it should have come as no surprise that the benefits of the Green Revolution were found to have been limited mostly to large farmers. Again, the equity-efficiency conflict was a foreseeable one, yet wasn't faced up to at the start.

Another variation on the equity-efficiency bind can be found in the frequent exhortations to the efficiency-oriented credit banks to become more "development promoting"--for example, the Brazilian Bank of the Northeast (Brazil, Meyer), the Caja Agraria in Colombia (Colombia, Tinnermeier), and the Coop Credit Societies in India (India, Abraham). Or, development promoting banks are exhorted to behave in a more efficient way. Again, both objectives had been initially pronounced as if they were perfectly marriageable forms of institutional behavior, thus precluding

discussion of whether and how they could be brought together: should the functions of small farmer programs be divided up between efficiency-oriented institutions and development promoting institutions? Are there cases of successful institutions which combined both modes of behavior?

Because of the censure of SFCPs that occurs on either equity or efficiency grounds, one often does not get to find out about the part of a program that was successful. The program or institution, in turn, doesn't get to sense its own strengths, since failure on one count is taken as a generalized failure overshadowing any interstitial successes.

An interesting aspect of the equity-efficiency question is that at the same time that development planners are weaving the two warring objectives into the rhetoric of a small farmer program, they often are admitting to themselves and colleagues that they constitute an irreconcilable dichotomy. For political reasons, however, the dichotomy can not be brought into the open. One acts publicly, then, as if the two goals belong together, directing institutions to implement them jointly and reprimanding them when they don't. The problem is never aired, as a result, and there is no chance for exploration of a middle ground where the two goals might be found to conflict less.

For example, the recent literature on peasants and small farmer credit indicates that equity and efficiency need not be as opposed as everyone privately thought. The small farmer was found to respond to innovations, given the right market signals. Rural savings, as well, were found to materialize more readily than was thought, given such signals. The major defaulters in many credit programs turned out to be the large farmers*--a remarkable reverse in the equity-vs-efficiency picture of the small farmer as poor defaulter and "welfare recipient." Default, in these cases, turned out to be a function of the possession of economic power, not of the lack of it. Findings like this would tend to tone down the assumed incompatibility of the equity-efficiency goals, or would help program designers to accomplish such a toning down.

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*E.g., Ethiopia, Holmberg; India, Shah.

How is it that these goals came to be so blithely paired, with no attention paid to the task of reconciling them? It is not unusual, of course, that in order to garner as much political support as possible, public sector programs are couched in objectives that are difficult to achieve. It may be, however, that the lack of confrontation of this particular issue has more to do with the basic political and economic questions that cannot be avoided when one really gropes with the question. That is, if one feels that equity and efficiency are quite dichotomous for a small farmer program, then one may have to entertain the idea of major diversions from the market mechanism in order to achieve any gains in equity. Or, pursuit of the efficiency goal could mean that equity proponents will have to be pacified with claims of a filter-down effect which, everyone knows, will not satisfy such proponents and, moreover, will not necessarily take place. Or, if one accepts the idea of non-market intervention, and sets a standard minimum coverage of the population compatible with equity considerations, then the cost may turn out to be much greater than what a country has shown itself willing to devote to the agricultural population. Or, a small farmer program successful on equity grounds may signify an unavoidable change in the power structure of a region. The prospect of such change may not be tolerated by those with power to approve and fund the program; witness the fate of the Farm Security Administration in the United States (FHA, Hartman).

It is sometimes easier not to face these issues, and to think that one can proceed as in the past by relying on accepted market modes and at the same time aiming oneself in the general direction of the small farmer. This way one doesn't run up against the supposition that the existing economic system might not be able to make inroads into the problem. As one evaluator said, agricultural credit "has the advantage of being relatively politically neutral" (GURU, Davis). Exposing the equity-efficiency conflict, however, requires serious consideration of difficult questions such as land reform. This was the case with CADU in Ethiopia, though recognition of the problem was accounted for in somewhat superficial terms: land reform was considered an essential that would be required at a later stage of the program. When "later" came, it turned out that the first stage of the program had, by its very success, helped to mobilize the opposition to land reform. Had the question been

grappled with more seriously, the program's designers might have predicted that such an outcome was inevitable, and, as a result, might have planned a different sequence for their program.

The difficulties of coping with equity-efficiency issues have been compounded by the policies of international lending institutions. Donor agencies, by requiring both equity and efficiency objectives in small farmer programs, have become like a microcosm of a nation's polity, generating conflicting demands from all sides. It is ironic that the development assistance world should have come to burden the decisionmaking process of developing countries with an intensification of the political problems that arise from trying to meet conflicting demands. Granted, the donor organizations may have their own political constituencies making equity demands from one side and efficiency from the other. But these organizations would better play their role by assisting borrower countries to work out the reconciliation of such demands, instead of encouraging their superficial and problematical pairing.

Goals After the Fact: The Coverage Criterion

Evaluation of SFCPs often contains criticism that amounts to an after-the-fact setting forth of objectives. The major example of such an "implicit objective" is the frequent statement that a certain program reached "only" a certain percent of the population. For example, in El Salvador, it was reported that "only 30-40% of small farmers" adopted hybrid corn (GURU, Davis). In Colombia, the INCORA program covered "only a little over 2%" of small farmers (GURU, Rochac). In Sri Lanka, the credit schemes "reached only 20-25%" of the farming population (Sri Lanka, Gunatilleke). In Brazil, the ACAR program of Minas Gerais covered "only 5%" (Brazil, Meyer).

The implicit objective behind these statements was that the program should have covered substantially more population than the percentages achieved. Such goals, however, are rarely stated as objectives at the beginning of agricultural credit programs--in part, perhaps, because of the above-mentioned avoidance of the equity-efficiency issue and the broad questions

it raises. If these judgments are to be applied retroactively, however, then a program should know about such directives from the start. Granted, it may be politically difficult to start out a bold new program saying that one expects to reach, say, "only" 20% of the farm population. But it is important to have some kind of understanding about what the resources at hand can buy.

If it costs several times more to get a fuller coverage of the farm population--and if that higher sum is completely beyond the realm of possibility--then this conclusion in itself is an important piece of information about the program to be undertaken. Such a conclusion might force policymakers and program designers to consider totally different approaches to the problem at hand; or might encourage the consideration of a separate and different type of program for the untouched segment of the population. Or a minority percent of the target population might be considered adequate as a first step toward learning about the costs, problems, and successes of such an approach (as is suggested with reference to the 2% coverage in one of the Colombia papers, GURU, Davis).

Similarly, it may be that structural changes are hoped to be induced by the program in other parts of the economy: for example, the HYV programs in Pakistan increased the importance of the labor which handled the new technologies--namely the tractor drivers and the pump drivers. This led to an increase in the social importance of the members of these groups; the pump drivers came to be called "the controllers of the water" (Bangladesh, Myers). The CADU project in Ethiopia increased the demand for casual labor (Ethiopia, Holmberg). The credit program in Uganda made economic, from the demand side of things, the operation of a government-operated tractor-hire service (Uganda, Frederickson).

The above examples of changes were not, it seems, anticipated or programmed in any way. It is important to be alert to such developments as they occur, however, for a little marginal effort by program implementers could push them further than they might go on their own. If planners had to consider the percent-effectiveness question at an earlier stage of the program, they might build into the program design support for those induced

effects considered desirable. The occurrence of such effects, in turn, might make justifiable a program that couldn't pass muster on percent-effectiveness grounds.

The post-hoc application of a percent-covered criterion tends also to obscure what actually worked and what didn't. After all, the 30-40% coverage achieved in the El Salvador case doesn't really seem like a failure at first glance. Perhaps the failure was actually in the area of not knowing how to change techniques for the remaining 60-70%, after having experienced a whopping success with the first forty. It is important to know whether that first forty was a success or not, how it was accomplished, and what stopped the program from moving on to the rest.

Goal Addiction

The equity-efficiency issue is part of a more general obscuring of certain developments that occurs when programs are measured against their stated goals. Goals sometimes become overly fixed, even if midstream readings indicate that the course might be altered somewhat, or that progress in an unexpected area might be pursued further and traded for lack of progress in a goal-related-area. There is sometimes not enough "displacement of goals," one might say, in contrast to the frequent case where public programs are criticized because of goal displacement--that is, diversion from original objectives toward ends considered less worthy.

The CADU study provides an example of what may be an excess of loyalty to goals. In the early stages of the project, it was decided that cooperatives would be promoted only later on, after the credit and modern input programs were well grounded. This sequence would unburden the first phase of the program from the difficult institutional task of cooperative organization. When CADU finally initiated promotion of coops, however, it found little interest among the beneficiary population. Hence that aspect of the program was considered a failure, something to which more funds and hard work would have to be devoted (Ethiopia, Holmberg, Cohen).

One of the rare cases of a constructive reevaluation of goals and means in midstream is also found in the CADU study. The study notes that grazing land was converted to wheat land by small farmers in the project area, resulting in wheat monoculture. This development could have been considered a setback in terms of the project's goal of diversifying agricultural production in the area and developing livestock production, considered by CADU to be most economically suited to the region. CADU reported, however, that it did not view this development unfavorably. The initial capital requirements for establishing cattle grazing production units were perhaps unrealistically high for people coming up from small farmerdom. The more divisible, less capital-intensive wheat, CADU reasoned, could be a vehicle by which incomes would increase to the point where investment in cattle capital was more feasible (Ethiopia, Holmberg).

The move to wheat, then, was not looked at as a step backward, or away from the cattle goal, but as a move which would ultimately facilitate the development of cattle grazing. This perception of possible sequences of development, and the altering of programs in accordance with new information from the program itself about such sequences, seems to have occurred rarely, and to have been hindered by an excessive adherence to initially stated goals.

Another totally different example of change in midstream--with a somewhat different lesson--is the CIBA-BIMAS contract in Indonesia for aerial application of pesticides and bulk supply of other inputs (Indonesia, Hansen). Before the Indonesian government entered into the contract with CIBA, it was encountering various problems in an HYV rice program it was sponsoring. The pesticide aspect of the program in particular had not been working well; farmers either didn't see the reason to use them, or didn't use and maintain well their hand spraying equipment. Other problems related to the instability of input and output prices and faulty delivery systems for inputs. In response to these problems, the government entered into a contract with the foreign firm CIBA for the provision and delivery of seeds and fertilizers, and for aerial spraying with pesticides. The contract specified fixed prices for the inputs, and delivery provisions which were supposed to work much better than the previous ones. The aerial spraying, of course, was to solve the pesticide problem in one fell swoop.

There was tremendous resistance to the CIBA program on the part of the farmers, and the contract was terminated two years after its signing. The farmers had objected to the arbitrary decisions that the technology of aerial spraying imposed on their activities, and also to the nature of the input packet which they had to use: the proportions of fertilizers were rigidly fixed according to an average formula and allowed no variation in accordance with the soil composition of any particular plot. Many peasants also disliked the new seeds. When the government terminated the CIBA contract, the packet program (now including pesticides) was replaced by a more flexible system permitting the peasant to select his input proportions within a maximum and minimum range. In addition, the government had promoted research into the development of a miracle-rice variety more adapted to consumer tastes and the production conditions of the country.

The BIMAS story is remarkable in that it reveals two major policy changes in midstream in response to feedback from the program: the decision to undertake the contract with CIBA and the decision to abandon it. As the story is told in the BIMAS paper, however, it is presented as the story of failure. Hence one obtains only scant information at the end as to the lessons learned and how they were applied in the post-CIBA program. In comparison with other studies of small-farmer programs, however, the BIMAS story stands out as a remarkable case of sequential learning and action.

Goal-Unrelated Achievements

There are many useful pieces of information about agricultural development and program strategies that seem to be lost because they don't directly pertain to the original objectives of the program, or because they don't fit the standard criteria by which such programs are judged (percent effectiveness, default rate, increases in output, etc.), or because failure has occurred with respect to an important objective, and everything else that happened is considered secondary.

The Colombia paper, for example, reports that the credit program probably brought about no significant changes in income or productivity levels "with the possible exception of small potato growers and small farmers in the

more heterogeneous farm size areas where the new technology has become available" (Colombia, Tinnermeier). Why potatoes? Did heterogeneity play a role? How precisely did the new technology impact on this development? Is there anything about this exception which sheds light on the reasons for lack of significance in the bulk of the program?

As another example, the Sri Lanka paper emphasizes that the two primary objectives of the cooperative program were not achieved--increased productivity and income, and the relief of indebtedness (Sri Lanka, Gunatilleke). In other places, however, it is reported that the government's agricultural credit schemes "have improved the condition of the farmer in that he is less dependent on middlemen and traders;" and that these schemes have resulted in "the enlargement of the functions of new institutions at the village level, the cooperative society and the Rural Bank." Moreover, "the expansion of the economic activities of these institutions has given them a crucial role in the village economy." The paper laments that the program has caused a "transfer of incomes" and sometimes inflation; yet "all critics are agreed that the agricultural credit scheme cannot be withdrawn because its function of meeting part of the requirements of working capital in the peasant sector is too vital."

These achievements are not of easy accomplishment! Their absence is the frequent plaint of the evaluations of other programs. Yet, because the program is considered in a general context of failure to meet efficiency goals, major gains with respect to both equity and institutional viability don't receive proper attention. They don't get to be considered as an output of the project, to be fed back into it through modifications of existing design.

The CADU paper, as another example, briefly covers some interesting areas of information which merit more thorough treatment. CADU was quite careful about the type of equipment it promoted. It shied away from sophisticated equipment and stuck close to the simple tools to which farmers were already accustomed--mainly, plows and oxcarts. It also embarked upon the production of improved versions of these implements, as well as introducing simple harrows and threshers (Ethiopia, Holmberg). This story stands in marked contrast to the more typical

tale of the imported tractors, trucks, and sprayers, which sit unused because of the lack of a spare part, of local maintenance know-how, or of maintenance capacity--as occurred, for example, in the Thai program (Thailand, Gamble).

One wants to know more about CADU's approach in this venture, and what secondary effects in input markets occurred or were anticipated. It would be highly useful to donor organizations, moreover, to know how the decision to proceed in this way could have emerged unscathed in a program sponsored by a developed country with a sophisticated equipment-producing industry!

II - Lessons and Designs

In the last section, it was seen that an excess of attention paid to fixed objectives may result in the failure to observe, chronicle, and explain, seemingly isolated instances of success and failure. If such cases aren't likely to get their due, then certainly the probability is even lower that anyone's attention will be caught by the emergence of certain patterns that can explain, in a different way, a group of such isolated instances. In this section, therefore, I would like to suggest some different ways of putting together the isolated cases of success and failure that have surfaced in the Spring Review. Hopefully, the lessons learned in this way would be taken advantage of in future designing and redesigning of SFCPs.

Technological Compulsion

It is difficult to capture the considerations in this section in one word, or to separate them neatly from each other. As the examples below will indicate, they have to do with the way in which the characteristics of a certain crop influence the structure of production and marketing which, in turn, bears on the possibilities for successful small farmer development. Another explanatory factor, sometimes related to the factors discussed in this section, is the market power that certain arrangements or policies bestow on previously powerless individuals or institutions.

Rather than find a word that describes what these various factors <u>are</u>, it is easier to describe what they <u>do</u>.

I would call their action "technological compulsion." "Technology" conveys their material or physical nature--as opposed to economic, institutional, or policymaking impacts. "Compulsion" indicates that they are now determining certain outcomes of SFCPs, rather than being determined by them, or leading a neutral existence. The fortuitous nature of their determining influence could be reduced considerably if the compelling power of these factors were recognized and harnessed in service of outcomes that they are now bringing about, willy-nilly.

Input Technology. We return again to the story of BIMAS in Indonesia, and the aborted attempt to use aerial spraying on many production units (pp. 10-11 above). Some of the reasons for this failure are made clearer by comparing the technology of aerial spraying with that of another agricultural input, irrigation. Likewise, the comparison also serves to teach something about the role that irrigation can play in the determination of SFCP success, as illustrated by the case of Comilla in Bangladesh.

One of the factors that undermined the attempt to introduce aerial spraying in Indonesia was the existence of an alternative way of spraying, which didn't involve the coercion that spraying did. Even though hand spraying hadn't worked well, the existence of this alternative made it possible for the peasants to feel that they were being treated arbitrarily. In irrigation agriculture, however, there is little alternative to some sort of organization of water supply as a way of obtaining water. The choice is not between efficient, coercive irrigation and less efficient, more individualistic acquisition of water--but between irrigation or no water at all. Of course, varying degrees of organization of water supply are possible--from pumps and tubewells to large-scale projects. But the alternative of cheap individual provision and voluntary participation does not exist in the same way that it does in aerial spraying.

A government that is sponsoring irrigation agriculture is not as vulnerable to accusations of coercion as is a government promoting aerial spraying, since in irrigation there is often no other way. The technology of aerial spraying, in other words, turned out to be too "permissive," given the government's desire to maintain individual farm units and given the power of the peasant to

resist. Aerial spraying might have been looked upon more benignly if, as in irrigation, it meant the coming of a technology that couldn't be applied in any other way.

In contrast to BIMAS in Indonesia, the integrated rural development program at Comilla, in Bangladesh, must have had the technology of one of its main inputs on its side--namely, the "compulsion" of irrigation agriculture. Many of the Comilla project's cooperative associations were organized around the acquisition and operation of a tubewell or hydraulic irrigation pump. Each pump or well would support from 30 to 50 family farms. The availability of the wells at the time when Comilla was organizing, and the subsidization of their acquisition cost by the government, was a powerful organizing incentive for families with contiguous farms. Since it was technologically and economically more efficient for all contiguous farms in a prescribed area to participate, moreover, there was considerable social pressure exerted on individuals who refused to join, or who, once having joined, refused to contribute their share toward maintenance expenses. The technology of the input, in short, mobilized social and political forces pressing for participation.

Once these small groups were organized around the acquisition and operation of an irrigation pump, other things started to happen. The technology of water distribution allowed easy diversion by more zealous users, or nonmembers. Technology, then, did not help settle these particular questions arbitrarily; to the contrary, it opened them up, and hence required the formation of some type of institution that could arbitrate. As a result, small councils were formed by each association, which met periodically to adjudicate such disputes. The councils eventually got into other matters of adjudication, unrelated to the dividing of the waters. The cooperative associations, as well, took on a range of activities and functions unrelated to irrigation--mainly, the channeling to their members of agricultural credit. Though the availability of credit was probably an important incentive for organizing into groups, it certainly could not have had the compelling influence and the specific organizational results that the availability of pumps and tubewells had.

In the Comilla case, then, the technology of irrigation agriculture had forced a form of organization and self-government. This type of irrigation, that is, required

a group which was large enough to achieve the benefits of size (qualification for agricultural credit and inputs at favorable prices), small enough to facilitate group organization and action, and spatially close enough for familiarity and social pressure to ease the difficulty of enforcing compliance with group action. Familiarity and social pressure, moreover, would also play the important role of helping the agricultural credit institution to determine creditworthiness efficiently, and to bring about repayment.

The tubewell experience can be seen as a variation on the theories of Karl Wittvogel, who first brought to light the "technological compulsion" of irrigation agriculture in his researches on large-scale hydraulic projects in Ancient China. Whereas Wittvogel emphasized the centralized despotic control permitted by large-scale irrigation works, Comilla illustrates the contrasting results from the use of irrigation technology on a smaller scale. Pumps and tubewells, that is, contributed to a political development that was more decentralized and pluralistic, in contrast to the large-scale control facilitated by large-scale irrigation.

A recurrent theme of the Spring Review was the problem of achieving small farmer participation in group formation. The Comilla experience has shown that irrigation, by forcing this issue somewhat, provides a setting in which such group formation is more likely to be achieved. Indeed, the efforts of the Bangladesh government to replicate its successful Comilla project throughout the country may fall short in cases where pump or tubewell irrigation is not a feature of the program. It is possible that no substitute will be found for the compulsory role that was played by irrigation technology in the formation of the Comilla cooperatives.

Usually, irrigation is considered a costly way to bring agricultural development to a region. The technological determinism described above, however, is a significant compensating benefit for any irrigation program involving small farmers. Conversely, alternative approaches to small farmer development have their own high costs--namely, the difficulty of bringing about the group action often necessary for program success. Any consideration of irrigation should include these particular costs of the no-irrigation alternative--or the benefits inherent in the coercive element of the technology.

The Geography of Supplier and Consumer. The marketing problem seems to be one of the most difficult ones facing small farmer credit programs. It has become a kind of catch-all explanation of failure. The marketing system is said to be incapable of distributing a large increase in production caused by a successful credit program, the power of the marketing intermediary is said to eat away at any new profits the small farmer might attain, and the marketing system is said to force the farmer to sell when prices are low, instead of providing him with the power, in the form of storage facilities, to withhold his supply until prices improve.

Perhaps the marketing system has become a convenient scapegoat for SFCP failure, since it represents a different stage of the production process not taken on directly by the small farmer program. If an agricultural production program fails, it is often blamed on the market; but if the program succeeds, one doesn't hear about how the marketing system facilitated this success. In a sense, the marketing system gets the worst of both worlds: it gets credit for the failure of a program directed at the previous stage of production, and doesn't get any credit for such a program when it succeeds. Whatever the reason for the marketing pessimism that pervades most evaluations of small farmer development, it certainly seems to have prevented the analysis of marketing situations that, despite their imperfections, worked reasonably well.

It is in marketing that some of the technological factors related to crop seem to play an important role. One of the Spring Review studies, for example, mentions a highly successful program of development of commercial dairy enterprises in parts of dryland India (Gujarat). The program concentrated first on the development of market outlets and collection facilities for milk, and only later focused on the means of increasing production (GURU, Hendrix). Commercial dairy operations in general seem to be one of the few areas where agricultural cooperatives have been successful. This leads one to believe that there may be something characteristic of milk production that explains this success. It may be that the "compulsion" that this product exerts on its producers to gather together at a central point to deposit the raw product, and to do so before the product perishes, explains in some way the greater success rate of dairy-promotion efforts. If this is the case, one ought to look at other agricultural products with this "coercive potential" in mind.

The study of cooperatives, and their varying degrees of success and failure, is in particular need of such an approach. Such ventures are usually explained in terms of the absence or presence of effective cooperative leadership and of the proper kind of cooperative organization.* But it may be that the product itself is sometimes determining the degree of success or failure, despite the absence or presence of the right kind of organization and leadership.

Another example of the way a product's "geography" determines institutional success or failure is that of coffee in Costa Rica. One of the constant criticisms of small farmer credit programs is that the traditional credit institution's mode of operations makes it too risky to lend to the small farmer. It is too centralized and bureaucratized to be familiar with a myriad of small farmers and their creditworthiness. Likewise, it doesn't hold the local power over its client that the local moneylender does. Hence the small farmer and the credit institution end up avoiding each other mutually--the small farmer because of the geographic and cultural distance between him and that institution, and the institution because of the risks that this distance requires it to take.

In Costa Rica, the characteristics of highland coffee production have compensated somewhat for this problem of distance between traditional institution and small farmer. The country's coffee quota is allocated among its 127 processors, rather than among producers or exporters. Central Bank credit for purchase of this coffee is likewise distributed among the processors, who advance it, in turn, to their grower-suppliers, many of whom are small farmers. Although this system creates some monopsony power on the part of the processor over his small-farm supplier, it nevertheless decentralizes the banking function in an efficient way. Credit is dispensed throughout the coffee-producing area in 127 branch-bank-like channels. The lender-borrower relation is less distant and formal, and the lender-processor, by nature of his business, is well acquainted with

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*Tom Carroll's analytical paper is a notable exception.

the creditworthiness of the small growers in his region. Moreover, the small farmers do not necessarily limit themselves to coffee. Their secure credit arrangement in coffee allows them to engage in other cropping activities where credit arrangements are not as easy.

Hence the Costa Rican coffee processors' position in the production process, and in the countryside, suits them well for being credit intermediaries between the banking system and the small farmer. Indeed, the guaranteed access to credit and marketing that this system provides to the smaller coffee farmer has probably played a role in bringing about the greater equality of land and income distribution in Costa Rica, as compared to other Central and South American countries. (Also important, of course, is the suitability of coffee and the Costa Rican terrain to small- and medium-size production units.)*

Two other considerations of a "spatial" nature, and bearing on the credit and marketing issue, emerged in the Spring Review workshops. It was pointed out in Nairobi that for one particular region of the country, marketing had not been a problem of the SFCP, because all the produce of the region was consumed right there. More generally, this might suggest that credit programs promoting the financing of subsistence crops do not run up against the marketing problem as much as those that finance cash crops. Because the former product is consumed in the very region in which it is produced, the demands made on the marketing system are minimized.

Put in another way, one could say that the demands made on the marketing system by a region switching from subsistence to cash cropping, as promoted by many SFCPs, are maximized. One may increase the probability of marketing failure, then, by promoting the production of the crop (cash) which, from an economic point of view, makes more sense. The greater economic benefit of the cash crop over the subsistence may be outweighed by the higher probability of failure due to marketing problems. Conversely, the lesser economic desirability of the subsistence crop is counterbalanced by the higher probability of marketing success.

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*This description is based on my A.I.D. memorandum "Agricultural Sector Loan for Costa Rica," July 1969.

This kind of calculation might be a more realistic way of seeking solutions to the marketing problem, than the often ill-fated attempts to mount integrated production-marketing schemes. Such an approach also counteracts the fatalistic frame of mind with which SFCP evaluators tend to look at the marketing system, for it requires that they identify those situations in which the marketing system is working, or is likely to work, well.

The cash-vs-subsistence argument can go the other way, if one is concerned with the potentials for success of cooperative organization, and is sensitive to the effects of spatial relationships between supplier and consumer. It was pointed out in Nairobi that the only successful cooperative marketing organizations seemed to be those dealing with cash crops for which the final consumer was located at some distance from the producer. This distance, it was suggested, made monopoly of marketing possible. Such monopoly, in turn, was considered basic to the success of a marketing cooperative.* In the case of subsistence crops, that is, the geographical proximity or interspersing of supplier and consumer makes for relatively easy entry into the marketing business and for considerable difficulty in the enforcement of monopoly. With great distances separating supplier and consumer--and a product that perhaps requires some processing at a central point--monopoly would be relatively easy to enforce, and the attraction of would-be entrepreneurs to marketing would be diminished by higher entry and operating costs. These types of conditions, then, may be at least as important a part of the explanation of successful cooperatives as those relating to cooperative leadership and organization.

Market Power and Economies of Scale

Most justifications or evaluations of SFCP's contain an ode to the powerlessness of the small farmer in the market for inputs and outputs, and an excoriation of those who exert power over him: the moneylender, the impersonal commercial bank, the marketing intermediary, the local merchant. Many of the consequent proposals dealing with this problem focus on reducing the economic power of those who have it, rather than increasing the power

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*Tom Carroll goes one step further and suggests that existing marketing groups are the best base for any credit cooperative.

of those who don't--e.g., introducing a small farmer bank as competition to the moneylender, decentralizing and personalizing the commercial bank, building roads so as to break the monopoly conferred by local isolation on the marketing intermediary and local merchant. It may be just as important, and sometimes more realistic, to aim at increasing the economic power of the small farmer, rather than concentrating solely on measures that take power away from those who have it.

The story of the BIMAS-CIBA contract exemplifies a notable attempt to overcome problems of small farmer powerlessness in the market (pp. 10-11 above). Aerial spraying and other aspects of the BIMAS-CIBA program were ways of reaching toward technological economies of scale that were otherwise unattainable if one were to preserve the small farmer as the unit of production. Moreover, to substitute the Government of Indonesia for the small farmer as purchaser of inputs was to attempt to match the market power of the seller with a buyer whose power was infinitely greater than that of the small farmer. The prices resulting from such a transaction, and their stability, would no doubt be more favorable with such a balanced matching of buyer and seller power.

It is not clear whether the CIBA contract would have worked if it had been designed or timed differently, or if the political situation had been different. Though this particular try did not work, it was still a profound and novel attempt to reach for technological economies of scale accessible only to the very large farmer and the collectivized or colonized economy--and to make them available to the small farmer, without forcing him into large productive enterprises.

Another powerful and unlikely agent to which one might hitch the small farmer, as a way of remedying his powerlessness, is the large farmer himself. This is rarely proposed, of course, since the large farmer usually ends up gaining even more power in such situations, at the expense of his smaller colleague. After all, large-farmer shouldering aside of the smaller farmer in SFCPs was a constant theme in the Spring Review. There may still be some ways, however, of exploiting the large farmers for their market power without, at the same time, being exploited by them. For example, the CADU program strictly limited its credit to a target population which was below certain maximum levels of landholding and income. At the same time, the program allowed large tenants and landowners

to buy inputs on a cash-basis-only from CADU (Ethiopia, Cohen). (Small farmers could buy these inputs on credit.) Although the paper does not say, it seems plausible that CADU may have done this to achieve economies of scale in buying inputs. By bringing the larger farmers into the picture in a limited way, the program was able to create external economies--a buying population large enough to make possible the provision of a certain level of services at certain prices. Since the input-buying program is not described in this particular light, one does not find out whether the approach worked well, or whether it amounted to putting in the lion with the lambs.

Another example of the acquisition of market power through scale economies in purchasing was given in the Nairobi Workshop. One participant related how changing economic conditions in parts of Swaziland had caused the heads of farm families to seek salaried labor elsewhere, leaving their wives to tend the farm. Since plowing was an activity not traditionally carried out by women, there arose a demand for some kind of plowing arrangement that would replace the work of the men. Since the interested farms were located in the same area, the rental of such services became economically feasible, and their supply, potentially profitable. Tractor-hire service eventually materialized.

Considered on its own, the migration leading to the emergence of tractor-hire service in this area might have appeared economically and socially disruptive. But these developments ended up making it possible for the small farm community to avail itself of an important and modern agricultural input.

Similar results were achieved, in a less fortuitous way, in Uganda. The organization of credit societies in that country with certain input-purchasing practices made it attractive for the government-operated tractor-hire service to make itself available to these societies (Uganda, Frederickson). The tractor service looked more favorably on requests for service from credit society members because of the guarantee of a larger income owing to less traveling, larger plots, and certainty of payment. (At the completion of a plowing job, the credit society would transfer loan funds directly to the government account, thus avoiding the necessity of cash collections from individual farmers; each member's loan account with the society would then be debited with the cost of the plowing job.)

These examples, in a sense, represent the capturing of scale economies that was sought after, and lost, by the Indonesian government in its contract with CIBA for aerial spraying. The importance to small farmer development of the acquisition of such market power is not, of course, a new idea to those in agricultural credit. Rather, it seems that market power is now being conferred on certain groups almost fortuitously, outside the strategies of small farmer programs. Because these situations aren't being recognized for the power they may confer, the possibility of deliberately bringing them about is being lost.

Political Significance

It is rather strange that the Spring Review paid almost no attention to the question of mobilizing resources for small farmer programs. The point of inquiry seemed to have started after the funds were granted, and concern revolved around how the monies were spent and repaid. Yet many issues which did receive the spotlight--the interest rate, default, lending criteria--gained much of their importance from the fact that they were crucial to the credit institution's supply of funding, and hence to its institutional survival.

It seems that funding out of domestic and foreign public sector resources would get at least equal billing with interest and amortization payments in the discussion of institutional survival. After all, it was never stated or implied that SFCP programs were to sustain themselves, or have significant impact, on a once-for-all injection of government capital. Even if there had been some illusion that interest and amortization payments would take over fully after the first shot of government funds, the SFCP experience to date has certainly shown this to be unrealistic. The question of how a program obtains subsequent doses of funding from an often apathetic sponsoring government, in sum, seems to have been given short shrift. The Spring Review, by concerning itself with interest and amortization questions to the neglect of outside funding, may have been overcome by the same kind of "banker's mentality" for which the small farmer credit institutions were so often criticized. I conclude this paper, therefore, with an emphasis on the question of funding.

Whether or not an agricultural credit program will continue to obtain the public funding that it requires will be very much a function of its political importance to government leaders in the borrowing country. When one runs across the subject of political significance in the Spring Review evaluations, however, it usually takes on a negative light--political meddling, high defaults, "welfarism" (e.g., Sri Lanka, Gunatilleke). At the same time, it is not recognized that some of the shortcomings of programs in other countries may be due to the lack of political importance of the agricultural sector.

The story of the BIMAS program in Indonesia is a good example of the impact that political significance can have. One striking thing about that story, in contrast to the other SFCP evaluations, is that the program was so involving of the peasant population that it could provoke the widespread resistance that it did. One is impressed that this resistance, in turn, could claim the political attention that it did. It is difficult to imagine the president of, say, a Latin American country being impelled by political self-interest to visit the fields and discuss with the peasants their beefs about a credit program--as happened in the Indonesian case.

What happened in Indonesia was a far cry from the quiet projects of many other countries--occupying small corners of their development programs for several years, not achieving much, not provoking resistance, and not changing in response to their failure to achieve. No massive demands are made upon them to change what they are doing, as occurred in the Indonesian case, or to try some things they are not doing.

In general, many of the Asian programs give the impression of stirring things up and having wider and deeper impact than do, say, the programs of Latin America. The latter countries, unlike the former, passed through a long period during which their development hopes were focused on some form of industrialization. Agricultural programs usually came second in such circumstances. Even after the recent shift of policy emphasis from industry to agriculture, the sector never became the focus of profound development aspirations and dramatic rhetoric in the way that industry had been.

In many of the Asian cases, in contrast, one notes immediately the more central position of agriculture in a country's concerns and budgets, the absence of industry as a powerful competitor for development attention, and the political weight of the rural population. Agricultural development policy--even if it has failed or has been ridden with problems--is more a first-class citizen in these countries in comparison to Latin America.

The political importance of SFCPs in the Asian-type situation is not always more advantageous for such programs than the absence of political interest in the Latin American setting. But at the same time, political significance should not always be looked upon as a debit. It can result in greater perceptiveness and responsiveness to problems, as in the Indonesia case, as well as a greater commitment to provide public resources. In this light, the negative results of political significance can be seen as the costs of obtaining a certain type of decisionmaking, and a certain commitment of funds, which are crucial to the success of a small farmer program. Once this aspect is looked at as a cost which yields some benefits, then one can start thinking of ways to minimize the cost, or maximize its potential benefits--instead of turning one's back on it in despair. As soon as it is realized that programs can be damned for <u>not</u> being the object of intense political concern, then one sees the value that can sometimes inhere in political significance.