

Small Farmer Development Strategies:
A Seminar Report*

by

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I - Introduction

Many less developed countries have realized substantial increases in income, output, and productive capacity in the past couple of decades. Despite these successes, in only a few cases has growth resulted in satisfactory development; large segments of the population have not participated in producing or consuming additional output, and general access to meaningful political and social involvements has not been opened for the disenfranchised.¹

This lack of widespread benefits from economic growth is especially apparent in rural areas. Half to two-thirds of the world's population is submerged in the squalor, insecurity, ignorance, boredom, disease, lethargy, and pain associated with rural poorness. It is apparent that no single set of policies can significantly treat the multitude of problems faced by the rural poor. The aged and infirm cannot be helped

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¹For further discussion of the distinction between growth and development see: Peter Dorner, "Needed Redirections in Economic Analysis for Agricultural Development Policy," American Journal of Agricultural Economics, February, 1971, pp. 8-16; and Dudley Seers, "The Meaning of Development," International Development Review, December 1969, pp. 2-6.

with programs designed to assist the landless. Small farm operators or share-tenants have different needs than rural residents with non-agricultural occupations etc. It appears that effective development programs might be more effectively carried out by focusing on relatively homogeneous groups of rural poor.

In this vein the Seminar reported on here directed attention at the small farmer class of rural poor. It was assumed that rural poverty problems are so large that solution in situ is the only alternative, and that accelerating urban-industrial growth is not a viable alternative. The organizers of the Seminar felt that designing and carrying out programs which enabled this group to become major participants in economic, political, and social systems will be an urgent problem during the next couple of decades. The needs of all rural poor are pressing, but resources to treat their problems are also very limited. Because small farm operators are already involved in the production process, have managerial skills, and access to a modest amount of land, their problems are generally more tractable than, say, the landless. Stimulating output is usually easier than initiating production.

II - Seminar objectives

A number of small farmer development (SFD) programs have been initiated around the world. Only a trickle of information, however, regarding these programs has found its way into the literature. The objectives of the Seminar were, 1) to assemble information for comparison purposes on some of these projects, 2) to attempt to draw from these cases success and failure patterns, 3) to outline an analytic framework for SFD analysis, and 4) to identify priority issues for further research. Thirty participants with backgrounds in economics,

sociology, and political science attended.² Many of those attending were, or had been closely associated with efforts to help small farmers.

In many respects the Seminar was a sequel to a 1965 Conference on subsistence farming sponsored by the Agricultural Development Council.³ In that Conference major attention was focused on the characteristics of subsistence farming, related theoretical issues, and research priorities. Relatively little attention was given to execution of planned change. The 1971 Seminar attempted to build on the results of the earlier Conference by stressing the how-to-do-it and where-to-do-it questions. This paper presents a synthesis and summary of the major points made at the Seminar.

III - Small Farmers defined

The scope of the Seminar was restricted to ways of opening economic, political, and social opportunities for that part of the rural population broadly defined as lower-income farm families. They may be landowners, share croppers, squatters or renters of land. Three distinct meanings of the term "small farmer" surfaced in the Seminar [1, 2].⁴ These distinctions became quite important when the Seminar participants began to examine and evaluate various development strategies.

²A list of authors, papers and discussants is presented in Appendix A. The names of participants and their mailing addresses are given in Appendix B.

³Papers from this Conference were published in: Clifton R. Wharton, Jr. (ed.), Subsistence Agriculture and Economic Development (Chicago: Aldine Publishing Co., 1969).

⁴The numbers in brackets refer to papers presented at the Seminar which are numbered in Appendix A.

The first meaning used was an absolute smallness where a cultivator has access to only a modest amount of land. Many farm units in the Andean highlands of South America, rice farmers in Nepal, share tenants in Ethiopia, farms in Bangladesh, and a large number of micro farm operators in many parts of Indonesia are examples of this type of small farmer. A second meaning of small farm used was a relative one in which farms are small in comparison with other farm units in the general area. Relatively small-in-area farms in Southern Brazil, West Pakistan, and many developed countries are examples of this type. The third meaning of small farm focuses less on the size of the farm itself, and more on the level of market interaction by the farm operator. Those farms which are heavily subsistence in nature, who buy and sell only a minor portion of their farm inputs and outputs were also considered small farms.⁵ These types of units are found throughout the less developed world. In sum, a farm was considered small if its occupants had very limited access to political power, productive services, productive assets and income streams in the society.

IV - A conceptual framework for small farmer analysis

A. The context classification

The first two papers presented at the Seminar largely treated conceptual and definitional issues. Carl Gotsch [1] argued that SFD problems should not be analyzed in isolation, but rather studied in the context of surrounding economic and political processes.⁶ He suggested a systems

⁵ See V. M. Dandekar's discussion in the "Forward" of the Indian Society of Agricultural Economics, Seminar on Problems of Small Farmers, Seminar Series VII, Bombay, June 1968, pp. VII-XVI.

⁶A similar position is also taken by: Dov Weintraub, "Rural Periphery, Societal Center and Their Interaction in the Process of Agrarian Development: A Comparative Analytic Framework," Rural Sociology, September 1970, p. 367-376; & E. Walter Coward, Jr. and Wayne A. Schutjer, "The Green Revolution: Initiating and Sustaining Change," Civilisations, Vol. 20, No. 4, pp. 473-483.

approach for relating SFD activities to overall developmental questions. The initial variables which he used to describe the system were: 1) the nature of the available technology, with particular reference to its scale effects, 2) the distribution of landholdings by size, 3) the distribution of income and social power, and 4) the distribution of institutional services. These four variables provide a conceptual framework for specifying the causal relationships in a dynamic system that may either create or resolve rural poverty.⁷ For example, if technologies with significant scale effects are introduced into a social setting characterized by a highly skewed distribution of landholdings their effects will be to further skew the distribution of income and power, which in turn will result in further inequity in the distribution of landholdings.⁸

Gotsch's conceptual framework when applied to a bimodal agricultural sector suggests the need for basic structural changes if the position of the small farmer is to be made viable. Such structural changes fall outside the usual range of policy instruments considered by policy makers. Others at the Seminar with experiences in a more unimodal agricultural sector saw many of the usual policy instruments as having a largely beneficial impact on small farmers. There was general agreement in the Seminar that rural systems in various countries, and regions

⁷A later version of this argument is presented in Carl H. Gotsch, "Technical Change and the Distribution of Income in Rural Areas," American Journal of Agricultural Economics, Vol. 54, No. 2, May 1972.

⁸Contrast this view with that presented by Yujiro Hayami and Vernon W. Ruttan, Agricultural Development: An International Perspective (Baltimore: The Johns Hopkins Press, 1971). They argue new technology makes existing institutions more pliable to socially desirable changes and adjustments.

within countries, lay somewhere along a scale. At one extreme of the scale the structuralists' arguments generally held: e.g., in bimodal areas like West Pakistan, Northeast Brazil, Ethiopia, Colombia, Guatemala, and Peru. At the other end of the scale where relatively homogeneous sizes of farms existed, different results from SFD strategies could be expected: e.g., Bangladesh, Taiwan, Japan, Korea, and Bolivia.

What we need to understand, and in part the case studies are intended to provide this, are the different effects that varying levels of these variables have on one another and the cumulative effect that they have on the welfare of the small farmer. We also need to understand the variety of alternatives for intervening in the relationships among the variables so as to achieve desired results.

B. The type-of-approach classification

The second paper, presented by A.T. Mosher, outlined a classification system for small farmer development strategies. His discussion stressed mainly the integrated approach which simultaneously provides a number of services or activities for small farmers located in a specific geographic region. The Comilla project in Bangladesh, the IADP's in India, and the Puebla project in Mexico, all to be discussed later, are examples of this approach. In addition, the partial or non-integrated approach for SFD was also discussed in the Seminar. This approach tends to stress only a small number of services or activities as a way of overcoming SFD problems. The supervised credit program in Peru, the SFD credit program in Southern Brazil, the community development program in Colombia, and cooperative development in East Africa, all discussed later, tend to be examples of this approach. This partial approach is usually not restricted to any specific region, and may take on a national scope.

The third type of SFD technique is less direct, and might be termed the filter down approach. This includes national agricultural development tools which are aimed at overall agricultural growth. The policy maker hopes that at least some favorable results will be realized by small farm operators through stimulating output. Price support programs, marketing boards, extension efforts, overall credit increases, foreign exchange and trade policies, input pricing policies, research which generates new technology, etc. are examples of this approach. Aside from some information on West Pakistan presented by Gotsch and discussion of East Africa by Seidman, little time was spent in the Seminar discussing the effects on small farmers from this approach. It was concluded, however, that in general the results from many of these policy techniques have been disappointing for the rural poor, especially in bimodal societies.

V - Case studies

A major challenge in using case studies is to fit them into a theoretical framework. Case studies are helpful in generating hypotheses, and they are also useful in testing ~~some~~ if they can be systematically inter-related by theory. Participants in the Seminar generally felt that the contextual and systems analysis approach suggested by Gotsch, and the SFD classification scheme outlined by Mosher provided the rudiments for this theoretical framework. An attempt is made in the following discussion to fit the seven SFD strategies presented as case studies in the Seminar into this framework.

A. Case studies of integrated projects

Three case studies were presented in the Seminar which reported on integrated SFD programs: The Puebla Project in Mexico, the Comilla program in Bangladesh, and the Intensive Agricultural Development (District) Programs (IADP) in India. All three included an integrated package of techniques which were geographically concentrated. The basic philosophy of the integrated approach is that small farmers face a very complex set of problems which must be treated simultaneously by an almost equally complex set of policy instruments.⁹

The Comilla project in Bangladesh was reported on in Stevens' paper [4].¹⁰ In many respects Comilla is in contextual surroundings at the opposite end of the scale from the West Pakistan case reported on by Gotsch. Almost all farms in the region are small in an absolute sense, and as a result the services of public institutions are not monopolized by a large landowner class. Land holdings are very small, averaging only 1.46 acres each.

The Comilla project was begun in 1959 with the objectives of stimulating organizational activities and creating a cadre of developers who could help supply more profitable factors of production to the farmer. Heavy emphasis was placed on building local organizations which could tie farmers into national service organizations. Unlike many SFD programs heavy emphasis was placed on grass roots development of these local organizations. That is, a bottom-up rather than top-down

⁹A. T. Mosher has been a strong advocate of this view in his books: Getting Agriculture Moving (New York: Praeger, 1966), Creating a Progressive Rural Structure (New York: The Agricultural Development Council, 1969) and To Create a Modern Agriculture, (New York: Agricultural Development Council, 1971).

¹⁰Further background on Comilla can be found in Arthur F. Raper, Rural Development in Action (Ithaca, New York: Cornell University Press, 1970).

strategy was used. Development of leadership and initiative was stressed to help create these new service institutions. In essence, the Comilla project concentrated on the creation of new organizations and institutional relationships intended to increase the availability of institutional services (e.g., the public works project to improve the available infrastructure and the "model farmer" to improve the dissemination of information).

Six major activities were included in the Comilla approach: agricultural cooperative development, training centers, irrigation improvement, women and family planning training, rural education programs, and public works activities. Relatively little emphasis was placed on generating new profitable technology. Major efforts were aimed, however, at testing and adapting available technology to the socio-economic environment. This included tractor plowing, use of low-lift pumps and tube wells, testing of seed varieties and cultural practices. Stevens stressed the importance of the cooperative and training activities in his paper. Overall he felt the Comilla approach had been quite successful in integrating local training and development activities with higher levels of administration, and that a cadre of development oriented people had been trained by the program. In addition he felt the problem solving approach had been infused into the system.

Discussion surrounding the Comilla case raised a major question. Why has Comilla been highly successful in evolving an institutional infrastructure which serviced small farmers when many SFD programs founder on this

step?¹¹ Gotsch's contextual view is probably a partial explanation. That is, it is easier to develop institutions to service small farmers in a relatively homogeneous small farmer environment than in a bimodal society. The patience shown by the Comilla staff in identifying local leadership which created service institutions from the bottom-up is probably also an important factor. Still another contributing factor appears to have been the viable set of economic functions which the cooperatives were asked to perform. Provision of credit and mobilization of financial savings were two important activities of the cooperatives. Less emphasis was placed on marketing activities in which the cooperative may not have had as much comparative advantage as in handling financial assets. The excellent repayment experience, the capital buildup of cooperatives from credit profits and the surprisingly large amount of savings mobilized from the rural poor attest to strong economic underpinnings which these activities have had.

The IADP program in India was begun in 1959 and was principally aimed at increasing agricultural output. Relatively little explicit attention has been paid to equity questions as the activities were aimed at all farms in 15 selected districts. As described by Malone in his case study, structure-wise India fits in between the Comilla case and the West Pakistan situation¹²[3].

¹¹The critical nature of these types of institutions was also pointed out by S. Hadisapoetro in his brief discussion in the Seminar of the BEMIS program in Indonesia, and is heavily stressed by Edgar Owens and Robert Shaw in Development Reconsidered, (Lexington, Mass.: D.C. Heath & Co., 1972).

¹²For further background on the IADP program refer to: Dorris D. Brown, Agricultural Development in India's Districts (Cambridge, Massachusetts: Harvard University Press, 1971); and Carl C. Malone and Sherman E. Johnson, "The Intensive Agricultural Development Program in India," Agricultural Economics Research, April 1971, pp. 25-35.

The IADP's replaced the single scheme approach to agricultural development, used widely in India, with a package-of-practices strategy. Less emphasis than in Comilla was placed by IADP's on building service organizations from the ground up, but some emphasis was placed on getting whole villages to participate. Initially, extension, farm planning, and information diffusion received a good deal of emphasis on IADP's. Relatively early in the program it was recognized, however, that yield capabilities of existing crop varieties were quite limited, and that low product price policies and high fertilizer prices were discouraging production.

The introduction of new high yielding wheat and rice varieties in the mid-1960's and stronger economic incentives gave a big boost to the IADP efforts. In general, rates of adoption for these new varieties were more rapid in IADP's than non-IADP areas, and many of the small operators participated in the technological change. This may have been due to the divisible nature of the new technology. Aside from water pumped for irrigation, there were few economies-of-scale associated with the new techniques introduced.

In addition to the increased output experienced by most farmers participating in IADP's, the skills of IADP staff have increased substantially and participating farmers are now much more oriented toward change. There has been, however, relatively little adjustment in the institutional services such as credit and extension available for small farmers. It is still an open question whether IADP's can adjust institutional services so that they are people rather than production oriented.

In summary, the strategy of the IADP can be characterized in two ways. First, it aimed at increasing the absolute level of institutional services available to selected agricultural areas. Second, it attempted to

decrease the relationship between the distribution of income and power and distribution of institutional services.

The IADP as an intervention strategy has ameliorated, temporarily, the condition of the small farmer but has not created a dynamic system in which his position is stable rather than subject to erosion. Such a temporary solution might be acceptable in the Indian situation if : 1) alternative employment opportunities are opened for those now employed on small farms, and 2) if the Indian government prefers a future agricultural sector relatively void of small holders.

The Puebla Project in Mexico presents still another variation of a small farmer development strategy. Systemwise Puebla is a relatively homogeneous small farmer area or subsystem. In this regard it resembles Comilla. Puebla fits into a national system, however, which is bimodal in its distribution of services, income/power and land ownership.¹³

Over the past 20-30 years most of the social investments in agriculture have benefited the large farm operator.

Begun in 1967, the Puebla project stressed the provision of a package of integrate production services to small land holders. The initial focus was on increasing corn yields and training technicians to work in SFD activities. Unlike the Comilla or IADP efforts heavy emphasis was initially placed on identifying problems with soil, seed, disease, and cultivation practices. In-depth research was also stressed to resolve these problems and to generate new technology and cultivation practices. Attention was also placed on extension activities, but relatively little effort went into developing local organizations.

¹³Clark W. Reynolds, The Mexican Economy: Twentieth-Century Structure and Growth (New Haven: Yale University Press, 1970).

Myren reported in his case study that the corn production problems faced by small farmers were very complex [5].¹⁴ Farmers were producing in a high risk environment which included hail, frost, drought, and pests. A large number of factors were holding back corn production. Soil types were very heterogeneous in a relatively small area. Several dozen fertilizer recommendations were required. Rainfall distribution also varied substantially within the region. Available improved corn varieties also proved to be not much better than native varieties. Because of these problems new varieties and cultivation practices had to be developed.

Despite these difficulties substantial progress has been achieved. Corn yields in the area have increased by 50 percent in the past five years. Farm sales and net farm income have also increased. Most of the improvement to date is due to better use of fertilizer, use of optimum plant densities, and weed and pest control. No significant breakthroughs have been made on improved corn varieties. The project has also been highly successful in integrating research, extension, and developmental training activities.¹⁵

The Puebla Project has not been very successful in integrating its activities into the fabric of regular governmental services. Banks still must be prodded to lend to small farmers. The research and extension

¹⁴An additional reference on Puebla is: Leobardo Jimenez Sanchez, "Strategies for Increasing Agricultural Production on Small Holdings: The Puebla Project," paper presented at Conference on Strategies for Agricultural Development in the 1970's, Food Research Institute, Stanford University, December 13-16, 1971.

¹⁵This point is also stressed by E. B. Rice, in Extension in the Andes, AID Evaluation Paper 3A, published by the Office of Program Evaluation, Agency for International Development, Washington, D.C., 1971.

function of Puebla are largely outside regular governmental channels. Organizations which articulate local farmers' opinions and concerns have not emerged and are therefore not tied into higher levels of the service system.

B. Case Studies of Partial or Non-integrated Approaches

Four case studies were presented at the Seminar which reported on SFD programs made up of partial approaches: two on SFD credit programs in Peru and Southern Brazil, one on community development activities in Colombia, and another on cooperative development efforts in East Africa. Two of these case studies were reports on nationwide activities: the Colombian study and the East African case. The two credit programs had regional focuses. The philosophy behind the partial non-integrated approach is that only a few factors are restraining small farmer development. In some situations countries are also forced to a partial approach because of lack of financial or administrative resources. Some also argue a partial approach is justified as a means of laying the foundations for more comprehensive SFD activities at a later date.

Edel reported on the Colombian community development program in his case study [7].¹⁶ In almost all respects Colombia represents a highly structured, bimodal system.¹⁷ In terms of the countries already discussed it is similar to West Pakistan in terms of concentration of economic,

¹⁶See Orlando Fals Borda, Peasant Society in the Colombian Andes, (Gainesville: University of Florida Press, 2nd ed., 1962) for further background on this program.

¹⁷For example see: A. E. Havens and William L. Flinn, (eds.) Internal Colonialism and Structural Change in Colombia (New York: Praeger, 1970).

social, and political power. In large measure the community development efforts begun in 1958 were a political reflex responding to widespread rural violence which engulfed the country during the late 1940's and 1950's. Community development was just one of a number of activities initiated by the government to pacify rural areas. The explicit objective of community development was the empowerment of local communities to carry out local development activities.

By 1966 about nine thousand community development boards had been established, mainly in small farmer areas. Major emphasis was placed on building schools, roads, churches and community facilities. Conceptually the community development boards can be viewed as an attempt to alter the effects of the income/power distribution on the allocation of institutional services. They do this by providing a new form of social power to create a new, non-income based demand for institutional services. As noted by Edel these Boards have performed the function of seeking and obtaining various government services for their communities, for example the assistance of extension agents. Whether or not the Boards can act to ameliorate the conditions implied in Gotsch's framework when the system is subjected to infusion of new technology (particularly technology with significant scale effects) remains to be seen.

Edel reported that relatively high rates of return were realized on public investments made in community development activities, that communities did learn and build on their experience, and that small farm operators were principle beneficiaries.¹⁸ He also felt that community development efforts facilitated later agricultural development activities, and even more importantly allowed local individuals to develop a feeling of control

¹⁸Matthew Edel, "The Colombian Community Action Programs: Costs and Benefits," Yale Economic Essays, Fall 1969, pp. 3-55.

over their own destiny. As with the Comilla project, Edel felt that strong, local, grass roots organizations were necessary to articulate small farmer interests with the national system. He saw community development as one way of providing the legal, financial, and administrative environment within which individuals could form groups and empower themselves.

Shifting to East Africa, Seidman discussed agricultural policies which affect small farmers in Kenya and Tanzania [9]. Structure-wise Kenya has been, and is rather bimodal in make-up. Despite a good deal of land reform activity in the 1960's landownership, access to social services, and political power is still quite concentrated. Overall policy, in fact, appears to be encouraging large farm development.

In contrast Tanzania exhibits more unimodal characteristics than Kenya. Much more emphasis and faith has been placed on small farmer participation in producer cooperatives in Tanzania. A conscious attempt has been made to adjust national institutions to service and encourage the "have-nots" class rather than the well-to-do. Various approaches have been used during the 1960's to achieve this objective. Experience from several of these activities has resulted in the current emphasis on the ujamaa approach begun in 1967. These are groups of families living together in a communal village all working for their common benefit. Unlike the Chinese commune, participation in the ujamaa is voluntary. To this point ujamaa promotion by the national government has been largely instructional in nature. Leadership training programs, government supported pilot villages, and reshaping of government institutions to service the ujamaa have made up the governmental program. Within the framework suggested by Gotsch the ujamaa strategy can be viewed as an attempt to alter the direct effect of farm size on the distribution of

income and power and its indirect effect on the distribution of institutional services. Or stated differently, the strategy attempts to remove individual farm size as a variable and thus attenuate its potential consequences. As with the Colombian community development program relatively few public funds have been channeled into ujamaa. It is largely an organizational push aimed at creating an ideological environment within which villages can empower themselves. As with Comilla, relating the peasant to the national system through development of grass roots organizations appears to be a major thrust of the ujamaa program in Tanzania. It is still too early to tell how successful this approach will be.

The Peruvian supervised credit program, reported on by Tinnermeier, provides insights into a different type of approach [8]. Like West Pakistan, Peru is a strongly bimodal society. Begun in 1964, the supervised credit program in part serviced land reform participants in several regions of Peru. Tinnermeier, however, reported mainly on the results of supervised credit among small land operators, not affected by land reform, in the irrigated region of Peru.

Unlike most of the other credit programs in Latin America, Peru has had a good deal of difficulty with high default rates on supervised credit loans. Supervision and administrative costs have also been high. Responsibility for administering the loans has been divided between two agencies: one which authorizes and supervises the loan, and another which has fiscal responsibility for collecting the loan. A number of the credit recipients had farms too small to be able to productively use credit given the type of technical assistance offered by the program. Unfortunately, the number of loans rather than loan effectiveness was the criteria used to evaluate credit promoters. Many of the credit supervisors were poorly trained and

had little useful advice to pass on to farmers. As a result of these factors few of the loans had a strong impact on farm productivity, and little capital formation took place. Also, the cooperatives handling loans were not visibly strengthened.

Hypothesis suggested by the Peru case include (1) the need for high pay off technology to go along with additional credit, (2) some farms can be too small to productively use credit, (3) borrower selection and debt collection responsibilities should lay within the same agency, (4) poor administration of a credit program and limited economic results from credit tend to feed on each other, and (5) poorly defined program objectives can lead to credit being granted as a political sop which results in high rates of default.

Erven and Rask reported on a pilot program in Southern Brazil which aimed at getting more credit into the hands of small farmers. Structurally the area in which this project was located is moderately bimodal. Large land holdings predominate, but a large number of medium-sized-to-small units are also found in the area. The initiators of the project observed that small farmers were not using significant amounts of institutional agricultural credit. The project was directed at encouraging banks to loan to small farmers, encouraging some to borrow, and including some technical assistance (soil testing, etc.) with the use of credit.

With funds provided by the Central Bank several private banks in the area were persuaded to make additional loans in late 1966 to small farm operators. Within a year these banks made over 1,500 loans to small farmers: more than a five fold increase over their previous level of lending to this group. Most people associated with the project were surprised by

the small farmers' willingness to borrow and also with the excellent repayment record.

Despite the dramatic increase in effective demand for credit among these small farmers and the continued availability of funds, supporting agencies, especially the extension service and the banks did not have enough interest to continue the program past the initial year. Two factors appear to have been important in explaining the termination of the program: (1) with the low administered interest rates on agricultural credit in Brazil, private banks did not have sufficient financial incentive to prompt them to loan to agriculture. (2) The production problems faced by the small farmer were more complex than originally thought. While some farmers profitably used the additional credit, overall there was no substantial increase in productivity as a result of the use of credit. Appropriate technology was not available, the extension knowledge base was too thin, and participating agencies did not see enough production increase to develop support for further efforts.

VI - Major Conclusions of the Seminar

The need to analyze SFD activities as part of a system rather than in isolation from the social, economic and political surroundings was a major conclusion of the Seminar. This viewpoint was reflected in several generalizations which emerged from the discussions. First, little emphasis was given to seemingly unique cultural and personality characteristics of small farmers as impediments to the adoption of new technology as has been the case in previous discussions of this topic. Second, it was generally agreed that the adverse workings of the dynamic system within which small farmers are located, and their inability to ameliorate these

adversities through organizational action are central to the problem of the small farmer.

One approach to conceptualizing the social, economic and political surroundings of an SFD program is to range societies along a scale bounded by bimodal and unimodal types. There was general agreement that SFD strategies have a better chance for success if they are injected into a society which has unimodal rather than bimodal characteristics. Seminar participants were rather sharply divided on the scope for action available to address SFD problems in highly bimodal capitalistic societies. Some felt structural change was necessary before significant inroads could be made on resolving rural poverty. Others felt that adjustments were possible in some policies which would significantly assist small farmers without change in structure.

SFD in Unimodal Societies: The case studies and discussion presented at the Seminar indicated that progress is being made in directing public attention toward SFD problems. Many of the key ingredients necessary to develop small farms, especially in unimodal societies, have been identified. A few success stories are emerging where local farmer organizations have been strengthened, where incomes of small farmers have been increased, and where small farmers are being linked to regional and national service institutions. While no patented formula exists for making small farmers prosperous, some SFD programs are piecing together the elements necessary to make substantial progress.

A major conclusion of the Seminar was that policy makers can draw very useful guidance from the experience gained in SFD programs already underway. Experience from most SFD programs, for example, strongly suggests that most small farmers face a complex set of problems. Only

in a few cases can small farmers be substantially assisted by a single development technique. Most simple problems have already been solved. A coordinated, multi-activity approach is generally required to accelerate SFD. At least four elements were identified as critical in these SFD strategies:

(1) Farmers must develop the feeling that they can control their own destiny.¹⁹ Thus, successful SFD programs must include some type of farmer organization which can help link the individual to regional and national, political, social, and service institutions. The form of these organizations varies widely. In some cases farmers' cooperatives or associations provide this vehicle. In other cases farmers' unions or leagues, credit and savings unions, tribal units, or community development organizations provide this linkage. Creating these types of organizations is still more of an art form than a science. But, at least three vital elements which contribute to creating these types of organizations were identified in the Seminar.

(a) Promoters of the organization must have patience and intent to let grass roots leadership emerge within the organization.

(b) A set of "high payoff" economic, political, and/or social functions must be identified for the organization to perform.

And, (c) responsibility for developing the organizations must be in the hands of technicians who empathize with and respect the native abilities of the farmers.

¹⁹A point made strongly by George Beckford, Persistent Poverty, (New York: Oxford University Press, 1972). For a discussion of the relevance of learning theories to economic development see John H. Kunkel, Society and Economic Growth: A Behavioral Perspective of Social Change (New York: Oxford University Press, 1970).

(2) SFD programs can only be highly successful if farmers' incomes can be substantially increased. Seminar participants generally concurred that there is only a modest amount of productivity slack in small farms which can be taken up by additional credit, education, application of existing technology, and coordination. Clearly more new technology has to be made available to small farmers. There are two general solutions to this problem. First, more emphasis must be given to generating new technology more appropriate for the small farmer situation. Second, more attention needs to be given to innovative forms of social organization that will allow small farmers to collectively utilize indivisible technologies which are, or will be, available. There is little doubt that such indivisible technologies, if they provide a "high payoff," could provide additional economic functions which would strengthen small farmer organizations.

(3) SFD programs have a much better chance of success if they receive strong support from regional and national agencies. SFD strategies work best when woven into the existing institutional fabric of the country rather than appended on in an ad hoc fashion. Policy makers must be particularly careful to build in adequate incentives so that agricultural service institutions will be induced to seriously address SFD problems.²⁰

²⁰For a discussion of one case where this was not done see: Dale W Adams, Harlan Davis and Lee Bettis, "Is Inexpensive Credit a Bargain for Small Farmers? The Recent Brazil Experience," Economics and Sociology Occasional Paper No. 58, Department of Agricultural Economics and Rural Sociology, The Ohio State University, January, 1972.

(4) A major factor in the success of SFD programs is the presence of trained and motivated cadre of technicians who identify with rural poor and appreciate their potentials. It often takes a significant change in technician attitude toward small farmers to successfully carry out SFD. This attitudinal change may be more difficult to effect than changes in attitude of peasants toward change. The various pilot SFD projects scattered around the world are helping to implant these attitude changes in technicians. This may be their more significant long run contribution.

SFD in Bimodal Societies: SFD programs in bimodal societies face the same 4 critical elements as those programs in unimodal societies. But, seminar participants were much less sanguine about the possibilities for success of SFD programs in bimodal societies. There appear to be few cases where SFD has occurred in bimodal societies. Some saw little chance for improving the lot of small farmers until the social, political and/or economic systems were restructured, as with land reform. They felt that most growth stimulating programs in these types of societies resulted in a worsening in the position of the small farmer.

A few Seminar participants felt that overall growth policies could be adjusted, even in bimodal societies, so that fewer adverse impacts were felt by the small farmer class. They also argued that at least some of the policy makers in bimodal societies were sympathetic to small farmer needs and that they would respond favorably if they saw clearly how current policies were adversely affecting rural poor. In general, however, the question of how to improve SFD programs in bimodal societies was left unresolved at the conclusion of the Seminar.

Additional Research Issues: There was general agreement in the Seminar that more SFD programs should include a systematic evaluation component. Much of the knowledge currently available on SFD stems from such evaluations. More detailed, well documented case studies of SFD programs are needed. In addition, more integrative research which looks across several SFD programs is needed. This should be organized by societal context within which SFD is carried out, and by complexity of the package of development techniques applied. A clearer picture of success and failure patterns should emerge once this matrix is more adequately filled with case studies.

A number of specific research concerns emerged from the Seminar. Many of these research concerns tended to cluster around the following:

(1) More work is needed on an analytic framework for analyzing SFD programs. This should include identifying additional essential variables, adjusting the critical variables already identified, and further specifying the relationship among the variables.

(2) Additional research is needed on identifying how and why successful small farmer organizations emerge. What are the conditions which create a demand for a new form of social organization? What procedures need to be followed to induce such an organization when the demand is present?

(3) More detailed information is needed on the technological constraints which small farmers face. Can small farmers, for example, profitably use additional agricultural credit without using new technology?

(4) To what extent can technology-generating activities be adjusted to create divisible technologies which are highly appropriate for SFD?

(5) What economic activities can small farmers' organizations profitably perform?

(6) What are the key factors in training and motivating a cadre of technicians to work with small farmers?

(7) Under what conditions can investments in SFD programs yield competitive returns?

(8) To what extent have experimental and pilot operations been used in developing new rural institutions? What types and amounts of resources are needed to support pilot operations which might lead to new strategies and/or new institutions to serve small farmers?

(9) What types of small farm operators cannot be helped substantially by SFD strategies which heavily emphasize increasing agricultural production?

(10) What are the differential effects of new technology between small and large farmers?

Appendix A

Authors, Titles of Papers, and Discussants

1. Carl H. Gotsch, "The Distribution Impact of Agricultural Growth: Low Income Farmers and the System," (A Case Study of Sahiwal District, West Pakistan). Discussant Dale W Adams.
2. A. T. Mosher, "Projects of Integrated Rural Development," Discussant - S. S. Johl.
3. Carl C. Malone, "Improving Opportunities for Low-Income Farm-Occupied People: Some Indian Experiences," Discussant - Douglas Ensminger.
4. Robert D. Stevens, "Comilla Rural Development Programs - Results from East Pakistan for International Testing," Discussant - Edgar Owens.
5. Delbert T. Myren, "The Puebla Project: A Developmental Strategy for Low Income Farmers," Discussant - Thomas Carroll.
6. Bernard Erven and Norman Rask, "Credit Infusion as a Development Strategy -- The Ibiruba Pilot Project in Southern Brazil," Discussant - William Thiesenhusen.
7. Matthew Edel, "Community Action Programs and Agricultural Development: Reflections on the Colombian Experience," Discussant - E. B. Rice.
8. Ronald L. Tinnermeier, "Supervised Credit and the Small Farmer," Discussant - Lawrence Witt.
9. Ann Seidman, "Comparative Agricultural Policies in Post-Independence East Africa," Discussant - Victor Uchendu.

Appendix B

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