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FARM MANAGEMENT - ITS ROLE IN ALLEVIATING INSTITUTIONAL CONSTRAINTS FACING ASIAN SMALL FARMS*

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ABSTRACT

A central theme in this paper is that some of the most critical constraints in Asia to achieving larger farm production, the fruits of which are more equitably distributed, are beyond the control of individual farmers. If the field of farm management is to play an important role in improving the welfare of large numbers of poor Asian farmers, it must devote some of its analytic efforts to issues other than within-farm resource allocation as is characteristic of traditional western farm management. In particular, it must also examine factors exogenous to the farm, including those institutions and policies that control the access of operators of small farms and other groups of poor people to the income streams from agriculture.

I. INTRODUCTION

Institutions are frequently cited as a major constraint to development, particularly for agriculture involving many small farmers. Two recent and authoritative sources are as follows.

Dale Hathaway (1977, p. 601), a long-time scholar of international agricultural development, concluded a 1976 World Food Conference by saying: My main conclusion is that the major and crucial linkage to the improvement of food availability in those developing countries where food availability must primarily come via the improvement of production among small and least advantaged of the farmers depends on the ability *of institutions to develop* (italics mine) and increase the rate of adoption of modern technology on millions of small farms.

He judges that the basic structure for food production is generally adequate (although sometimes ineffective), and that the weakest points are insufficient locally-adapted technology and inadequate incentives for farmers to adopt technology. To deal with these weaknesses he indicates the need to concentrate more on key institutions such as applied research, manpower development, and agricultural education.

The Second Asian Agricultural Survey by the Asian Development Bank [A. D. B., 1978, p. 82] reports the following finding.

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The experience of the past decade indicates that we have been able to make significant progress towards the modernization of agriculture but that the progress is of necessity evolutionary. The rate of progress is not constrained by the attitudes of farmers but by the unavailability of suitable technology and the *unfavorable institutional environment* (italics mine) in which farmers operate.

The major institutional constraints indicated by the A. D. B. (1978, p. 83) are (1) those which limit yield potentials of crops in the farmer's environment, i. e. locally adapted technology, and (2) those which affect the farmer's ability and willingness to achieve the yield potentials on his own farm. The latter involves unequal access of different farmers to inputs, credit, and technical knowledge, and unfavourable land ownership patterns.

Thus, there is clear evidence that one of the primary factors limiting the improved welfare of people on Asian small farms is a weakness in the institutions that serve those people. This paper explores the nature of "institutions", the nature of institutional change, and the possibilities of farm management to play a role in alleviating the institutional constraints that face Asian small farms.

II. INSTITUTIONS

Different authors follow different approaches in classifying institutions. Perhaps the approach most familiar to students of agricultural development is that by Blase (1971, p. vii, viii, 10) in which attention is given to land tenure; factor markets (including price policies and infrastructural development and use); product markets (including price policies and infrastructural development and use); planning, teaching, research, extension, agricultural credit, and small governing institutions; and legal systems. Blase also refers incidentally to cooperative, transportation, medical, and religious institutions.

An alternative taxonomy of institutions is provided by Wengert (1972, p.20-22). He classifies institutions according to seven different processes through which institutions can potentially influence behaviour: (1) legal, e. g. legislation and common law; (2) economic, e. g. taxes, subsidies, private enterprise, direct government intervention into the market; (3) administrative, e. g. operational procedures by agencies and departments; (4) persuasion, e. g. lobbying groups, educational campaigns; (5) administrative reorganization, either actual or threatened; (6) plan implementation; and (7) general social, e. g. traditions, values, beliefs. This list constructively complements the Blase list, particularly

because it emphasizes the dynamic process of institutional change, rather than merely the end products of institutional change.

Since students of development have such widely different concepts of "institutions", we dwell a bit longer on what is embraced by this term. In doing so we should recognize that different concepts of institutions arise in the literature, among other reasons, because of differing perspectives concerning institutions in different academic disciplines, different degrees of complexity in the writing of various authors, and contrasts among different authors in differentiating between "institutions" and "organizations".

Commons (1973, p. 73), often called the "father" of institutional economics, defines institutions as "collective action in restraint, liberation, and expansion of individual action". This definition highlights contrasts between group perspectives and individual perspectives as the underlying reason for the existence of institutions. This dimension of institutions has particular meaning within the context of institutional change to achieve redistribution in wealth and income.

Ruttan (1978, p. 329) defines "institutions" as "the set of behavioral rules that govern a particular pattern of action and relationships" and an "organization" as a "decision-making unit that exercises control over resources". He goes on to say that, for his purpose, "this is a distinction without a difference".

For our purpose, however, we shall distinguish between these two terms. "Organizations" are viewed as structures that, through legislation, may be altered, adapted, or abolished at will, whereas "institutions" involve the values, beliefs, and the social-psychological-political perspective that influence the behaviour of people (Wengert, 1972, p. 17-20). This distinction enables us to see the need to base possible organizational reforms on a clear understanding of the behavioural characteristics of those who would be influenced by the reforms. In other words, the possibilities for being able to implement successfully a proposed organizational reform depend importantly on the existence of already favourable views about the impending reform by those who would be involved in it, or in the absence of such views or the use of implementing force, the undertaking of steps to help develop such positive views about the reform.

An analogy may be helpful. Putting a policeman's uniform on a man will not make that man automatically become a policeman, unless the skills, perceptions, and values of that man are also those of a policeman. Similarly, creating a new organization, without taking into account the basic values, beliefs, and other personal characteristics that will influence the reaction of people to the new organization, can usually be expected to result in nothing more than a

new organization "on-paper". One of the prime roles of farm management in facilitating institutional change, elaborated in the final section, deals precisely with this point.

III. INSTITUTIONAL CHANGE

Agricultural and rural development literature abounds with suggestions of the need to change existing institutions. At least three lines of thought are embedded in this literature.

The Transformation of Traditional Institutions

One type of emphasis is the need to transform traditional institutions so that institutions can become supportive of growth and development processes. The primary functions of traditional institutions include preserving law and order, ensuring survival, achieving accommodation to environment, and raising tax revenue (Dorner, 1974 ; Parsons, 1966). In some cases the traditional institutions of extended family, village factions, and councils of elders also obstruct innovative processes such as wide community participation, voluntary leadership, and initiative (Owens and Shaw, 1972, p. 29).

If growth and development are to be achieved, such traditional institutions must be replaced by institutions that support the processes of change—by institutions that are dynamic and provide incentive for desired change. Such modern institutions can facilitate the processes in growing economies, for example, of technological change, production specialization and exchange, and factor mobility.

Institutional Change to Redistribute Wealth and Income

A second line of thought emphasizes the need for institutional change to bring about a more equitable distribution of wealth and income. Owens and Shaw (1972, p. 72) summarize this position as follows :

Giving all farmers access is essentially a problem of institutional development, i. e. creating the array of institutions in which the different elements of a modern agricultural system are organized and managed, and in which a more equitable set of relationships among different groups of people can gradually evolve.

Dorner (1974) emphasizes that new technology cannot be expected to be adopted in an unstable environment, and that to the extent that wealth and income are inequitably distributed a source of instability is present. He advocates the possibility of institutional reform, involving changes in property rights, patterns of resource ownership, and economic and political power, to correct such distributional inequities.

Dantwala (1973) argues that institutional change without prior technological change can be expected to accomplish nothing. Even with technological change, institutional change may not promote more economic growth, but it can lead to desired redistribution of income and wealth.

Bromley, Taylor, and Parker (1977) treat the more particular case of inequitable distribution of water within irrigation systems, and suggest possible components in a more equity-based institutional structure for allocating scarce water supplies. For example, they suggest the possibility of designing water user organizations with provision for disproportionately large representation of most severely disadvantaged irrigators. Their suggestions are based, among other things, on five general principles for institutional design drawn from Rawls (1971): (1) each participant in an irrigation system possesses an equal right to the most extensive liberty compatible with similar liberty for others; (2) any institutional system must be widely understood by all participants in it; (3) there must be a shared concept of what is just, and what is unjust; (4) there must exist a system of formal justice in the administration of rules that is impartial and consistent; and (5) institutional rules should be designed so that the predominant self-interest of individuals leads people to act in ways which further desirable social ends.

The Dynamics of Institutional Change

Clearly, institutional change will come about only if there are pressures for it. Commonly cited pressures are the introduction of technology and rapid population increase (Dorner, 1974; Hayami and Ruttan, 1971; Parsons, 1966; Schultz, 1968). Where there is definite disagreement, however, is on whether the pressures for desirable institutional change can be expected to and should come from the atomistic powers of the free market or from deliberate intervention by government.

At one end of the continuum is Schultz (1968, p. 1118) who says that "...when agriculture acquires a growth momentum, as it has in many parts of Asia, ...the dynamics of that growth will induce farmers to demand institutional adjustment".

They will be led to demand, for example, larger and more timely supplies of credit, more flexibility in tenancy contracts, and access to improved irrigation and drainage facilities.

Hayami and Ruttan (1971, p. 60-61) accept and build upon Schultz's model in the construction of their "Induced Development Model". Their model attempts to explain not only how technology is induced endogenously, but how this leads to further inducement for farmers and others to make necessary changes in relevant institutions. Their view "reduces to the hypothesis that institutional innovations occur because it appears profitable for individuals or groups in society to undertake the costs".¹

Dorner (1974) questions the extent to which the atomistic competitive forces presupposed in the Hayami-Ruttan model are really found in the real world. To whatever extent they are, there still is a question on who will profit from free-market induced institutional innovations. He argues that the incentive for change rests with those mainly involved in the growth process, i. e. with larger and more powerful actors, not with the masses who have only meagre and insecure opportunities within the systems. In other words, and as argued by Powell (1971), without external intervention, it is doubtful that those with power will make decisions that will deny themselves of their special privileges. The final part of the paper suggests some possible roles that may be played by farm management specialists in helping to design and implement organizational reforms intended to improve the welfare of one section of those masses, namely, those who own and operate Asia's small farms.

The Historical Record on Efforts to Introduce Institutional Change

Again, the literature is abundant and diverse. The diversity arises from differences in the reality of various attempts to introduce reform, and from differences in the perception of those who observe and report on the reform. We quote a few examples where planned institutional changes are reported to have achieved desired results, and others where desired results are reported not to have been achieved.

1. Ruttan's later writing (1978, p. 356) seems to show less faith in the possibility of the atomistic forces of individuals and groups leading to a type of institutional change desired by society. He writes, "the inability of the relatively disadvantaged— who are the majority in many societies— to gain access to either economic or political resources remains a serious constraint on the realization of improved institutional performance that is made possible by advance in social science knowledge".

Schickele (1966, p. 6) writes that "the agricultural development of Japan offers striking examples of how improvements in environmental conditions stimulated farmers' incentives and motivated them for stepping up their production performance rapidly". He cites the development of marketing cooperatives, education and extension services, and improvements in land tax policies as key instrumental variables during the 1868 to 1912 period of rapid progress; and land reform, expanded production credit, and positive price policies as key instrumental variables during the 1946 to 1960 period of rapid progress.

Ong (1977) argues that Taiwan's high level of agricultural performance since the 1950's depended upon the introduction of institutional and technological changes. He cites the following examples: (1) land reform, involving rent reduction, the sale of public land, and "land-to-the-tiller", (2) the creation of farmers' associations, irrigation associations, and fruit marketing cooperatives, and (3) land consolidation and improvement.

Ruttan (1975, p. 367-369) cites several illustrations in which institutional and technological changes induced growth and development, e. g. the Second Enclosure Movement in England to convert communal pasture and farmland into single private farm units; the Post-World war II evolution in Japan of farmer's associations into effective extension and marketing organizations, and the improvement in incentives resulting from the land reform of 1949-52; and land reform and farmers' associations in Taiwan (as reported above by Ong).

On the other side of the ledger, Palmer (1975) reviews the experiences of Indonesia and Malaysia to introduce institutional changes in input and credit availability and in agricultural extension. She concludes, albeit impressionistically, that because of inefficiencies in implementation farmers are left worse off than if free market had been allowed to operate undisturbed.

In the summary statement covering an International Agriculture Seminar involving representatives from 50 countries, Hunter (1974) concludes that massive efforts to introduce institutional changes involving credit, cooperatives, and extension have had a very small impact on those for whom the institutional changes were intended. He suggests the underlying reasons are inadequate communication between doers and thinkers and an inadequate analytic framework through which to guide choices of action. This finding implies that the development profession is partly responsible for shortcomings in prior attempts to introduce institutional reform. Within this context, we now search for some potential roles of farm management to alleviate institutional constraints.

IV. POTENTIAL ROLES OF FARM MANAGEMENT TO ALLEVIATE INSTITUTIONAL CONSTRAINTS

A basic presupposition of this section is that some of the most critical constraints in Asia to achieving larger farm production, the fruits of which are more equitably distributed, are beyond the control of individual farmers.² I would submit, for example, that many possibilities for improved production depend more on changes in factors exogenous to farming systems than on the reallocation of resources within farming systems.

If this presupposition is valid, traditionally-oriented western farm management, with its main emphasis on within-farm resource reallocation, is not fully relevant to the needs of Asia. While I do believe that there is a certain irrelevance of western farm management to Asia,³ I do not conclude that the field of farm management should be de-emphasized in Asia. To the contrary, I believe farm management has much to contribute to Asian agricultural development, but to make its full potential contribution requires that it go beyond the bounds of traditionally-oriented western farm management.

I believe one of the major expanded roles of farm management in Asia is to seek insights, along with related disciplines, for helping overcome the various institutional constraints in the region's agriculture. A primary objective would be to generate additional understanding about the farmer and the community in which he lives so that proposed institutional reforms can be molded more closely to localized real-world conditions. The resulting reforms should then be capable of fuller implementation and a fuller realization of intended objectives.

It is recognized that farm management is only one of several disciplines that can contribute to understanding and resolving institutional constraints to development. While the inherent closeness of contact between effective farm management specialists and farmers can enable the specialists a comparative advantage over other professional disciplines in deriving pertinent and valid field-level insights for use in planning and evaluating possible institutional reform, the perspectives and tools of analysis of other disciplines such as natural resource economics, managerial science, social psychology, anthropology, and development administration are also required. Thus, the ensuing discussion that deals with institutional change from the perspective of farm management covers only part of the

2. I wish to acknowledge the important influence of Schickele (1966) on the early formative thinking for this section.

3. See Taylor (1977) for an elaboration of this view.

full range of issues that must be addressed if attempts at institutional reforms are to be made more effective and long-lasting.

In short, my basic plea is for farm management (and other professional disciplines) in Asia not to take institutions for granted. Rather, I believe Asian farm management specialists should be conscious of the important role and impact of institutions on national development and farmer welfare, and should concentrate some of their effort on determining what institutional changes are of highest priority and what strategies might be most effective to achieve these institutional changes. This would involve emphases such as the following.

Obtain Field-Level Views on the Main Constraints to Development

This would involve learning the views of farmers and local public service agents about on-going programmes and projects, including the identification of the main constraints to development⁴. Seeking the views of such people also on the most reasonable sharing of roles among government, farmers as members of groups, and farmers as individuals in striving to further overcome the constraints would also be highly useful. See Appendix A for an effective illustration of such a possible division of responsibility for resolving small farmer development problems in Korea.

Give Attention to Local Values and Beliefs Relative to Proposed Organizational Reforms

This would involve determining where there are gaps between the values, beliefs, and other perceptions in farm communities and what would be required to enable the effective implementation of proposed organizational reforms. On the basis of this, decisions could be made on whether the proposed reforms would need to be reformulated and/or certain educational programmes could be undertaken to modify any values, beliefs, and perceptions that are not supportive of the proposed reforms.

An illustration can be found in the earlier mentioned Bromley-Taylor-Parker proposal for possible institutional reform in water allocation procedures. Any effort to implement effectively water-user organizations of the nature proposed without attention to helping irrigators understand, accept, and support the underlying Rawlsian principles could in all likelihood be expected to abort.

4. The International Rice Agroecomic Network (IRRI, 1977) is an on-going activity in Asia to identify constraints to farmers achieving higher paddy yields.

Examine Micro and Macro-Impacts of Agricultural Development Policies

This would involve tracing out the direct and indirect benefits of existing and proposed agricultural development policies on individual farmers, the regions from which they come, and the achievement of national policy goals such as wealth and income redistribution, employment generation, food self-sufficiency, and foreign exchange savings. Highlighting any conflicts between the achievement of micro-farmer welfare and macro-regional and/or national welfare would be particularly important.

Examples of policy issues in the region to which farm management specialists might usefully devote attention include the following.⁵

The impact of high food prices on small farmer welfare

Most students of agricultural development hold the view that high food prices favour the farming community. Collier (1978) and Dong (1975), however, argue that this is untrue for many small farmers, because such farmers frequently are forced to sell food surpluses soon after harvest and later must buy food on the market. Farm management specialists who would examine this issue in different farming communities could contribute important insights to those who must make decisions on future price policies.

The short and longer-term regional and national impact of subsidizing farm inputs

Several countries in the region, including Malaysia, have put much emphasis on subsidized inputs in their food production policies (Goldman, 1975). Studies of whether small and large farmers differ in their access to and benefits from the subsidization programmes, the impact of the subsidies on the levels of input utilization and resulting yields, and the longer-term adoption of the inputs would provide a firmer basis for deciding whether input subsidy programmes should be continued, and if so what modifications might be made to the programmes to increase their effectiveness.

The relationship between labour migration and food production

Developing countries are commonly believed to have imperfect and rigid labour markets. Yet in some countries such as Korea, Taiwan, and Malaysia,

5. Here and elsewhere in this section the examples are only illustrative. The listings are not exhaustive; neither are the examples necessarily of high priority on a broad geographic basis.

there is evidence of quite fluid labour market. In fact, there is such rapid mobility of farm youth in some places that those older people left behind in agriculture can no longer exert the necessary physical effort to realize full production potentials. Questions are raised on whether there will be a next generation to undertake agricultural production. A related phenomenon is an increase in part-time farming (e. g., Shen, 1974). While these trends generally favour desired shifts in inter-personal equity of income distribution, they present a real dilemma to ministries entrusted with achieving the highly political goal of greater food self-sufficiency.

Farm management specialists and others who would study the extent and patterns of youth migration, the views of the people left behind in agriculture, the prospects for the next generation of agriculture, and possible courses of action to make farming a more attractive proposition to youth could be quite helpful to national policy-makers.

Describe and analyze key rural institutions

This effort would involve identifying rural institutions that exert an important effect on the level of production and the distribution of the benefits of production. Describing and analyzing these institutions, and determining the limitations and opportunities represented by them for achieving desired objectives could be highly productive. Three examples follow.

Land tenure. The traditional literature on development suggests that owner-operators can be expected to have higher yield than tenants, and that landlords can frequently be expected to exploit tenants (Raup, 1967). To improve the welfare of tenants and expand national food production, policies of "land-to-the-tiller" and stronger "rent controls" are, therefore, commonly propagated.

Nevertheless, the literature in some countries, including in Malaysia, show that these traditional views on the institutions of land tenure may be largely invalid. For example, Malaysian paddy production tenants commonly have equal or greater yields than owner-operators. While tenancy contracts may not be written and may nominally be for short periods only, in effect many tenants cultivate the same land for long periods of time, and thus tenant-insecurity is not a special problem. Several studies show landlords not generally to be a special class of "villains"; many are kinfolks of tenants; some are

old-retired people who are unable to continue to cultivate their land and must rely on their rental income to subsist (Huang, 1976 ; Jegatheesan, 1976).

Farm management specialists who would join others in studying the reality of these issues in Asian small farm agriculture, in order to trace out the implications of possible tenurial changes on the welfare of individual farm families and on the achievement of national production goals, could do much to enlighten policy-makers on desirable future directions concerning the institution of land tenure.

Self-help local group action. The demands on government for development are so extensive that any efforts to nurture the growth and development of local group action merit close attention.

Sometimes informal local group activities are undertaken in rural areas without the encouragement or knowledge of government. The closeness of contact of farm management specialists with farmers, however, affords them ready-opportunity to identify and study the activities of such groups. On the basis of what is learned from such study, it may be possible to determine opportunities for the strengthening of existing group activities and the expansion of similar group activity in nearby areas. The study of more formalized local group action, such as that by Ong (1977) on joint farm work operation, joint farm management, contract farm work operation, contract farming, and cooperative farming in Taiwan, could also suggest useful insights to government on policies to encourage self-help local group action,

Bengkok. This institution, that exemplifies the importance of property rights over resource use, may be unique to Indonesia. *Bengkok* land is land, the produce from which is used to pay local village-government officials.

Studies show the per capita area of *Bengkok* land in Central Java to be several times that of the land for ordinary villagers, with the implication that this institution works strongly against an egalitarian distribution of income (Hutapea *et. al.*, 1978). Preliminary results from recent farm management research in East Java, on the other hand, show that the incidence of *Bengkok* there may be quite limited (Taylor, Wiryadi and Pasandaran, 1978). Further research to study the relative incidence of this institution in different parts of Indonesia and the contrasting circumstances in different areas that have influenced its development, or lack of development, could provide useful information to government, as it searches for policies that might diffuse income and wealth more evenly among the large numbers of very poor people in Indonesia.

V. SUMMARY AND CONCLUSIONS

This paper draws attention to the importance of institutions in limiting the achievement of increased agricultural production and a more equitable distribution of the benefits of improved production. It draws attention to contrasting views about what is required to accomplish institutional change, ranging from a completely free-market perspective to a perspective in which planned exogenous intervention is required. Particularly from the standpoint of planning and implementing reform to achieve more equitable distribution, the author submits that a totally free market perspective is inadequate.

The paper cites some cases where planned institutional reforms have accomplished their originally intended objectives, and other cases in which they have not. The author suggests that, in many cases, finding solutions to institutional constraints is extremely difficult. The combined perspectives and tools of analysis of a wide range of professional disciplines are required to conceive institutional reforms that can be expected to be effective and long-lasting.

Farm management is but one of these professional disciplines. Its comparative advantage rests in the closeness of its workers to farmers and the field-level environment that surrounds the farmers. The paper suggests that farm management specialists in Asia could contribute to the formulation of strategies to overcome institutional constraints if they would devote part of their effort to (1) obtaining field-level views on the main institutional constraints to development, (2) giving attention to local values and beliefs relative to proposed organizational reforms, (3) examining micro and macro-impacts of agricultural development policies, and (4) describing and analyzing key rural institutions. Even then, however, the task will not be easy.

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APPENDIX A

A Functional Framework for Envisioning Possible Approaches to Increase the Income of Small Farm Households in Korea^a

Source of Income	Possible Means of Increasing Income	Condition or task agent ^b				
		1	2	3	4	
Farm income	1. Yield increase	Improved varieties	×		×	
		Irrigation & drainage facilities		×	×	
	2. Change in cropping systems	Fertilizer & chemicals	×	×		×
		Improved cultural methods		×		×
		Profitable crop mix		×	×	×
		3. Reduction of production costs	Reduced waste of material inputs			×
	Reduced labour inputs		×	×	×	×
	Reduced interests paid		×	×	×	
	4. Improved marketing	Increased yield				
		Reduced losses & wastes		×	×	×
		Reduced costs of marketing	×	×	×	
		Timely deliveries of products to markets			×	×
5. Expansion of farm size	Improved bargaining position		×	×		
	Reduced number of farm-households	×	×			
6. High product prices	Enlarged arable land		×		×	
	Price support programmes	×	×			
Off-farm income	7. Increased off-farm job opportunities	Decentralization of industrial plants	×	×		
		8. Increased income transfer	Social security systems	×	×	

a. Adapted from Dong (1975, p. 70)

b. The following code is used :

1. National economic growth ;
2. Government investment programmes and policies ;
3. Farmer group actions ; and
4. Individual farmers.