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Farming Systems Research Group
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FARMING SYSTEMS RESEARCH POSITION
PAPER

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Farming Systems Research Position Paper No. 6What is FSR as I see it?

Primarily, it is an attempt to solve the "diffusion of new practices" problem in a way that is new - at least it is new to the Third World development community. In contrast to other approaches, this new approach involves:

-A concern with ecological or agro-ecological homogeneity and, in some instances, a concern for socio-cultural and/or political administrative homogeneity.

-A concern with the whole farm household, or, at least, with all the agricultural production related activities of the members of the farm household.

-A concern that the innovation to be introduced be appropriate to the ecological and the agro-value situation of the farm household. (Agro-value system refers to that part of the household value system that is related to agricultural activity choices.) This can mean a households' initiated demand for agricultural research. (This aspect of "downstream" FSR has not received much discussion in the literature.)

-A concern that the feasibility and value of the innovation be demonstrated on the farm by the farm household (in the system using system resources). This is the "research in the field" or "experiment on the farm" component and assumes the availability of fairly skilled research personnel willing to work in the field, and the cooperation of the farm household in the research enterprise.

-A concern that national and international ("upstream") research agendas reflect the research needs of the farm household, and particularly, of the farm household that produces little or nothing for the market.

-A concern that national and international agricultural programs and policies take into account the needs of the small farm household.

What FSR is not, as I see it.

Although FSR reports and proposals often speak of helping farm families to allocate resources in a manner that takes into account all the family's priorities, in practice the primary concern has been with the economic aspects of the family's agricultural activities, and the FSR analysis and program recommendations have focused on the production, storage, and marketing of food and fiber. If any more general analytical perspective is used, it is usually a farm management perspective. The human "system" in FSR is the agricultural activities part of the total activities of the farm family.

However, if the systems perspective tells us anything, it tells us that the "knee bone" is indeed "connected to the thigh bone" and that success in increasing yields or profits, or any other changes in the agricultural activities sector of the farm household system will have its impact, its "ripple effect" in other areas of household and community behavior. It is a commonplace finding in social science research that an increase in available resources leads to behavior and value changes. At the subsistence level, even a very small increment in the family's food supply or disposable income can open a large range of new possibilities, each with some potential for behavior and value modification. An elderly Christian gentleman in Uganda told me that the devil had come to his community on a motorcycle, carrying a portable radio and a television set. We may intend only to increase yields, but end up furnishing transport to fallen angels.

What, then, are some of the areas of development not taken into account by current FSR approaches.

The first and most obvious is the area of nutrition. If new crops are to be brought in, or if new varieties of currently grown crops are to be introduced, are they socially, culturally, and physiologically acceptable as part of the food supply? If yields are increased, will they improve nutrition in the farm

household, especially among those age groups most in need, or will the increased yields be sold, with the cash used to improve the conditions of life in other than nutritional areas? Or will it be dissipated, from a nutritional point of view, on amusements? Just as we need to know more about farm household decision making in the agricultural production area, so also do we need to know more about decision making in the budget allocation and consumption area.

The second is the area of family planning, or if we want to put it in systems terms, we might call it systems member replacement. Every continuing system must provide for the replacement of its members and, ultimately, for the balancing between member needs and resources. Farming systems are, presumably, not an exception to this rule, but statements of the FSR perspective and domain do not mention this system characteristic.

Related to the problem of member replacement is the problem of member training. Each new member in the system has to be taught the values and the behaviors believed to be essential to successful system performance. In addition, if new values and/or behaviors evolve in or are introduced from outside the system, often new training procedures must be developed to bring the new behaviors or values into the system. FSR programs, since they are an attempt to change farm practices, do say something about procedures for re-educating the subject farmers currently in an FSR project. Usually this procedure involves the training and introduction into the subject farming system, on a short term basis, of a new type of extension worker called a "farming systems economist" or some such title. In addition, the FSR on the farm team almost always includes an agronomist willing and capable of working on the problems of the small farm, but little is said about any special training or retraining he may require. Also, some of the FSR literature recognizes that research station staff will have to be retrained to be sensitive to the interests and problems of the small, non-commercial farmer. All other retraining

efforts, including those necessary to the long term continuation of the FSR introduced innovations, are presumably delegated to the existing extension service, although nothing is said as to how the members of the service are to be trained for this task.

Like training, health is also a major factor related to farming system performance. System members must be maintained at a level of health that will allow them to perform system roles. This is, of course, related to nutrition, as I have mentioned above. However, it is also related to the way in which the system makes resource allocation decisions about health needs. Maintaining the health of the system member, and particularly of the female system member, is often a low priority in the allocation system.

Other areas could be mentioned. For example, farming systems have to devote energy to such political processes as settling disputes, maintaining boundaries, interpreting traditional rules and the like and to a wide variety of civic and religious ceremonial, ritual, and celebration behaviors. While, perhaps, these are somewhat remote from the central agricultural production concerns of FSR, they are integral parts of the system context of FSR. Taking them into account could, conceivably, increase the probability of a successful FSR intervention.

FSR and Sociology

So far as I am aware, sociologists have been little involved in the current approach to farming systems research. They were heavily involved in the U.S. farming systems research of the 1930s and '40s, but that differed in many significant respects from the current FSR approach.

Obviously I believe, from what I have written above, that sociology has a contribution to make: to assess and, hopefully, to predict the impact of the FSR intervention on social structure and on the relationship between values and social structure 1) within the farming system and 2) between the farming system and the larger system contexts within which it operates.

Sociologists have for many years used systems approaches to the study of a great variety of human groups from national systems to small groups in laboratory situations. Thus the concept of system, with its problems of equilibrium mechanisms and its teleological explanation of human behavior, is familiar to them.

Also, a revival of interest in the ecological systems approach to the study of social groups is occurring in the discipline, probably as a consequence of the increased interest in energy and resource conservation. This analytical framework fits very nicely with the FSR idea of recommendation zones and household food production relationships.

Related to this is the growing interest in the technology-population-resource relationship, and the way in which social movements have emerged and have attempted to affect this relationship. There are many parallels in this research to the interests and processes involved in FSR.

Needs from other disciplines

First, we need a sufficient opportunity to exchange views about areas of mutual concern. Every discipline represents a particular way of viewing the world and, to use Veblen's phrase, a "trained incapacity" to view it in any other way. To overcome this trained incapacity, we have got to have many opportunities to learn each other's perspectives and vocabulary, and a tolerant view of the probable usefulness of the other person's discipline, at least until proved otherwise.

Second, we need an opportunity to work together "in the field" on a problem of mutually agreed importance. Communication around a table is valuable and can solve many inter-disciplinary difficulties, but the ability to communicate in the field so as to solve a problem is the final test of any multidisciplinary or inter-disciplinary approach.