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## World agricultural development – The paradox of human organization

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It is better to debate a question without settling it  
than to settle a question without debating it.

Joseph Joubert (1754–1824)

### 1. Section 1

There is something of a paradox, these days, in our thinking about agricultural development. We have numerous examples of highly productive agriculture and a vast reserve of factors or resources known to promote growth, but rural poverty persists and even grows over much of the developing world. We have much to draw on in supporting and promoting agricultural development: the productivity of labor and capital in the agriculture of a number of countries is beyond anything dreamed of in the last century; great advances have been made in Agricultural Sciences and technology; economies of scale are well understood. The advantages of market specialization have been well demonstrated; we have deeply reasoned theories of optimization, savings, investment, and capital formation; we have vast systems of financial institutions, and unprecedented international accumulation of capital funds. The paradox is that with all these

reserves of knowledge, experience, accumulated capital and so on, a close reading of the situations in scores of developing countries leads to the conclusion not only that most of the people now in agriculture are poor, but that we should anticipate that the number of people dependent upon agriculture may well double *before* the total declines (World Bank, 1992a), concluding, in effect, that despite all the potentialities for growth, the rural poor should expect to share their poverty with their children and even their children's children.

It will do no good to either despair over the outlook or to pretend that some simple solutions are being overlooked. But it may be helpful to inquire whether there may be some sources of agricultural growth which are not being exploited in programs of agricultural development. This is our search here.

We propose to discuss these considerations within a general conception of the strategy of agricultural development. In the emphasis upon a revised strategy we attempt to go beyond stating conditions which need to be met in achieving agricultural development. The Statement of Conditions to be met is valuable and necessary in any formulation of policy, for this indicates something of the resistance to be overcome. But there is a need to go beyond a statement of such conditions to the consideration of *how* this is to be done. In fact, the very idea of strategy carries connotations of thoughtful adaptation, of courses of action

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in response or adoptable to particular situations, and of the recognition that development is necessarily a deliberate achievement – even though the outcomes of the intended development programs may never be quite what was anticipated. That is, development is not accidental. What is the problem to which attention should be addressed?

If the problem of agriculture development is defined or accepted to be simply that of increasing agricultural output, a considerable array of insights is available to draw upon and the problem, as defined, is readily solvable (Lewis, 1955). If agricultural development is considered to be equivalent to an increase in agricultural output – in the aggregate, per capita, or even for sale in markets – such a formulation can serve as a guide for a technical or even a market surplus approach to development. At the least, such emphasis recognizes the significance for agricultural development in increasing man's control over physical nature. Farmers are never freed from the necessity of coping with the patterns and vagaries of physical nature. Also, a commodity output emphasis lends itself to benefit-cost analysis for investment in specific projects. It is possible to anticipate, roughly at least, whether investment in irrigation projects, for example, can be recovered. This approach has been popularized by the Green Revolution (Brandt, 1989). Such a technical commodity relationship in the economic formulation of criteria for agricultural development has been widely accepted for the past 25 years. In fact, it indicates something about the limitations that have been the result of anticipated increases in production that were not realized in the expected quantities, perhaps because too few farmers could meet the technical requirements of improved varieties of plants, irrigation, fertilizer and culture, generally; or that the costs or risks were too great, considering the nature of incentives (Hag, 1979). But a more serious limitation has been that simple production output criteria of agricultural development take no account of the distribution of benefits while the gains from increased output are likely to go to the farmers with the most resources.

Once income distribution criteria are introduced into the consideration of agricultural development policy, about all that can be done within a technically increased output is to then conceptualize agricultural development to consider measures to re-distribute the increased product. In terms of strategy, this is fre-

quently referred to as a policy of first increasing the size of the pie and then dividing up the enlarged output. In principle, a progressive tax policy could do the same thing, but either way is very difficult (Nurkse, 1953).

In any event, administrators of international lending and assistance agencies are now searching for new guidelines for programs of agricultural development (World Bank, 1992b). The failure to distribute benefits widely together with the prospective increases in population has led to new concern for the employment-generating capacity of agricultural development measures and the equitable sharing of benefits. Thus, there is new interest in rightful and equitable participation in agricultural development.

Some progress can be made toward a more equitable participation in agricultural development by a program emphasis upon projects specifically designed to improve the relative status of poor people in a country such as: management and credit assistance to small farmers; allotment of tracts of land to the landless; and the creation of non-farm employment opportunities in rural areas with surplus labor. But at the policy level of agricultural development there are so many issues to be formulated rigorously that it seems necessary to conceptualize the problem of agricultural development within a more comprehensive paradigm analysis. The general thesis here is that we need an approach to development which articulates both the widely accepted insights regarding expansion of the economy as a system of commodity relations *and* the analysis of the economy as a system of human organization (Schultz, 1991). Both aspects need to be understood as issues in development, with the control problem in development being that of designing or creating a system of agricultural economy with capacities to carry the burden, the stresses, and the strains of development.

Since we are interested in using fully the insights already achieved, we are expanding the horizon of theoretical analysis (Buchanan and Ellis, 1955). The problem of inquiry is that of how we expand and supplement the scope of conventional analysis to achieve a wider range of analysis.

The general issue is stated concisely by Professor Hurwicz: "Traditionally economic analysis treats the economic system as one of the givens. The term design in the title is meant to stress that the structure of the

economic system is to be regarded as an unknown. An Unknown is what problem? Typically, that of finding a system that would be in a sense to be specified, superior to the existing one” (Buchanan and Ellis, 1955).

In this statement, we would specify the design of an economic system sought as being the evolution of a system of agricultural economy in the process of development. Thus, the needed achievement of an improved system sets the overall problem of strategy in agricultural development. Since we seek to retain the relevant insights already achieved, there is a question of what traditional insights need to be incorporated into the formulation.

The overall strategy of agricultural development in any country could probably find some useful role for virtually any and all of the specialized developmental insights of economics, law, sociology, education and many more, *if* the conceptualizations of development were relative to the problems and they were sufficiently articulated. Thus, the theoretical task at hand is basically that of articulation of a set of ideas about agricultural development in sufficiently comprehensive terms to give greater scope to the power of some insights which are not sufficiently embraced in current formulations.

We have two suggestions of neglected insights which, if honored, might stimulate agricultural development. One is the recognition that development is achieved by the will and the efforts of man and that the efforts may be made more productive if participation in the economy of agriculture is achieved. In short, willing participation is more productive than routine or coerced participation. This insight, it will be argued, is clouded over, if not covered up, by the assumption of rationality in contemporary economic analysis (Fabrycky and Kruessen, 1988).

The second suggestion is closely related. We need to view an agricultural economy as a system; a comprehensive system of interacting and interdependent parts which, at a minimum, embraces an organized mechanism of physical production within a more inclusive system of human organization. That is, the economy as a system of human organization is in fact an inclusive form of interaction, embracing systematically physical things as users, and is not an epiphenomenon upon a physical lease to use the philosophical concept. Furthermore, the economy as a

system of human organization in a modern economy is ordered by the rules and sanctions of the nation-state. This necessitates the formal consideration of integrated systems of state and economy as the inclusive matrix of agricultural development. Once the suggestion that agricultural economies should be viewed as a system of human organization is taken seriously, two implications become evident: (a) all agricultural economies must be treated as a system of any and every stage of development, and (b) the achievement of an agricultural economy as a system of human organization becomes an integral part of the task of agricultural development. This latter task is given secondary status by the conventional assumptions that the economy as a system of human organization can be treated as a ‘given’ or a derivative ‘framework’ in formal analysis.

The incorporation of these two suggestions into the theoretical analysis of agricultural development, if successful, could have the double effect of opening up new avenues for interdisciplinary or multi-disciplinary professional collaboration in the study of agricultural development *and* of giving explicit recognition to the changed patterns of thought among the people who till the soil. These are the ultimate grounds for the modernization of agriculture, at least in societies honoring freedom of choice.

## 2. Section 2

If we are to give due weight to the many aspects of agricultural development in the formulation of a strategy of development, we need to understand the potential of a whole store of insights in a fresh perspective.

The fundamental insight now being neglected, in our judgement, in the formulation of agricultural development theory is that willing participation in an agricultural economy is more productive than routine or coerced participation. This insight recognizes the very basic and natural instinct to survive which is behind the very willingness to participate. This in turn may lead to the achievement of development which in itself is an achievement of minds, wills, and efforts of the participants. This is a resource for agricultural development which is neglected in the current faith that relies upon science and technology to increase man’s control over physical nature.

Once this point is granted, it is no longer adequate to deal with agricultural development as a process of investment which increases the capacity of an economy to produce, to which entrepreneurial participants will respond, given adequate incentives. This formulation, we would emphasize, is not false, but it is inadequate because the participation of people in the development process is stimulated by the design of the system of economy. One should perhaps say by the design of the system and the character of the people. The character of people is molded by the system in which they grow up. Thus, if we are to honor the insight that development is achieved, or at least carried to greater heights, by the will of voluntary efforts of the participants, we need also to recognize that in development we cannot accept individuals as a 'given' any more than we can accept the economic system as a 'given.'

Thus, we need to include as a part of the revised strategy of development not only the fact that we must give attention to the design and the achievement of an improved economic system as a system of human organization, but also that we need to consider how the design of the system influences the abilities and characteristics of the participants, who are nurtured by the system. To create such a system of human organization, a global institution has to emerge as suggested by Dee W. Hock, "whose sole purpose would be the development, dissemination, and implementation of new chaordic concepts of organization, linking people and institutions committed to institutional reconception in a vast web of shared learning, information and ownership" (Hock, 1995). Furthermore, he reiterates the fact that to be effective in the long run such an organization, "ideally would have to span into such diverse areas as education, government, social services and commerce. Organizations ready and willing for such changes must be sought out and resources provided to help them through the process" (Hock, 1995).

Then, at every point in time or stage of development, people in farming must be responsible actors in both the physical world of soil, plants, animals, rainfall, etc., and in the social realm of man-to-man relationships. Agricultural development can be frustrated at almost any point, unless care is taken to direct attention to the limiting factor at that time and place. To complicate the issues still more, we do not,

in agricultural development, face situations *de novo*; the people in agriculture at any and every point are both the inheritors and the custodians of experience accumulated over long stretches of time. Thus, agricultural development must take hold in any situation with things as they are and thus includes the developing countries. But in general terms, it seems fair to say that a modernizing development program can only take hold of an agricultural economy if the economy is, in some profound sense, already a going concern.

On the physical side, this means that the people of an area must have a traditional subsistence system of farming which is enduringly consistent with the physical environment, and on the social or human side, is functional as a stable social order. Where these conditions are met, it is possible to undertake development programs built upon incremental changes upon which formal economic analysis is based. Stated differently, the marginal analysis in economics presupposes a functioning going concern within which incremental adjustments can be made. If such conditions are obtained, it is then possible to introduce new scientific practices of agricultural production and expansion of investments in agricultural plans on an incremental basis. Similarly in the social or human aspect the traditional or customary social practices can be selectively modified to widen the horizons of opportunity for the participants.

Recognizing that the social transformation of a traditional, customary system of agricultural economy is likely to rely heavily upon the powers of the nation-state, it becomes obvious that the dominant or operative political philosophy of those who exercise the powers of the state will be to deeply influence the design of the economy as a system of human organization.

To further complicate the strategy of agricultural development in our time and especially in the developing countries, all development programs must be devised in an atmosphere of ideological tensions and incipient ideological resolutions. Since there is no tradition of genuine social inquiry in many of the developing countries, there are very few dependably relevant facts with which to check *ad hoc* proposals for agricultural development or reforms. This fact in itself works against any gradualistic or incremental approach to the strategy of agricultural development. Nevertheless, those who influence events cannot

escape the consequences of their acts and are ultimately disciplined by subsequent events. Thus, the search should go on relentlessly for points at which innovations in agricultural development can be instituted within some continuing order in human affairs.

In simplest terms, however, our suggestion is that we try to interpret all of our insights regarding agricultural development from the perspective of a system of agricultural economy which undergoes transformation over time. However, the nature and extent of such a transformation depend solely upon the economic system under which it takes place. In other words, to paraphrase W.A. Lewis, “it is true that economic system as an institution may promote or restrict growth according to the protection it accords to effort, according to the opportunities it provides for specialization and according to the freedom to maneuver it permits to all its participants” (Lewis, 1995).

### 3. Section 3

To summarize, three aspects of such an agricultural economy can be signaled out for analytical attention. A system of agricultural economy can be viewed in most comprehensive terms as a systematic and organized response to an array of economic opportunities for participants. This is the focal point of much of our contemporary consideration of development – increasing man’s control over physical nature expands his opportunities in relation to the physical universe. Institutions specify the terms of access to opportunities, as well as how they are shared between participants at any particular time and from generation to generation. Thus, as will be noted later, even the meaning of the concept of opportunity is a function of the economy as a social organization.

A second focal point of analysis is the abilities of the participants. The activities of participants are the expression or even the embodiment of many different influences – health, nutritional, education, inspirational – all of which operate through social arrangements to shape each and every one of us. Not the least of the influences modifying the abilities of people is their views of the external world which shifts in a scientifically directed development from a fatalistic acceptance of the world as given, to the clearly perceived attainable ends which can be realized by

reconstructing, even to a small degree, the external world of obstacles and opportunities.

Thirdly, there is the performance of the participants which is caused as much from the will, energy, and inspirations of a people as from either their abilities or opportunities. If there are objective opportunities, they must be seized to be enjoyed or exploited; the exploitation of an opportunity requires both a sense of purpose and the requisite abilities. Performance over a lifetime constitutes a career.

Thus, a revised strategy of agricultural development in the terms suggested here would tend to have three coordinated emphases within an overall achievement of a reconstructed system of economy; on the expansion, stabilization, and terms of access to opportunities; on the growth in activities; and in facilitating and stimulating productive performances. A system of agricultural economy as a system of human organization is achieved and modified over time by the selection and enforcement of working rules which are integrated or fitted together in ways which both resolve conflicts and provide opportunities for constructive willful acts. Admittedly, to translate contemporary insights into the economic development of agriculture into such terms requires a careful recasting of many familiar ideas and formulations. Such a coordination of ability and opportunity through performance is done all the time by even the humblest of farmers. By their performances, which are sufficient for survival, they achieve systems of farming which although modified continuously, still endure over time.

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