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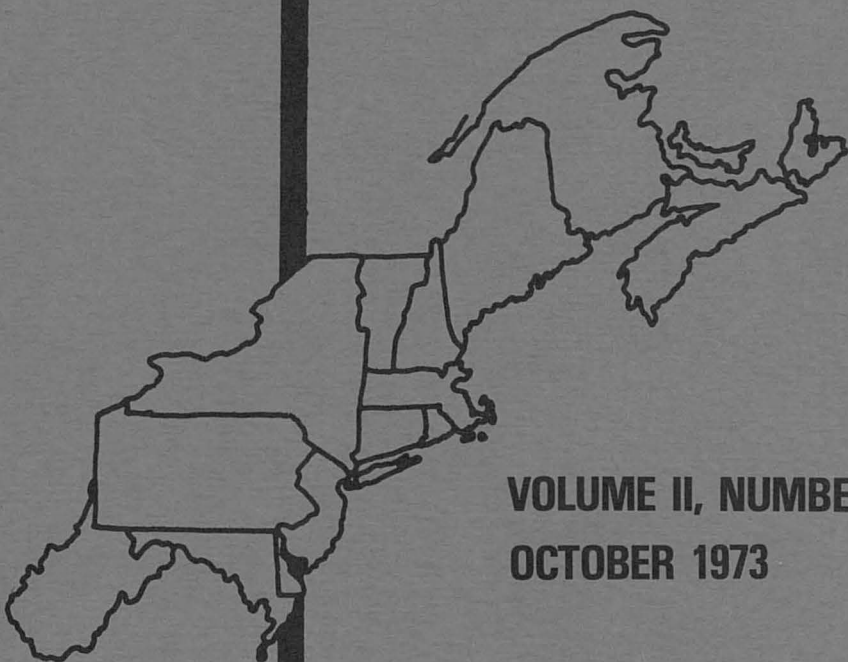
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## A FRAMEWORK FOR RURAL DEVELOPMENT<sup>\*</sup>

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### Introduction

Rural development is an idea whose time has apparently come on a world-wide basis. Highly diverse economies such as, for example, both the United States and India, have generated problems on the rural scene that cannot be solved by technological change in agriculture alone.

But what are the problems and what is the process by which they will be treated? The answers that have been advanced to these questions have been lacking in specificity. Nor is the recent legislation in the United States, known as the Rural Development Act of 1972, helpful in this respect [4].

This absence of a framework for describing the problem and suggesting remedies will seriously retard rural development programs. It will result in government policies encompassing anything and everything which may be called rural. Research and educational programs in particular are likely to suffer because they will lack focus and will fail to attract able people who always have interesting alternatives on which to work.

This paper is intended as a modest contribution toward providing a framework for rural development efforts. Recent events have stimulated the author to think about rural development, but much of what is presented represents an extension of thinking about commercial agriculture, natural resources, and the quality of life over a considerable period of time.

### The Context for Rural Development

#### The Traditional Rural Community

The rural community associated with traditional agriculture is an

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appropriate place to begin the analysis. The agriculture of such a community is characterized by a high degree of self-sufficiency; within the community considerable barter will occur. Technology is relatively stable and, by trial and error and shrewd judgment, individual farmers will manage their resources consistent with the objectives they have. In other words, widespread inefficiency does not prevail [5].

[2] Hunt, Donnell, "A Fortran Program for Selecting Farm Equipment"

Under these circumstances natural resources will assume great importance in the rural community and in agriculture. Because welfare in any given year is closely related to the harvest, natural resources will be viewed by the entire community in terms of what they contribute to food production through agriculture. In addition, certain attributes of natural resources will be viewed from the standpoint of consumption. That is, multiple use will be a fact, and most rural residents will be aware of the relation of their personal welfare to the multiple output from natural resources.

The principal source of uncertainty for the traditional rural community will be related to natural hazards. Droughts, floods, pests, and temperature extremes all directly affect the welfare of the largely self-sufficient rural community. It is not surprising that natural resource development often has been one of the principal items about which group decisions in the rural community has centered. It is by control over natural resources that one of the principal sources of uncertainty is reduced. One of the common examples over the world has been the development of irrigation systems. But psychological and social adjustments are also necessary to cope with this uncertainty. In addition to internal individual and group adjustments, a rural community may also look outward when it becomes convinced that its resource base is inadequate. For example, aggression may be a manifestation of the group impact of the uncertainty stemming from the variability of nature.

Often a misconception exists regarding the extent to which the traditional rural community represents an equilibrium between human activity and the natural environment. We know enough about the variability of natural phenomena to realize that the output which can be utilized by man varies substantially from season to season. While man as a species has survived over a relatively long period of time, individuals within that species have suffered great hardship, including death, as a result of the variation in output of natural resources. Those who complain about the quality of life in the more highly developed societies will find it instructive to study more carefully what life is like in the absence of advanced technology. Living close to nature in a commune in the United States, with substantial subsidy from an industrialized society, is not quite the same thing.

#### Technical Change and Commercial Agriculture

The transformation of economies resulting from the emergence of commercial agriculture is well-documented in the literature, and will not

be repeated here. Of particular importance, in the context of this paper, are the changes which occur in social relations and in the relation of human to natural resources.

Rising economic affluence makes possible greater individual independence from the family, the tribe, the community. It follows, of course, that a strain will be placed on all of these institutions as an economy progresses. There will be an unceasing pressure for institutional change to better accommodate commercialization. Yet people are not indifferent with respect to institutions or the way one's relations to the others of his species are defined, regulated, and controlled. Institutions are never viewed exclusively as a means to an end but, in themselves, become ends. Much of the literature on institutions suffers from a tendency to treat institutions exclusively as means or ends, but not both, which is not, I believe, in accord with reality.

There will also be a change in man's relation to and his perception of natural resources as commercialization progresses. Those utilizing natural resources in production will tend to develop different attitudes than those who utilize natural resources mainly for recreational or consumption purposes. One of the consequences of increased specialization is a failure of individuals within the group to appreciate the multiple role of natural resources. While multiple use exists in the more developed economy, it is usually a product of group compromise rather than the result of individual conviction.

Technology may also create the temporary illusion that the interdependency has been eliminated among people stemming from a common natural resource base. Of course, all technology can ever do is substitute for some attributes of natural resources. Sooner or later other attributes of natural resources will emerge as limiting to human welfare.

#### The Quality of Life and the Emergence of the Commercial Sector

Technical change obviously has the potential of removing or reducing some of the obstacles to the accomplishment of social objectives. Increased food production, rapid safe transportation, and the development of human disease control provide examples. The more pervasive and sweeping the new technology, the smaller will be the variation in its formulation and distribution [2].<sup>1/</sup> In other words, it will tend to be homogenous rather than heterogenous. Because of the cost or technical difficulty of standardizing product attributes, certain product attributes may not be taken into consideration in the definition, production, and distribution of the commercial products.

Commercial systems are rigorous with respect to what is included in product definition. So long as the commercial system encompasses everything which is limiting to the welfare of man, few questions will be

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<sup>1/</sup> Coca Cola provides a dramatic example.



raised about the beneficial effect of economic progress on the quality of life. Yet nonproportionality will inevitably occur and questions will be raised. In other words, both social and physical interdependency will continue to exist.

The introduction of the internal combustion engine may be used to illustrate both types of interdependency. Its introduction into the rural community may make fewer rural laborers necessary in the rural community. More people may be needed in the urban area, however, and migration must occur. This means that traditional family relations will be changed as young people leave the community. Thus, commercial and economic independence will reduce and change, but will not eliminate, social interdependence. A too-well-known contemporary example of physical interdependence is also provided by the air pollution resulting from the internal combustion engine. Highly advanced technology has eliminated some scarcities, but has created others because of the aggregate imports resulting from widespread adoption.

The fundamental point is that the problems of environmental quality in advanced economies, and labor displacement in rural communities, stem from an identical set of forces. Both raise questions concerning how one evaluates the impact of technical change on the quality of life. Both involve questions of non-market forces and non-market evaluation. It is conceivable that, at any stage of economic progress, certain non-market goods will become limiting. This concept of the impact of technical change provides insight as to why the United States and India would simultaneously be concerned about problems of rural development. In other words, in the commercial sphere homogenous products make possible mass production and consumption. Quality of life considerations do not arise so long as the items which are excluded from the commercial product definitions are not scarce. However, if not initially, at least eventually, interdependency will reassert itself and some non-market factor will become limiting to human satisfaction. Until technology and institutions make it possible to relate this limiting factor to those commercial items being produced and consumed, the human satisfaction received from economic progress will not increase in a linear or proportional way to the output of the commercial system.

To this time nothing has been said about the distribution of the increased product resulting from technical change. The increased product will not usually be distributed equally among a given population. If one group can capture a sufficient portion of the surplus, they may be compensated for the increased scarcity elsewhere in the economy. For example, the one who harvests forests may be able to take the profits and travel or live in another area, and he may not even have to observe denuded hillsides. Other residents of the area from which timber is harvested may not be so fortunate.

#### Rural Development Defined

It is now possible to advance a general definition of rural

development. Rural development as a social movement or as a social problem is a manifestation of concern with the consequences of economic change in rural areas. As an intellectual activity, rural development is concerned with an understanding of the social causes and the human consequences of economic change in rural areas. As a field of policy, rural development consists of the management of social change in rural areas. Implicit in these definitions is the notion that autonomous, largely exogenous, forces of economic change in rural areas are generally dominant over internal sources of change. Thus, neither rural development study nor policy should be exclusively concerned with small geographic areas. At the local level, management strategy will consist largely of adaptation to exogenous forces. At a higher level, it is sometimes possible to exert greater control over such forces. Also implicit in the definition is the notion that value conflicts will arise; issues of public policy will be involved; group rather than individual decision-making will be required.

#### Public Program Requirements for Rural Development

The argument is now advanced that there are at least four necessary conditions for a successful educational or research program in rural development. These same requirements may also hold for action programs, but the discussion is simplified if phrased in a research and educational context.

These necessary conditions are:

1. A macro orientation.
2. A local orientation.
3. Value conflicts affecting the rural community recognized and addressed.
4. A concern with both market and non-market phenomena and their interrelation.

#### A Macro Orientation

The contemporary rural community in a developing society is never isolated from the larger society. This observer believes rural development, both here and abroad, is more likely to go wrong by a failure to recognize this than for any other single reason. The macro or aggregate systems, of which the rural area is a part, constitute the environment within which the rural community must exist. Only by an understanding of these macro systems can predictions be made of (a) those forces which will or will not be influenced by rural community actions, and (b) the exogenous influences or forces which will affect the rural community in the future.

These macro systems may be grouped into three categories: (a) economic, (b) social, which includes the political, and (3) natural. It is appropriate to describe each briefly.



The impact of national economic progress on the rural area will not be the same for every national economy. In India, for example, the cities teem with unemployed. It is difficult to foresee how industrialization will occur rapidly enough to provide employment for any significant migration from the rural countryside. The rural areas are also quite thickly populated. If mechanical innovations are adopted to an extent comparable to that of recent biological and chemical innovations, large numbers of people in the rural areas will become obsolete to agricultural production. Rural development in India must proceed with one eye on this potentially explosive occurrence.

Just as the local economy is linked to the national, so also is the local society related to larger units. The political system is one manifestation of the total social framework. Political science and sociology will inevitably be of importance to a complete understanding of rural development.

Neither can the natural resources of a rural area be divorced from the total natural environment. For example, rural water resource development may need to be viewed in the context of a national system of rivers. In any case, it is clear that interdependency, with respect to natural resources, extends even beyond national boundaries, to say nothing about rural areas.

#### A Local Orientation

There are at least two issues here of significance.

One issue revolves around the extent of uniqueness of both human and natural resources. As used here, a resource may be said to be unique if it can be differentiated from other resources in its capacity to contribute to social and economic goals. Uniqueness of resources is related to the existence of economic rent; thus, the distribution of income as well as economic efficiency must be taken into consideration. The design of local policies and institutions that are sufficiently adaptable and flexible to reflect this uniqueness, but which can also mesh with national policies, is one of the major needs for rural development [6, Ch. VIII].

A second issue pertains to local autonomy. Local autonomy, in a political sense, may be rational from a developmental point of view. Beyond this, of course, local autonomy may be justified on the grounds of permitting a broader base of participation. This, in turn, may have a beneficial effect on efficiency in the provision of certain public services.

Thus, local autonomy is the very heart of rural development. Unless some autonomy exists or can be created, the notion of rural development itself may be a delusion. In structuring a rural development program, issues need to be addressed that have relevance to some existing or potential local decision groups. Unless the rural community can, in some sense, exercise such autonomy in influencing its own destiny, it is better



to let the rural community suffer "benign neglect" than to raise false expectations.

Value Conflicts Affecting the Rural Community,  
Recognized and Addressed

Anyone familiar with the history of agrarian politics or natural resource development in the United States will be aware of conflicts between regional and national interests. Regional resource development has long been a recognized device for redistributing regional income.

Yet almost no significant rural development policy will affect the welfare of all segments of the rural population in a proportional manner [3]. Both relative political and economic positions are likely to be changed as rural development occurs. The Rural Development Act of 1972 recognizes this implicitly by providing that the existing power structure in Washington, in the Land Grant Universities, and in the rural communities retain control of the program to be created by the Act [4]. Yet if one is serious about a rural development research and educational program, one must face the question of the relevant constituency for rural area development. It is more honest for a School or College of Agriculture to maintain its commercial agriculture orientation and forsake rural development than to give lip service to rural development but cater exclusively to the existing commercial agriculture power base.

Market and Non-Market Phenomena

On the surface it appears a paradox that it would be those societies at the extremes in the development process which would have the greatest concern with non-market phenomena. At one extreme, the affluent society seems to be preoccupied with non-market phenomena as these affect something called the "quality of life." At the other extreme, the developing economies must, unless they are to ignore the welfare of a significant percentage of their populace, also be concerned with a significant amount of human activity that does not get reflected in market events. This is not to depreciate the importance of market or commercial transactions; this is the principal force for change in rural communities. Rather, it is recognition that non-market contributors to human welfare may not vary in proportion to market contributors to welfare. As a consequence, both must be recognized. Beyond recognition alone there exists the problem of relating the two. At a later point I argue that the comparative advantage of agricultural economists is quite high in addressing this fundamental problem. There are those, of course, who accuse economists of being concerned only with market phenomena. While this is true of some economists, some have devoted considerable attention to relating market and non-market events. Recognition should also be given to the work of the anthropologists in this respect.

The Schools and Colleges of Agriculture  
and Rural Development

We are facing the moment of truth with respect to the Schools and Colleges of Agriculture and Rural Development [1]. These units have been among the forefront, in higher education, of those engaged in self-examination and introspection. They have recognized the need to become involved in new issues of social relevance to maintain their historic place in the sun. They have been slower to recognize that, to maintain credibility in these new areas, they must be above suspicion with respect to their objectivity. While the commercial agriculture interests may know that agricultural scientists are not likely to compromise their scientific integrity, agricultural laborers or environmentalists may not be so confident. There are obvious political risks to the establishment of such a reputation.

It has been demonstrated, at least to my satisfaction, that the Schools and Colleges of Agriculture are capable of meeting necessary conditions 1, 2, and 4 above. It has yet to be demonstrated that they are willing to pay the necessary price to meet condition number 3. In other words, I believe Schools and Colleges of Agriculture can deal with national policy, they can take a community or local viewpoint, and they can relate market and non-market phenomena. It is not clear they are prepared to address value conflict problems within rural areas.

Agricultural Economics and Rural Development

This is a most appropriate occasion to relate the foregoing discussion to the agricultural economics profession. Perhaps the question that is most relevant to the profession is, "Are agricultural economists equipped to play a leadership role in rural development?"

The best evidence I can cite in support of an affirmative answer is (a) the willingness of agricultural economists to address new problems, and (b) their talent in making significant progress in the analysis of these problems during the past decade. I am not among those who believe that graduate education in agricultural economics has been, or is, inferior in quality. If it had been, I do not believe we would have our recent accomplishments to cite. I do contend, however, there is room for significant marginal improvement, and argue that advanced theory in micro and macro economics and competence in quantitative work should not exhaust a Ph.D. program. Room should be left for some work designed to provide perspective. For the typical School or College of Agriculture undergraduate, I recommend a choice from among the following: philosophy of science, history, history of science, or perhaps one of the behavioral sciences. Twenty to thirty credit hours are not necessary to open new horizons and introduce the agricultural economist to a lifetime of reading and growth in a dimension which may add great richness and much subsequent depth to his professional work. One, two, or three courses are often all that are required to provide this dimension.



There are three distinct and unique contributions of the agricultural economist to rural development.

1. Place the Rural Community in a Macro Context. - The agricultural economist is in a unique position to understand and measure the change in commercial agriculture, and to understand and predict the consequences of this change on the rural community. This is particularly important in the less developed economies. However, even in the United States an understanding of commercial agriculture and the agricultural economy in a national context is important to an understanding of the development process in most rural areas. Thus, the rural development economist does need to understand the policy issues of commercial agriculture, and his educational program should provide for this understanding.

2. Market and Non-Market Phenomena. - The point was made earlier that agricultural economists have been in the forefront of work contributing to the understanding of non-market phenomena, especially as related to environmental quality. This methodology has much in common with the newly emerging field of public choice. The developing economies are quite conscious of the distribution of the fruits of economic progress. There will be a market for information that will contribute to an understanding of those welfare attributes that are clearly in the commercial sphere and those that are affected by commercial activity but which are not adequately reflected by price signals or other economic stimuli. Work of this nature will place agricultural economists at the center of policy issues, both at home and abroad.

3. Prepare the Way for Social Scientists Other than Economists. - The case has not been made in an explicit fashion for the involvement of all behavioral or social scientists in rural development. It is, however, implicit in much I have said. I proceed on the assumption that social and behavioral scientists, other than economists, do have a contribution to make, and that a rural development research and education program will be incomplete in their absence.

As the social science with the greatest maturity doing rural development work, agricultural economists should appreciate the contribution of the other social sciences, and make their entry possible. This may be a thankless task, but our professional responsibilities leave us no alternative.

#### In Summary and Conclusion

In this paper I have attempted to:

1. Give the origin of the concern which has led to the rural development movement in this country and elsewhere.
2. Give sufficient definition and focus to the problem area

to provide a basis for the development and evaluation of a research and educational program in rural development.

3. Identify the necessary conditions for a successful educational and research program in rural development; and,

4. Argue that the comparative advantage of agricultural economists is high with respect to:

- (a) understanding the role of a commercial agriculture in rural change,
- (b) relating market and non-market phenomena, and
- (c) preparing the way for the acceptance of social and behavioral scientists other than economists into the rural development arena.

#### References Cited

- [1] Barkley, Paul W., "Training for Community Development: The Role of the Academy." Presented to the Fourth Annual Meeting of the Western Agricultural Economics Research Council Community and Human Resources Development Committee. San Francisco, California, January 17, 1973.
- [2] Castle, Emery N., "Economics and the Quality of Life." American Journal of Agricultural Economics, December 1972, pp. 723-735.
- [3] Hildreth, R. J., and W. Neill Schaller, "Community Development in the 1970's." American Journal of Agricultural Economics, December 1972, pp. 764-773.
- [4] Public Law 92-419, U.S. Congress.
- [5] Schultz, T. W., Transforming Traditional Agriculture. Yale University Press, New Haven, 1964.
- [6] Stoevener, Herbert H., Joe B. Stevens, Howard F. Horton, Adam Sokoloski, Loys P. Parrish, and Emery N. Castle, Multi-Disciplinary Study of Water Quality Relationships: A Case Study of Yaquina Bay, Oregon. Sea Grant Special Report 348, Agricultural Experiment Station, Oregon State University, Corvallis. February 1972.