

PRIORITIES FOR RURAL DEVELOPMENT RESEARCH

Five Papers on Selected Research Topics  
Commissioned by the  
Harvard Institute for International Development

Papers by:

R. Albert Berry  
Sara S. Berry  
Louise P. Fortmann  
H. Jeffrey Leonard  
Jon R. Moris

Edited by:

Merilee S. Grindle  
S. Tjip Walker

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Prepared by the Harvard Institute for International Development  
for the Office of Rural Development  
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## INTRODUCTION

"In a decade, what social science topics will we wish we had begun research on today?" This question about the social sciences and rural development has served as a central theme of a project on research priorities for the future carried out by the Harvard Institute for International Development (HIID) under contract with the Office of Rural Development, for USAID.<sup>1</sup> As an initial response to the question, a team at HIID drafted a report suggesting 28 issues in which important research investments could be made to enhance understanding of rural development needs and processes (see Cohen, Grindle, and Thomas, 1983). That report served as a discussion paper for a workshop held in Washington, D.C. on June 2-3, 1983 and for a meeting with staff of the Office of Multisectoral Development on June 16, 1983. On the basis of those discussions, five topics were identified as areas that merited further consideration for future research investments by USAID. Academic specialists on each of these topics were commissioned to write papers in which they would explore the importance of the topic and how it might fruitfully be addressed through research. Preliminary papers prepared by five scholars were presented at a workshop in Washington, D.C. on October 20-21, 1983. The final papers on the priority areas and a summary of important issues raised during the October workshop are included in this report.

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1. Formerly the Office of Multisectoral Development.

Each of the papers is intended to be a "think piece" about an important topic for rural development research. The paper writers were asked to discuss: 1) the central concepts and major theoretic frameworks and debates related to the topic; 2) promising perspectives on the topic that would encourage thinking about processes of change, public policy, sources of variation, and appropriate roles for donor agencies; and 3) the type of research on the topic needed to build a useful knowledge base for scholars and practitioners in the future. The papers are intended to provide direction about how a research effort on each of the topics might be organized in terms of the central questions it would address and the forms of research that should be undertaken.

The papers address a common theme about the context of rural development initiatives in the future. The authors are agreed that change, a process that has become a central feature of rural areas in the third world, will accelerate in the future. Rural areas throughout Asia, Africa, Latin America, and the Middle East will be increasingly affected by population pressure, resource scarcities, and incorporation into broader social, economic, and political structures. While the future may offer new technologies and organizational innovations to address new rural development needs, in all likelihood it will also place further heavy burdens on rural families and the renewable natural resources they depend on for their livelihood. Social scientists and rural development practitioners therefore need to be concerned about developing the analytic tools and knowledge needed to address the central problems created by rapid change.

Two of the papers in this report address problems that are clearly destined to be critical to development because of the impact of rapid change on rural areas and peoples. In the first two contributions to this report, Albert Berry provides insight into why the creation of employment and enterprise opportunities will be critical to addressing rural needs in the future and Jeffrey Leonard presents a strong case for the importance of research on the human and institutional dimensions of environmental degradation and natural resource management. A third paper, written by Jon Moris, argues that the ability to address these and other important future-oriented problems will depend on knowing more about alternative institutional arrangements for pursuing rural development objectives. Two other papers address the issue of rapid change more directly by presenting frameworks and approaches for understanding its causes and consequences. Thus, Louise Fortmann develops a conceptual model of the process of rural incorporation, while Sara Berry indicates the importance of micro level research as a means of understanding how change is affecting rural inhabitants.

The discussion surrounding the presentation of these papers at the October workshop yielded many substantive insights--most of which have been incorporated into the revised papers presented here. The discussion also raised a series of issues relating to AID sponsorship of social science research. One issue of importance was that of the practical "pay off" to investments in research. As might be expected in a workshop that included individuals with responsibilities for

program design and implementation, there was discussion of the need for knowledge-generation and theory to be linked to future practical applications in each of the five priority areas. The participants from AID recognized the need to add to the knowledge from which they could draw, but also stressed that abstract theory was generally not helpful to them in their program design and management roles. The academic participants agreed on the importance of distilling the program and policy guidance of future research, but cautioned that a lack of theoretical complexity and comprehensiveness had been responsible for much of the uneven record of social science contribution to rural development to date.

Added to the theory/practice issue was a discussion of the relative merits of social science and biophysical sciences in contributing to rural development. An emphasis on technical solutions to rural development has left social scientists--be they academics or practitioners--searching for new insights that would direct attention to the social dimensions of rural development. However, during the workshop discussions, both paper presenters and discussants were sober about the potential of any research undertakings, including those proposed in the five papers, to bring dramatic and rapid solutions to the problems of rural areas. Indeed, preoccupation with a search for such solutions was perceived as unwise, for it would divert attention from the arduous task of addressing the complex and difficult problems that rural inhabitants will face in the future. These problems must be understood in terms of their roots in the present and the past. There

was consensus that further developing this understanding is a vital contribution that the social sciences can make to the future of rural development. The five papers were considered to be an important step in identifying priority research directions. Their central propositions are presented below.

### Two Major Problems Resulting from Rapid Change

In a contribution on employment and enterprise development for rural regions, R. Albert Berry indicates that this topic merits research attention in large part because of the likely failure of both agriculture and urban economies to create sufficient employment opportunities for a growing rural population in the future. In addition, he indicates that rural nonagricultural activities have the potential to be appropriately labor-intensive and stimulating to agricultural production. Berry suggests that research on the topic in the future should begin with a careful analysis of: 1) the relationship between rural nonagricultural enterprise and the rest of the economy; 2) the characteristics of rural nonagricultural enterprise at the level of the firm; and 3) the variety of policy instruments that might promote enterprise development in rural regions. He further indicates that research needs to be pursued simultaneously on these three broad issues. Berry argues for a systemic and dynamic analysis of the topic in order to capture the nature of the conditions that would stimulate enterprise development at the household, firm, regional, and national levels. An appropriate way to proceed with such research, he sug-

gests, is to encourage cross-sectional and longitudinal studies to collect and organize data on the determinants of rural nonagricultural enterprise, to support modelling exercises to explore linkages relevant to the sector, to pursue micro-economic studies of firm behavior over time, and to undertake specific policy-oriented studies. Particularly with the micro level research, a multidisciplinary approach is recommended.

Jeffrey Leonard, in a paper on socio-economic aspects of natural resource management, reviews the considerable evidence that renewable natural resources in much of the third world are being affected by demographic pressure and economic change. He argues that problems such as deforestation, soil erosion, range degradation, soil salinization, desertification, and loss of soil fertility must be addressed or the future productive capacity of rural areas will be seriously undermined. He indicates that fruitful research to respond to pressing natural resources issues should focus on: 1) the complex causes--rooted in social, political, and economic contexts--of poor or declining natural resource management in the third world; 2) the variable responses of rural inhabitants to natural resource degradation, including their choices of collective or individual efforts to address the problems created by a declining resource base; and 3) the range of institutional responses and incentive structures that are available to promote more equitable and effective natural resource management. In each of these three areas there are conflicting demands for the use of natural resources that must be understood

before proposals to improve resource management can be fully assessed. Leonard suggests that research on socio-economic aspects of natural resource management can most appropriately be carried out through efforts to build upon existing knowledge and experience and through the sponsorship of well selected case studies.

#### Institutional Means to Address Rural Development Needs

In a third paper presented here, Jon Moris tackles the thorny problem of appropriate institutional choices for pursuing rural development initiatives in third world countries in the future. If problems such as employment creation and environmental degradation are to be addressed effectively, then research must be directed toward providing planners and practitioners with the capacity to select appropriate institutional arrangements for achieving their objectives. A variety of organizational alternatives, a history of disappointing institutional performance, a lack of clear criteria for making choices, and the increasing complexity of rural development are important reasons for addressing how and why development planners should select among types of organizations, levels of implementation, and degrees of control or marketization. He indicates that organizational systems research is a fruitful approach for addressing many of these issues. Investment in research on institutional choices for rural development can: 1) suggest parallels between program objectives and potential institutional performance; 2) make evaluation of institutional performance feed into the development of more effective measures of institu-

tional capacity; 3) alert program managers to typical forms of institutional stress that accompany development efforts; and 4) illuminate common regional characteristics of particular types of organizations. Moris indicates the importance of cross-disciplinary research that compares characteristics of alternative institutional arrangements in similar situations.

#### Frameworks for Understanding the Causes and Consequences of Change

Louise Fortmann addresses questions of how processes of rural change are to be understood in terms of their direction and their positive and negative impact on the lives of rural inhabitants. In a paper on the process of rural incorporation, she argues that understanding the dynamics of how rural areas are increasingly drawn into wider social, political, and economic relationships is essential for understanding the context within which rural development initiatives will be undertaken in the future. She offers an integrative analysis that makes it possible to understand the relationship of specific rural development problems--stresses on natural resources and employment needs, for example--to each other and to broader processes of change occurring in the society. She indicates that research on the process of rural incorporation can increase the capacity of rural development specialists to anticipate the unintended consequences of development initiatives and to plan interventions that address the real needs created by a changing rural environment. She suggests that the analytic framework is relevant to understanding a series of rural

development problems that will become increasingly critical in the next decade. These are: 1) problems of reincorporation; 2) the development of remote areas; 3) issues of environmental degradation; 4) program and policy innovation to improve the capacity to plan for change and diversity; and 5) the impact of migration. Fortmann indicates that the use of the concept of rural incorporation should be imbedded in issue-specific research. Among the most pressing issues for the future are understanding the process of reincorporation, the incorporation of remote areas, and reducing the vulnerability of systems to disincorporation.

Sara Berry, in a paper on households and decision making, presents a case for micro level analysis that would provide a "window" on processes of change in rural areas. Thus, methodologies and approaches that focus on the household are essential to the study of any of the other topics addressed--natural resource management, employment creation, institutional choice, or rural incorporation. It is at the level of the household that it is possible to gauge how individuals respond to changing conditions and to development initiatives and how these responses shape the macro level environment. Berry presents evidence from three micro level studies that demonstrate how such research can illuminate the nature of agrarian change and raise the issue of whether development programs and policies actually address the problems of rural inhabitants. Micro level research, she argues, must be undertaken with sensitivity to how intra-household and household decisions are reached and what the

linkages are between the micro level focus of research and broader social, political, and economic trends and structures. In particular, attention should be focused on the strategies of accumulation, production, and consumption that are adopted by rural households. Berry indicates that particular care needs to be taken to ensure that micro level research includes adequate attention to longitudinal patterns of agrarian change. Conceptual analysis, synthesis of existing data, and well-selected case studies are appropriate means for carrying out this research.

#### The Future Agenda

These five papers are presented as a step in the process of identifying a small number of topics that are appropriate for major research undertakings through the Office of Rural Development. As such, they are meant to indicate central issues that need to be addressed and to stimulate further discussion of their importance and relevance to the research concerns of USAID.

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## CONTRIBUTORS

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Sara S. Berry is Associate Professor of Economics and History with a joint appointment in the Departments of Economics and History at Boston University. She is currently Acting Associate Director of the African Studies Center at Boston University. She received her Ph.D. in Economics from the University of Michigan. She is well-known for her publications on rural social change, migration, land tenure, rural class relations, and household decision making. Her field research has focused in west African countries, particularly Nigeria.

Louise P. Fortmann is Project Coordinator at the Land Tenure Center at the University of Wisconsin and leader of a joint Land Tenure Center/Cornell University project on communal area development in Botswana. In January she will assume a position as Assistant Professor of Social Forestry in the Department of Forestry at the University of California, Berkeley. She received her Ph.D. in Organizational Behavior and Social Action from Cornell University. She has published on the issues of participation, collective action, women's roles in development, agricultural development, and water management systems. Her field work has focused on Tanzania and Botswana and she has previously consulted for the World Bank, AID, and FAO.

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Jon R. Moris is Professor of Anthropology in the Department of Sociology at Utah State University. He received his Ph.D. in Anthropology from Northwestern University. He has worked extensively in East Africa and is well-known for his publications on rural development, agricultural education, agricultural program management, implementation, and technology transfer. He has been professionally associated with the Tanzanian and Kenyan governments, AID, UNESCO, and the World Bank.

## SECTION I

### RESEARCH PRIORITIES FOR EMPLOYMENT AND ENTERPRISE DEVELOPMENT IN RURAL REGIONS

R. Albert Berry

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#### Introduction

Despite several decades of reasonably successful output growth and rapid expansion of urban populations, most developing countries find themselves with still rising rural populations but with little good and accessible land for the population overflow to move to. Most farms are already extremely small in the majority of less developed countries, so their potential for the creation of large numbers of new jobs is not obvious. The increasing pressure of man on land is creating well-known ecological dangers and leading to potentially serious degradation of the environment. Most urban centers are characterized by enough unemployment or underemployment to make one doubt that they will be able by themselves to handle the flow of new job seekers. And continued rapid urbanization is viewed by many as not a very palatable option in any case; the costs seem high and the problems many. For most African countries and poorer Asian countries, rural population and labor force seem likely to continue rising for several decades unless population growth is slowed faster than it seems reasonable to predict and/or economic growth proceeds more

successfully than in the past. With the world economy in recession, and the export prospects of developing countries uncertain, the problems of employment creation in these countries are daunting to say the least.

In this context it is natural to ask whether rural nonagricultural enterprise (henceforth RNAE) could provide a significant number of fairly productive jobs and thus relieve the acute pressure on the agricultural and urban sectors. Interest in the possible benefits from the growth of RNAE has its origins not only in the difficulties of creating enough productive employment in agriculture to match the supply of workers in the rural areas and the parallel difficulties of employment creation in cities and costs attendant upon rapid rural-urban migration. There is, in addition, evidence that rural non-agricultural activities can be quantitatively significant, and that they are often more labor-intensive than similar activities found in large urban centers and may be more efficient than these latter due either to their appropriately high labor-capital ratios or to their better integration into the rural economy, in the sense of producing more "appropriate" products than those coming from larger centers.

#### Characteristics of Rural Non-Farm Enterprises

RNAE are quantitatively significant in most developing countries. They provide employment for about a third of the rural labor force when rural towns are included as part of the rural economy (World Bank, 1978:7) and thus for 20-25 percent of the labor force in those countries where 60-70 percent or so of the labor force is found

in rural areas. At earlier stages of development, the majority of non-farm employment occurs in rural areas; in African countries rural areas and towns appear to provide about two-thirds of all non-farm employment, in Asia half to two-thirds, and in Latin America one third (World Bank, 1978:19). RNAE provides a secondary source of income for many others whose primary activity is agriculture, especially for the smaller farmers. Typically the share of the rural labor force engaged in RNAE rises over time as the locus of the economy shifts away from agriculture and as specialization becomes increasingly efficient within the rural economy. Manufacturing, services (community and personal), and commerce are the three major sectors of employment, with construction and transportation (et al.) usually coming next. RNAE are mainly small scale. Although this depends on the country and on the extent to which towns and smaller cities are included in the category "rural," it is clear that most RNAE produce for sale in rural areas rather than in urban areas or abroad.

It would be risky to speculate on the economic efficiency of RNAE in any general sense. Because it is mainly small scale and labor-intensive, it is typically characterized by low labor productivity. Management techniques are often traditional, and markets are not always competitive. But judging the economic efficiency of this sector or its component subsectors depends very much on assessing the opportunity costs of the resources utilized, a very difficult task in the context of imperfect labor markets and even less perfect capital markets; it will not be easy in the foreseeable future. Perhaps the

safest conclusion is that, barring some good reason to the contrary, the existence of a rural nonagricultural enterprise suggests some sort of efficiency.<sup>1</sup>

#### The Importance of Research on RNAE

Until fairly recently, RNAE has been a neglected sector-- neglected both by policy makers and by development economists. It has not figured explicitly in the major sectorized models of economic development and many economists and others have been unaware of the quantitative importance of its contribution to total employment and output. Among those familiar with its quantitative dimensions there has often been a presumption that the sector is of a transitional character; because it is mainly complementary with agriculture, its role will decline eventually as the agricultural population falls. It has been considered a sector whose contribution is to provide employment until the more productive urban economy is able to absorb the bulk of the labor force.

As our understanding of developing economics and their evolution has improved, the early faith in a rapid shifting of resources to modern manufacturing and associated urban activities has waned. Labor intensity has become a plus for any activity, and the opportunity to

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<sup>1</sup>The preliminary results of the careful analysis of rural manufacturing establishments in seven developing countries by the Michigan State University group suggests high output/capital ratios and social profit rates relative to large scale urban industry. (Presentation of preliminary results by Carl Liedholm, Toronto, November 1983.)

employ people productively without undergoing the costs of urbanization has seemed more and more attractive. But, now that the possible advantages of RNAE are clear, we find ourselves with so little information about the sector that we can neither predict its potentiality nor draw on a significant body of evidence on how public policy may promote it. Much of the available research results comes from work undertaken within the last decades or a little more<sup>2</sup> and the effort has simply been too small to resolve the important issues.

Support of RNAE may be one of the best policies some developing country governments could pursue, if it leads to a substantially expanded labor-intensive sector located in rural areas and towns whose output substitutes for more capital-intensively produced output from the urban sector. Its expansion could be the key element of a development path significantly different from that along which LDC's have moved so far, a more rurally-oriented and equitable path. If the pattern of very fast growth in large cities due to policy biases in their favor is indeed a very inefficient policy, as some have argued (see Lipton, 1977), support for RNAE may be the key ingredient in forging a better way. On the other hand, the payoffs to such support could be limited if the success of RNAE depends very little on public policy anyway, and/or its scope depends very much on the development of agriculture so that it is best viewed as a sort of spinoff of what

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<sup>2</sup>A valuable recent study is Chuta and Sethuraman (1983). Very useful work has been done by Arthur Gibb, Jr. See, for example, Gibb (n.d.).

happens in agriculture. In the latter case, the potential output and employment in RNAE at a point of time could have a sort of upper ceiling; policy support designed to expand the sector might be largely wasted.

Research on RNAE can be of assistance to policy makers and international agencies in two main ways:

- 1) by clarifying the potential for growth of various types of RNAE in various settings;
- 2) by suggesting and evaluating the policy instruments available to improve the performance of RNAE.

Public sector support for RNAE may be difficult to achieve given the physical dispersion, small scale, and heterogeneity of such enterprises. This is less true, say, of small and medium scale manufacturing in small cities than of the self-employed person engaged in moving goods from point to point. Certainly the evidence to date is that most RNAE fends for itself. It may be that the major public policy determinants of its evolution do not relate directly to the sector at all but rather involve agricultural, industrial, and urban policy. A government that supports a small-farm strategy and small and medium industry (wherever located), provides only modest protection for capital-intensive (usually large scale) industries, and that does not concentrate public expenditures too heavily on urban areas may be assuring a flourishing RNAE sector. A government following the opposite strategy may be hindering it. If such considerations are the really important ones, then the economic merits of RNAE must mainly be analyzed jointly with those of the economic systems with which its

extensive development is consistent, rather than in isolation from other parts of the economy.

Since these matters cannot and should not be prejudged, it seems to me that research would be useful if it either:

- 1) contributes to a better understanding of the interface of RNAE with the rest of the economy, permitting predictions as to how the evolution of the rest of the economy would affect RNAE and vice versa;
- 2) contributes to our understanding of the micro-economics of RNAE;
- 3) contributes to our understanding of how governments may best provide direct support to the various types of RNAE.

In connection with 1), it is evident that much could be learned from cross-country studies and in-depth longitudinal studies in specific countries; these can point toward the features of an economy that seem to generate much or little RNAE activity. The need for more micro level knowledge is evident. Currently it appears that most manufacturing, commercial, and service activities within RNAE are both small scale and self-started. Even if true, this does not mean that direct support is a waste of time, since it has been little tried. It may be that such support could convert very small and marginal activities into medium sized, more efficient ones. On the other hand, support (e.g. credit) may induce the enterprises to become undesirably capital-intensive. It may be that public policy on rural roads, rural electrification, communications systems, investment in agriculture, and the like are the key policies to be borne in mind. Careful surveys of country experience can tell a lot here, but on other

aspects of these matters new primary research will be required. International agencies like AID and the World Bank have accumulated experience relevant to what promotes RNAE, although this knowledge is often not integrated or organized. Organizing what is available at the practical operational level could make valuable insights more generally available.

It is clear that encouragement of rural nonagricultural activities is not the single answer to development problems; its contribution must be placed in perspective and it is especially important to understand in which settings that contribution is likely to be large and in which settings it will be small. It is equally important, in the case of a sector that normally receives little or no government encouragement, to recognize that accumulated experience on how it may be helped by the government is naturally more limited than in the case of other, traditionally more favored sectors. Research is needed to give us an adequate understanding of the dynamics of these activities and of their interface with public policy. At present our understanding is particularly defective with respect to nonagricultural activities carried out in rural or small town settings and with respect to small scale activities in general (rural or urban); most rural or small town enterprise is on a small scale.

Thus, the importance of achieving a better understanding of RNAE and its potential role in development results from our current lack of knowlege about the sector and from the fact that in many countries the evolution of the sector could make a great deal of difference to the success of development in general.

In the short run (5-10 years), it seems to me appropriate that policy makers assume growth of RNAE to be a good thing, as long as it is not too expensive in resource terms. The available evidence points generally in that direction. Given the presumptions that 1) RNAE tends to be relatively efficient because of its tendency to use abundant factors, especially in comparison with the modern urban sector, and 2) its efficiency could be raised in many ways, it seems appropriate to direct a considerable research effort to the issue of "how to promote RNAE," i.e., which policy instruments have the greatest potential and how are they best implemented. However, research on the micro-economics of RNAE and the relationship to the rest of the economy is also important and should be viewed as complementary with research on policy. Understanding the micro-economics of RNAE is pivotal since one cannot discount the possibility that programs or projects that are at first glance quite successful (e.g., a credit program that develops a large clientele) are in fact not paying off when judged in a broader perspective because the interest of the individual entrepreneur is not identical to that of society (as where more credit allows entrepreneurs simply to bid up the price of an input in fixed supply). In addition, broad-ranging studies of the patterns and trends of RNAE within and between countries may ultimately be the only way to tell whether certain types of policies make much difference and whether policies not directly related to RNAE are the only ones really likely to affect its development. Finally, the true payoff to RNAE can only be assessed

when its relationship with the rest of the economy is well understood. In this connection, there are several broad issues that must be seriously addressed now in the hope that in 10 years or so the policy uncertainties they create will have been greatly reduced.

### Research Directions

#### 1. The Relationship Between RNAE and the Rest of the Economy

It is on the question of how it fits into the economy as a whole that the most important gaps in our understanding of RNAE lie, since they leave open such different possible interpretations of its potential contribution to development. Widely differing viewpoints on the development process create very different expectations about the potential role of RNAE. The dominant traditional view was one of neglect. Industrialization was viewed as central to the development process, and the industry sought was to be technologically much more advanced than the very small scale indigenous manufacturing activities found in almost all developing countries at the early stages of development. Many proponents of this position tended to underestimate the employment creation problems that were to be associated with such an approach.

The last couple of decades have seen an increasing recognition of the merits of a unimodal agricultural strategy and a relatively equitable distribution of land if countries are to achieve the joint goals of output growth, employment creation, and not too unequal income distribution (see Johnston and Clark, 1982). It has frequently been surmised that such an agrarian structure would tend to foster

RNAE since a high share of agricultural income would be spent locally. It has often been noted that off-farm income is a very important component of total income of farm households in the middle and later stages of development of some countries; most of the well-known examples are countries where agriculture is family farm oriented (U.S., Japan, Korea), also prompting the hypothesis that such an agrarian structure promotes RNAE and that RNAE contributes to a smooth transition from agricultural to nonagricultural activities for many farming communities. If this hypothesis is valid, the quantitative extent of RNAE may be determined much more by agrarian structure than by public policies affecting RNAE directly or indirectly.

Although the extent to which RNAE reflects agrarian structure may and should constitute one consideration of governments as they frame agricultural and land policy, agrarian structure tends to be changed dramatically only under revolutionary circumstances, so the main policy question in many developing countries will be what other factors affect the extent and character of RNAE. This necessitates the clearest possible understanding of how it relates to the agricultural sector and the urban sector.

It is necessary to analyze RNAE simultaneously with agriculture and with urban (or large city) activities, both because the linkages among the three sectors are important and because the role of RNAE depends upon its productivity relative to the other two sectors. In technical terms, an efficient allocation of labor among these sectors involves equal marginal productivity of labor in each, assuming

capital (including public expenditures) is also distributed appropriately among the sectors. Concluding that RNAE should receive strong public support is tantamount to saying that additional resources, including labor, can be better used there than in agriculture or in the urban sector. Such a belief could be based either on evidence that, even in the present context, additional resources would pay off better there than in the other two sectors or on the quite plausible belief that RNAE has in the past received less attention and support from the public sector than either of the other sectors, and hence that it would be expected that a more supportive public effort would raise the relative productivity of resources used in this sector.

In many third world countries, there is a strong feeling that the agricultural sector is over-populated and that the marginal product of labor is low or even zero. Some observers argue that many farms are too small to be efficient and that, to advance, agriculture must be modernized and capitalized, in approximate replication of the process which has occurred in Western industrial nations and in the Soviet Union as well. This view appears inconsistent with the well-known fact that land productivity tends generally to be higher on small than on large farms in the third world. To the extent that agriculture is viewed as the major alternative to RNAE as a provider of productive employment, care must be taken that its potential not be underestimated. In many countries, public policy can have a great effect on that potential through: 1) land distribution policy--

maintaining or moving toward efficient small farm agriculture; 2) agricultural research to provide better varieties and better farming systems; and 3) improved financial, transportation, and marketing services. In some countries land policy will be ruled out for political reasons, and in a few it might be argued that much of what can be done under 2) and 3) has already been done. In many countries and regions, farms are already so small that it is hard to imagine creation of a large amount of additional productive employment on them.

The productive employment potential of what we here refer to as the "urban sector" is hard to assess. As noted above, an early view in development thinking was that the key to a successful growth strategy was the forging of a modern (urban) industrial sector. Whether this was a wise move for third world countries as a whole is not yet clear. Certainly the process was not always efficiently carried out, but few strategies are. The strategy has brought with it an urban bias in most developing countries, with unfortunate consequences for the productive evolution of agriculture. Recently, one of the more widely voiced criticisms of the rapid industrialization/rapid urbanization approach is that it causes an excessive rural-to-urban population shift, aggravates urban unemployment, and implies a high public cost in the form of housing and other expenditures on the urban population. While inappropriate incentives and other factors have no doubt contributed to an unusually high capital-labor ratio in many urban activities and to a damping of the growth of productive

employment, this does not by itself imply that urbanization has been excessive nor that the varied tools of economic policy should now be used to slow down that process. Only on the basis of more refined analysis than is presently available would the conclusion be warranted that the "large scale urban economy" is relatively inefficient and that had more resources been directed elsewhere many economies would have evolved more favorably. Nevertheless, though in any given country care is warranted before one downplays the potential for productive employment in either the agricultural or the urban sector, it is reasonable to take a careful look at RNAE in the expectation that it may have much untapped potential.<sup>3</sup> Hopefully our understanding of the other two sectors will proceed in tandem with that of RNAE, so that the relative emphasis they deserve will gradually become clearer.

Countries and regions probably differ widely with respect to the potential for dynamism in RNAE. Countries which are well along the development path but have small RNAE sectors are unlikely to ever have much growth in the sector. With agricultural population declining and in many cases with the better off landowners living in cities, government support for RNAE is unlikely to be forthcoming. And, indeed, it may not be very important to the future of such countries. The size of the RNAE sector is likely also to reflect the

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<sup>3</sup>This case is strongly supported in the thorough review of the spotty evidence available in Chuta and Liedholm, (1979).

income levels in agriculture and in RNAE relative to those in the urban sector. Many services are income elastic in demand so their demand in rural areas depends on the incomes of the people resident there. The attractiveness of rural relative to urban living, and the preparation (relative to their urban counterparts) in terms of education and experience of the rural dwellers for entrepreneurial activities will also play a role.

A major factor in assessing the potential of RNAE, should such activities appear more promising than the agricultural or urban sectors, is the extent to which they are complementary with or substitutes for those other sectors. Even if RNAE were, at the margin, much more efficient than the other sectors at present, if it were highly complementary to both, then a modest increase in its relative size would dissipate that advantage. Only if a good deal of substitutability exists could a large relative expansion be beneficial. A key difference is immediately apparent between RNAE relationships with agricultural and with urban activities. With respect to the latter, it seems clear that a certain amount of substitutability exists; manufacturing of many types can occur in rural or in (large) urban areas, and various types of services can be produced either in a really urban area or in a fairly rural one. With respect to agriculture, this is not the case; nonagricultural activities could only be expected to substitute for agricultural ones on a large scale if a country could export industrial goods or services in exchange for imported agricultural items; this route has

in the past been difficult for many third world countries, though perhaps less so in the last couple of decades. At a more detailed level, in gauging the extent of a possible expansion of productive employment in RNAE, it is useful to think in terms of some rough categories, and to distinguish those substitution and complementarity relationships that come mainly on the demand side and those that come mainly from the factor supply side. The table below illustrates where some RNAE activities might fall, though it oversimplifies; the degree of complementarity or substitutability is as important as the fact itself. Whether commercial activities found in rural areas should be viewed as complementary or substitutes vis-a-vis the urban economy as a whole depends on: 1) the extent to which they would be located in urban areas, were they not found in rural areas; and 2) the extent to which they contribute to the health of other rural and urban activities. If they simply could not be effective if located in urban areas, their complementarity is assured with both of the other sectors. The logic is the same for other RNAE activities listed in the table.

Various types of research can aid our understanding of the place of RNAE in the process of development. Among these, the following seem to me to be of high priority:

- a) Benchmark Studies of the Determinants of the Importance of RNAE

We know that RNAE is important in most less developed countries, in spite of receiving little or no policy support. We know little about whether it competes much with urban activities or whether

Illustrative Classification of Some RNAE Activities  
by Complementarity/Substitution Relationships  
with the Agricultural and Urban Sectors

With Urban Sector

	<u>Complementary</u>	<u>Substitute</u>	<u>Neither</u>
Complementary	Commerce connecting agriculture to urban sectors, which cannot be urban located	Manufacturing for sales in urban areas*  Personal services consumed by rural population	Government services absorbed by rural population (e.g. education, health)
<hr/>			
Substitute	Production of artisan exports that lower need for agriculture exports and help finance urban growth		
<hr/>			
Neither		Manufacturing for sale in urban areas*	
<hr/>			

\*Where this category fits depends, as is true in some other cases as well, on the precise nature of the activity. If it is favored by low cost off-season agricultural workers, it could be complementary with agriculture; otherwise it could be neutral.

either general or specific policy steps could affect it much. Hence, general studies of the determinants of its importance are needed.

Both longitudinal studies in individual countries and cross-country studies could throw light on this issue. The role of density of rural population, income distribution in agriculture, extent of rural education, presence of rural credit sources, rate of growth of

agricultural income, and the like would have to be probed. Such an effort would be complementary to another sort of research that will almost certainly come into prominence in the next decade--analysis of the pattern of development of certain sectors of the economy (especially manufacturing) by size of establishment, with focus on the smaller establishments that have thus far received little attention. Since RNAE includes a heterogeneous bag of activities, it would be desirable to analyze the determinants of employment and/or output by type of activity. Some may be much more sensitive to public policy than others.

Thus far there has been no attempt to organize the available evidence on the importance of RNAE over time and across countries and to use it to analyze the factors explaining differences in its importance. Learning what the available data will tell us about the correlates of RNAE is probably the highest priority piece of research since its results would inform much subsequent work and since it is a type of work that is neither very time-consuming nor very expensive, especially given the availability of recent Michigan State efforts at improved measurement. For some developing countries data is available covering several decades, so over-time analyses in those countries would be an important complement of cross-country work.

b) Analyses of the Degree of Complementarity and/or Substitutability of RNAE with the Agricultural and Urban Sectors

Understanding how RNAE relates to the other two major sectors should be enhanced by the benchmark, descriptive sort of study

just mentioned. Hypotheses as to how RNAE activities compete with or complement the other two sectors should emerge from a general analysis of the determinants of RNAE. Demonstrating such relationships, however, requires some modelling and econometric analysis, involving more precise data and specification of the hypotheses. Moreover, it is important not only to demonstrate the existence of complementarity and substitution relationships but also to acquire a detailed understanding of their nature and their strength. In particular, if rural manufacturing and commerce substitute for urban small scale commerce and manufacturing, the advantages of the rural activities are likely to be much less than if they substitute for larger scale urban commerce and manufacturing. Again, these relationships will likely vary considerably across RNAE activities, across countries, and by the structure of the agricultural and urban settings.

One of the important hypotheses deserving of detailed analysis is that successful small farm agriculture and RNAE need each other, and that either may be seriously hampered in the absence of the other. When farms are very small they tend to achieve very high land productivity but low income levels. The production advantages of such farms become consistent with reasonable income levels if off-farm work is available. Later, as small farm agriculture raises its productivity, the typical farm again has excess labor resources that, in cases like the U.S. and Japan, move into RNAE. This process of family labor division between the sectors needs much more study. For example, questions such as the following need to be asked: What sort of RNAE

contributes to family labor division? Is it feasible when the transportation system is not well developed?

An important general issue in this research area involves how the composition of RNAE changes as development proceeds and how its relationship with the other two sectors changes. It may be that in the earlier stages of development most of RNAE is highly complementary with agriculture, with most local manufacturing and services directed to the agricultural sector and with these activities locating in small centers because of the transportation costs between those centers and larger ones. This complementarity may exist because labor and capital diversifies from agriculture into RNAE and because at existing capital labor ratios simple technologies incorporating no significant economies of scale are efficient. Later in the process of development, although agricultural income is higher in total, more of it goes to purchase more sophisticated goods and services, transportation is easier and cheaper, facilitating purchases in larger urban centers, and efficient technologies become more capital-intensive and perhaps characterized by higher minimum efficient output levels. These trends would be expected to increase the competitiveness of urban production relative to RNAE. RNAE may retain the advantage of lower factor costs, proximity to market, preference of entrepreneurs not to move to large cities, etc. But it would seem that for RNAE to continue to flourish over a long period, the rural area would have to have an "export" industry (an industry that "exports" to the rest of the economy, or abroad) other than agriculture. It would need a new

basic industry to go along with agriculture around which commercial and service activities would cluster. The only real candidate would seem to be manufacturing. So at some point the attraction of fairly sophisticated manufacturing to rural areas could become central to the vision of development that sees RNAE playing a prominent role over the whole of the development process. The way rural manufacturing has evolved in some of the countries where RNAE is quite important would be of special interest here. Has it increasingly diversified out of local markets and into large city markets? Has it done so via the establishment of branch plants of firms managed out of the larger cities or with local entrepreneurship? Are there thresholds in terms of local population density and/or income that deter the cumulative shifting of activities to urban settings?

Within the broad research objective under discussion, a variety of methodologies will prove helpful. Modelling exercises, micro studies of the dynamics of various types of RNAE, and analyses of exactly what various types of RNAE do, to whom they sell, and with whom they compete are among these.

c) Analyses of the Relationship between RNAE and Population Growth

World poverty is already very concentrated in extremely overpopulated countries. Others are becoming seriously overpopulated. So the determinants of the rate of population growth will be an increasingly critical research area as time passes. If there is one conclusion that might lead one to feel the growth of RNAE is counter-productive, it would be that such growth fosters population growth by

slowing rural-urban migration in a situation where population growth is faster in rural than in urban settings. It is thus very important to understand how RNAE is related to population growth. Do families engaged in RNAE have less children than agricultural families? Do they help to disseminate urban family size patterns to rural areas? Do the infra-structural expenditures that encourage RNAE (roads, education, health, etc.) also encourage smaller family size? Demographers have spent considerable effort trying to understand rural-urban fertility differentials.<sup>4</sup> Now an additional sectoral cut becomes important.

## 2) The Micro-economics of RNAE

An important source for understanding the growth potential of RNAE is firm level studies; they contribute both to a better picture of the interface of RNAE with the other major sectors and to information about which policies can help RNAE fulfill its potential. The few existing micro-level studies of RNAE have delineated some apparently general characteristics--small size, labor intensity, and so on. More of these baseline studies are needed since the existing stock of knowledge covers too few countries and activities.

Sample survey studies, by their nature, tend to cover a considerable range of establishment characteristics. But future studies will hopefully be focused more, from this micro-economic perspective,

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<sup>4</sup>For a recent review of evidence focusing on the role of educator, see Cochrane (1979).

on the impact of various public policies, general and specific. They need to cover the establishment's history, since the process of creation is so important. Particularly lacking at present are studies of the demise of firms. Micro studies should focus especially on the effects of education, various types of infrastructure, the relevance of return migration from larger urban centers, wage levels, access to credit and technical information, among other things. Such research needs to be complemented by nonmicro studies of the same policies, as is suggested in the next section. However, there is no substitute for understanding the statics and dynamics of the firm.

Among the major features of RNAE that are likely to be important determinants of their economic potential are the investment behavior of the entrepreneurs, the capacity for technological and managerial improvement, the social opportunity cost of the resources utilized, the market setting, and the nature of the decision about where to locate. It is well known that most RNAE use mainly their own funds--i.e., the entrepreneur has invested his/her own funds. Understanding the determinants of the decision to invest, and behind that the savings process, is thus central to understanding the evolution of many types of RNAE. It may also be central to the broader question of the degree of income inequality in a country if, as many students now surmise, the distribution of productive assets is the key to the distribution of income in many low income countries. Longitudinal studies (career histories) are probably the main ingredient for a comprehension of the key elements in this investment process in RNAE.<sup>5</sup> The impact of credit availability can be studied both by cross section surveys and career profiles.

The present and potential efficiency of RNAE is obviously central to any hopes for the dynamism of the sector. Many of the resources used are likely to have low social opportunity cost, as when the worker could not otherwise find productive employment or the capital could not be productively invested due to capital market imperfections. Understanding of the "rural" labor and capital markets is thus important in interpreting RNAE; in some cases, lack of knowledge about them may become of such importance as to call for special research attention. More evidently, it is important to know how and why much RNAE can raise its factor productivity over time. The conventional thinking of a couple of decades ago often assumed that such activities would be characterized by traditional, unchanging technology. It is now clear that this polar view is not accurate with respect to small scale urban activities,<sup>6</sup> and although there is not much evidence for some types of RNAE, it is unlikely to approximate the facts there either. But how much innovation and adaptation occurs in RNAE remains very much to be seen. In the short run, achievement of increasing factor productivity is not a necessary condition for RNAE to be efficient and to contribute to equitable development. But in the longer run it will be, so the sooner we have some evidence on this issue the better. Much of the productivity improvement that

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<sup>5</sup>See, for example, the life history evidence presented by Sara Berry (forthcoming).

<sup>6</sup>For evidence on the considerable increase in labor productivity over time in small scale manufacturing in Colombia, see Cortes, Berry, and Ishaq (1983).

occurs is probably self-generated, but there is probably also a role for public agencies to fill here too.

The market setting and the locational decisions of RNAE are particularly important to the question of whether such activities can and should remain important in the later stages of development. If market opportunities diminish as the agricultural population declines and transportation improves, RNAE is unlikely to remain prosperous. There are many precedents for its demise in now developed countries. But the process may vary according to the setting, the characteristics of RNAE firms, and the policies adopted by government.

The entrepreneur in RNAE plays an obviously pivotal role, and is therefore a legitimate object of study. It is useful to know what makes an entrepreneur. In some societies certain activities are the purview of ethnic minorities. For some activities, certain types of education may be important. Kinship may also be a factor that encourages entrepreneurship.

Broadly speaking, micro analysis of the RNAE firm should attempt to understand that firm in a unified way. Hence it is desirable to analyze many facets of the firm simultaneously to avoid the risk of getting a partial and potentially misleading picture. It is also important to study the relationships among firms. In some cases there are important credit flows between small manufacturers and their suppliers or clients. In others, technical information may pass among producing firms. Small producers may be tied together in a putting out system. They may depend on each other because only their

combined output makes it worth while for a buyer to deal with them. In short, it is important not to presume that the individual firm can be understood in isolation from like producers, or that it is unnecessary to study the commercial and other firms that interact with a given producer in order to understand the producer's own situation.

### 3. Policy Instruments and RNAE

It will be some time before research into the potential role of RNAE under various overall economic strategies has clarified how that potential varies across strategies. And it will take time to judge whether the sector or its components should mainly be aided through programs designed specifically for that purpose or jointly with agricultural programs, rural infrastructural programs, small scale industry programs, and the like. Much attention needs to be paid to alternative bureaucratic/administrative approaches. As noted above, it is not clear whether support for RNAE is typically best provided as part of the more general effort to raise productivity and incomes in agriculture and in rural areas. The relative merits of the integrated rural development approach, with its emphasis on the concentration of authority with respect to all government services provided in a given region as compared with the traditional division of authority by function, require more study.<sup>7</sup> Finally, in the present context much

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<sup>7</sup>The integrated rural development approach and other initiatives focusing on relatively small communities have been somewhat disappointing, it seems, in terms of the permanent employment generated. Presently the focus is more on regional or national approaches. See Rondinelli and Ruddle (1978).

thought must be dedicated to the design of reasonably effective support for RNAE in the face of considerable bureaucratic indifference or even hostility. In most countries RNAE is not viewed as important or worthy of much government attention or support.

Meanwhile, it seems reasonable to assume that in nearly all third world countries, the sector is at present too small and too little supported, so that any low cost ways to expand it and/or improve its efficiency warrant serious attention. Among the policy instruments whose potential needs to be reviewed and assessed are rural infrastructure, rural education including but not limited to vocational training programs, credit, technical assistance, rural industrial estates, and marketing services. Research into the micro economics of RNAE should throw light on the role and relevance of some aspects of public policy, but it is necessary also to study the policy instruments more directly, in case the impression given by the enterprise as to the effects of policy is somehow off the mark, and in order to assess how the policy should be carried out. High priority should be assigned to the following, in my judgment.

a) The Effects of Education on RNAE

There is rapid ongoing improvement in the levels of educational achievement in nearly all developing countries, rural areas and urban. A decade or so hence, the educational level of most occupations will be discretely higher than in the past. What does this imply for RNAE? An obvious hypothesis is that entrepreneurial capacity will be more widespread and population growth rates somewhat

curtailed. But this might depend on the type of education. Does it imply a greater rural-to-urban migration flow? Many governments are now rethinking the fast growth rate of expenditures on education and wishing they knew more about how it affects growth. One of the key questions involves the effect of rural education on family size. If there is a significant effect, then not only may education contribute to successful growth of RNAE, but the likelihood that RNAE makes a positive contribution to overall development would be enhanced.

b) Infrastructural Expenditures and RNAE

Since infrastructure is the natural province of governments, knowing how they could do a better job in this area is of high priority. It is obvious that in most cases they could, since smaller centers typically receive little attention. Some expenditures, e.g., those on rural roads, market facilities, or electrification are mainly relevant as determinants of the productive efficiency of RNAE. Others, such as the quality of town streets, housing, water supply, and education may affect the attractiveness of these centers as a place to live and in that way the potential expansion of RNAE. Country experiences vary widely enough to permit research to give some feel for how much these various forms of infrastructure matter.

Construction of public infrastructure has with some frequency been used as an employment creation strategy, and on occasion there is merit to it, especially when a serious attempt is made to take advantage of labor whose opportunity cost is low (see Lewis, 1977). In general, however, the nonpermanent nature of this

employment and its limited extent mean that it seldom makes up a quantitatively significant share of employment in RNAE.

c) Formal Sector Credit

The analysis of how formal sector credit affects RNAE is likely to be particularly complicated. Very few attempts to get an overall picture have been made. The subtlety of the issue results from several features of RNAE, or at least most of RNAE. First, RNAE generally gets by, and sometimes quite handily, with little or no official sector credit; does this mean it really doesn't need any? It may even be possible that such credit would simply discourage savings, or encourage inadequate care in enterprise selection. But it may also be that with better credit access many more RNAE would flourish. Shortage of working capital often appears to be a genuine barrier. In small scale manufacturing, and perhaps in RNAE as well, credit is used more for purposes of expansion than in the founding of enterprises. With respect to some RNAE, one must ask whether firm expansion is likely to lead to a move to a larger urban area, and if so whether this should be encouraged or not. Will another enterprise come along to fill in the gap? It is evident that some types of RNAE are much more capital intensive than others; in some there are seasonal needs for working capital, in others not. Therefore, the analysis of credit needs must be done industry by industry.

d) Decentralization of Medium and Larger Scale Manufacturing Activities

At present manufacturing for nonlocal markets is of little significance in RNAE employment in most developing countries. But it is of some significance in many developed countries, at least in the sense that it has become a major source of farm household income. Under what conditions, if any, should such decentralization be fostered by public policy in developing countries? As rural transportation and communications systems improve and as the rural labor force becomes more skilled in dealing with machinery, the potential for such decentralization rises. This will become a policy issue as countries reach the middle levels of development and up; at present there is little information on which they could base a wise decision.

e) Wage Policy

The labor intensity of RNAE makes rural wage levels and wage policy of possible relevance to its evolution. A high urban wage structure may foster RNAE by giving it the advantage over competing urban activities. Attempts to apply minimum wage legislation in smaller urban settings (part of "rural" for our purposes) may discourage RNAE, or they may not matter much because there is little paid employment in most types of RNAE and the paid workers there are often related by kinship to the employer. If wage policy does impinge on the smaller urban centers, is it important to have different levels of minimum wages, for example, to reflect differences in the cost of living, etc? At present I suspect wage policy in most developing countries has little impact on RNAE, but this may not necessarily remain the case.

#### f) Trade Policy

RNAE is in most countries a sector using domestic resources to produce for the domestic local market. This results in part from its labor-intensive and locally-oriented nature, and sometimes in part from the obstacles RNAE faces in getting access to the sorts of imports it needs and the lack of intermediaries that can move its products to international markets. RNAE is unlikely to be able to deal directly with foreign suppliers of inputs and must rely on intermediaries here too. Its chances of getting imports are particularly slight if a shortage of foreign exchange has led to a system of foreign exchange controls and rationing. Imports of secondhand machinery, particularly valuable to the sort of small scale establishment characteristic of RNAE, is discouraged in most countries. However, a trade policy bias against small scale establishments in general could turn out in fact to favor RNAE, since the effects are felt most strongly by urban small scale activities, which may be in a mainly competitive relationship with RNAE.

#### 4. Public Policy Making for RNAE

Just as the economics of RNAE has received little attention, so have the political and bureaucratic aspects of policy-making and implementation. Several characteristics of the sector help to explain why it receives little public support. First, the enterprises are almost all small in scale and hence are not tied into the decision making process in the way such groups as large industry and commerce

usually are. Further, RNAE is not associated with a specific important good or service. In countries where power is concentrated but agriculture is in the hands of small farmers, agriculture still tends to get policy attention because food and other agricultural products are obviously important to the functioning of the economy. RNAE's combination of characteristics help to explain the limited attention and support RNAE has received in the past, and augers badly for the support it will receive in the future. It is possible that a better understanding of who may support RNAE in the political process and what sort of administrative structure is most likely to be beneficial to it can enhance the success of its supporters, both national and international.

Digression: On the Appropriate Definition of "Rural" in the Context of Research on RNAE

The above discussion has left vague the question of where the line is drawn between "rural" and "urban"; the sectorization is of interest, of course, because of the belief that some nonagricultural activities can be better (or only) located in relatively rural settings than in more urban ones. It is clear that many of the activities that proponents of this view have in mind, like manufacturing activities for the local and mainly rural market, are not mainly located in the countryside but in small towns, or even fair sized ones. The concept of a rural region, which includes towns but where those towns are oriented toward the rural area and have essentially grown up to service it, captures this idea. Where does

one draw the line between a rural-oriented town and one that is not?  
Is this the most interesting line to draw?

The answer to these questions is, in my view, part of what needs to be researched. And it should be understood from the start that we are not necessarily concerned with a rural-urban dichotomy, convenient as the two-way cut may be. If the characteristics that make the rural-urban spectrum of interest tend to vary gradually along that spectrum, then we need to think in terms of a spectrum rather than a dicotomy. One of the propositions to be researched is that a similar item will be produced in a more labor-intensive and socially efficient way in a rural setting than in an urban one. If it turns out, on investigation, that labor intensity is high when production occurs in towns up to a certain size but discretely more capital-intensive when it occurs in larger centers, the appropriate dividing line for that issue has been located. If the labor intensity is a smooth function of size of urban setting, it only makes sense to talk of more and less rural settings. It may also be true, of course, that the appropriate dividing line by size of center varies by the issue; family size may differ discretely between villages and towns whereas labor intensity of production may differ discretely between towns and cities. In short, it will be pure coincidence if a single dichotomy turns out to be very useful in the discussion of the many issues involved in an assessment of the merits of RNAE. But this in no way invalidates the value of the research under discussion here, it only complicates it somewhat.

In any case, it must be emphasized that the term "rural," both in the above discussion and in some of the literature is used to include small towns and cities that are "rurally-oriented," "service the rural area," or something like that. Since many of the more interesting types of RNAE are located in towns or small cities rather than the countryside, the whole discussion of RNAE takes on interest mainly as one applies this broad definition of "rural."

#### Notes on Research Organization and Methodology

The research effort suggested above breaks down into four somewhat different types of work. A first step would be cross section and longitudinal studies of the determinants of RNAE. Population and economic census data available for many third world countries would provide relevant information, though in some cases it would have to be reprocessed by a rural/town/city breakdown. No studies I am aware of have to date spent much time or effort organizing such data in order to study the correlates of RNAE employment in a reasonably precise way. I suspect that a few person-years of work would be sufficient to produce a benchmark study of those correlates. Such a study would probably generate some useful policy implications, but it would also be important in: 1) providing the raw material for modelling exercises relating RNAE to other features of an economy's evolution; 2) suggesting a number of hypotheses best tested by micro studies or by analyses of policy instruments. Although some individuals have already made contributions to the data base for the analysis of RNAE in specific countries or more generally, and more such studies will be

pursued in the future, an organized effort is very important in order to obtain as comparable information as possible for different countries and not to miss obvious data sources. It seems likely that a good deal of valuable information would only be obtained with the collaboration of national statistical offices since, though the data exist, they are often not broken down in the appropriate fashion. USAID offices could possibly be helpful in facilitating collection. Since these data would be utilized for analyses of the way RNAE interact with the other two sectors, care must be taken to collect information, and quite a bit of it, on those sectors also.

Analysis of the correlates of RNAE, by multiple regression or whatever statistical procedure proves most appropriate, should permit construction of useful models allowing simulation of the effects of various policy or exogenous variables. Though the modelling exercises would be built on the data base, discussed in the previous paragraph, it might be borne in mind that the skills required in these two types of work are rather different; model builders are often not good at collecting and organizing data while data specialists are often not adept at model building.

Micro-economic studies of RNAE are multi-purpose; they provide the overall picture of these enterprises which allows the policy maker to guess intelligently how they will respond to policy initiatives. The work by Liedholm and associates at Michigan State has provided important results and hypotheses. It now needs to be followed up in a number of different settings, and with a focus on certain aspects of

RNAE which appear, on the basis of previous studies or policy considerations, to be particular lacunae at present. Micro studies take several years to do, from inception through surveying to completion; few results can be expected in less than 4 or 5 years. And, given the great measurement difficulties when one is dealing with firms that keep few if any records, use family labor, and so on, the analysts must be extremely careful to get their facts right. The Michigan State work has been unusually good in this respect, and has provided a number of lessons for the future, in terms of how to get acceptably accurate figures.

Specific policy-oriented studies, e.g., on the effects of credit, vocational training, or whatever, require a good understanding of how RNAE functions and of its dynamics if they are to be persuasive. In some cases they should be done jointly with micro studies of RNAE. For example, to understand the effects of credit in the context of RNAE, it would be necessary to ascertain its effects on the entrepreneur's own savings, which requires a detailed look at how the enterprise works.

Hopefully more information on the relationship between population growth and RNAE would be forthcoming if the "bug" were put in the ear of some of the people working on demographic issues of development. It is an area for specialists, but such specialists have probably not focused on the area since it has not seemed to be a particularly important one.

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Issues Raised During the October Workshop on the Presentation by  
R. A. Berry

Albert Berry's presentation on employment and enterprise development in rural regions was well received and generated little that was critical of the analysis. Instead, the discussion focused on which of the research topics within this broad issue deserved highest priority.

Several participants emphasized the need for policy-related research. Two questions were thought to be deserving of primary attention. The first question was that of whether or not policy was important. These participants agreed with Berry that there remains considerable uncertainty about the reasons for success in countries like Taiwan and South Korea that have produced sizeable rural non-agricultural employment. It is unknown whether that success should be attributed to good policy, to the effects of increases in agricultural productivity and rural incomes, or to both factors. This issue is key, they argued, because it asks the question of whether increasing rural nonagricultural employment can be accomplished directly through policy or only indirectly through efforts to increase the productivity and incomes of farmers.

The second question raised by the group was related: even if policy is determined to make a difference, in general, what particular policy levers matter the most? Here, those concerned about the issue made the case that recent research and field experience suggest that technical assistance to individual micro enterprises may be both impractical and inefficient. Thus, efforts to improve the general pol-

icy climate for enterprise development may be the most useful assistance that can be offered. The problem is that no one really knows which policies have an impact on small and micro enterprises. It is not enough, they maintained, to accept the current vogue in development economics that the key to stimulating growth of all kinds is to get the so-called macro-prices (interest rates, food prices, and the like) "right," since it is not known if these macro-prices mean much to small-scale entrepreneurs. It may be that licensing policy or labor laws are more important. Compounding this problem is the fact that one must go beyond officially stated policies to those actually enforced. Preliminary work shows that there is a substantial difference as far as small businesses are concerned.

Another group of participants stressed the importance of understanding the dynamics of the rural regions where employment generation is to take place. Some argued for greater understanding of regional trade patterns, some for including the work of regional planners, and others for including the recent contributions of macro-geographers.

Several other participants were more interested in research methodologies than in particular topics. Sara Berry made a case for using individual life histories as a way to understand firm level behavior (see her paper in this volume for details). Other participants suggested that it might be possible to fund actual experiments rather than relying on traditional data gathering methods. These experiments could be designed to test the impact of particular

products or productive technologies, particular management techniques, or particular technical assistance strategies.<sup>1</sup>

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<sup>1</sup>The Office of Multisectoral Development is already funding Appropriate Technology International (ATI) to run a project of this kind focusing on particular products.

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SECTION II

SOCIO-ECONOMIC ASPECTS OF NATURAL RESOURCE MANAGEMENT:  
A FRAMEWORK FOR POLICY RESEARCH

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Introduction

In many respects, the key to future economic, social, and political progress in the poorer countries of the world lies in what happens in the rural areas. This is where the vast majority of the world's poorest, least productive, undereducated, and politically marginal people live; and the high birth rates prevailing in rural areas make all economic development efforts in rural and urban areas increasingly difficult. Reflecting recognition of this fact, rural development has become a priority for multilateral and bilateral development assistance agencies. For AID, the central objectives of rural development are: (1) to stimulate the self-satisfaction of basic human needs through increased consumption, production, and trade; and (2) to accomplish this objective through processes that facilitate widespread participation and ensure reasonably equitable access to economic, social, and political opportunities.

These objectives do not always complement each other. In fact, as Jon Moris points out, it is frequently the case in development projects that the second objective is sacrificed in order to accomplish the first:

The paradox we see repeated in program after program is that in order to meet ambitious production goals, new projects exclude themselves from the very organizational frameworks they are claiming to influence. It is time to admit that almost anywhere in the tropics, provided one has a cereal grain crop, plenty of money, a few proven managers, and freedom to work outside of the local administrative system, it is possible to show dramatic production increases in the short run. But such success is not evidence that the long-run capability of the indigeno :s system has been changed, or that a large number of peasants has genuinely benefited (Moris, 1981).

The first objective can sometimes be maximized in the short term without any progress toward the second being made. But, it is increasingly apparent that a dynamic process of rural development cannot be sustained over time without a movement toward more local participation and more equitable distribution of the fruits of development.

This long range interdependence between the two sometimes conflicting goals of rural development programs defines one of the major tasks for social science analysis in rural development planning and implementation. A policy-oriented social science research agenda should aim to narrow the interstices between what is possible from an efficiency standpoint and what is sustainable from an institutional perspective. How can programs and projects that promise to enhance aggregate productivity be made more participatory and equitable? How can public participation and efforts to distribute assets and power be channeled so as not to impede potential gains in production and to ensure necessary organizational discipline and individual incentive?

This paper examines the need for social science research to shed light on these basic questions within the context of an increasingly vital aspect of rural development: the use and management of renewable natural resources. The short-run conflicts between the goal of increasing production and that of securing more participation and equity underlie virtually every natural resource-related project in the developing world. Furthermore, since the potential productive contributions of renewable natural resources--land, water, trees, fisheries, animal stocks, agricultural products--are not fixed but instead a factor of past levels of exploitation and the quality of management practices applied over time, the future adverse consequences of failing to institutionalize the participatory and equity objectives are magnified.

#### 1. Natural Resource Degradation

Many so-called rural development projects being planned and implemented in developing countries seek to harness available renewable natural resources for economic development purposes. There are two primary reasons for this. First, as development economists have long pointed out, the most productive investments in underdeveloped areas are those that open up for exploitation of abundant natural resources, including fertile soil, lush forest cover, and ample fresh water. But, even in areas where available natural resources are more meager or are already being put to extensive use--that is, where the marginal return to investment may be lower--large sums of money are being invested in natural resource-related projects in the rural sector. This

is because most poor countries still have a very high percentage of the population living in rural areas who are directly dependent upon the daily yield they can secure from the land. No reasonable development strategy can make the assumption that rapid industrialization and urbanization can provide for the economic improvement of more than a very small portion of these people. For the foreseeable future, then, overall rural development, not to mention the welfare of most rural people, is going to be heavily dependent upon improved productive utilization of basic renewable resources--forests and other vegetative cover, agricultural products, soil, and water.

Yet, in many third world countries--and particularly in the lowest income countries--mismanagement of basic renewable resources is rampant in the rural sector. Once abundant forests are being chopped down far faster than they can be replaced, creating shortages of wood for construction, cooking, and heating. Deforestation also has numerous secondary ecological consequences; for instance, it induces increased soil erosion that undermines future productive capacity of the land and causes serious downstream problems associated with siltation. Although much forest land is cleared for the purposes of increasing agricultural production, forest soils that are not cared for often lose their fertility after short periods of cultivation because they tend to be shallow and subject to hardening and the leaching of nutrients. In many arid areas, the pressures of wood gathering, traditional farming techniques, population growth, and grazing of animals are contributing to desert-like conditions that only decrease

further the productivity of marginal lands and make the rural poor even more susceptible to drought and other natural disasters.

In addition, poor natural resource management is making it more difficult or more costly for many developing countries to maintain major capital investment projects designed, ironically, to increase production from basic natural resources. In some instances, nearly as much irrigated agricultural land has been removed from production as a result of waterlogging and salinization of soils as has been served by new irrigation schemes in recent years. In dry areas, the drilling of deep, mechanically operated wells has frequently stimulated so much concentration and expansion of animal herds that serious devegetation now threatens the productivity of the range within hundreds of square miles. A wide variety of large capital projects--dams, irrigation systems, highways, harbors, and navigable river channels--are being threatened throughout the developing world by the inability of these projects to cope with exogenous problems such as siltation, flooding, and landslides induced by poor land management practices in the rural sector.

## 2. Increased Focus on Renewable Resource Management

In response to this situation, there has been a significant increase in concern for renewable resource management by developing country governments, international organizations, development assistance agencies, and international private voluntary organizations. Technical assistance in renewable resources management; research devoted to improving the resiliency and viability of crops, vegetation,

and animals in arid or otherwise marginal environments; administrative and training packages to enhance institutional capacity to protect resources from abuse and to enforce necessary prohibitions--all have become more critical components of rural development projects.

Indeed, in the 1980s, continuing advances in science and technology promise to increase significantly the potential productive contributions from natural resources through improved technical packages to: conserve resource inputs (efficient cookstoves); utilize marginal environments (improved dryland farming techniques); raise productivity per unit of land (newly developed seeds and crops); reduce adverse externalities (no-till farming); and rapidly replace stocks of essential renewable resources such as wood (fast-growing plantation trees). To deliver these improved techniques to the local level, AID and other development assistance agencies are already spending billions of dollars to implement resource management projects to train scientists and technicians, and to build up institutional capabilities for natural resource management.

Expanded concern for natural resource management in rural development is particularly manifested at the project level, where donors are sponsoring a growing number of social forestry, agro-forestry, watershed protection, rangeland improvement, and similar projects that directly target natural resource management as a primary objective. In addition, a broad array of resource management components--soil conservation, erosion control, village woodlots, shelter belts, dune stabilization, revegetation, land rehabilitation--are now almost

routinely included in major agricultural, forestry, rangeland, or overall integrated rural development projects. In short, it is likely that the pace of new breakthroughs in technology and in technical knowledge, as well as the numbers of project and amounts of money spent to deploy them throughout the developing world, will continue to increase in the coming decade.

### 3. The Institutional Lag

Despite this outpouring of concern, money, and expertise to preserve, enhance, and restore the productive potential of renewable natural resources, there is as yet little reason to believe that project-related resource management activities are making substantial progress in reversing the general state of natural resource degradation in many developing countries. In addition, there appears to be a growing sense of pessimism within development assistance agencies that few of the resource management projects are themselves succeeding. Some have already proven to be failures and many will probably be quietly abandoned as the project cycle runs its course. For example, one observer recently noted that while almost \$66 million was allocated to forestry projects in the Sahel countries between 1977 and 1979, the wood produced would contribute less than 2 percent of total wood requirements. "Unfortunately, inadequate design, low survival, and deficient aftercare and followup, singly or in combination, will prevent most projects from having much direct and lasting impact on the well-being of the poorest Sahelians" (Winterbottom, 1980).

Although technical packages still must be improved, the most serious problems being encountered by many natural resource management projects are not fundamentally technical. More often, the problem is that national and local institutional capabilities to mobilize and induce people to promote, implement, and maintain the natural resource management projects are lacking. To a very significant degree, then, technical capability to manage and improve renewable natural resource systems threatens to outstrip the ability of institutions in developing countries to organize people to apply improved techniques at the local level. To help close this gap, there is a growing need for a better understanding of the types of local organizations and incentive systems that best promote community management of natural resources in various circumstances.

This need is reflected by analysts observing a wide variety of natural resource management projects. A recent World Bank report on groundwater development stated:

There is an urgent need for research to devise appropriate legal frameworks to fit various social and political systems in advance of the period when integrated water development is essential. It is evident that in many countries the trends in groundwater development are leading to lost opportunities, and problems and inefficiencies with which the existing water institutions are unable to cope. The regulation and management problems that are emerging require new and more effective water institutions if the groundwater development momentum is to be maintained (Carruthers and Stoner, 1981).

Similarly, an AID forester has pointed out that "a considerable amount of research remains to be done on the socio-economic parameters of rural forestry in the Sahel" (Taylor, 1980).

This, in essence, is the challenge for social science research in the promotion of improved natural resource management. There are two crucial reasons why it is important to advance the current state of social science knowledge about the socio-economic aspects of natural resource management.

a) Protection of Project Investments:

Unless institutional change can keep pace with technical potential, it is likely that many of the present investments being made in an attempt to improve natural resource management and productivity will be squandered. Vernon Ruttan, among others, has pointed out the need to advance social science knowledge as well as scientific knowledge:

Unless social science research can generate new knowledge leading to viable institutional innovation and more effective institutional performance, the potential productivity growth made possible by scientific and technical innovation will be underutilized. (Ruttan, 1977).

b) Growing Concern Among National Governments:

Beyond the specific need to advance institutional capabilities to ensure the continued success of development projects focusing on improved natural resource management, there is also a broader demand for institutional knowledge. More developing country governments have expressed concern about organizing a response to natural resource degradation, and have requested assistance from international agencies in accomplishing this (AID, 1979). A better understanding of what types of organizations, incentives, legal frameworks, and institutional alternatives can work under different condi-

tions is necessary if development assistance agencies are going to be able to respond to the needs of national governments in search of an organizational strategy for improving natural resource management at the local level.

#### 4. The Central Questions for Social Science Research

The desired outcome of a social science research program stressing the socio-economic aspects of natural resource management should be a set of broad theoretical guidelines for development assistance agencies that would enable them to produce better institutional designs and increase effective project implementation. This should ultimately contribute to: (1) more efficient utilization of scientific and technological knowledge to increase production from renewable natural resource systems; and (2) more participatory and equitable rural development.

The actual outcomes are more likely to present a somewhat haphazard record of "do's," "don'ts," and warning signals based on a wide variety of research methodologies and uncontrolled circumstances viewed through the eyes of many individual researchers. Moreover, whatever clearcut generalizations emerge are likely to be limited to particular geographic regions, political-economic systems, or types of natural resource management schemes. Necessary though it is, no investment in research into the socio-economic aspects of natural resource management is going to culminate in the design of a disease resistant institutional framework or a fast-growing local organizational structure for accomplishing resource management goals.

Accepting the fact that no absolute solutions are likely to emerge for the problem of institutional design, the difficult questions are: (1) how should the unruly and unscientific research agenda be structured so that it leads to more refined operational prescriptions and a broader base of experiential knowledge for use in institutional design? and (2) at what level(s) and via what methodologies should research be conducted?

As a start, social science research should contribute to improved knowledge in at least three broad areas:

- a) The complex socio-political-economic causes that often underlie the lack of adequate natural resource management practices in developing countries.
- b) The range of factors that stimulate different responses by peoples to the specter of continuing degradation of the natural resource base upon which they depend. Why do some people flee the problems, others remain but continue as ever, and far fewer undertake collective actions to change the situation?
- c) The administrative arrangements, institutional configurations, or incentive structures most likely to promote better natural resource management under different political-economic circumstances and within different types of natural resource-oriented projects--irrigated agriculture, rainfed agriculture, commercial timber production, social forestry, rangeland management, etc.

Although development research has not generally focused on natural resource management as a separate compartment, there is currently a growing body of social science research of relevance to these questions. Careful review of the findings, lessons, and omissions that emerge from these efforts is an essential exercise.

## Review of Existing Research

### 1. Causes of Natural Resource Mismanagement

To the extent that there has been a dominant (if atheoretical) paradigm explaining the causes of much rural environmental deterioration in developing countries and guiding international efforts to ameliorate the problems, it has centered around two broad assumptions:

Traditional systems of land-based production are/were inherently consumptive of soil fertility and other natural resource stocks and can/could only be perpetuated under low population densities;

Rapid population growth in the second half of the twentieth century has fundamentally undermined the operability of pastoralism, shifting cultivation, and other traditional renewable resource-dependent systems; that is, population growth has inexorably pushed rural people to exceed the carrying capacity of the land around them under their traditional technologies.

Conveniently, these assumptions tend to push in the direction of more modernization, more technology, more elaborate and Westernized management systems--they imply that the ecological predicament facing developing countries is primarily a problem of improving techniques and lowering the birthrate.

But this perspective often ignores substantial historical evidence that many traditional systems, under a wide range of population densities, ecological terrain, and technological sophistication, prospered because of elaborate rituals and management of natural resource systems that permitted intensive exploitation without inducing degradation. In some cases, it was the introduction of modern technology that led to a breakdown of such management strategies (Horowitz, 1979;

Lawry, 1983). Conversely, the literature of social anthropology is rich with examples of the elaborate rituals and maintenance procedures adopted by some cultures over time in the face of very rapid population growth with a limited natural resource base on which to draw (Boserup, 1965; Geertz, 1963; Wilkenson, 1973).

Increasingly, social science analysts have come to view the abuse of natural resources at the local level as a result of more complex causes than the continuation (out of ignorance) of traditional techniques under conditions of rapid population growth and limited resources. Instead, environmental degradation is often seen as a fundamental manifestation of much broader socio-political-economic imbalances prevailing in rural areas in many developing countries (Leonard, 1981a). Some of the causal factors examined include: maldistribution of resources or access to resources within social systems; the decline of traditional cultural values, rituals, or patron-client relationships that previously organized people to manage the land; uncertainties such as war, civil strife, or tenuous land tenure situations that vastly alter the calculus in favor of current consumption; the sudden foreclosure of existing resource management strategies (especially in the case of extensive strategies such as pastoralism) as a result of artificial political boundaries or the exercise of political power by some groups over others (Murdoch, 1980; Sprague, 1980; Eckholm, 1975; Spooner, 1982; Leonard, in press). This view of natural resource mismanagement as deeply embedded in the socio-economic fabric of society is increasingly endorsed by scientists and development technicians who

see that infusions of technology and capital have not, by themselves, led to improvements in land management techniques or increased productive utilization of natural resources on a sustainable basis (Altieri, et al., 1983).

In essence, recent studies argue that it may be more useful to view natural resource deterioration as a result of serious socio-political-economic imbalances that alter or undermine the willingness or ability of some or all groups to expend part of their present labor and capital to maintain their productive base for the future. Such a perspective obviously raises questions of major importance for development assistance agencies intent on reducing the ecological problems that threaten economic development in rural areas in a very large number of developing countries. The fundamental point may be that often externally conceived resource management projects fail because they focus on treating the symptoms without eliminating the underlying causes.

## 2. How do People Respond to Local Natural Resources Degradation?

To date, most of the existing literature deals primarily with one aspect of this question: what inhibits people from joining together to take collective action to improve management of common property or unlimited access resources, even when all suffer from not doing so?

The most important body of literature that provides insights into this question can be broadly lumped under the heading of public choice theory. In examining the problems of natural resource management, public choice theory seeks to identify reasons why individual rational actors are compelled to take actions that ultimately reduce their welfare

at the same time that they resist collective action to change the outcome. The concepts that are central to public choice explanations of why people fail to take collective action in the face of endemic over-exploitation of natural resources (tragedy of the commons, "free rider" and externality problems, "lemon" problems, assurance problems) have been widely applied to a variety of situations in developing countries. These include overgrazing of rangelands (Runge, 1981); cutting of scarce trees for fuelwood (Thomson, 1981); poor management of irrigation systems (Freeman and Lowdermilk, 1981); and overexploitation of fisheries (Baily, 1983).

What emerge from this literature are strong arguments that collective management of natural resources will only be possible when effective means are found at the local level to: exclude noncontributors from benefits; ensure some measure of equitable distribution of benefits; decrease insecurity and vulnerability of individual contributors; improve information about the assets and capabilities of others with whom collective action might be undertaken; and build a feeling of mutual trust that all will contribute to the attainment of the collective good.

### 3. Institutions and Incentives to Promote Better Resource Management

Recent contributions to the literature tend to arrive at similar conclusions with regard to institutional considerations. Generally, they argue that attempts to stimulate better resource management practices in the rural sector will depend on the extent to which institutions, laws, collective organizations, incentives, and governmental programs:

- a) facilitate and are sensitive to local inputs and participation;

- b) ensure that benefits of investment in natural resource management practices will accrue to those who make the investments.

These conclusions tend to translate into proposals for:

- a) Localization: more devolution of decision-making power and control in project areas to local beneficiaries.
- b) Privatization: the establishment of formal rights of tenure that protect and institutionalize the vested interests that individuals and groups acquire as a result of managing natural resources in areas traditionally regarded as common property or open access--tree tenure, land title, grazing rights, water use rights, etc.
- c) Marketization: more use of the market to allocate goods and services when there is an obvious demand and where these can be separated into discrete packages, on the assumption that active market demand will lead to prices on items such as fuelwood and agricultural products that will create economic incentives for natural resource management to enhance long-term production.

Two strong tendencies make it difficult to make rural development efforts more participatory, to create better links between effort and reward, and to be more responsive to market forces. First, national governments continue to be strongly biased toward centralized, regulatory/administrative approaches. Second, external supporters of development projects, despite the best of intentions, generally place project efficiency above local participation in planning and implementation of rural development projects.

Moreover, there is an underlying awareness even among advocates of localization, privatization, and marketization that these concepts can only be selectively applied to natural resource management tasks and projects. Decentralized planning and administration may indeed in-

crease the degree to which local communities participate and share the goals of rural development projects, but it may be costly in terms of important technical resource management decisions (size of herds on grazing lands, level of timber harvest that is sustainable) and the management of multi-faceted resource development projects such as large river basin management schemes. Furthermore, sometimes there is simply no substitute for the exercise of central political power to halt tragedy of the commons situations (a good example is Nyerere's complete ban on grazing in the entire Kondoa catchment to arrest deforestation and desertization) (Tosi, et al., 1980). Similarly, privatization ensures that putative managers of natural resources will receive benefits, but creates inequities and may exacerbate problems of smallholders of agricultural and grazing lands (Lawry, 1983). For a resource such as groundwater, private removal of common property status is particularly problematic because in effect it can lead to monopolization of water by those who can afford expensive mechanized pumping equipment (Carruthers and Stoner, 1981). Finally, there are limits to the ability of markets to provide collective goods and to reinforce positively natural resource management.

## An Agenda for Future Research

### 1. Some Generalizations

From the literature of several different social science disciplines, there emerges increasing consensus around four key points relating to the socio-economic aspects of natural resource management. These can be stated briefly.

#### a) Overall Socio-Economic Circumstances Cannot Be Ignored:

It is difficult to encourage or mobilize people to manage their local natural resources for long-term sustainability in the context of a wide array of political, economic, and social circumstances that oppress them. That is, although sweeping changes to reduce corruption, distribute land more equitably, reduce urban bias, etc. may not solve all natural resource problems, they would make solutions more possible.

Obviously, this does not mean that development assistance efforts should focus only on inducing broad system-wide changes or that they should not become involved in local resource management projects until the overall policy and institutional milieu is supportive. The challenge is to find ways to work at the local level so that the "rig of the system" does not end up undermining the success of resource management projects or reducing people's willingness or ability to participate in natural resource management programs. The oft-cited example in Ethiopia, where local laborers in a rural reforestation program purposely planted seedlings upside down (Thomas, 1974), clearly illustrates what can happen when people perceive that they

will not receive due benefits from otherwise positive natural resource management projects.

b) Barriers Exist to Management of Both Private and Common Property Resources:

People are generally reluctant to join in collective efforts to manage the natural resources upon which they depend (even in the face of obvious degradation) because of the costs, risks, and uncertainties associated with collective action. The tendency in recent years has been for donors to view this as a problem that must be solved primarily through the granting of exclusive rights to individuals and corporate groups for the exploitation of geographically-bounded areas (pastures, water, forest, etc.). But, many private property-oriented projects are faring little better than those that demand collective stewardship over a particular resource base.

The problem, whether addressed through solutions stressing collective management or privatization, is to reduce individual and collective uncertainty and risk through adherence to some set of viable institutional rules, violation of which is constrained by threat of social and legal sanctions. Until the challenge to control natural resource abuse becomes one of isolating deviant actors, rather than one of changing fundamental modes of behavior, neither private nor collective resource management schemes are likely to succeed.

c) Local Participation Is Essential to the Success of Resource Management:

Efforts to build organizations for effective natural resource management as a basic element of rural development will fail

unless they are genuinely participatory at the local level, are sensitive to local conditions, reduce the problem of free riders through exclusion of noncontributors from benefits, and provide some modicum of reward for individual initiative.

This institutional challenge at the local level is too often viewed as one of building new institutions to initiate and organize programs to manage natural resources. Recent studies emphasize the potential for orienting and supporting already existing institutions, or even reviving traditional institutions, to take up the task of resource management in rural areas. Too often, donors have proliferated new task-specific institutions and organizations at the local level--for obvious political, ideological, economic or bureaucratic reasons--that have had no organic link to the local rural community and social structure.

d) National Commitment and Support Are Vital:

Despite the absolute necessity of local participation, there remains an obvious need for both central government and intermediate level decisionmaking to ensure that proper attention is paid to natural resource management at the local level--both to protect the interests of smallholders and those without access to their own land, trees, or water, and to enforce sanctions in some cases that may be quite unpopular at the local level.

Unless national governments develop the will to implement the necessary legal and economic changes to alter resource abuse at the local level and allocate the necessary administrative and economic

resources to support such efforts, the success of local resource management programs is limited, at best, to discrete geographical areas. A few model resource management projects may be nurtured by extraordinary local leadership and external inputs from development assistance organizations, but a widespread rural resource management program that makes a difference in terms of affecting overall rural welfare will not emerge.

One point that is worth stressing, too, is that successful institution-building at the local level is no substitute for effective decentralization of the national governmental bureaucracies whose support for local institutions is important. As one observer noted recently:

...unless the government bureaucracy is appropriately decentralized, efforts at creating local capacity through active, effective local organizations will founder in most LDCs. Local organizations can build a platform on which rural people can stand to reach up to the bureaucracy and make their voices heard. But, the government has to be brought lower so that it is more accessible and can listen consistently to what people are saying (Uphoff, 1980).

## 2. Building on These Generalizations

There are many lessons for donor agencies to glean from this evolving social science perspective of the problems encountered by development projects that aim to stimulate better management and increase sustained productive utilization of renewable natural resources. However, gaps remain that make it difficult to use the accumulated wisdom of social scientists to: (1) develop better agency strategies for attacking the problem of natural resource mismanagement

in the rural sector; and (2) refocus the design of natural resource management projects. Two broad areas can be identified where the advancement of social science knowledge might permit the eventual extraction of policy-relevant guidelines to enhance the potential that natural resource management projects fulfill their technical potential and are sustained after external support is ended.

a) Identifying the Stimuli to Collective Action:

In order to know how improved management of natural resources can be promoted at the local level under the artifact of induced rural development, it would be helpful to know more about the circumstances in which collective action has been undertaken to promote natural resource management on a spontaneous basis. That is, what special ingredients have induced some local communities or local groups, in spite of all the institutional and behavioral obstacles already noted, to take steps to manage the natural resources at their disposal or to redesign the institutional rules that govern natural resource use--steps that have enhanced their collective and individual welfare and helped to stave off the specter of a declining natural resources base?

There are numerous, if isolated, examples of such spontaneous activity at the local level in rural areas in many countries under a very wide variety of political, economic, and ecological circumstances--community land terracing, protests against tree cutting, village tree planting for windbreaks and firewood supplies. Although many examples of un-induced local natural resource management

efforts have been chronicled in journalistic reports or duly noted in agency country and sector studies, few have been the subject of scholarly work searching for their relevance to development projects depending upon the mobilization of people and design of institutions. Superficially, at least, the natural resource problems encountered, the barriers to collective action and establishment of better institutional rules, and the general state of non-support from the national level often appear similar to the situations that prevail in rural communities that have not taken any steps to ease the degradation of their natural resource base.

b) Balancing Conflicting Institutional Demands:

As recognition sinks in that localization, privatization, and marketization are not the all-purpose panaceas for rural development problems that some envisioned, research must focus more on identifying the desirable mix of institutional approaches to natural resource management in specific circumstances. In particular, development assistance providers, as well as national governments, need much better information on how to strike a balance between conflicting demands in natural resource management efforts for:

- 1) centralized and local control over resource projects.
- 2) public and private access to, responsibility for, and benefits from agricultural lands, pastures, irrigation water, groundwater, watershed areas, timber supplies, and other natural resource systems.
- 3) market and nonmarket processes for allocating incentives and rewards for natural resource management.

### 3. Some Preliminary Observations

There is no one set of institutional configurations and rules that will optimize management of local natural resources. What works will vary enormously between different political and economic systems and according to the uses, divisibility, and demand for various "products" produced from improved natural resource management.

It may be a fact of political life that viable resource management schemes in the Francophone countries of the Sahel have to depend more on effective strategies for decentralizing organs of the national government than on creating autonomous local organizations to protect and manage revegetation schemes. Institution of a system of private tenure rights to pasture in a large geographical area where seasonal rain patterns make certain pastures viable only during certain times of the year is a recipe for disaster. By nature, groundwater is a "fugitive" resource, available for use only to those who have the wherewithal to capture it, and therefore subject to monopolization by a limited few; irrigation water, by contrast, is a public good, whose allocation is more easily controlled by a central user organization. In groundwater development, the major challenge is to regulate the rate of private exploitation and to allocate shares of the underground supply of water on a more equitable basis than that of pumping prowess. For irrigation, the challenge is to institute collective management procedures to maintain the system and exclude free-riders. In forested watershed areas, the institutional challenge is to induce local inhabitants to reduce consumption of the vegetation

in order to provide a public good--reduced soil erosion and sedimentation--whose major benefits will be accrued by people downstream.

Obviously, all of these circumstances call for very different institutional arrangements for mobilizing people to manage resources at the local level. Nevertheless, there are some behavioral and institutional characteristics that cut across many of the political, geographic, and ecological specific circumstances; one task of social science research is to identify some of these more universal tenets. Some observations that appear relevant to the overall challenge of institutional design that future research might examine more carefully are noted below.

a) Some Circumstances Under Which People React:

Social scientists ranging from scholars of federalism to economic historians to psychologists have long pondered the question of what catalyzes previously docile and atomized people to join together for the purposes of collective political action. The most often cited reason is external threat or aggression; a common enemy that prompts people to take action in their collective defense. There are clearly examples in the area of natural resource management: Tuareg pasatoralists in the Sahel petitioning authorities to turn off borehole pumps because the increased water availability has lured outside ethnic groups into traditional Tuareg grazing areas, contributing to environmental deterioration (Riddell, 1982); previously unorganized peasants in Southeast Asia effectively

protesting industrial pollution that has drastically reduced their crop yields (Leonard and Morell, 1981). This type of situation, where natural resource degradation can be blamed on an external source, appears to be the most likely of all to prompt collective action to ameliorate the problem.

A second type of reaction to resource degradation occurs as a long-term evolutionary response to a situation under which population growth or changing natural resource constraints threaten gradually to undermine a group's ability to sustain its level of production. Anthropologists and economic historians have often seen impending resource scarcity as the hardship that has stimulated innovation--as in the shift in England from wood fuel sources to mineral fuel sources that helped spawn the industrial revolution (Zimmerman, 1965)--or involution--resulting in elaborate social schemes for highly intensive exploitation of a limited resource base by a dense population (Boserup, 1965; Gertz, 1963).

However, history is replete with societies that did not respond to such challenges and instead dispersed, faced famine, or suffered economic decline (Thirgood, 1981; Eckolm, 1976; Leonard, in press; Hughes, 1975). The question that may be of relevance to development planners in the Sahel, Nepal, Haiti, and many other places undergoing severe environmental stress is when hardship stimulates people's wits and when it does not.

A much less studied phenomenon is that of people taking collective action to improve their natural resource base when there is

no clear external aggressor or impending disaster. One intriguing observation that has been made by several students of development is that such action often is the culmination of a series of collective experiences that have the effect of dispelling mutual distrust and isolation. For example, Albert O. Hirschman recently observed grassroots development projects in six Latin American countries. In each instance, poor people had initiated collective endeavors on their own to improve their condition. He concluded that in every case the most important prerequisite was a previous, if failed and fledgling, record of cooperative effort:

...having thus dispelled mutual distrust, forged a community and--perhaps most important--created a vision of change, they were now ready for joint endeavors that required much greater sophistication and persistence (Hirschman, 1983).

What Hirschman called the "Principle of Conservation and Mutation of Social Energy" has been noted by other analysts as well. Jon Moris notes:

...the great motivational significance of generating local self-confidence. Confidence must be nourished by small successes in day-to-day affairs; it cannot be bought. It grows out of group pride in a gradually widening mastery of problems that cannot be solved by individual action (Moris, 1981).

The implications of this notion for development assistance agencies may be that they are putting too much stress on the need to find appropriate institutions and administrative structures that induce community management of natural resources, and not enough on the processes that spark people to formulate their own collective responses. When seen in the context of the tendency to stress project

efficiency over local participation and local institutional design, it is important for development assistance agencies to confront the possibility that many of the projects they classify as "successful" may be failures from the standpoint of preparing people to develop their own organizations and institutional rules. Paradoxically, some of the supposed "failures" may help lead to long-term success in the implementation of better resource management strategies if in the process local people have gained experience in working together.

b) Building Up From Small-Scale Successes:

Hirschman's Law may argue for more emphasis on beginning with a micro-project focus in many areas where natural resource degradation is occurring. One externally supported project that appears to be succeeding in its stated goals of increasing reversing natural resource degradation and increasing production is the Machakos Integrated Development Project (MIDP) sponsored since 1979 by the European Economic Community (EEC) and the Kenyan government. The secret to the apparent success of land rehabilitation efforts carried out thus far under the Machakos project, says one recent report, is the focus on small natural catchment or subcatchments (watershed basins) as planning and action units, and the provision of technical and planning assistance as well as financial incentives for local citizens to implement a catchment resource plan. "In every case," the report notes, "the success of the catchment work depends on the extent and enthusiasm of local participation and the commitment of local leadership (Ford, 1983).

Local participation appears to be the key in most cases where serious natural resource deterioration that has occurred as a function of population pressures and underdevelopment in marginal areas has been reversed. Since they must deal through national governments, international donors often have a difficult time ensuring, even when they want to, that projects that are depending upon local cooperation--as all land rehabilitation projects inevitably are--actually elicit it. This is one reason why many of the most successful land rehabilitation efforts being carried out in developing countries today started out without and often still do not have large external capital inputs. Another good example is the HADO project in Tanzania, already noted above (Tosi, et al. 1982).

c) Role of Intermediaries:

The more successful natural resource management efforts supported by international development assistance agencies seem to be those where the donors work through intermediaries to get resources transmitted to local institutions and that incentive systems put in place at the local level. Thus, reforestation and shelterbelt efforts initiated and built up from the very local effort by the private voluntary organization, CARE, with support from AID, appear to have been far more successful than the projects run directly by AID. Between 1975 and 1979, for example, CARE has sponsored a windbreak scheme in the Maggia Valley of Niger that has established more than 250 kilometers of trees (CARE, 1983). AID and other organizations are consequently considering more cooperation with private voluntary

organizations and groups such as the Peace Corps to reach out to the local level and build programs on the basis of popular support and local labor (AID, 1982a).

Another possibility often mentioned for stimulating more local support for land rehabilitation is increasing the use of the World Food Programs and the U.S. Food for Peace Program assistance to organize local food for work projects. In fact, a recent report by AID concluded that Title II Food for Work donations used for remuneration for labor and contributions to WFP will be "responsible for planting as many as two or more times the number of trees over a four-year period than are expected to be planted by AID in connection with all of the 77 ongoing forestry-related bilateral assistance-funded projects in 37 countries worldwide" (AID, 1982a).

Another type of intermediary that has received far less attention from development assistance agencies has been fostered recently in India. Despite increasing government concern with massive natural resource problems in recent years, there are major constraints on how much the central government itself can actually accomplish to reverse the trends. This is particularly true in the case of social forestry programs designed to help some 50 million people living in marginal environments that are in heavily deforested, hilly, arid, and unirrigated regions. A recent report pointed out the drawbacks of relying solely on government-backed institutions to implement these programs, which must embrace a wide range of activities, including local tree planting, integrated land management, water conservation, and pasture development:

Both in theory and practice, the success of social forestry programs requires the participation of the people in planting and protecting trees and in the equitable sharing of benefits. At present, forest departments are the main implementers of social forestry programs. It will take much time and effort for the forest service to shed its traditional custodial role. Even a more appropriately oriented forest service, like any other bureaucracy, would continue to suffer from internal procedural limitations and external political pressures. While efforts are needed to bring about constructive changes within the forest service, complementary structures, namely community-based and intermediary organizations, are also needed. Non-governmental initiatives can generate innovations in participative community organization, in designing incentive systems and support services, and in popularizing social forestry for the needs of the people. In the long run, such organizations can complement governmental efforts and increase the pace of afforestation through community mobilization (Ford Foundation, n.d.).

Efforts have been made to find an organizational model that might help overcome the constraints on government, but a limitation has been that non-governmental organizations have only had very limited technical, managerial, and financial resources. Thus, the Ford Foundation has recently helped to create a new non-governmental umbrella organization to provide technical, managerial, informational, and financial help to local organizations that are or could be active in wasteland development.

The Society for Promotion of Wastelands Development (SPWD) proposes to concentrate its activities in regions that are considered fragile ecosystems yet hold considerable potential for wastelands development. Initially it will work especially by operating a series of demonstration projects in a number of Indian states to show the potential production of wasted lands in a variety of regions and climates. This model, if it proves successful in India, might prove

worthy of emulation in other developing countries; and development assistance agencies may wish to explore ways to assist such non-governmental clearing house organizations. With less flexibility than private foundations have to pass over governmental institutions, the challenge to multilateral lenders is to find some creative solutions to the dilemma.

d) Incentives for Local Organizations:

As was the case in the United States, institution of well-organized local natural resource management will require a combination of national oversight and fiscal support, intermediate oversight and technical assistance provided at the regional levels, and user-member organizations that are relatively autonomous, but respond to a system of incentives to induce better natural resource management. The creation of a top-to-bottom framework for soil conservation in the United States in the 1930s is the most obvious model of an integrated effort to balance central-local, private-public land management responsibilities using both market incentives and government fiat.

One possible means of emulating the U.S. experience is through ongoing efforts to assist developing countries to provide better and wider agricultural extension services. Generally, agricultural extension programs focus on stimulating production. Land conservation is equally as important. Indeed, the success in the United States in reversing land deterioration and increasing productivity in response to severe land degradation in the Great Plains in the 1930s was largely accomplished through conservation-related agricultural extension

programs. Through assistance and demonstration projects by the newly created Soil Conservation Service, and through national and state funds and incentives for the creation of local soil conservation districts, many of the most destructive practices of farmers and ranchers were altered and land recovered in a remarkably short time (The Future of the Great Plains, 1936).

Political-administrative conditions obviously differ enormously in the third world. Still, the use of project loans to help developing countries establish some national local-network of technical assistance, subsidies, and incentives of soil conservation districts might prove both profitable and an important step for rural development.

To accomplish this, one possibility is for lenders to stimulate local soil conservation measures by earmarking loans for establishment of block grant or commercial discount loan funds at the national level. National government departments, in the case of block grant funds, or national banks, in the case of commercial discount funds, would be allocated sums of money for disbursement in grants or discounted low-interest loans to local groups and organizations that take specified steps to institute soil conservation measures. Both of these approaches have been used by international lenders to stimulate local community development projects and entrepreneurial activities (Chambers, 1974). The application of such funds to soil conservation could parallel efforts undertaken by the U.S. government during the Depression to provide low interest loans and direct financial sub-

sidies to farmers instituting soil conservation measures and establishing a soil conservation district at the local level.

e) The Role of Women:

Though underexplored, the role of women is in many respects central to all natural resource management issues confronted by development planners. Research is needed to shed more light on the role of women for improving the success of resource management projects from several perspectives.

First, in project design, women have consistently been overlooked despite the fact that they are often the major constituents of social forestry, watershed management, and other inventions that seek to alter the way people relate to the land at the local level. One observer notes that "program after program has failed because participation of women, so essential to the effort's success, was overlooked" (Hoskins, 1981). In fact, in many places it is the women whose lives are most significantly affected by natural resource degradation. As gatherers of firewood, for example, they must wander further and expend more time as deforestation increases. This means that the support and mobilization of women is often an essential entry point for any efforts to stimulate local action to initiate better land management programs.

Second, there are examples in some areas of women collectively becoming advocates of resource protection and seeking to reverse environmental deterioration. For example,

In India, as the recent State of India's Environment Report noted, the Chipko movement to stop deforestation for commercial

and domestic use "is very much a feminist movement," sometimes setting "wife against husband and mother against son" (The State of the Environment, 1962).  
in some cases, then, an activist stand by women may be key to facilitating natural resource management at the local level.

f) The Special Problems of Marginal Lands:

One continuing controversy in AID circles is how to deal with environmental degradation where it is occurring because of intense exploitation by poor people and animals of lands that are of marginal productive potential in the first place--very arid range areas, hillside agricultural zones, and upland watersheds, for example. Generally, there is an antipathy within the World Bank, given other more productive investment choices for filling loan quotas, to projects that are perceived as helping marginal cultivators in marginal areas become better marginal cultivators. This sentiment has become more prevalent in AID as well.

Nevertheless, there are several very significant reasons why more attention to land degradation problems falling into this category is going to be thrust upon the Bank and other multilateral assistance agencies. For one thing, it is increasingly the case that some land degradation problems associated with "underdevelopment" and overexploitation of marginal lands pose serious threats to more highly productive lands--especially in countries where essential upland watersheds are heavily populated with poor people living off the land--Nepal and Ethiopia are two good examples.

A second reason why the degradation of marginal lands is likely to become more a problem that development agencies must address is the

the increasing reality that many countries simply cannot afford to take a triage attitude to marginal areas. This is because population pressures are already high in more fertile areas, because rural-to-urban migration is already stretching the absorptive capacity of most cities, and because high fertility rates in rural underdeveloped areas are a major contributor to such problems. It is estimated that 800 million people now live in marginal zones where climate, lack of water, soil characteristics, or slope of the land inhibit production and increase environmental fragility.

Related to this problem, however, is the fact that many supposedly marginal areas that are currently suffering from severe environmental deterioration as a result of overexploitation actually offer significant potential for economically productive investments. This potential has often been overlooked by national government and international development assistance agencies.

A recent report by the Rockefeller Foundation and the Centro Agronomico Tropical de Investigacion y Ensenanza (CATIE) strongly emphasized this point in relation to the steep slopes and highlands that are the home of millions of tropical America's poorest farmers and landless peasants (CATIE, 1981). A major conclusion of this report was that the hillside areas are and will be even more important than generally thought to the economies of all the countries in the region. It noted a number of potential means by which more rural investment in these hillside zones could contribute substantially to overall national development and lamented the fact that most external

development assistance to date has gone to support activities on flat lands under good soil and climatic conditions, while "the hillside zones which are marginal and densely populated, have been overlooked."

A final reason why rehabilitation of marginal lands should command more attention from donors is that there is, in the 1980s, increasing promise that coming years or decades will bring significant new breakthroughs in scientific understanding of and enhanced technological capabilities for food production on marginal and arid lands. The potential importance of such developments for world food production and the welfare of mankind far exceed the contributions made by the so-called "Green Revolution." It would, of course, be a tragic irony for many poor countries if large areas of their marginal lands were already hopelessly desertified by the time modern technology is finally ready to contribute the means for improving their welfare. Presumably, as such breakthroughs become more imminent, the systematic appraisal of marginal lands in developing countries that could benefit from land rehabilitation--terracing, erosion control, soil conservation schemes, protective revegetation, etc.--prior to the application of new techniques will become a matter of greater priority for development assistance agencies.

In many respects, then, the challenge to develop workable "institutional packages" to further improve resource management at the local level are most important in marginal areas. Here it is least likely that people will take collective action or design institutional rules that reverse the problem of environmental

destruction unless external sources find ways to stimulate them to do so. The social science research agenda outlined in this paper is consequently more applicable and more urgent for the problems of marginal lands than for management of fertile farmlands or extensive commercial forests, or even large-scale irrigation projects. In all these more productive areas, resource management problems are less acute because the economic incentives are greater and barriers to collective action and clear rule-making procedures are lesser than in marginal areas.

#### Research Recommendations

The challenge to social scientists in the area of natural resource management is to come up with better institutional policy prescriptions that help development assistance agencies realize the technical potential of the resource management projects they sponsor or support. Thus far, social science analysis has done an adequate job in outlining the socio-economic-political factors that have caused projects to fail, and it is increasingly possible to predict institutional designs that will fail. The question is whether social science research can help to increase the institutional successes in addition to explaining the failures.

The key to improving the chances for successful institutional packages for development projects lies not with the development of any foolproof set of maxims, but instead in the long-term construction of a larger information base from which development planners can draw when facing particular situations where the institutional aspects of a

natural resource management program are weak. To this end, two broad approaches to designing a social science research agenda to address problems of natural resource management can be recommended:

1. Coordinating Existing Research and Development Project Experience

a) Conferences and Meetings:

A series of conferences and meetings bringing both social science researchers and development assistance officers working in the natural resource field together to exchange experiences and discuss different successes and failures in local institutional design would be a first step. This could facilitate the dissemination of "local lore" and stimulate interregional and intersectoral borrowing of innovative institutional structures and incentive systems.

b) Paper Series:

The establishment of a central outlet for brief social science papers dealing with various aspects for natural resource management would provide a means of taking advantage of the work currently being done throughout the developing world by social scientists. In addition, this would provide a clear incentive for work that focused primarily on the socio-economic aspects of natural resource management, since many current publications are oriented more to the ecological perspective or are highly specialized from a disciplinary standpoint.

2. Sponsor Case Study Research

A number of valuable location specific case study research projects can be identified from the agenda of research questions

outlined in this paper. These include but are not at all limited to case studies that examine:

- a) a series of instances where people have successfully undertaken collective action to improve the resource base upon which they depend;
- b) induced resource management projects sponsored by local groups or private voluntary organizations that succeeded because they found appropriate institutional frameworks for funneling external assistance while preserving local initiative and autonomy;
- c) the different ways that public works, food for work, and other inducement programs have provoked people in marginal areas, or people who do not stand to otherwise benefit directly from their actions, to provide a public good through improved resource management;
- d) the role and potential of women in the organization and in determining the success or failure of resource management projects.

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Issues Raised During the October Workshop on the Presentation by  
H. Jeffrey Leonard

Much of the discussion following the presentation of the socio-economic aspects of natural resource management dealt with the question of solutions: do the social sciences have ready solutions to these problems and do they have anything to say about the solutions espoused by foresters, irrigation engineers, and range management specialists. On the first question there was considerable debate; on the second widespread agreement.

Citing the literature on public choice and recent project successes, most notably in India, several participants suggested that privatization held great promise as a solution to natural resource management problems of all kinds. Their argument was that the theoretical literature demonstrated that collective action was difficult, if not impossible, to achieve and that practical experience indicated that private incentives could be brought to bear on important problems like reforestation.

The view that privatization was anything more than one of a range of possible solutions was challenged on a number of grounds. First, several participants noted that some natural resources, like water or semi-arid grazing land, are public goods that do not lend themselves to efficient market or private solutions. Second, another group of participants questioned the interpretation that public choice theory proved that collective action was unlikely or impossible. Instead, this group argued that the theory stated that unconstrained individuals and market mechanisms would not produce efficient results and that some in-

stitutional solution was needed in these instances of market failure. Others went on to point out that there were numerous examples where local groups, with or without external assistance, had put these institutions in place to provide a collective good. They noted that these institutions often take the form of complex systems of rights, duties, and reciprocal relations. Furthermore, it is the collapse of these institutions, due to a wide range of factors including population pressure, changing resource availability, or the breakdown of these institutions by external forces that is at least partly to blame for the current bleak environmental situation. Here, this group argued, was the real opportunity for social science research: to identify these institutions as well as ways to shore them up or replace them with viable alternatives in the face of new pressures.

While there was division on the potential of private and market solutions to natural resource management problems, there was no such division on the important role social science has to play in interacting with the natural resource sciences. For one thing, several participants noted, "miracle" technical solutions--fast growing trees, small-scale irrigation, and the like--have often proved to be disappointing in terms of equity and even productivity goals and social scientists are needed to work with natural scientists to identify the social and physical environments where these new technologies are most suitable. In addition, concern was voiced about whether the temperate zone-orientation of U.S. scientists and U.S.-trained developing country scientists adequately prepared them for the exigencies of arid and semi-arid climates. Part

of this temperate zone bias was an insensitivity to the locally devised systems for resource management. The consensus was that here, too, social scientists could work with natural scientists to identify interventions that were technically and institutionally viable.

In addition to these broad issues there was also discussion of several narrower topics. A number of workshop participants emphasized the need for research on the policy space surrounding national policy makers. It was noted that natural resource management was rarely a priority for developing countries and that even where there was a formal body responsible for natural resources, it was generally weak and poorly staffed. Research was needed, they argued, to understand why this topic received so little attention and what could be done to raise its salience for policy makers. Research is also needed on ways of improving the technical and social research capacity within developing countries so that they can play an informed role in the development of policy and the implementation of projects and programs.

Another proposed topic for research was on the constraints involved in moving from small, management-intensive projects that have been successfully implemented by private voluntary organizations to widespread replication by development agencies or developing country ministries. Often what has proved successful on a small scale has failed on a large scale. Finally, several participants suggested that an examination of U.S. experience with natural resource management, particularly water and soil conservations, might yield some insights applicable to developing countries.

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### SECTION III

## INSTITUTIONAL CHOICE FOR RURAL DEVELOPMENT

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### Introduction

The question of what institutional forms should be used in rural development has up to now been a matter of policy choice, but not one of research. This paper outlines the reasons why institutional choice merits investigation as a research theme in its own right. In relation to the financial flows being expended on ineffective rural development interventions, the cost of learning how to make better choices would be modest. Furthermore, the timing is right: there are two decades of attempted initiatives to examine; donors' files bulge with project reviews and terminal evaluations; the conceptual frameworks to understand rural development as a process now exist; and there are individuals with the skills and interest to carry such a research program through to completion. Our discussion of how such an inquiry might be developed will focus on four main issues: 1) why study institutional choice? 2) promising research strategies; 3) problematic aspects of organizational research; and 4) priority research topics.

### Why Study Institutional Choice?

There are several cogent arguments suggesting that systematic, tested knowledge about the choice and design of institutional forms

for rural development is greatly needed. Underlying all of them is the basic fact that institutional formats are a matter of choice, particularly when donors intervene to "assist" field development activities. Technical assistance is by definition an added element in situations that are deemed to exhibit unmet needs. The simple act of giving assistance necessarily entails many choices: where help will be directed; whether it will assist the public or the private sectors; the duration, scope, and sequencing of interventions; the various operational, supervisory, and beneficiary groups; and whether new units must be created. While these all have a significant impact upon project performance, the actual choices of organizational framework are usually made on an ad hoc basis. Sometimes they are dictated by the technology itself. More commonly, they are an amalgam of the donor's, designer's, and host country's favorite institutional models. Currently, there are compelling reasons why a haphazard, case-by-case approach to institutional choice is inadequate.

1. A fundamental reason is the emergent contrast between the bureaucratic "capture" of project benefits and the paradox that many poorer countries cannot afford the bureaucracies they already possess. In African nations, the initial post-independence flexibility that the leadership enjoyed in assigning development responsibilities has been lost. By World Bank reckoning (1983:76), countries as diverse as Mexico, Brazil, and Tanzania each have over 300 non-financial "parastatal" organizations vying to provide an array of development services. Each agency has its bureaucratic territory, often functionally

defined (extension, agricultural research, farm credit, etc.). Each can justly claim it needs staff, experts, department heads, computers, transport, secretaries, recurrent funds, buildings, and all the other accoutrements of bureaucratic activity. Though such requirements seem plausible when reviewed individually, when aggregated across the entire sector they exceed what the national economic system can support. Thus, in expanding their matrix of rural development agencies during the 1970s, the poorer countries have established resource-starved networks of partially funded institutions. Most are public sector agencies with admirable purposes but under little pressure to provide cost-recovering services to the rural communities in whose name they were created. The merest hint of outside assistance can these days generate a thick stack of requests for additional training, housing, vehicles, and even routine inputs such as fuel, paper, or film.

We must recognize, therefore, that development assistance is being given in a polarized economic setting where functional agencies with a strong incentive to retain benefits for their own internal redistribution are already a part of the local scene. Since the aggregate demand for resources from such institutions exceeds indigenous support capacities, any external assistance becomes an act of choice between alternative institutional frameworks. Such assistance ought to be based upon a systematic, empirically verified understanding of organizational potential, rather than leaving it to accidents of timing and donor preference.

2. The situation just delineated contains a strong predisposition towards continued public sector investment. This tendency is accentuated in third world countries because scattered populations of smallholders do not generally constitute an attractive market for cost-recovering private services. An added reason is the widespread bias towards assuming the role of public institutions is to protect small farmers from unscrupulous and exploitive traders. We have here the U.S. image of "efficient businessmen/inefficient bureaucrats" in mirror reverse. Such images evoke powerful emotional associations, and constitute an underlying normative predisposition which goes beyond rational argument. Indeed, issues of institutional choice are tinged at many points by emotive and ideological considerations: modern vs. traditional, private vs. public, small vs. large, indigenous vs. foreign, voluntary vs. bureaucratic, and so forth. It is remarkable how little controlled, empirically-based knowledge policy makers have access to that documents actual rather than ideal levels of institutional performance.

For example, those of us working in Africa have argued that the public service is too large in African states. However, Ozgediz' recent presentation of data from Tait and Heller's survey finds that on the whole, African countries have fewer public employees per capita that do either Latin American or Asian nations (Ozgediz, 1983:3). It may still be true that relative to other sectors, Africa has too many public employees, but in either case prescriptive advice on a politically sensitive issue like this one gains in credibility if

buttressed by comparative factual information. If donors intend to shift resource allocations away from the existing public sector emphasis, they will require a factual rather than ideological basis for doing so.

3. Such information could also be of significant use within third world countries, for two main reasons. First, while it may be obvious to outsiders that a nation's institutional network is over-extended, the individual organizations (as already noted) usually have sensible purposes. Developing nations originally established these various agencies--institutes for integrated rural development planning, agricultural information centers, and the like--with donor assistance; similar institutions dot the landscape in developed countries. Determining which institutions must be cut back or even phased out is particularly difficult because the organizations are often by definition the very institutions whose output was supposed to accelerate rural development.

Second, we see underway in third world organizational trends a process much like that found in peasant farming. Countries with a stagnant resource/technological base that experience continued population growth and that do not exclude access to resources will inevitably move toward an intensification of the labor input, a transition which Geertz has termed "labor involution." In a similar fashion, resource-starved bureaucracies are becoming trapped into an administrative mode where staff employment is all that they can count upon. Obviously, there are some field activities that can be offered

by employees without much extra support: the typical African primary school with its rote lessons is a good example. However, we lack conceptualizations and field data on the relative labor and resource intensities of different organizational models, or even on the comparative productivity of institutional alternatives. While there are a few good studies of particular programs--e.g., Cohen's work on the CADU project in Ethiopia and Chamber's on the Mwea scheme in Kenya--comparisons between projects are extremely difficult because of the lack of standardized measurement. To develop better conceptual tools and refine measurement procedures is clearly a research task, and not something one can expect to emerge naturally from the normal course of project implementation activities.

4. The inward spiral toward field organizations that can barely maintain themselves is occurring in a larger context where the demands being put upon service delivery systems are rising. During the 1970s many African countries reached the limits of productivity increases based upon an expansion of cropping into new lands, just as in Asia the rain-fed crop sector emerged as the key arena where further productivity increases must be realized. Both situations require "science-intensive" solutions (as contrasted with land- or water-intensive strategies). To be effective without the advantage of irrigation, the "green revolution" or "high yielding variety" strategy requires high levels of administrative performance. There must be a sustained research effort with rapid feedback from the farm level, accompanied by a tight coordination of technical functions. Several

recent emphases within international assistance--HYVs, IRDs, FSR, etc.--are at core devices aimed at intensifying and synchronizing specialized services within a larger, area-based administrative system. These approaches emerged as a functional necessity generated by the tasks now being imposed upon a country's agricultural administration. While the initiatives have not been particularly successful (our next point), it should be recognized that if a country chooses science-based strategies for increasing food production, it has no option but to find effective means for delivering specialized technical services. Without certified seed, the correct fertilizers, new varieties, and effective methods for pest and disease control, the productivity of the farming system will remain at present levels.

5. For donors, the question of how to implement desirable programs like range development, social forestry, and irrigation management remains at the top of the institutional choice agenda. In the early 1970s, there were many attempts to modernize traditional African pastoralism through an application of U.S.-derived range management procedures. These projects, whose history and performance have been summarized in several publications (USAID, 1980; IDRC, 1981; Gall, 1982), almost all failed. Then, in the late 1970s, "social forestry" came into prominence: again, it was an important idea aimed at safeguarding a vital "commons" resource. And, once again, the project frameworks adopted by donors have been almost uniformly unsuccessful; it is possible that there is not a single lasting project in the entire category.

As it happens, several of the most important policy objectives fall into this same category of fundamental socio-economic goals where effective implementation strategies have yet to be discovered:

- programs for commercializing traditional pastoralism while also conserving the environment;
- projects to increase fuelwood where land is not privately owned;
- programs for increasing women's welfare;
- attempts to meet the "basic needs" of the rural poor through "top-down" bureaucratic agencies;
- projects trying to upgrade farming skills;
- programs to assist "school leavers";
- sponsorship of "local" technology through large-scale MNEs;
- attempts to improve farm technology by investment in bureaucratically organized research stations;
- efforts to increase food production by investment in large-scale irrigation schemes;
- programs to stabilize populations in high risk farming areas;
- programs of land reform where land is inequitably distributed.

The failures of range management, agro-forestry, or land reform do not remove these objectives from the agenda for rural development intervention. What they do signify is the necessity of searching further until we find more effective policy and/or organizational instruments that do yield the desired outcomes.

Take, as a further example, the case of nutrition interventions. These necessarily involve the ministries of health and

agriculture (as they are usually encountered in developing countries), and sometimes several adjunct non-governmental organizations and parastatals (OXFAM, UNICEF, women's groups, etc.). On the one side we have well-founded advice that it is dangerous for projects to rely upon several sources of ministerial support (Moris, 1981:122; Johnston and Clark, 1982:180). On the other, there is a pressing need to improve family nutrition and we cannot arbitrarily restructure the inter-agency matrix to suit the nutritionists' convenience. For those interested in developing food crops or in improving irrigation schemes, learning how to work effectively with a complex multi-agency matrix of technical services remains essential.<sup>1</sup>

6. For recipient governments, the need is for a better fit in matching managerial technologies to their institutional contexts. The 1970s witnessed a proliferation of organizational innovations, many imported at donors' urging. While these innovations seemed promising when considered in isolation, we can see in retrospect that they intensified the demands being put upon the recipient systems. The new technologies required types of administrative performance and inputs ("upstream linkages") that the existing systems could not readily supply. Examples include:

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1. The world-wide experience in managing nutrition programs is reviewed by Austin (1981). His itemization of causes behind weak management (1981:357) have much in common with those in the agricultural sector, suggesting an underlying problem of poor institutional fit.

- Information-intensive appraisal and monitoring technologies. Donors began requesting sophisticated cost/benefit appraisal, in situations where cost data were unavailable and likely performance unknown (Johnston & Clark, 1982:231; Moris, 1981:33). Equally demanding were the requested project surveys, which sometimes absorbed nearly as much managerial effort as did the programs they were ostensibly "documenting."
- The adoption of organizational structures embodying U.S. style "matrix management." This usually involved creating extra staff positions at middle levels. However, the strongly hierarchical developing country systems generally do not permit consultative contributions from intermediate level specialists.
- Project designs requiring coordinated delivery of services by means of "integrated" area-based investment plans (or IRDs). These IRD projects typically lacked resolution of the question of how operational liaison would be maintained. They tended to heighten rivalries between the very agencies whose cooperation was essential for the realization of client benefits.
- Extension strategies like the World Bank's "T & V" system, which necessitates that the parent ministry has good internal communication between the research and operational divisions, and a high degree of information processing and handling capacity. Existing extension bureaucracies tend, in fact, to have weak communication between divisions and almost no information processing capacity.

By great effort, these innovations were sometimes implemented. The requested appraisal reports and surveys were completed; middle level positions were added and eventually staffed; some IRDs remain in operation despite inter-agency bickering; and the T & V system continues to be adopted (with something like 60 participating countries). But these modest achievements must be weighed against the heavy opportu-

ity costs incurred when senior managers divert their attention to the direct supply of missing organizational capabilities.

7. The foregoing points all suggest that we have reached a stage where more attention must be devoted to making explicit the factors that create and sustain organizational capacity. After three decades of development assistance, it is apparent that most countries employ a relatively limited repertoire of organizational models for assisting rural development, despite the multiplicity of functions these are engaged in providing (Whyte, 1967). There are five which are usually categorized together as "public sector" institutional types: a) the government ministry; b) the quasi-governmental institute; c) a local council/committee; d) a parastatal corporation; and e) the enclave project. If we add the two main nongovernmental types, farmers' organizations and commercial firms, there are still only seven basic types to investigate. These differ in systemic attributes, in how their services are obtained, in staffing, in degrees of permanence, and in responsiveness. Some of their strategic properties are itemized for comparative purposes in Table 1.

Let us take for the moment the typical Ministry of Agriculture, which in developing countries is almost invariably given major rural development responsibilities. There is by now ample evidence that the usual public sector ministry is not very effective in offering the technical functions needed by small farmers (Moris, 1977; Howell, 1978; Hyden, 1983). The literature suggests government ministries tend to exclude smaller farmers and the rural poor; official

Table 1. Likely Organizational Attributes

ESSENTIAL REQUISITES:	TYPE OF ORGANIZATION:					
	Private firm	Land grant college	Ministry of agri-culture	Para-statal	Enclave donor project	Farmers cooperative
1. Clear objectives	3	2-3	0-1	1-2	2-3	1-2
2. Find & hold good staff	3	3	1-2	2-3	2	0-1
3. Action-oriented	3	1-2	0-1	2-3	3	1-3
4. High payoff technology	var. 0-3	var. 0-3	var. 0-3	var. 0-3	var. 0-3	var. 0-3
5. Performance managed	3	2	0-1	1-2	2-3	1-2
6. Teamwork at base level	2-3	var. 1-3	0-1	var. 1-3	var. 1-3	2-3
7. Realistic job demands	2-3	2	0-2	2-3	2-3	3
8. Means to coordinate inter-agency matrix	2	0-1	0-1	1-2	0-1	0-1
9. Staff downwardly accountable	2-3	0-1	0-1	0-1	0-1	2-3
10. Rapid information circulation	var. 1-3	2-3	1-2	var. 1-3	var. 1-3	1-2
11. Organizational myth/commitment	3	var. 1-3	0-1	var. 1-3	var. 0-3	1-2
12. Access to tech. expertise	var. 0-3	3	var. 1-3	2-3	2-3	var. 0-2
13. Freedom from political interference	2-3	2-3	var. 0-2	var. 0-2	2-3	var. 0-2

KEY  
 0 = very poor/weak  
 1 = poor/weak  
 2 = moderate  
 3 = strong/good  
 var. = variable

These are merely rough judgmental estimates of the likelihood that a given requisite would be found under typical African conditions

programs are unnecessarily rigid and overly hierarchical; public sector institutions are under little pressure to recover their costs; their professional staff are impervious to feedback from below; and strategic information is often ignored. Insofar as staff productivity is concerned, a developing country ministry can easily get into a situation where its own personnel have incentives to act in ways that sabotage the realization of organization goals (Heaver, 1982).

These weaknesses of the typical public sector bureaucracy are, of course, well known. They account for the widespread adoption of cooperatives and parastatal public corporations as the two main institutional alternatives in many developing countries (Peterson, in Leonard and Marshall, 1982:77). Unfortunately, there have been many inefficient, corrupt, and prematurely bureaucratized cooperatives, while the average record of third world parastatals is not much better. At first it was thought that performance improvement would follow automatically if the correct institutional model could be identified. For example, Kenya's Tea Development Authority (or KTDA) figures prominently as a "success" in several accounts (see Paul, 1982:51-62; Lamb and Muller, 1982). Yet in neighboring Tanzania (as in Uganda) the direct copying of the KTDA structure in the early 1970s yielded a whole set of loss-making parastatal crop authorities. Two lessons might be drawn from this record: a) cooperatives and parastatals are potentially prone to many of the same performance weaknesses that the typical government delivery system evidences; and b) the key to "success" does not lie in the copying of institutional models per se.

If in addition to increasing organizational effectiveness we want also to strengthen farmers' participation and downwards accountability, then the design task soon exceeds the understanding of even the most knowledgeable professionals in the field. Furthermore, there is a parallel need to give systematic attention to the range of institutional options that are available for service delivery. Of the ten alternatives listed by Savas (1977; 1981), only a few are customarily treated within descriptions of applied policy in developing countries.<sup>2</sup> Hardly anything has been done on alternative systems and market surrogates that would merit designation as "research."

8. The kinds of information needed for focused analysis on institutionally-related topics are simply not available, either from on-going project documentation or from scholarly research. While a significant amount of project funds are spent documenting and evaluating field performance, the institutional and organizational aspects do not receive systematic treatment. There is no recognized format to indicate which are the critical dimensions. Many crucial factors that project managers could talk about are left unexamined. Even in USAID's "social-institutional profiles" (or SIPs), the institutional elements remain largely unspecified. When organizational analysts suggest that certain administrative practices--such as the transfer of staff to resolve personnel problems--are a source of weak

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2. The alternatives are: 1) government employees (own staff); 2) intergovernmental contracts; 3) external purchase of services; 4) franchises; 5) grants; 6) vouchers; 7) market system; 8) voluntary service; 9) self-service; and, 10) multiple arrangements.

performance, it is embarrassing that a decade later we still lack a reliable data base for systematic testing of such hypotheses (Chambers, 1983:213). There are now a diversity of new concepts and theoretical insights that could be employed for studying institutional issues (see Table 2). However, political scientists and sociologists are at present turning aside from the serious study of development topics, in part because of the difficulties of access that face anyone who tries to study such topics without official sponsorship.

If institutional choice were to become a focus for on-going research, how might the output improve the situation as we have just described it? It would seem that there are five key contributions that such research might make to applied policy analysis:

- a) It could identify the factors that have proved most effective in augmenting sustainable capacity within host country units.
- b) It could provide methods for evaluating institutional performance, thereby giving an empirical basis for assessing institutional capability.
- c) It could describe typical performance traits of the major organizational options, clarifying which tasks each type can and cannot perform effectively.
- d) It could identify typical stresses that field programs of a given type are likely to experience.
- e) It could warn where program designs embody an inherent mismatch between official objectives and likely institutional performance.

### Research Strategies

How then can this welter of factors, models, choices, and structures be reduced to a scope in which focused research becomes

Table 2.

Useful Analytic Concepts

Type I and Type II errors (Landau & Stout)  
Rank-in-position vs. rank-in-job systems  
Managerial grid (Blake & Mouton)  
Cross function linkages (Weitz)  
Loose vs. tight coupling  
Learning vs. blueprint planning (Korten)  
Type I vs. Type II projects (Montgomery)  
Control/influence envelopes (Lethem & Smith)  
"top-down" vs. "bottom-up" approaches  
Premature professionalism (Young)  
"Hub-and-wheel" task delegation (Moris)  
Institutionally caused risks  
Demand buffering mechanisms  
Client "gatekeepers"  
Inter-agency service matrix  
Contact staff/client interface  
Service delivery systems  
Action/participatory research  
Access/"street" bureaucracy  
Decentralization vs. deconcentration  
Market surrogate mechanisms  
Privatization  
Intermediary benefit capture  
Participatory bureaucracy  
Downwards accountability  
Contingency theory in management  
Managerial technologies  
Type Z organizations (Ouchi)  
Bounded rationality/satisficing (Simon)

operationally feasible? It is obvious that considerable selectivity must be exercised. The problem arises, however, because the simplifying devices researchers are likely to employ will themselves reflect conventional wisdom--and it is conventional wisdom that has given us the dysfunctional institutional types we are trying to improve! It is also worth noting that in economic forecasting it has been found that the largest single source of error derives from the simplifying assumptions made in order to apply a given mode of analysis to real world data (Ascher, 1978: 199). Thus, while it is essential to narrow down the scope of inquiry to manageable proportions, the selection of appropriate analytical and methodological approaches remains critical. Let us therefore review how research on this broad topic might be "operationalized":

1. The approach researchers are likely to adopt if allowed free reign would be to add structural aspects and performance measurement to existing sub-sector reviews, e.g., livestock development or irrigation management. This strategy would have the advantage of maximizing comparability by concentrating analysis on organizations having similar tasks, and it could be carried out without a great deal of new funding (since "state-of-the-art" reviews are already on the agenda of donors' research). Needed refinements include incorporation of the "service delivery system" concept, as well as cross-national comparisons of program performance. An excellent example for emulation--almost the only one of its type--is the Gable and Springer assessment of four rice improvement programs.

Their study shows that even a narrow focus on just one technical function still necessitated documenting many additional variables (1979:690-700). A further refinement would be to look over the fence at similar delivery systems, but ones involving a different function (such as health care). Having several controlled studies of this nature could serve to identify commonalities in administrative experience as well as to indicate which research methods are most productive.

2. A second obvious possibility would be to extend and deepen the "lessons of success" approach that Paul (1982) and Korten (1980) have applied to public sector cases, but that is better known from reviews of U.S. and Japanese private-sector firms, such as Peters and Waterman's In Search of Excellence for the U.S.A., or Ouchi (1981) and Pascale and Athos (1981) for Japan. Indeed, there is a flourishing literature on multinational management led by Negandhi and others that shows how organizational hypotheses can be tested cross-culturally.<sup>3</sup> The major obstacle limiting its public sector applications is the difficulty of devising agreed measures of program success. In many developing country rural development programs, official and actual benefits often diverge; "success" must be weighed against the degree of adversity within the local environment. It also seems to have been

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3. Starting with Thompson's (1967) as yet untested propositions, reprinted in Negandhi (1975a:256-58). See also Negandhi's own 14 propositions (1975b:261-63), and England et al. (1979; 1981), Prasad and Negandhi (1968), Burack and Negandhi (1977), Nagel and Neef (1979), Pierce (1981).

easier to gain private sector acceptance for cross-national comparative research, perhaps because private firms do not feel as compelled to defend national achievements. Even so, it would be foolish to ignore the substantial research experience that investigators of multinational enterprise (MNE) performance have accumulated. Whatever specific methodology is adopted, any research program looking at institutional choice should aim to draw together public administration and MNE performance specialists, who otherwise work separately and report their results in different journals (e.g., the Public Administration Review vs. the Administrative Science Quarterly).

3. A third approach would be to systemize and then put to empirical test the many generalizations about rural development that recent syntheses of the world-wide experience put forward. The last few years have witnessed the emergence of a "second generation" literature on managing induced rural development. Important sources that would merit scrutiny include Arnon (1981), Bryant and White (1982), Chambers (1983), Gran (1983), Hyden (1983), Hunter (1978), Johnston and Clark (1982), Korten and Alfonso (1981), Leonard and Marshall (1982), Moris (1981), Paul (1982), and Rondinelli (1983).<sup>4</sup> These statements complement rather than supercede earlier efforts--one thinks at once of Hirschman (1967), Millikan and Hapgood (1967), Uphoff and Ilchman (1972), Chambers (1984), Coombs and Ahmed (1974),

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4. Of these, the Johnston and Clark volume Redesigning Rural Development comes closest to being an overview of rural development theory, while the Peterson chapters in Leonard and Marshall (1982:73-150) deal specifically with the issue of institutional choice.

and Lele (1975)--but they have the advantage of an extra decade's experience. While there are numerous points of disagreement--which is why further research rather than mere synthesis is called for--the "second generation" sources take us several steps forward (summarized in Table 3). The ideas are now more focused, and more qualified by knowledge of situational constraints that may invalidate general guidelines in particular instances. By the same token, we have reached a point where specific hypotheses about the relationship between institutional types and performance can be framed and tested. However, the sheer size of the empirical base, involving hundreds of major development projects in as many countries, and the complexity of the methodological task puts this effort beyond what researchers can attempt individually. It is primarily the international donors--USAID, CIDA, ODA, SIDA, UNESCO, FAO, and the IBRD--that enjoy access to the necessary data base and have the resources required.

4. Institutional choices are necessary because in rural development services we face varying structures, tasks, performance levels, and contexts. Inevitably, therefore, these aspects must be controlled for in any systematic program of research--meaning in fact a "contingency" perspective on the relationship between organizational structures and performance. The starting premise of "contingency theory" is that organizations are systems that respond to both changing external environments and to internal stresses generated by the tasks they undertake. Organizational structures and procedures then constitute an intermediary set of factors that also influence

Table 3.

Lessons of Experience\*

- projects whose output depends upon regular cooperation between separate agencies or ministries are very difficult to institutionalize.
- while conventional management theory appears to work when applied to the internal operations of an agency, it fails to illuminate the relationships between an agency and its environment.
- implementation is the major problem area, but is both poorly understood and relatively unglamorous to academic analysts and donors alike.
- poor organizational performance generally results whenever bureaucratic actors have immediate incentives to behave in ways that undercut organizational goals.
- agency staff constitute a primary benefit group whose influence may distort the distribution of client benefits.
- the interface between contact staff ("access bureaucracy") and clients has often been where slippage occurs, and is subject to various local constraints not anticipated in project designs.
- in public programs it may be politically necessary that goals remain ambiguous and unrealistic, a situation that invalidates the use of standard appraisal and evaluative technologies.
- where benefits are linked to location, it should be anticipated that locational decisions may become politicized.
- in vertically-oriented, line agencies, the middle level staff often constitute a weak link, and don't behave in ways needed for achieving maximum field impact.
- a major symptom of parastatal failure is the inability to contain costs, which in turn reflects numerous internal and organizational weaknesses.
- limited and seasonal cash flow at the community level is typical of subsistence farming, and sharply constrains revenue recovery (under either public or private service delivery).
- the attempt to make top officials more accountable for everyone beneath encourages the delegation of tasks rather than responsibilities, which in turn inhibits organizational productivity.
- developing country administrative organizations probably differ more in process than in structures from developed country agencies; in both cases, process malfunctioning, while harder to study, requires more attention.
- as the number of agencies involved in producing an output increases, control-oriented (hierarchical) means of exchange become inappropriate and must be replaced by reciprocal or bargaining approaches.
- a principal advantage of markets as an exchange mechanism is the directness and rapidity of feedback, which suggests that more attention to how feedback occurs in non-market, bureaucratic settings might have a high pay-off.

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\* Combined from several recent sources. For more extended treatment, see Moris (1981:122-25).

output (see Table 4). Changes in any single component feed through the systemic network and have varying effects depending upon other features of the system. It has already been noted that contingency approaches have been widely tested in cross-cultural studies of managerial behavior, with rather mixed results.<sup>5</sup> It seems that standard U.S. managerial prescriptions give predictable results when applied to the internal operations of third world bureaucracies, but fail to cope with the relationships of a unit to its environment---a conclusion reached by Kiggundu, Jorgensen, and Hafsi in their recent (1983) review of 94 studies.

There are a number of external and internal differences that set developing country service delivery systems apart from the usual commercial firm (upon which most U.S. managerial thinking has been based). Key factors that would need to be controlled for in assessing institutional productivity might include:

- administrative systems subject to extensive political penetration
- systems where almost all recurrent finance goes into salaries
- systems with controlled currencies and acute foreign exchange needs
- systems subject to high levels of natural or bureaucratic risk
- systems operating in a setting with highly polarized interest groups
- systems serving non-monetized, subsistence producers

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5. For a critical discussion of contingency theory in its developed nation applications, see Miner (1982:257-291) and Schoonhoven (1981).

I. Contextual Variables	II. Organizational Variables	III. Task Variables
1. Degree of ethnicity	1. Steep vs. broad hierarchy	1. Routine vs. discretionary
2. Urbanization "backwash" on farmers' attitudes	2. Rates of staff movement & turnover by level	2. Technology intensive vs. resource intensive
3. Resource availability (land, water, crop)	3. Site concentrated vs. dispersed	3. High technology vs. low technology
4. Degree of dualism in economic system	4. Degree of internal staff polarization	4. Governed by seasonality?
5. General reliability of inter-organizational matrix	5. Abundance of organizational resources, by level	5. Task quality tolerance margins
6. Availability of inputs	6. Degree of commitment by top leadership	6. Require transport?
7. Degree of scheduling uncertainties	7. Political salience of the organization, power	7. Require 2-way communication
8. Village-level cash flow	8. Age & skill composition of labor force	8. Skill level required
9. Attractiveness of the alternatives	9. Rigidity & nature of in-house decision rules	9. Require cash inputs by farmers?
10. Manpower constraints by level and type	10. Annual reporting, work, budgetary cycles	10. Does output have high payoff?
11. Occupational prestige ranking	11. Objectives: single vs. multiple, clear vs. vague, realistic vs. unrealistic	11. Is effective performance visible?
12. Degree of personal security	12. Size of middle management vs. top & bottom cadres	12. Are constraints known and visible?
13. Availability of financial services	13. Internal staff perceptions: career advancement, workload, fairness, relative prospects	13. What level riskiness?
14. Degree of financial thinness & dependence on donors	14. Authoritarian vs. participatory management & supervision	14. How subject to organizational risk?
15. Degree of centralization	15. Client loads per contact staff	15. What inputs required?
16. Degree of political interference	16. Client contact procedures	16. Single vs. multiple function?
17. Degree commitments are seen as "flexible"	17. Staff/client polarization	
18. Prevalence of "personalism"		

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- systems that must cope with parallel markets and corruption
- systems where the responsibilities for development are highly fragmented between a large number of agencies
- systems that have institutionalized high rates of staff turnover
- systems where the public sector predominates within the economy

These properties overlap, making the task of achieving effective output much more difficult in certain settings.

To illustrate how a contingency perspective differs from universalistic efforts at constructing general theory, let us take for a moment the issue of whether or not to employ farmers' cooperatives as part of a service delivery system. Earlier discussions of cooperatives tended to incorporate monistic value judgements, i.e, that they are either "good" (citing the advantages of economies of scale, vertical product integration, and enhancement of farmers' bargaining power) or "undesirable" (citing corruption, monopolistic excesses, and inefficiency). Peterson suggests instead (in Leonard and Marshall, 1982: 111-113) that cooperatives can be effective under certain conditions, such as when societies are small, the social and economic system relatively unstratified, and good management skills are available.<sup>6</sup> Cooperatives are probably also more successful if they provide a processing service that dramatically increases farm returns (as in milk

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6. A finding supported by King's comparison of Nigerian cooperatives (1981). A similar relationship seems to hold between high practice adoption rates and an absence of strong inequalities, as reported for Pakistan by Freeman et al. (1982).

and coffee production). If, to the contrary, a cooperative is expected to handle perishable food crops and is implemented in highly polarized communities, it is almost certain to fail. What the practitioner requires is, therefore, a "decision-tree" diagram identifying which conditions should be weighed in deciding whether or not to adopt this institutional form.<sup>7</sup>

Moving to consider organizational fit within the larger environment, I believe we need to recognize several "recommendation domains" based upon broad cultural similarities. There is by now a substantial literature debating whether or not managerial principles must be adapted to suit different national contexts. Much of the recent writing focuses on the contrast between Japanese and U.S. industrial organization, with the last word not yet in.<sup>8</sup> We cannot take space for the detailed arguments, but from my own experience I consider it quite likely that there are significant regional differences in the operation of managerial systems. Because such differences are expressed in organizational process rather than structure--unit structures are much the same the world over--they are very difficult to document (and hence the ambiguous results from questionnaire studies trying to investigate cultural influences in management). If the methodological problems could be overcome, I suggest we might find

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7. For a useful source which does just this, see Pollnac's (1981) World Bank Staff Paper, Sociocultural Aspects of Developing Small Scale Fisheries: Delivering Services to the Poor.

8. E.g., among others, Ouchi (1981), Pascale and Athos (1981), Pascale (1978), Lincoln et al. (1981), Rohlen (1974), Yoshino (1968), and Abegglen (1958), Cole (1979).

it useful to distinguish at least five regional domains: 1) USA and Northern Europe ("western" management); 2) the Soviet bloc systems ("socialist" management); 3) Africa and South Asia ("LDC" management); 4) East Asia; and 5) Latin America. In each of these domains, the combined interactions are sufficient so that some adjustments to institutional forms is typically required when introducing innovations from another domain. For example, recommendations that are suited to typical African systems seem to yield different consequences if implemented in the more urbanized, Latin American context. Similarly, there is ample evidence that East Asian models do not transfer well into African systems.

5) The concept of "recommendation domains" just presented is, of course, borrowed from the farming systems research (or FSR) approach. A strong case can be made, as a recent HIID study has recommended (Cohen, Grindle, and Thomas, 1983:33-35), for adapting the basic FSR paradigm to suit the needs of institutional choice research. As is generally recognized, FSR has a number of distinctive features:

- It is multidisciplinary
- It uses rapid reconnaissance and key informant field methods
- It focuses on the interactions between subsystems
- It documents changing events and constraints over the year
- It stresses the need to identify clients' perceived constraints
- There is direct contact upwards from clients to researchers

- Interventions are matched to empirically determined "recommendation domains"
- Interventions are field-tested to determine their actual productivity and sustainability before being generally recommended
- The well-being of the whole farm as a unit is used as the criterion of success

Except for the last item, all of these features could be adopted to good effect within organizational research. The last item--a "whole farm" emphasis--pinpoints the greater difficulty organization systems' researchers face in determining who their "clients" are.

The analogy to FSR is also apt in regard to historical moment. In FSR, no radically new elements were added; what the approach has done is to draw together the already developed tools from several disciplines while subjecting their results to real-world screening. In much the same way, institutions have until now been the object of study from various disciplinary perspectives--political science, comparative administration, sociology, social psychology, communications' theory, and multinational management--but without cross-linkages to each other or the vital test of field-generated feedback. The concept of a "service delivery system" constitutes the first step towards "organization systems' research" (or OSR).<sup>9</sup> It makes more apparent the linkages between components, and also identi-

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9. The Harvard study originally called for "bureaucratic systems' research" (or BSR). In regard to institutional choice, however, the goal is sometimes to get away from bureaucratic models by looking at alternative organizations, hence my use of OSR instead of BSR.

fies the key interfaces between systems.<sup>10</sup> To this beginning should be added greater concern for documenting the things that actors within a system regard as significant: the perceived obstacles, incentives, and strategies that motivate their day-to-day activities (see Table 5). Such information would delineate both the "policy space" that actors at various levels perceive and the "folk management" strategies they customarily employ (Cohen, Grindle, and Thomas, 1983:24; Moris, 1981: 117). It should document the things decision-makers regard as relevant ("appreciated"), influencable, and controlled (Smith, Lethem, and Thoolen, 1980:12). It is really astonishing how little can be gleaned about these vital dimensions from the existing studies, with their narrowly-focused intra-disciplinary concerns.

Finally, in arguing the case for additional research, we should also take note of the obstacles. Most sobering is the realization that a similar effort was mounted for over a decade under the "comparative administration" approach of the 1960s. While interesting individual studies were produced--e.g., works on Asian administration by Riggs, Esman, Siffin, Pye, Neher, and Rubin--these never became consolidated into an enduring research tradition. (The one lasting work of a general nature, Uphoff and Ilchman's The Political Economy of Development, was a compilation of articles.) It

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10. In agricultural extension services, for example, the components might include: 1) the technology being promoted; 2) the farming system; 3) client organization; 4) change agents; 5) extension tasks; 6) the service delivery system; 7) the inter-organizational support matrix; 8) local political interests; 9) community infrastructure; and, 10) the national policy environment.

Table 5.

Organizational Systems Research

Constituent topics for inter-agency comparisons:

- 1) Goal setting/activity monitoring: What structural reasons account for vague or contradictory goals? How do agencies differ in regard to uses of goals and targets? If there are conflicting goals, which receive priority attention? Why? How are activities monitored?
- 2) Signals & incentives: Which kinds of information are watched in decision-making as it now occurs? What evidence is there of missing or ignored signals? What are the perceived incentives watched by individuals? Do these reward behaviors that build agency strength?
- 3) Perceived opportunities/constraints: What is the "policy space" that defines the limits of organizational functioning as seen from above? How do different types of actors define what they control, what they can influence, and what is relevant? Are there necessary actions over which nobody feels they have control? What are the perceived constraints at each level, and can these be modified?
- 4) Performance feedback: What types of information get communicated upwards through the agency? How rapidly and with what distortion? How is individual performance assessed and rewarded? How is client satisfaction evaluated? Can public sector equivalents for market signals be devised? How are costs monitored internally?
- 5) Staffing: Is the hierarchy steep or broad? Which positions are professionalized? What rates of staff movement are encountered? How far down do nationally recruited staff penetrate? How is ethnicity dealt with? What security of tenure do incumbents enjoy? Are there cross-cutting professional ties/associations? Recognized careers?
- 6) Political interpenetration: What is the degree of external political penetration into agency operations? Which types of decisions are made according to political criteria? Are resources subject to political reallocation? Are timetables politically governed? How politicized is agency policy-making.
- 7) Organizational technologies: What routine procedures are adhered to re: budgeting, planning, staffing, delegation? Are responsibilities or just tasks delegated? Which managerial innovations have been tried? With what success? What are the areas of stress where change is needed?
- 8) Inter-agency coordination: Which activities require external coordination? What mechanisms exist for this purpose? How well do they operate in the system at present? What costs are being externalized?
- 9) Staff/client interface: How is the access bureaucracy staffed, supported, and evaluated? What resources do contact staff control? What is the nature of upwards vs. downwards accountability? What degree of social uniformity between staff vs. clients? Gatekeeper mechanisms?
- 10) Recurrent costs/sustainability: Which activities are cost recovering? To what purposes are existing finances directed? How dependent are they on higher levels/external assistance? How are recurrent costs financed? Which functions could be devolved or privatized?

would be helpful to learn what went wrong. Perhaps, as Riggs has noted (1980), the mistake lay in treating administrative factors as the dependent variables (or "outputs") reflecting external forces ("inputs"). Systems' analysis should have been used instead to guide where measurements would be comparable and to avoid mixing levels of analysis--two faults prominent in the writing from this period. Again, much effort was devoted to premature terminological elaboration, but the resulting categorizations have not proved fruitful. Or maybe researchers erred in identifying themselves so closely with the "institution building" theme. Once this emphasis fell from favor in the early 1970s, further funding for research on administrative topics ceased abruptly.<sup>11</sup>

An added reason for moving cautiously is the modest degree of success that parallel efforts in the fields of management and organization theory have achieved. In a review of organization theory, Pfeffer concludes that "a great deal of research has been done with, in many instances, little or no return in terms of development of knowledge" (1982:vi). Miner puts it even more bluntly (1982:436):

Not a single theory among those considered in this volume does not suffer from some construct-related problem. Ambiguity of statement, conflicting formulations, lack of anticipated relationships to other variables, failure to specify significant aspects, logical inconsistencies--these and other short comings abound.

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11. Since many of those involved in comparative administration are still active professionally, their advice might be sought in the effort to see that a new research program produces more lasting results.

### Problematic Aspects of Organizational Research

Those responsible for implementing rural development activities tend to be skeptical of the value of theoretical research. The questions that arise during project design and implementation concern a host of practical details in every corner of the decision space.<sup>12</sup> Typically, field staff must make decisions that assume that answers can be given to the following kinds of questions:<sup>13</sup>

- Should a new unit be established or can the functions be added to existing ones?
- Which existing agencies must be included in planning and in the project agreement?
- Why is Ministry X not interested in our proposal?
- How sufficient and reliable is the technology package?
- Who will operate and supervise the field activities?
- How will financing be obtained, both externally and internally?
- What is the necessary duration and phasing of activities?
- Where will the various categories of staff be obtained, and what kinds of performance can be expected of them?
- Which aspects of the design are sensitive politically, and what can be done to secure local commitment?
- Which inputs can be obtained within the local system and which must be provided for externally?
- Who are the different beneficiary groups who stand to gain from these proposals?

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12. Aspects which it has been customary to view as "implementation" problems. Here see Grindle (1980), Morss and Gow (1981), and Rondinelli (1983).

13. For a more extended review of the design considerations which arise in implementation, see Moris (1981:24-27).

- How will any necessary construction and supplies be arranged?
- What will be the nature of internal linkages between the project's components? Can these be relied upon to operate as planned?
- What levels of output have similar units achieved under other programs within the country? Are the planned outputs realistic?
- What kinds of monitoring and evaluation should be incorporated?
- Which elements of the logical frame are likely to be problematic, and how will this influence project achievements?
- What political constraints affect what donors can or cannot support?

In addition to responding to the issue of irrelevance, organizational theory building efforts must also confront a panorama of dilemmas and unresolved issues that plague the study of organizations in general. Several of these can be briefly outlined.

#### 1. The Universal/Particular Matching Problem

It is now generally acknowledged that universal theories of organizational behavior can rarely be applied directly to resolve specific, concrete issues of the types just itemized (Beyer and Harrison, 1982; Weiss and Bucuvalas, 1980). To the extent that science develops propositions stating what is general and universal, it will prove a poor guide for decision-making in the real world of particular and unique events (Almond and Genco, 1977; Mohr, 1982: 44-60, 181-187). Decision-makers often find that their decision space cross-cuts the scientist's categorizations. The relevant considerations influencing action arise from unique historical constellations,

some of which are bound to have escaped theoretical attention. Contingency theory argues that there will always be many trade-offs within organizational design: a model that does well in one setting might be dysfunctional in another (Lawrence and Lorsch, 1967:185-210). Those responsible for developing rural development projects should expect that some aspects must be taken as "givens," while others can be adjusted to meet evolving needs. Our listing of practitioners' concerns indicates the wide range of issues, factors, and components that enter into the formulation of actual institutional choices. This diversity and the inability to specify in the abstract which elements must be treated as "givens" constitute the usual explanations for why social science findings--even "middle range" ones--are so difficult to apply within the turbulent environment of real world policy choice.

Since this paper argues for additional research to assist policy-makers, the constraints that limit research productivity must be explored further. The above line of reasoning, while seemingly valid, is hardly exhaustive. There are other particular problems associated with the topic of institutional choice that must be faced in planning any new research program that might be initiated.

## 2. The Advocacy Problem

Organizational analysts can easily become trapped into espousing proprietary "solutions" under the guise of "objective research." It is embarrassing today to recognize that Mayo's famous Hawthorn studies--which have been used for four decades to support the human relations approach--were examples of advocacy writing rather

than sound scientific research (Lee, 1980:41-59). More recently, the potential contributions of the contingency approach have been marred by proponents' advocacy of "matrix" type managerial structures, an innovation that does not fit well within public administration (Chadwin, 1983) and has proven quite problematic in developing country settings, as already noted. Mechanical and organismic metaphors underlie most organizational analysis (Morgan, 1980), and indeed, it is commonly assumed that "there is some stable, reliable relation between effectiveness as an outcome...and some particular precursor or partial precursor" (Mohr, 1982:179). Most interventions by managerial consultants incorporate embedded premises of a normative and ideological nature (e.g., see Kelly's review of job redesign, 1982).

In regard to rural development, Tichy (1975) warns that the solutions recommended typically reflect the analyst's normative pre-suppositions. These and other epistemological considerations have led to an emerging agreement that analysts' normative frameworks should be made overt; see Harmon (1981), Moris (1981:89-98), and Astley and Van de Ven's fourfold categorization of analytic paradigms (1983). Frederickson identifies the following five analytic models (1980:17): a) classic bureaucratic model; b) neobureaucratic model; c) institutional model; d) human relations model; and e) the public choice model. Since these differ in regard to units of analysis, scope, focus, managerial role, and values to be maximized, the analyst's commitment to a particular model becomes a significant consideration in any program of organizational research.<sup>14</sup>

### 3. The Intra-class Heterogeneity Problem

As Pfeffer (1981, 1982), March (1981), and others have argued, much of the learning from existing research on organizations has been negative: human decisions are often not optimized, organizations do not have unitary goals, and so forth. It now appears that several of the most central concepts used in organizational analysis turn out, when subjected to intensive field investigation, to lack intrinsic coherence. For example, this was Herzberg's fundamental insight about "motivation:" rather than being a unitary organizational property that can be treated as a variable (i.e., "low" vs. "high"), it is a resultant outcome reflecting the mixed reactions of personnel to both satisfying and dissatisfying elements in the work environment (Hartzberg, 1966; Myers, 1964). This is similarly the case with many other "organizational attributes" such as leadership, power, control, objectives, effectiveness, feedback, coordination, decentralization, and participation. Anyone familiar with the recent literature could cite sources demonstrating that each of these are composite phenomena that should not be treated as unidimensional "variables" within the standard research design. And yet these remain crucial conceptual elements in any attempt to explain organizational functioning, as is evident in Table 5.

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14. Tichy's "TPC theory" can be of assistance here, since the analyst is likely to exhibit simultaneous commitments to specific technical solutions (T), politics (P), and cultural values (C). For those who sponsor interventions, choices must be made in all three realms (Tichy, 1983).

The same methodological difficulty emerges when we turn to policy-derived categorizations (of the kind that predominate in the literature on rural development). The example of institutional categorizations is illustrative. In the U.S., institutions have usually been classified by ownership under the headings of the "public" vs. "private" sectors. When describing systems in developing countries, it has often been helpful to add a third, residual category--"local institutions"--giving the following typology:

<u>Public Agencies</u>	<u>Private Agencies</u>	<u>Local Institutions</u>
mainline ministries	multinational firms	development committees
public corporations	national trading	farmers' cooperatives
planning commissions	companies	farm service centers
research/training	indigenous entre-	farm settlements
institutes	preneurs	field service offices
technical assistance	voluntary agencies	village councils
"enclave projects"		

While convenient, mixed categorizations of this kind present serious difficulties if made the basis for either research or for policy application. For one thing, the categorization embodies a hidden premise that having some kind of organized presence is desirable. Some policy instruments do not require organized social groupings for their execution, and so would be overlooked.

The second difficulty is the intra-class variability we typically encounter: the units within each category show as much variability in traits as there is between categories. This is particularly so in regard to the private sector, which in many countries shows less uniformity than does the public sector. In the "private sector" one may find huge, multinational corporations that are themselves highly

bureaucratized and externally governed; immigrant trading houses with a strong incentive to transfer assets out; wealthy family holdings (estates, ranches, etc.); indigenous, small-scale entrepreneurs without access to credit or technical expertise; non-profit religious organizations; and smallholder peasant farmers. The commonalities between such units are probably less significant than are the differences.

The heterogeneity of institutional types within each category becomes more evident when descriptors are attached in order to specify significant organizational properties. The most commonly identified attributes can be displayed in dichotomous form:

public/private	bureaucratic/voluntary
large-scale/small-scale	rigid/flexible
capital-intensive/labor-intensive	mechanized/manual
top-down/bottom-up	rule governed/unique
foreign/indigenous	authoritarian/participatory
skilled/unskilled	blueprint/process-planned
full-time/part-time	wage paid/salaried

As earlier pointed out, these are not neutral properties. They are often seen as being either highly desirable or highly undesirable. Those committed to one side of each polarity will stress the intended benefit that adoption of its institutional form is supposed to deliver. Those committed to the other will argue that the benefits do not actually occur, are inappropriate, or are outweighed by negative impacts. As an example, we might note that "efficient" technological institutions in contemporary society tend also to be standardized, large-scale, mechanized, capital-intensive, and bureaucratic. The clustering of these attributes helps explain why proponents of any

single property will try to cast the choice in simplistic, uni-dimensional terms whereas opponents will point to the associated "hidden agenda" deriving from linked properties.

The historically given admixtures of organizational properties that are embedded in various institutional types constitute a "problem" for practitioners and analysts alike. The question is whether by varying organizational designs, policy-makers and their advisors can learn to incorporate desirable features while minimizing or even eliminating undesirable traits. For example, modern technology is not always large-scale, imported, and capital-intensive. Ways could be found to exploit its productivity within small-scale, indigenous, and labor-intensive contexts. Similarly, public corporations could learn to allocate transfer costs internally so that their overhead costs remain under control. Or again, measures could be devised to make access-level bureaucracies more accountable to their clients. An important role for institutional choice research must be, therefore, to search for ways of disconnecting undesirable properties from otherwise promising institutional modes.

#### 4. The "Process Theory" Problem

Starting with Lindblom's insight that often organizations must make decisions based upon available knowledge, one step at a time, theoreticians have begun to pay explicit attention to institutional processes. An interesting addition to "process theory" is the idea of "garbage can" decision processes, where a given issue in becoming resolved affords an opportunity for all sorts of extraneous matters to

be raised and incorporated (Cohen, March, and Olsen, 1972). Mohr argues that such theoretical contributions, while being "intriguing, important, and nonobvious," are not subject to test under the usual "variance theory" paradigm of scientific research (1982:154-178). This proposal is significant for our topic in two respects. First, I would argue that process breakdowns underlie the more flagrant examples of institutional malfunctioning within LDCs (Moris, 1973:19-26). An inability to study such weaknesses by means of a standard research design would be a major obstacle. Second, the application of organizational research in the real world often occurs within process-governed settings (e.g., the bargaining which occurs in multi-agency planning). Thus, either in deriving scientific knowledge or in applying it, "process" situations can prove especially intractable (see also Lindbloom, 1981).

##### 5. The Max Weber/Bureaucratization Problem

Max Weber towers over students of bureaucratization to such an extent that his formulation of bureaucracy as a single type has become part of the problem (Warwick, 1975:183).<sup>15</sup> It has long since been recognized that Weber's emphasis upon the impersonality, rationality, and expertise that underline his view of bureaucratic authority combine attributes that are not universally present within bureaucracies. One popular line of argument has been that the nature of tasks a

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15. Weber's own writings are easily accessible in translations by Gerth, Mills, Henderson, and Parsons. Further references to his untranslated German writings are found in Jacoby (1973).

bureaucracy undertakes strongly influences the mode of control it adopts: where tasks are routine, a strongly hierarchical and rule-governed system emerges, whereas if they require much discretion, a less hierarchical, professionalized system will be more effective (Willer, 1967:42-52).<sup>16</sup> Accordingly, Stinchcombe, Blau, and others proposed that Weber had unnecessarily confounded hierarchical authority (based on administrative rank) with professionalism (based on technical expertise). It was appealing to view the autonomous professional as being somehow more "free" and less rule-governed than the bureaucrat—a preference that lives on in the idea that privately offered services are more efficient than publically-provided ones. However, research has not supported Weber's critics. It seems from a number of studies that hierarchical organization and professionalism reinforce each other and tend to be evidenced jointly, so that Weber's formulation "may be considered an almost prophetic insight" (Toren, 1980:348).

This general conclusion leaves students of developing country bureaucracies in a quandry. The rationality evidenced in such systems does appear to operate differently from Weber's model, while routine malfunctioning is worse (Gould, 1980; Hyden, 1983; Moris, 1977). It would seem imperative that further analysis to identify subtypes with

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16. An opposite hypothesis, that organizations resort to stereotypical, rule-governed behavior when the environment becomes more turbulent, has also received some attention. Willer's distinction between task and nontask-oriented administration (1967:60-51) remains an attractive idea for investigating developing country bureaucratic situations.

in bureaucracy be done; here perhaps the diversity of developing country situations would prove an advantage. One promising recent contribution (though derived from private sector experience) is Mintzberg's delineation of five bureaucratic subtypes, each relying upon a different coordinating mechanism in its operational core, and each having distinctive weaknesses (Mintzberg, 1979).

There is, of course, a vigorous general literature on western bureaucracy, mostly written in a critical vein.<sup>17</sup> Whatever one thinks about the criticisms, bureaucracy has become the distinguishing fact of modern life. The "pathologies" discussed at the start of this chapter are seen as such because of the greater poverty of developing countries, but the phenomena they represent are equally prevalent in developed nations. Computerized technologies give modern mass organizations immense potential for increasing control over individual citizens, leaving professionals in a pivotal, intermediate position (Scott and Hart, 1979).<sup>18</sup> In America, we did not reach this situation by design. It emerged wily-nily out of the vast increase in scale within both public and private sectors that accompanied the post-World War II period--a transition that received much critical comment but that has continued unchecked (see the widely-known works by Whyte, Ellul,

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17. Key works including Benveniste (1977); Berger et al., (1974); Crozier (19\_\_); Downs (1967); Hummel (1977); Jacoby (1973); Mouzelis (1967); Rehfuss (1973); and Whyte (1969). On bureaucratic language, see Edelman (1977).

18. Scott and Hart's pessimistic picture of the growing dominance of professionals in U.S. services is substantiated by Tucker and Zeigler's detailed analysis of decision-making in eleven school districts (1980).

Reisman, Packard, and Waldo). This suggests that tendencies toward bureaucratization are deeply rooted with the fabric of contemporary life, probably more so than most of us care to admit. It seems quite likely that "developing" nations will take this same path, irrespective of our efforts, since this is at present their only chance for counterbalancing our bureaucracies.

Analytically, "bureaucratization" remains a problem because scholars have tended to criticize rather than analyze the process as it occurred. In retrospect, after the fact of transition, we now do have studies of American service organizations that show how schooling, businesses, and medicine were bureaucratized, such as those by Peshkin (1978), Chandler (1977), and Mechanic (1976). Nevertheless, we need to pay far more analytic attention to identifying those crucial, first steps toward bureaucratization--full-time staff replacing part-time workers, salaried employment instead of wage employment, and specialists instead of generalists--that seem to accompany modern mass organization almost automatically.

These problems of generalization and particularity, advocacy, intra-class heterogeneity, studying a moving target, and bureaucratization are general issues that must be addressed in the development of organizational theory. They do not, however, provide much direction about where resource energies can most usefully be applied. This task is undertaken in the final part of this paper.

### Research Priorities

The overall topic of institutional choice is too large to be encompassed within a single research program. The priority subtopics (Table 6) fall into three groups: 1) interorganizational issues; 2) intra-organizational concerns; and 3) local level situations. To conclude this chapter, let us review the potential research foci in this same order, moving from broad, national concerns down to specific field problems.

#### 1. Contingency Mapping and the National Decision Space

The idea of "contingency mapping" refers to the systematic assessment of the fitness of institutional forms for accomplishing desired tasks in specified environments. It seeks to answer questions like "When should farmers' groups be organized?" or "Is a public corporation likely to be a cost-effective answer to this need?" Answers to such questions are sought both by national decision-makers and by donors. Our institutional choice perspective is especially useful at this "macro" or societal level. In a constrained resource situation, the commitment of resources to particular programs often involves choosing between institutional alternatives. However, the decision as commonly encountered takes several forms: a) to utilize an existing institution; b) to discontinue support to an existing institution; c) to attach new functions to existing institutions after modification; d) to set up a new institution; and e) to establish and maintain the necessary interorganizational linkages. As can be seen, whereas outcomes a) and b) constitute a clear-cut alternative between

Table 6. Priority Research Topics

LEVEL:	INTER-ORGANIZATIONAL		INTRA-ORGANIZATIONAL		STAFF/CLIENT INTERFACE	
TOPIC:	1. National Policy Space	2. Contingency Matching	3. Signals & Incentives	4. Organization Systems Res.	5. Access Bureaucracy	6. Resource Constrained Service Delivery
<b>CONCEPTS</b>						
	transaction costs	loosely-coupled systems	learning process	participative bureaucracy	demand buffering	sustainable capacity
	privatization	linkages	incentives	feedback	rationing devices	gate-keepers
	disengagement	sub-sector problem cases	career signals	patron-client ties	structured misperception	paraprofessionals
	aggregate support demand	top-down vs. bottom up design	benefit capture	decentralization	boundary spanning positions	bureaucratic involution
	privileged problems	capacity assessment	privileged solutions	professionalism	trapped elites	
	garbage can decision	technology to system matching	market surrogates	satisfiers vs. dissatisfiers	downward vs. upward accountability	
	policy vs. agency as instrument		performance management	task vs. responsibility delegation		
	perceived constraints		transfer cost pricing	internal rationality		
				proximate vs. systemic priorities		
<b>UNITS:</b>	states sectors donors	service delivery system	organiza- tional response	agency, firm, scheme	cadre field office	situational type, communities, farmers' orgs.
<b>AIM:</b>	understand constraints	improved choice	make per- formance visible	increase respon- siveness	strengthen weakest link understand	build sustainable capacity, find partnership

either giving or withdrawing support, outcomes c) through e) involve an added element of organizational design.

There is, of course, a huge literature on organizational design (see Nystrom and Starbuck, 1981) that we will touch upon below under intra-agency issues. The question of when and how to withdraw support from existing organizations has received much less attention and is of particular relevance in poor countries that find themselves with more organizations than the economic system can support. As Edelman points out, public bureaucracies are notorious for persisting with ineffective "services" (1977:79). A principal advantage that is often claimed for private, commercial organizations is that their attention to profits forces them out of unproductive ventures at an early stage. An obvious area where research assistance is needed is to help identify which public services could be "privatized," and thereby reduce the stress being put on the overextended public sector.

Here Hirschman's conceptualization of "exit" (economically dictated cessation) and "voice" (political pressure) as alternative responses to a situation of institutional decline is relevant as it juxtaposes several elements of economic and political theory (1970, 1981:209-84). His discussion of these themes in relation to externalities and institutional loyalty helps explain why developing countries are unwilling to drop commitments to institutions that, to the outsider, seem clearly unproductive (1970:44-54, 1982).

There are several further approaches that should be tapped within applied research on national-level institutional choice. A key

need is for better techniques for assessing organizational capabilities, perhaps drawing lessons from U.S. "organizational assessment" research (see Van den Ven, 1981:249-298). Within the rural development literature, we have no equivalent methodology (though a 1969 United Nations study remains useful). The concept of "decision space" can itself be further elaborated to incorporate the distinction between "controlled," "influenceable," and "relevant but not influenceable" factors (Smith, Lethen, and Thoolen, 1980). We might well discover that analysts' and decision-makers' assignment of factors to this categorization differ, with certain key elements being missing from decision-makers' cognitive maps, and with disagreement over how and by what means control can be exercised. It would be important to document perceived priorities, political as well as technical. Again, Hirschman's concept of "privileged problems" can explain why after long neglect suddenly certain issues (and their attendant institutional forms) receive priority treatment (1963:229-43; 1981:150-544). Finally, it might be possible to operationalize the measurement of "transaction costs," a concept that, while controversial, has stimulated a lively exchange among economists.<sup>19</sup> Comparative transaction costs could then become one form of evidence used in evaluating alternative institutional types.

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19. In addition to Williamson's central work on "organizational failures" (1975), see also: Ouchi (1978, 1981); Demsetz (1968); Alchian and Demsetz (1972); Alchian and Allen (1977); and most recently, Jones (1983). Overviews of this tradition are available in Van den Ven and Joyce (1981:347-406) and Pfeffer (1982:134-147).

The above concepts focus on the performance of individual institutions (albeit as seen "from above"). The literature now recognizes that, to the contrary, national level responsibilities are frequently vested in networks of organizations, sometimes only "loosely coupled" to each other. When a given function depends on joint action from several subunits, there will always be the possibility that poor overall performance arises from ineffective or inappropriate linking mechanisms rather than being necessarily the consequence of intra-unit weaknesses. The concept of "loosely coupled systems" is relatively new, and depends heavily upon work done by Aldrich (1977, 1979).<sup>20</sup> Its usefulness for understanding the national "policy space" ought to be obvious. First, loosely structured systems are almost by definition not amenable to centralized planning and control from above-- perhaps the reason why national interventions based upon hierarchical assumptions sometimes produce such unanticipated outcomes. Second, the relationships within such systems are excellent candidates for analysis within an exchange framework, an analytic application illustrated by Lowi's examination of governmental population policies (1972) and suggested by several recent overviews of rural development (Rondinelli, 1983:125; Johnston and Clark, 1982:159; Leonard and Marshall, 1982). Effective interaction between subunits will reflect a varying mix of persuasion, bargaining, exchange, and coercive

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20. Additional sources include Aldrich and Pfeffer (1976), Whetten (1977), and Weick (1976).

(regulatory) pressures.<sup>21</sup> Politics will often play a large part, and play a large part, and thus differing political agendas and potential conflicts must become an explicit part of the analysis.<sup>22</sup> Indeed, changes in political reactivity within subunits are a likely reason for systemic break-down and have generally escaped analytic attention except for individual case studies by political scientists. Third, because some linkages will be indirect, there is bound to be organizational slippage that will appear as "slack" or "excess capacity" when evidenced by individual units. To national policy-makers, the question then becomes how much redundancy they are willing to tolerate.<sup>23</sup> For clients whose activities depend upon the output from loosely coupled systems, it may become necessary to calculate the overall "institutional risk" that their involvement entails. Rural development networks seem to have a bad record in this regard, evidencing levels of institutional risk that many potential clients deem unacceptable. However, our usual concepts anchored within markets and hierarchies are not very illuminating; we need to replace the concept of organizational productivity with one of linkage effectiveness, which in turn determines network productivity. Fourth, even the mode of internal intervention must be changed, since loosely coupled systems contain internal conflict and respond to external suggestions in quite distinctive ways (see the U.S. case study reported by Kaplan, 1982).

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21. Leonard and Marshall propose five kinds of linkages: a) finance; b) regulation; c) personnel; d) services; and e) representation.

22. A point emphasized by Heaver (1982).

23. Redundancy is treated by Trist and others in the "socio-technics" literature, and also by Landau (1969).

Some readers will find the above discussion highly theoretical, and may wonder how it relates to actual institutional choices. In fact, several of the earlier listed "failures"--IRDs, range development, social forestry, and nutritional improvement--can now be seen as network situations that were attacked on a single project or program basis. Both donors and national leaders made the mistake of assuming that because they faced a salient need ("privileged problem"), a technical assistance project would constitute a sufficient intervention. To the contrary, the situations involved in these different, but analytically comparable fields, were of the "loosely coupled systems" nature, and would require a differentiated and complex approach employing a diversity of tactics. This is, unfortunately, a lesson neither donors nor leaders have yet learned.

The need to bring fresh concepts to bear upon the national "decision space" is dictated, then, by the actual experience of numerous rural development institutional failures in the 1970s. Ollawa describes how Zambia's leaders have found themselves trapped in a "motivation-outruns-understanding" situation, with the consequence that the Zambian government has repeatedly launched new programs without considering likely implementation problems or dealing with root causes (1978:82). This same tendency is found in many of the poorer countries, whose leaders stagger from one crisis to the next. Quick shows that when the national leadership does give a rural development program high priority, its special status can cut off feedback from below, so that corrective actions are not taken early enough for de-

esign modifications to be effective in improving performance (1980: 52-56). The failure to anticipate aggregate sector demands generated by a proliferating institutional network is, again, a problem of national leadership. Case studies of program implementation--like those assembled in the excellent Grindle volume (1980)--indicate as "more problematic" those with the features that are common to rural development programs (Cleaves, 1980:287). The structural situation at the top--where typically we see ministries, interest groups, donors, and proponents of certain "privileged solutions" jockeying for attention and resources--favors the adoption of "garbage can" decision processes. Analysts have suggested that the "garbage can" process, while marginally effective, yields unpredictable outcomes, depending upon the peculiar pressures of the moment. I would go even further: developing country leaders have entered a structured situation wherein the "solutions" they are likely to adopt to cope with immediate, short-term problems (debt, militarization, famine, etc.) feed back upon and accentuate the long-term malfunctioning of their systems (Moris, 1983:18-23).

## 2. Signals and Bureaucratic Responsiveness

At the intra-organizational level, the task facing researchers becomes how to explain rational underperformance. That this is the core issue is not obvious, since developing country agencies often use information on the circumstances of national poverty to justify their own weak performance. David Korten, in a classic article whose argument undergirds what we will say here, observes that rural development

organizations experiencing poor performance ("error") can respond in three ways (1980:498): a) by refusing to admit a problem exists; b) by projecting responsibility onto the external environment; or c) by learning from their own mistakes. For creating sustainable capacity, this is the central issue: how can existing institutions be encouraged to respond to error by improving their own performance?

The awareness of the need to concentrate research attention on the internal functioning of developing country agencies arises from the difficulties donors have encountered in transferring items of organizational technology into third world practice. The developing country organizational landscape is crowded with numerous donor-sponsored "solutions:" project appraisal, matrix management, participatory bureaucracy, manpower planning, decentralization, "high level" training, job redesign, microcomputerization, and so forth. To say that organizational research should help match solutions to administrative contexts is to restate the obvious. It misses the more fundamental point that within developing country systems the incorporation processes are themselves faulty, insofar as these managerial innovations are likely to be implemented in ways that negate their intended objectives. For instance, Honadle and Hannah suggest that if only developing country agencies would use training in a flexible fashion to augment performance rather than "organizational stock," it could be quite effective (1982:305). However, they also document that, as presently used, training is anchored in the home institution, relies on lectures and abstract principles, treats each cadre separately, and is

consequently ineffective. From examples like these--which could be greatly amplified from USAID-funded action research on decentralization and participatory management---Korten and Uphoff draw the obvious conclusion that (1981:2):

So far...little attention has been given to dealing with bureaucratic structures as variables to be modified and managed...Yet it has become evident that assisting disadvantaged groups requires procedures and approaches on the part of the assisting agencies which differ considerably from the usual norms of the typical public agency.

A conventional (and static) research approach would be to begin by documenting developing country agency structures in relation to environmental characteristics. There are many sources in the management literature that suggest what to look for.<sup>24</sup> Springer and Gable (1980) provide an example of how environmental variables can be incorporated under the concept of "administrative climate." And, of course, one could use as a descriptive model a combination of the classic cases such as Leonard (1977), Eldersveld et al. (1968), and Heginbotham (1975). Since there are as yet only a handful of these studies, further descriptive research is still needed. It would be particularly helpful to document closely how higher levels relate to middle managers and these in turn to the access bureaucracy and to clients. There is a large political science literature on "patron/client" ties linking bureaucrats to local elites, but the

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24. E.g., for a start Nystrom and Starbuck (1981), Pfeffer (1982:254-94), Lawler et al. (1980), and Ouchi and Harris (1976).

systemic consequences of this "verticalization" remain to be worked out.<sup>25</sup>

The "learning process" concept suggests, however, a more dynamic research perspective that would have the advantage of including a wider array of institutional types within a common analytic framework. Any collective group (though for convenience we will continue to term it an "agency") will only evidence learning if somebody monitors the environment on the group's behalf and if it expends real resources on internal communication: in articulating common interests; in formulating more accurate images of the external environment; in making projections; and in coordinating its own activities (Moris, 1981:21-22).

Much of the time, organizations probably do not learn from their own experience. In addition to the many genuine reasons, there is again the problem of post-hoc rationalization, so that what managers claim to have been the case is far removed from actualities. The possibilities that need to be explored include: a) that performance-related information is not available ("missing signals"); b) that it exists but is not perceived as relevant ("noise" rather than "signal"); c) that those who should act get by not doing so (Janis and Mann, 1977:107-133); or d) that when problems are attacked, the "solutions" chosen prove ineffectual. The literature tends to support this

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25. This may mean that some developing country agencies are more "downwardly accountable" than our own, though perhaps not in ways we would condone. For a view of such systems as "rational" in their own terms, see Moris (1977), Heaver (1982), and Leonard (1983).

last explanation which we review below under the discussion of privileged solutions, but the other possibilities also merit systematic attention.

Even for American management, little research has been done to show how problems are defined and raised for action within an agency (Lyles and Mitroff, 1980:102). There are, however, some studies of how agencies acquire processed information (Sabatier, 1978).<sup>26</sup> In one study it was found that the actual uses of expensive information were so different from claimed needs that we could reasonably conclude "organizations are systematically stupid" (Feldman and March, 1981). We also know, in contrast to their idealized model of "executive functions," that senior managers spend the larger part of their working hours just talking (Baird, 1977:2-3, Mintzberg, 1973). Thus, it is not at all certain that U.S. institutions operate more efficiently in regard to information use than do developing country agencies, despite the vast differences in communication technology.

Offhand, I cannot think of a single comprehensive study of a developing country system that explores the full range of external signals and internal incentive streams that are potentially significant for analyzing agency learning. The concept of "market surrogates" does imply that public institutions need the incentive of competition before they will take their need for performance improvement

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26. See also Connolly (1977) and the whole MIS literature; Mintzberg argues persuasively that much of the conventional view is myth (1972, 1973).

seriously.<sup>27</sup> Within an agency, the same issue surfaces in regard to what individuals monitor in carrying out their own activities. We need to recognize that any complex organization is, for its own members, a powerful signalling system, rewarding some activities and ignoring others.<sup>28</sup> The same is true of an aggregate career structure, which one imagines is what senior managers watch when evaluating their own progress. In fact, in regard to rural development agencies, the implementors are often the prime beneficiary group--which may explain why third world leaders become so preoccupied over "minor" details of project location, staffing, and resources (Heaver, 1982).

It is not difficult to anticipate the kinds of questions one would like to see asked. Which signals in the external environment do decision-makers monitor? What do actors inside the organization watch? Does the system put pressure on individuals to complete tasks? Do members have incentives to cooperate? To be efficient? What kinds of feedback are utilized? Is client satisfaction monitored? Which of the agency's current activities have a large potential "leverage effect" upon members? Information of this type might pinpoint some fairly modest changes that would nevertheless improve productivity by giving clear indications of desirable performance--e.g. budgetary

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27. Spence (1974) deals generally with the question of market signals; the "transaction cost" literature noted earlier is also relevant.

28. Authors treating the agency itself as a signal-emitting structure include Mirrless (1976), Meyer (1979), and Heaver (1982). See also on related points Arrow (1974), Edelman (1977), and Demski and Feltham (1978).

reform (since the budget is usually watched closely in most agencies), performance-based work assessment, or the adoption of internal transfer cost pricing (as an incentive to control ballooning overhead charges). At present, such recommendations would have to be taken on faith since we lack any empirical documentation on how information flows and is used in the typical developing country field agency.

At this point, I would like to present two research hypotheses drawn from the African experience. At the level of general explanation (or meta-hypothesis), I propose that many "weaknesses" of developing country agency operation are of a process (rather than of a structural) nature, and arise because individuals find themselves in situations in which they have incentives to act in ways that sabotage the organization's longer run goals (Moris, 1983:20-26). More specifically, managers fail to improve performance because, in assessing their agency's problems, they resort to "privileged solutions" that appear to answer the organization's need. Let me illustrate with four African examples.

Within East Africa, it seems that staff transfers have become an institutionalized "solution" that masks the failure of other sanctions within the administrative system. A second commonly preferred solution is structural reorganization, which many analysts now concede has usually not been effective. A third solution has been to professionalize the service delivery system by recruiting as managers "high level manpower" from out of the national pool of college-educated personnel (the same strategy U.S. delivery systems have employed during

the past two decades). Young and his associates have coined the term "premature professionalism" to describe what they observed happening within African co-operatives. Here the co-operative department staff were proud of having brought "modern managerial methods" to bear upon the apparently ill-structured, inefficient primary society operations. In reality, the young professional managers being appointed had no prior work-related experience in the industry. Their "professional" decisions were often arbitrary and not conducive to raising actual marketing efficiency (Young, Sherman, and Rose, 1981). Nevertheless, the officers themselves were confident that they were greatly "assisting" co-operative development!<sup>29</sup>

A fourth option is especially appealing these days: to try to reassert direct control "from above," typically exercised by the widespread dictum that an official becomes responsible for all subordinates' activities. As researchers, we have failed to anticipate the response that middle-level managers are likely to make if they operate under chaotic operational conditions where supporting staff and services are known to be unreliable. What frequently appears to happen is that, when working under pressure, the middle-level manager tends to assume all allocative, scheduling, planning, and coordinating functions in respect of his or her "unreliable" subordinates (Moris, 1977). They in turn must go through their superior ("personalismo")

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29. In Africa, at least, commercial organizations evidence this same bias which helps to explain why "privatization" does not necessarily bring in its wake lower operating costs.

to accomplish even routine actions that might otherwise have been handled systematically. Heaver adds the crucial insight that managers holding this quasi-military concept of undivided authority will tend to decentralize tasks but not responsibilities (1982:22). The systemic danger arises because subordinates assigned to perform tasks can more easily externalize the responsibility for failure on the many situational difficulties that exist on all sides in a poor country.

In an already malfunctioning system, attempts to impose increased control from above may, paradoxically, increase the incentives for intermediate level staff to disguise responsibility; if successful, this can effectively uncouple lower levels from higher level direction. In turn, clients will find it necessary to purchase bureaucratic assistance, and corruption will flourish (Gold, 1980:69-92; Price, 1975:140-165). Faults will be blamed on incumbents as individuals, further accelerating the rotation of staff between positions and the reorganization of agencies as structures.<sup>30</sup> It can be predicted that agencies subject to such process-related distortions will become almost impervious to organizational learning and to feedback from below. Genuine decentralization and participatory management along the lines that have been proposed by outside analysts stand

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30. Systemic regularity can be viewed as a form of public good. Some modification of arbitrary procedure can yield a large payoff to administrative entrepreneurs, and may in the short run make the agency appear more flexible and responsive to client needs. But once such "shortcuts" become widespread, they threaten the system itself (for reasons fully discussed in the public good literature).

little chance of effective implementation (Heaver, 1982:18-22, Rondinelli et al., 1983:52-54). And yet because the aberrations are fundamentally questions of process--what leaders see as the causes of poor performance, when the finance ministry releases funds, how agencies delegate responsibility, evaluate staff, and do their planning, etc.--they escape documentation under the usual cross-sectional, questionnaire approach to institutional research.

Three implications follow in regard to planning further research: a) researchers must enjoy access to inside information about organizational functioning--which means in practice that research will need to be collaborative; b) the principal methodological difficulty to overcome remains the issue of how to best document and analyze information on institutional process aberrations; and c) vertical linkages between levels (directives, incentives, feedback, etc.) merit particular attention, but must be interpreted in a holistic framework.

### 3. Resource Constrained Access Bureaucracies

Finally, we need to study those at the interface between a service delivery system and its clients. Information about what really happens in such transactions is vital for several obvious reasons:

- Top-down bureaucracies have a tendency to expend most of their resources at higher levels in a hierarchy, so that even apparently well-endowed systems may in fact show unexpected weakness at the base.
- In poor countries, it is usually at this level that resource constraints are most evident and yet where, paradoxically, task expectations may be quite high.

- Citizens probably judge the quality of services they receive by the nature of their contact with the access bureaucracy.
- Environmental difficulties and the ineffectiveness of support systems affect personnel in access positions more than those higher up.
- Most official programs embody fairly strong assumptions about the likely performance of the access level--and are often erroneous.
- To the extent that either 'top-down' or 'bottom-up' communication is necessary for realizing organizational objectives, the capacity of access-level staff becomes a critical constraint.
- There is general agreement in the literature that staff at this level are the least prepared and least capable in the system, while also evidencing low morale and a low task commitment.

In short, the "contact cadre" in developing country systems constitute their "problem individuals" whose persistent weaknesses limit what service organizations can accomplish.

In the U.S., personnel at this level are often termed "street bureaucrats"--reflecting the urban bias of most U.S. social services--and there have been several exploratory analyses aimed at improving our conceptualizations of the access situation (Kahn et al., 1976; Rosenthal and Levine, 1980; Lipsky, 1980). By definition, staff at this level must deal with outsiders, representing the organization to clients' "gatekeepers" (Crozier and Friedberg, 1980:82-83). They necessarily occupy "boundary spanning" positions, a designation proposed by Thompson (1967:70-73) but commonly applied in the literature to managerial-level personnel responsible for environmental surveillance. However, when we are dealing with large, strongly hierarchical

ministries--as in, say, the typical African "extension service"--the access staff must also interact with outsiders, often in ways that the distant central organization cannot anticipate. In much the same fashion and for similar reasons, the U.S. access bureaucrat tries to improve services being offered to clients despite supervisors' pressures to limit case loads and decrease contact (Lipsky, 1980). In the U.S. program, resources are being curtailed at a time when popular demands for new case-handling programs "appear unbounded" (Rosenthal and Levine, 1980:386):

A significant requirement of government programs is therefore to select potential cases carefully and to...adjust the varieties...of responses in order to use very limited resources in a reasonably effective manner. In such situations two factors--the desire for equity and the complexity of program response--combine to create an especially difficult management challenge.

The predictable result is that access positions are often subject to a considerable degree of role conflict and consequent low morale.

If this is so even in the U.S., imagine the strains that can arise in developing country access bureaucracies. Whatever weaknesses the larger system incorporates--missing transport, lack of inputs, late payment of salaries, inaccurate technical recommendations, and so forth--will become visible at the contact level. Based on African experience, I suggest that access bureaucrats tend to become the object of structured misperception, since even when an incumbent works hard, no one reviews the totality of the individual's activities. Contact staff thus risk carrying the blame for what are really organizational rather than personal faults.

For example, agricultural extension staff (a key type of "access bureaucrat") suffer from assignments with vague and contradictory objectives and are subject to marked seasonalities in service demand. Whether it is because of shortages of seed or disease outbreaks, farmers' demands tend to arrive all at once. Under demand pressure, a constrained service organization has several options. It may react by disenfranchising some clients, by adopting arbitrary decision-rules ("first come, first served"), by rationing, or by giving preferential treatment. All of these constitute "demand buffering" mechanisms (see Schwartz, 1975; and Schaffer et al., 1975). Assertions have often been made that developing country access bureaucracies bias their attention toward rural elites and progressive farmers, but this observation must be balanced by awareness that some sort of buffering mechanism is inevitable (see Johnston and Clark, 1982:193-199). A further complication is that extension workers are typically given contradictory tasks that intermix advisory, mobilizing, regulatory, and feedback roles, all of which must be implemented by a motley cadre of young people equipped with little more than a bicycle and some tattered notebooks.

Thus, while from a structural standpoint it can be predicted that access personnel will experience stress, specific information is needed from actual developing country settings to indicate how field personnel presently cope while on the job. It is disconcerting to see how much "extension training" is being given at hundreds of locations around the world that does not bear any relationship to the concrete

work settings that trainees must inevitably re-enter. There are only a few reasonably complete descriptions of developing country access bureaucracies. For India, we have Eldersveld et al. (1968) and Heginbotham (1975); for Africa, Leonard (1977) on Kenya and Harrison on Nigeria. In Latin America, Mexico is best described by De Walt (1979), Grindle (1977), and Poitras (1973). Missing from all of these (excepting perhaps Leonard's Kenya study) are the types of multi-dimensional data on cadre characteristics, supervisory tactics, staff effectiveness, organizational communication, and boundary spanning patron/client relationships. For given national systems where interventions are being planned, we usually do not know whether contact staff are recruited out of their communities or are nationally mobile; we do not know which reference groups field personnel use when evaluating their own comparative benefits and workload; and we cannot tell how they use their time or whom they actually serve. Considering the critical linkage roles such staff are supposed to be maintaining, these are very large gaps indeed. If the intention is to make access staff more effective and accountable to clients, these deficiencies in research information must be rectified.

Finally, the ultimate goal of organizational systems' research should be to assist institutions in better serving their clients--and not the other way around. In the instance of the poorer Fourth World communities, this means finding ways to offer modern services under acutely resource-constrained conditions. In such environments, the interventions usually recommended sometimes do more harm than good--a

point Radian illustrates in regard to taxation policies (1980). For example, we know from scores of cases that trained accountants are very scarce at the field level, yet donors persist in imposing bureaucratic controls that require a large accountancy input. Why couldn't research screen institutional types to identify those that make minimum demands on this scarce resource?<sup>31</sup> Similarly, in regard to recurrent costs: we know in advance that communities that depend upon subsistence production will have a meager cash flow incapable of supporting very many salaried officials. The direct implication is that some mixture of paraprofessional and part-time staff may be needed, accompanied by devolution of functions to farmers' organization wherever possible. In making such institutional choices--which require a substantial design effort, because existing models are ill-suited for these situations--it would be extremely useful to have at hand comparative research on the relative costs and effectiveness of different paraprofessional structures (Esman, 1983). In relation to farmers' organizations, the imperative need is to clarify which interventions actually build sustainable local capacity.

We have come full circle to the arguments with which the stage was set to argue for institutional choice research--once again, the interventions being promoted and the concepts policy-makers hold about local needs are counterproductive. As far as interventions are concerned, most government attention has been directed at augmenting conventional inputs--training, credit, facilities--at the local level.

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31. A question posed by Leonard and Marshall, 1982.

These inputs are, likely as not, provided in ways that diminish (rather than strengthen) organizing skills, leaving clients more passive and more alienated than they were before. The "management strategies" that Bryant and White (1980:25-29) recommend for adoption by field staff--build on local interests, think small, think simply, build local leadership and organization, and create linkages between local groups and outsider support--are conspicuously absent, one suspects, within the presently established access bureaucracies. In his most recent work (1983:168), Robert Chambers captures the essence of the required change:

For the rural poor to lose less and gain more requires reversals: spatial reversals in where professionals live and work, and in decentralization of resources and discretion; reversals in professional values and preferences... and reversals in specialization, enabling the identification and exploitation by and for the poor of gaps--under-recognized resources, and opportunities often lying between disciplines, professions, and departments.

But time is not on the side of reformers. It would seem that we have been slow to recognize that local rural organizations are themselves in dynamic response to the larger environment. Those with service functions have been adding paid staff and becoming more bureaucratized throughout the 1970s (Gittell, 1980).<sup>32</sup> Unless there is a fairly rapid breakthrough in our understanding of how new institutional models might be developed, we can predict that polarizations already underway will accelerate. The institutional outcome will then

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32. Gittell provides a useful typology of local organizations, dividing them between advocacy, service, and advisory strategies and classifying them both by leadership and membership types (1980:78).

reinforce the most negative aspects of a disembodied, ineffectual bureaucratic culture superimposed upon equally impoverished and ineffectual local organizations.<sup>33</sup> Our topic, then, is both timely and urgent but it will require a different type of science, and an unusual effort of imagination and sound methodological flair to provide the systematic understanding that policy-makers currently lack.

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33. An earlier paper provides a description of the dismal state of local extension services in Africa (Moris, 1983). An experienced colleague recently wrote to say: "I found your observations...a vivid, explicit account but on the basis of my experience on visits to Liberia, Sierra Leone and Ghana in 1983, think the situation is much worse than what you describe..."

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Issues Raised During the October Workshop on the Presentation by  
Jon R. Moris

There was a consensus among the workshop participants that Jon Moris' presentation on institutional choice had demonstrated the breadth, complexity, and importance of the issue as well as the paucity of concepts and tools to deal with it. But while there was agreement that the initial research thrust in this area should be to improve analytical tools, there were two views about the appropriate focus for theory building efforts.

One view was that specialists in this area have largely exhausted the available frameworks and thus basic research is needed to reconceptualize existing paradigms. One participant suggested that the lack of theoretical integrity reduced current work on institutions to "organizational psychiatry"--"we lay the organization, the patient, on the couch and fiddle around to see if something works." In the process, he added, the "treatment" is informed more by personal experience and ad hoc analysis than by a larger theory. Furthermore, even if the treatment in a particular case is successful, it is hard to replicate or generalize because without theory it is difficult to synthesize and interpret what are otherwise amorphous data points. In conclusion, it was argued that since rural development specialists are confronted with a proliferation of empirical work on institutions, the only way to avoid becoming overwhelmed is to improve theoretical frameworks for understanding what is really involved in choices among institutional forms.

In addition to the plea for work on broader theory, participants also pointed out that a number of promising ideas had recently emerged. As an example, they pointed to the idea of signals and market surrogates. These concepts are derived from the notion that markets provide a means for exchanging information in a highly condensed form--prices. Prices are seen as signals that enable individuals to make choices. The argument suggests that when markets do not work or are seen as inappropriate, societies create nonmarket institutions as alternatives. These institutions also generate signals to enable individuals to make decisions. The problem is that these signals do not appear to be as powerful or as unambiguous as prices. The thrust of research in this area is to understand more about the relationship of signals, institutions, and individual responses and to suggest ways that nonmarket institutions and nonmarket signals can be designed to have the powerful communication properties of markets and prices.

The second view about where to focus research questioned the value of searching for universal models. Instead, some participants argued that stress should be on conducting research to develop better analytical tools to understand institutions of particular types in particular contexts. They maintained that there is an extraordinary diversity of institutional configurations in rural areas. It is therefore doubtful that new theoretical initiatives will be any more successful than old ones in encompassing the diversity found in reality. Hence, the research task should be to improve the frameworks for organizing or categorizing the diverse forms and to increase the

sophistication of the analytical concepts so that the actual operations of particular institutions will become more understandable.

Within this approach, a number of participants suggested ways in which to organize institutional types. One proposal was to organize the analysis regionally. This approach was criticized on the grounds that there wasn't a compelling reason as to why regional location would make a difference. Instead it was suggested that a subsector typology would make more sense since existing research indicates that the type of service or technology being provided has a considerable impact on the organizational form. Another suggestion was that political regime type be considered as a way of organizing research.

Others stressed the importance of improving the tools available for analyzing bureaucratic systems. They pointed out that outside of some early and unsophisticated efforts of the comparative administration school in the 1960s, there are few systematic analyses of how particular developing country bureaucracies actually operate. There is a need, then, for more studies, but more importantly, for improved concepts to increase the sophistication of these analyses.

New concepts were seen to be particularly important to improve understanding these organizational characteristics that result in good or poor "fits" between an organization, its tasks, and the environment. It was suggested that while "good fit" is an accepted and laudable ideal, there is little guidance available on how to insure a good fit.

In addition to a lack of theoretical insight into why a good fit is hard to achieve, several observations were made that there may be structural characteristics within donor agencies like AID that militate against good organizational fits. One participant observed that the primacy of the project mode within donor agencies leads in turn to a preference for project management units that may or may not yield good fits with the local environment. It was also noted that there was a distrust of European-designed organizations within U.S. donor agencies that led to a preference for creating American-designed alternatives whether or not the old institutions were effective. In the same vein, it was suggested that the project approval process within the agency--the selection criteria, the length of the process, and the expectations of particular bureaus--might well exclude organizational options that fit well into the local environment. As a result, it was suggested that AID itself might be a good subject of bureaucratic systems research.

SECTION IV  
RURAL INCORPORATION<sup>1</sup>

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Introduction

Rural areas are undergoing a rapid process of social and physical change. The sources of these changes are numerous and complex. For example, the process of market penetration has changed both patterns of production and consumption. It has also broken down the isolation of many rural places. While many people still live in places accessible only by foot or canoe, many more can be reached on a regular basis with the delivery of some commercial commodity such as beer or soft drinks. Migration is another source of change in rural areas. The departure of migrants changes patterns of production, community leadership, and the nature of family structure and relations. They return to the rural areas with new consumer goods, new skills, new knowledge, new ideas and values, and new aspirations. Migrants who stay in the urban areas may provide a bridge for other villagers who wish to migrate. Household survival strategies may change as remittances from migrants become increasingly crucial.

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<sup>1</sup>This paper has benefited enormously from many conversations with Emery Roe. In addition, R. Bates, B. Johnston, D. Lewis, and J. Harbeson, and the writings of J. Cohen, M. Grindle, and T. Walker provided many useful insights.

Factors internal to the rural areas are also forcing change. Population growth puts pressure on land and land-based resources, sometimes causing landlessness or shifts in usufructuary rights. These in turn may lead to lower standards of living, migration, or changing relations of production. Not only are the rural areas far more complex and differentiated than they were ten or twenty years ago, but the increasing rate of change means that any knowledge about them rapidly becomes outdated. In order to design effective policies and programs for rural development in this increasingly complex and rapidly changing environment, it is necessary to understand the nature, causes, and effects of the changes that are taking place. For this purpose, an analytical framework is necessary that can address the totality of the rural change process and predict the directions it might take in the future.

Existing global approaches to the process of change in the rural areas are not adequate for the task at hand.<sup>2</sup> Often they are focused on the economic, essentially ignoring the social and political spheres. They tend to ignore the adverse effects of change, in part because of a tendency to deal primarily at the macro level. Others focus on internal sources of change rather than looking at interventions by nonrural institutions. This paper proposes an analytic framework that provides a better understanding of the process of rural change. This framework is centered on the concept of rural incorporation.

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<sup>2</sup>See also Roseberry (1983) who emphasizes the need "to analyze anthropological subjects as world-historical facts" and "to see the effects of the world historical process(es)...as uneven."

### What is Rural Incorporation?

Rural incorporation is the process whereby rural resources become increasingly accessible to the center and whereby rural and central values, norms, and institutions come to be increasingly similar and integrated, in part through the prevalence and predominance of the central over the rural and in part through rural influence on central actions and actors.

Rural incorporation is a concept that has economic, social, and political dimensions. Just as these dimensions are interrelated in rural society, so are they interrelated in the analytical framework. Thus, a policy or program that is basically economic may have social or political consequences. It is necessary to be able to predict such consequences if rural development efforts are to be effective with a minimum number of unanticipated negative consequences.

Rural incorporation, then, is a concept that with its corollaries, disincorporation and reincorporation, allow us to look at rural social organization as a whole and at the interrelationships between the center and periphery as a whole.<sup>3</sup> Its theoretical underpinnings are to be found in Shils' (1975) notions of center and periphery as analytical rather than geographic concepts. This distinction is a useful one as it allows us to see the process of rural incorporation as involving a shift in the periphery's definition of "center." That is, before incorporation or during its early phases, the periphery will, in Shils' terms, have its own center--its own values,

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<sup>3</sup>Throughout this paper the terms center, periphery, and rural are used as a shorthand means of referring to the complex of actors in the center and the periphery. Thus, the expeditions of a lone trader may be characterized as a "central" action. This does not imply a unified purpose of a reified center.

beliefs, and institutional forms that "give some form to the life of a considerable section of the population of the society" (Shils, 1975). With rural incorporation, these change and with them the definition of center in the periphery also changes.

### Some Characteristics of Rural Incorporation

Before a taxonomic examination of rural incorporation is undertaken, some general characteristics of the process need to be described.

1. Rural incorporation is a process inherent in center/periphery contact. It begins with the first road, the first migrant, the first administrator, the first trader. It is thus an inevitable part of any development program as well as other forms of center/ periphery interaction. Because it is an inherent part of these processes, it is often an unintentional part. Thus, people who have their minds fixed quite firmly on something else--making their fortune, manufacturing widgets, distributing food aid--are, in fact, furthering the process of rural incorporation. Thus, throughout this paper, actions are referred to as "incorporating initiatives," a term referring to the overarching process and its result, not to conscious intent.

2. Rural incorporation involves the establishing of one set of links and the weakening or altering of another. Chinua Achebe's Things Fall Apart provides a fictional view of the process and some consequences. Thus, as links to the center are formed, various links within the periphery may be broken, altered, or replaced by others more similar to central structures.

3. Rural incorporation is an historical process in which what went before affects what comes later. It is often difficult to understand the local reaction to a central initiative without this historical perspective. For example, in 1973 an Indian community in the state of Hidalgo in Mexico was resisting a proposal to irrigate their land with waste water from a metropolitan area. Their objections had nothing to do with the purity of the water but with the fact that the proposal was essentially an extension of a similar project undertaken some years before, the ultimate result of which was their being driven from the land by mestizo settlers who wanted the newly valuable land. The need for this sort of historical perspective is common sense, but is frequently forgotten. Again, it is necessary to look at the totality of the process since an earlier event in the political sphere may have an effect on a later effort in the economic sphere.

4. The means and results of rural incorporation are not mutually exclusive. For example, the imposition of taxes on a subsistence society may lead to migration to earn cash wages. However, migration (the result of the initial means of incorporation, taxes) may itself become a form of incorporation as returning migrants bring with them new values, new norms, new consumer goods. These may then set off new migration that is both a result of the first wave of migration and a form of incorporation in its own right.

5. Rural incorporation can be a reciprocal and interactive process. It would be a great mistake to envision the process of rural incorporation as consisting simply of some central amoeba slopping out

and engulfing the periphery. Not only is it a process involving the center pulling the periphery toward itself, but it is also a process of the periphery pulling itself toward the center and pulling the center toward the periphery. Indeed, a significant act of rural incorporation consists of the establishment of a rural beachhead in the center in the form of rural migrants and squatters in the very midst of the center, often forcing the center to deal with rural values and lifestyles (Colson and Scudder, 1975). Frank Young's work on solidarity movements (1970) makes the reciprocal nature of rural incorporation especially clear. He points out (forthcoming:7) that "solidarity movements can sometimes force a reorganization of the incorporating system."

Yet another related phenomenon that must be taken into consideration is that of intra-peripheral influence. The effect of transmigration and settlement schemes must inevitably be a certain amount of incorporation of one peripheral subsystem with another. Thus, it may be an altered peripheral subsystem that interacts with the center.

6. Rural incorporation is a process involving heterogeneous actors, actions, and results in both the center and periphery.

Neither the center nor the periphery is monolithic. Both can be cut a number of ways: government and private; elite and masses; landed and landless; men and women; rich and poor; and so on. Thus, the same action may have differential results on different parts of the center or periphery.<sup>4</sup> Similarly, the aggregate effect of numerous individual

migrants may be as important as that of a single government policy or a major business initiative.

7. The process of rural incorporation has a strong extractive motif. As a general rule, the process of rural incorporation is set off by the attempt of the center to appropriate existing or potential surpluses in the periphery. For example, the current rush to East Kalimantan reflects not a sudden concern about how the Dyaks are getting on, but rather the realization that commercial logging in the area is both possible and profitable. Thus, a process that may appear to be a very good thing from the viewpoint of the center, may be a very bad thing from the viewpoint of the periphery or certain sectors of the periphery. This point will be returned to later.

#### A Brief Taxonomy of Rural Incorporation

The best way to understand rural incorporation is to take the process apart. Rural incorporation consists of incorporators, means of incorporation, objects of incorporation, and objectives of incorporation or, more simply, who does what to what or whom with what purpose.

The objects of incorporation are those things or persons in particular capacities that have drawn the interest of central (or, less frequently, rural) actors. In rural areas, these are land and

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<sup>4</sup>It is for this reason that the same result is sometimes found in both the negative and positive effects of columns of Table 1.

land-based resources, and people in their capacities as laborers, producers, consumers, or political supporters. Rural actors are interested in central resources. They may also use central actors in getting control over local resources.

The incorporators may be government officials, politicians, corporate or individual business people, and individuals in other capacities in either the center or the periphery.

The objective of incorporation is the relationship which the incorporator wishes to have with the object of incorporation or those who control it. Thus, the incorporator may simply wish to have access to the object; to control it; or to co-opt its controllers--that is, to elicit the collaboration of rural actors in the use of rural resources.

The means of incorporation are the ways in which incorporation is accomplished. A large (but by no means exhaustive) number of examples are presented in Table 1. The obvious lesson of this table is that the means of incorporation are extremely diverse and that negative results are as likely, if not more likely, than positive ones.

TABLE 1

The Effects of Various Means of Incorporation

<u>Means</u>	<u>Positive Effects on Periphery</u>	<u>Negative Effects on Periphery</u>
1. (Migration)	Cash New ideas  New skills New consumer goods	Loss of agricultural labor (Schapera, 1947) Loss of leaders (Fortmann et al., 1983; Schapera, 1947) Loss of innovators Increased female-headed households (Schapera, 1947) Problems of reintegrated migrants (Fortman et al., 1983) Creation of urban problems
2. Markets	Cash	Shift from subsistence production may lead to malnutrition-increased woman's workload Stratification (Kitching, 1980; Bell, 1981) Environmental degradation
3. Shops	New (better consumer goods Time saved (possibly)	Need for cash (see above)
4. Telecommunication	New ideas; information Break down old culture	Break down old culture
5. Roads	Reduced prices Changing consumption patterns Changing production patterns Growth in income	Unequal distribution of benefits
1. Taxes	Outmigration (Samoff, 1980; Schapera, 1947)	Outmigration  Shift to cash crops

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TABLE 1 (continued)

<u>Means</u>	<u>Positive Effects on Periphery</u>	<u>Negative Effects on Periphery</u>
2. Prices	As above Increased consumption	Local crafts, production decreased (Childers, Stanley & Rick, 1983; Fortmann et al., 1983)
3. Administration	Emancipation of locally suppressed groups (sometimes)  New tasks for local organiza- tions Provides links to center Increases areas for decision making	Loss of decision making scope (Childers, Stanley & Rick, 1983; Fortmann et al., 1983) Weakening of local organizations (Childers et al., 1982; Fortmann et al., 1983; Samoff, 1980) Estab. puppet organs.:cynicism Reduced self-esteem Uniform approach to local diversity No accountability Local systems of accountability broken down Perverts local priorities Energy must be spent on avoidance strategies
4. Roads	See above	See above Facilities the use of force
5. Agricultural Extension	Good advice (Moris, 1983) Access to centrally controlled goods and services (Moris, 1983)	Bad advice (Moris, 1983) May have police functions
6. Government Plantations	Social services (sometimes) Provides employment (cash)	Land shortabe Proletarianization Inefficient use of resources
7. Immigration Schemes	Provides land Production up	Disruption of delicate ecosystems --degradation Costly failures--cynicism

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TABLE 1 (continued)

<u>Means</u>	<u>Positive Effects on Periphery</u>	<u>Negative Effects on Periphery</u>
8. Private Plantations	Provides employment (cash) Social services (sometimes)	Land shortage Proletarianization (Kay, 1975) Poor labor conditions (Taussig, 1981)
9. Local Settlement Schemes	Social and technical services	Loss of scope of decision making (personal and comm.) (Pearson, 1980) Dependency Wrong technical decision Poverty (Pearson, 1980)
10. Land Reform/ Legislation (de Janvry, 1981)	Small net employment increase Higher cash incomes (ltd #) Increased production from non-reform sector (less frequent from reform sector)	Decreased employment Loss of patron obligations (Migdal, 1974) Lower cash incomes Exclusion of some poor from the reform Uneconomic plot sizes
11. Development	Provision of social services, technology, information Increased production/income through project or services and sales to project staff Increased scope of decision making Environmental repair	Failure-cynicism Wasted resources Perversion of local priorities Loss of income Loss of decision making scope Corruption Environmental degradation
12. Telecommunication	Increased information	Reduction of dialogue to propaganda
13. Credit schemes	Increased production/income Increased access to technology	Debt (Weinstock, 1982) Increased stratification (Taussig, 1981) Inappropriate technology (Taussig, 1981) Corruption
14. Official Marketing Channels	Fair prices Service in remote areas	Unreliable/non-existent services Destruction of horizontal/and vertical links

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TABLE 1 (continued)

<u>Means</u>	<u>Positive Effects on Periphery</u>	<u>Negative Effects on Periphery</u>
	More equitable distribution	Low prices Late or non-payment Corruption Loss of scope of decision making Irrational distribution
15. Force	Implementation of good policies	Loss of life and property Corruption Bad policies Loss of scope of decision making Creation of distrust Cost
<hr/>		
1. Education	New ideas New skills Increased managerial capability Teachers participate in local life Emancipation of suppressed groups (sometimes) Destruction of old values, etc.	Outmigration Corruption Costs (uniforms, etc.) Destruction of old values, etc. (Chambers, 1983)
2. Medical Services	Better Health Lower infant/neo-natal mortality Increased production Decreased retardation, blindness birth defects	Population growth and therefore land pressure, outmigration, etc.  Bad advice: bottle feeding
3. Community Development	Community facilities Expanded scope of decision making Better standards of living	Loss of scope of decision making Failure: cynicism Wasted resources Weakens self-help

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TABLE i (continued)

<u>Means</u>	<u>Positive Effects on Periphery</u>	<u>Negative Effects on Periphery</u>
4. Relief Aid	Prevention starvation, death	Dependency Decreased agric. production Weakens self-help (Fortmann et al., 1983; Brown et al., 1982)
5. Development Projects	See above	
6. Land Reform	See above	
7. Local Alliances	Some benefit from goods goods and services	Corruption Supports or increases stratification (van Velzen, 1975) Certain strata excluded from benefits
8. Circulation of Consumer Goods	Improved standard of living	Diversion of income from essentials Bottle feeding Tooth decay Reduced nutrition Undermining local production--local beer Money leaves community

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TABLE 1 (continued)

FROM THE RURAL VIEWPOINT

<u>Means</u>	<u>Positive Effects on Periphery</u>	<u>Negative Effects on Periphery</u>
1. Outmigration	See above	See above
2. C-R Alliances	Goods and services come to community	Distortion of national distribution of resources Certain community members excluded
3. Religious Conversion	Goods and services come to community Dynamism (Weber, 1958)	Certain community members excluded Destruction of old values and social relations Perversion of community priorities
4. Political Pressure	Goods and services come to community Local confidence increases	Distortion of national priorities Certain community members may be excluded
5. Unrest	Goods and services come to community Encompassing system forced to reorganize (Young, forthcoming) Increased status for periphery	Loss of life and property
6. Passive resistance	Avoids bad projects, advice	Wastes energy
7. Pre-emptive Development	Community receives goods and services	Distorts national development priorities

N.B. This list is meant to be indicative, not exhaustive.

### Styles of Incorporation

The question of styles of incorporation is approached from the viewpoint of the center since central actors are incorporators far more often than rural actors. The process of rural incorporation can be carried out in one of four styles.

1. Pipeline Extraction - The "no muss, no fuss" method in which resources are simply taken straight out for the use of the center. Military conscription, taxes, and many large-scale commercial logging or mining operations are examples of this. On rare occasions, a highly mobilized periphery may be able to practice this on the center --drought relief perhaps being a case in point.

2. Superimposition and substitution of central institutions for those of the periphery is essentially a controlling style of incorporation. It might include such means as the establishment of a centrally controlled national bureaucracy or the replacement of small-holder production by government estates and plantations. Like pipeline extraction, the intent here is to retain as much control at the center as possible.

3. Bargaining reflects both a periphery with strength (either the control of force or the ability to withhold resources) which is not substantially less than the center's and the perception by the periphery that the center has something worth having.

4. Collaboration occurs when central and rural actors see their interests as more or less common and more easily attained by joint pursuit.

It would seem that incorporation generally begins with simple access and an attempt at pipeline extraction. As predictability becomes more important (and we can also view rural incorporation as a means of increasing the predictability and similarity of rural actions to central actions), a controlling style of rural incorporation (particularly superimposition and substitution) can be expected to emerge. Eventually the style may evolve toward the more cooperative styles of bargaining and collaboration. This is not to suggest that there is some Iron Law of Evolving Rural Incorporation. Indeed, one can find all four styles being practiced by the same center in different parts (geographically) of the periphery or in different spheres.

There are three important research questions flowing from the question of style. The first is whether there is in fact an evolution of styles of incorporation and whether or not the lazy Y in Figure 1 illustrates it. There is an abundance of historical evidence both on the colonial experience and on the efforts of newer nation states to incorporate their peripheries that should allow some comparative longitudinal research to be done. The second research question is: what are the results of different styles of rural incorporation? It can be hypothesized, for example, that negative results are more likely to be associated with the controlling styles--pipeline extraction and superimposition and substitution. This is so because these forms of incorporation are less conducive to the communication of the concerns of the periphery and are less likely to make the center accountable to members of the periphery.

The third question concerns the factors that lead to the style of incorporation. Is it the type of incorporator? One might expect business enterprises and highly centralized or authoritarian governments to opt for controlling styles. Is it the object of incorporation? When people rather than things are the objects of incorporation, is it possible that bargaining and collaborative styles would be more frequent? The objective of incorporation may also have an effect. If cooptation is the objective, controlling styles are less likely. The perception of similarity between residents of the periphery and the center may have an effect. If residents of the periphery are perceived as significantly different, they are more likely to be subjected to controlling strategies, as is suggested by the treatment of pastoralists and hunter-gatherers (Childers, Stanley, and Rick, 1982) and shifting cultivators. The central control of resources may also affect styles. The center may not control the resources necessary to maintain a controlling style.

It is also hypothesized that controlling styles are unlikely to lead to self-sustaining rural incorporation. That is, it is likely that the center will need to continue to commit resources to maintaining the incorporating links. In contrast, with cooptive styles the periphery will assist in maintaining the links, and the process of incorporation will be self-sustaining. Of course, it is important to remember that a certain amount of the incorporation process is bound to be self-sustaining. For example, the rural incorporation that results from the process of migration is essentially self-sustaining

because it tends to be maintained without requiring some enforcing power from the center.

### The Results of Incorporation

Micro level consequences are illustrated in Table 1. These are by no means the full gamut of such consequences, but rather only examples. Potential positive effects can be summed up as including improved standards of living, new ideas and skills, the breakdown of outmoded or oppressive institutions, and increased opportunities. Potential negative results can be summarized as the breakdown of local institutions, marginalization and pauperization of the rural populace, perversion of local priorities, confiscation of local resources, and breakdown of kinship units.

Macro level consequences. It is perhaps tempting to view these effects as simply the results of change. "You can't make an omelette without breaking eggs," as the saying goes. However, both the positive and negative micro level effects have aggregate macro level consequences. Only the negative macro level consequences will be dealt with here as these are what should be of major concern to planners and policy makers at the center. Three general types of negative macro level consequences will be discussed here: active resistance, cynicism and passive resistance, and resource commitment.

If rural incorporation is extremely oppressive--if, for example, land and other resources are confiscated, tax rates are excessive, administrators are harsh or capricious--rural people may

resist violently. This may take the form of isolated outbreaks of banditry or rebellion or of more widespread and organized civil unrest. Such occurrences mean increased costs to the center for security or for marshalling its own forces. It also means that the extraction of surplus from the periphery becomes less reliable, and it was this reliability and predictability that was the objective of incorporation in the first place.

If rural incorporation involves the establishment of puppet organizations or projects and recommendations that do not work or that cause increased labor or inconvenience to rural people, the growth of cynicism or passive resistance may occur. Again, this will adversely affect the reliability and predictability of the extraction of surplus. This phenomenon in some respects is more difficult for a center to deal with than outright violence. Unless central actors have their fingers on the rural pulse (and as a general rule, central actors who allow such a situation to develop will not be reading the rural pulse), things will go mysteriously awry. For example, cotton seeds may be planted in accordance with the wishes of the agricultural extension agent but fail to germinate because they have all been boiled beforehand. The whole village will turn out in apparent enthusiasm for a tree planting project, but one by one the trees will die. The result from the central viewpoint is a reduced return to the resources invested and a less predictable delivery of rural resources.

The process of rural incorporation, whatever the style, requires resource commitment by the center. In some cases the

aggregate effect of micro level consequences of the incorporation process will be to raise the cost of the process to the center, close to, or even above, the value of the resource being extracted. This may take three general forms: the cost of force; the cost of social services; and the more ambiguous cost of dependency.

If the rural incorporation process has resulted in rural violence or if a heavy-handed controlling style is used, the center may have to commit large amounts of resources to the use of force. The result is the use of labor in an unproductive (indeed, often destructive) way, a lower net benefit to the center from rural resources, and the diversion of central resources from more productive uses. The social costs of the use of force are further alienation from the center and possibly increased rural violence.

The previous examples have largely been associated with a controlling style of incorporation. However, the cooptive style also has its costs. Table 1 indicates that this style often involves the provision of various social services. In theory, all of these should eventually have positive effects that may even result in a surplus sufficient to cover their costs. Extension services should result in increased yields; education, in a workforce more capable of undertaking complex management tasks; health services, in a more productive workforce. But in the short run, costs will clearly exceed returns. The question then becomes a strategic one for the center: are time or resources sufficient to sustain the short term costs of a cooptive style?<sup>5</sup>

A final consideration is the possibility of creating costly dependency. A number of the results illustrated in Table 1 may have this effect. The obvious ones are the provision of social services at central expense leading to the expectation that these services will continue to be provided without any local input. Relief programs such as food for work may have similar results. When such programs involve the provision of food in return for work that is usually done on a self-help basis, the self-help ethic may be undermined. Why should anyone work for free when in times of disaster (drought, flood) they are paid to do the same thing? The destruction of local institutions, whether intentional or accidental, can also throw onto central personnel responsibility for the tasks these institutions once performed. Thus, disputes that were once settled locally may be assumed by a centrally financed police and judicial system. Responsibility for planning and maintaining even the minutest parts of rural infrastructure may become the sole responsibility of central bureaucracies because local institutions have been left powerless. The problem of dependency can result from both cooptive and controlling styles: the

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<sup>5</sup>For example, Thoden van Velzen (1975:180) claims "The government of Tanzania is channeling more wealth into the rural hinterland than it gets back or will ever get back from direct or indirect forms of revenue."

former through trying to woo rural people and the latter through insisting that everything be done under central control.

Thus, it is clear that the process of social change as understood in terms of rural incorporation can have very costly aggregate consequences at the macro level. In order to avoid these consequences, it is necessary to have a clear understanding of the process of rural incorporation.

### Disincorporation

Thus far, the emphasis has been on rural incorporation as an ongoing process with the degree of incorporation ever-increasing. However, the process of incorporation may come to a halt or even reverse, resulting in disincorporation. There are a number of factors that constrain rural incorporation or increase the likelihood of disincorporation.

1. Poor communications - Various forms of communications, as can be seen in Table 1, are crucial means of rural incorporation. Without good communications, rural fragments are less likely to be pulled into the central whole. This may happen for a number of reasons:

- a) Transport distances and difficulties and natural geographical ties may prevent incorporation. For example, the inhabitants of one remote Kenyan district habitually ask travellers, "How's Kenya?"
- b) Transport distances and difficulties may make market-based means of incorporation economically unattractive. Thus, although the mountain reaches of Lesotho are reputed to be ideal for growing asparagus, the economics of getting the crop out are so great that it has not been

undertaken and the major incorporation remains a nearly pipeline extraction of labor.<sup>6</sup>

- c) The difficulties of travel and communication may make it impossible to control central actors in the periphery. One result of the inability to control field personnel is the policy of frequent transfers that some governments adopt in order to prevent the establishment of personal power or influence. This policy, of course, almost guarantees that no field officer can be effective.

2. Sectarianism - Group antagonism either in the form of day-to-day ethnic, racial, or religious intolerance, or in more extreme forms as in Sri Lanka, Biafra, Ireland, and Lebanon, can severely retard incorporation or fuel disincorporation.

3. Lack of Central Interest or Motive - It has been pointed out above that the extraction of rural resources and surplus is the engine of incorporation. If no natural resource is readily available and the population too small for easy organization for production, the center is far less likely to undertake incorporating initiatives. It might also be argued that should a local resource be exhausted--the mining out of a mineral seam or the desertification of range land--the center, if politically possible, will cease or cut back incorporating initiatives.

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<sup>6</sup> Lesotho is one of a number of cases in which the incorporation is into the center of another nation-state. In this case, labor is recruited into the South African mines and the consumer goods that migrants return with are manufactured in South Africa. Turner (1978) has pointed out that the closure of the mine labor recruitment offices would be a far greater economic disaster than if every inch of soil in the country were to wash away, a clear indicator of the degree of economic incorporation. The international labor migration out of Yemen is yet another example.

4. Peripheral Withdrawal (Hyden, 1980) - The inducements that the center has to offer may be insufficient or irrelevant (Held, 1982). The example closest to home is that of the Old Order Amish who only under duress send their children to school as far as the eighth grade and turn their backs on many modern conveniences. While economically incorporated (they are often known locally as excellent producers), they remain relatively unincorporated politically and socially. A more serious example is that of Tanzanian (and, it would appear, a small, but increasing number of Kenyan) peasants who have simply refused to produce cash crops after the repeated failure of government parastatals and cooperatives to pay them for previous harvests. Withdrawal may also be occasioned by unpredicted and unpredictable central behavior, most notably government violence against its own citizens. Tanzania's village burning and forced relocation during the 1970s is one example of this, a mild one compared to the violence perpetrated by the Kampuchean government or at the moment by some Central American governments.

The likelihood that peripheral withdrawal will occur or will be tolerated depends on the cost to the periphery and to the center. This in turn is a function of the existing degree of incorporation. It would appear that African peasant producers are better able to withdraw than are their Latin American or Asian counterparts for the simple reason that they are not as incorporated into the center, particularly economically. Thus, while the center depends on production from the periphery to sustain itself, the periphery in much of

Africa relies on the center for relatively little that is considered essential. Thus, they have less to lose by withdrawing.

Centers with well incorporated peripheries are more likely to tolerate certain kinds of withdrawal. Thus, Jehovah's Witnesses who refuse to recognize state sovereignty in some respects are outlawed in most African countries but not in the West where their lack of political incorporation poses less of a threat. Similarly, Amish withdrawal, because it does not affect the system as a whole, can be viewed by the encompassing system as quaint or benign. In contrast, the withdrawal of peasant producers in Kenya or Tanzania can put the encompassing system into serious jeopardy. This sort of withdrawal leaves the government with two options--one is to change the object of incorporation away from the peasantry as producers to the land itself by establishing state production with sufficiently stringent labor laws to keep the disenfranchised laborers under the kind of control that is less feasible with peasant producers. The second option is to use force, which as we have seen is very costly.

5. Defense by the Periphery of Its Own Interests and Resources (Ng'andwe, C.O.M., 1976) - Residents of the rural areas may try to prevent the expropriation of their resources by the center. This may take the form of draft or tax evasion, attacks on the person or property of central owners or managers of estates, plantations, or other enterprises, and attacks on the persons or property of central officials such as tax collectors.

6. Uniform Policies in the Face of a Diverse Environment - We have seen that rural incorporation is frequently the result of extractive interests. But there are also more benign reasons for incorporating initiatives and these are often likely to flounder on the rock of uniform policies. Uniform policies are appealing to centralized administrations because they are easy to administer. Such policies, however, reduce the likelihood of incorporation for the simple reason that they are likely to fail. Agriculture provides the most intuitively obvious example--blanket fertilizer recommendations by crop regardless of local soil type or rainfall patterns are a sure formula for disaster. Bureaucracies that fail to learn or adapt (Korten and Uphoff, 1981) and policies that mandate the same organizational form regardless of local circumstances are equally likely to fail. And failure does not encourage anyone to draw closer to its source.

7. The Social and Economic Costs of Force - The economic costs of the use of force and general macro level consequences have already been discussed. It remains only to be noted that the alienation that results from the use of force will severely set back any self-sustaining incorporation.

### Reincorporation

Reincorporation is a relatively new problem but it may be the most serious problem of the next decade. Reincorporation is just what it says--reincorporating the periphery into the center once disincorpora-

tion has taken place. It can be seen as the obverse of the original incorporation process. It now becomes important for the actions of the center to be made reliable and predictable for rural people. Rural residents need to become confident that government will not burn down their houses or kill their family or disband their organizations or fail to pay for their crops. It is the process of re-establishing the social contract, something we don't know how to do very well.

Two basic sources of disincorporation can be identified that may require different approaches for reincorporation. The first is disincorporation by violence. Examples are civil wars or overthrow of the government as in Uganda, Lebanon, Chad, El Salvador, and Grenada. The example of Kampuchea, where a deliberate policy of disincorporation by violence was followed is, hopefully, a singular one. The second is disincorporation due to policy failure. One example of this is Tanzania where the attempt to establish centralized control over the polity and economy succeeded instead only in destroying the integrating economic links.<sup>7</sup> A second example is that cited above of the failure to pay peasants for their produce. Yet a third example is what is increasingly viewed as the African problem of "what to do with the parastatals?" A few parastatals are effective. Of the remaining, the best are simply ineffective while others have become hotbeds of corruption, and in some cases have come close to destroying the very sector they are supposed to support. Unfortunately, the process of

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<sup>7</sup>I owe this insight to David Lewis.

establishing the parastatals often involved destroying other institutions in the sector. Regenerating these institutions may be especially difficult if the experience with parastatals has generated cynicism and distrust among producers. Yet another complication is that a parallel market may have sprung up in the wake of parastatal failure. Parallel markets may meet the needs of rural people admirably while running counter to at least some of the needs of the center. This places the center in the unenviable position of having simultaneously to dismantle a nonfunctional parastatal system, eliminate or control a functional parallel market, and establish a functional alternative in the face of skepticism and possibly opposition. In sum, the problem of reincorporation is a tricky one about which we know very little. The need to know more is an urgent one.

#### The Relevance of Rural Incorporation to the Development Problems of the Next Decade

Understanding the process of rural incorporation is important because many of the major issues that will dominate the next decade can be understood, at least in part, in terms of rural incorporation.

1. Reincorporation has been discussed at length above. It may well be the most important problem of the next decade. An important point to bear in mind in considering reincorporation is that the center and the periphery may have different agendas for reincorporation. If the periphery feels the need for reincorporation, it is likely to focus on the flow of services to the periphery. The center, on the other hand, is likely to view the re-establishment of production and the extraction of surplus as of the highest importance.

2. The development of remote areas is essentially a problem of rural incorporation. Development of the Amazon Basin and the increase of commercial logging in East Kalimantan and the hills of the Philippines and Thailand all have the potential to abound in social and environmental negative effects. The potential for ecological and socio-economic destruction is not insignificant. Available evidence would indicate that the local populace benefits in only the most minute way, if at all, from these endeavors: little food is bought locally; most jobs go to outsiders; use of local resources is denied to the local inhabitants who have been using and caring for them for centuries. These developments come about in close relation to pipeline extraction. If grave negative consequences for the residents of these areas are to be avoided, it is essential to know how to undertake beneficial incorporation (Colfer, 1980, 1982, n.d., forthcoming).

3. Environmental degradation - Desertification, the creation of red deserts, and the denuding of steep slopes are all critical issues now and will become more critical in the next decade. This problem is peculiarly one of rural incorporation, since it is generally rural incorporation that has set the process in motion and that has led to degradation in the first place.

The process of land grabbing either by colonists or later by national elites or even land-hungry subsistence farmers has created a land pressure that may lead to degradation. This is especially true in the cases of more fragile environments where the transformation of dry season or emergency drought pastures into agricultural land has forced pastoralists into a destructive use of their remaining land.

In other cases, more benign initiatives have had ecologically disastrous effects. For example, the overgrazing and extension of grazing into extremely fragile environments in Botswana reflects, at least in part, the EEC policy of paying above the world market price for Botswana beef, a subsidy that is passed on to the producers in the form of extremely lucrative livestock prices. These prices make it profitable to undertake beef production in what would otherwise be marginal areas. Thus, the policy can either be viewed as the subsidization of the beef industry or as the subsidization of environmental degradation. A second example is a project that divided a communal grazing area in Kenya into twelve ranches. Unfortunately, all the dry season grazing was contained in three of the ranches and the project has been a nonstarter.

One cause of such errors is a misspecification of the object of incorporation. It is generally the cattle producers (or producers of other sorts) who are considered to be the targets of such projects. But in fact it is the land resource, the eco-system, that is the ultimate target, the object of incorporation. By analyzing projects in terms of rural incorporation, it is possible to predict more clearly some of their effects.

A second aspect of the environmental problem that is best approached in terms of rural incorporation is the involvement of relatively unincorporated peoples--pastoralists, hunter-gatherers, and shifting cultivators. These kinds of people present problems to the center because it is very hard to extract any surplus from them.

Central actors also tend to indulge in victim-blaming regarding the environmental problem. Having reduced the amount of land these producers control to less than is needed for their production systems, central actors then blame them for their destructive behavior. The people themselves may with excellent reason have no wish to be incorporated into the encompassing system or may wish to be selective about the nature of incorporation and to remain in control of the process themselves. This makes the problem of their incorporation a difficult one. Their very mobility guarantees that controlling styles of incorporation will either be ineffective or very costly. However, this same mobility makes the delivery of the "carrots" associated with cooperative styles problematic.

A third point is that incorporation efforts that break down local institutions may also break down existing systems of resource management. In the examples above, the power of the center was too great for actors in the periphery to resist; the result was ecological devastation.

4. If we wish to be effective, managing diversity and complexity must be a hallmark of the next decade's development programs. The developing world is characterized by diverse soils, micro climates, diverse and complex farming systems and local organizational forms, diverse languages and customs, and so on, often within very short distances of each other. To imagine that one can be effective in such situations with uniform policies and structures is self-deluding. Flexible, responsive programs are more time-consuming and difficult to

administer, but they are also more likely to be effective. Development planners need a more flexible repertoire of approaches. The reason it is so important to respond to what is there is that the destructive effects of the uniform approach may be irreparable. For example, the indigenous system of resource management in many places cannot be put back for the simple reason that the ecosystem it once managed is no longer there. The rural incorporation framework forces us into looking more carefully at the receiving end of our efforts and into understanding what effect they may have.

5. Migration will continue to be an increasingly critical issue in the next decade and may comprise the major source of rural change. With expanding population, falling agricultural production, and increasing levels of education, the problems of absorption of migrants at the center, of rural-rural migration, and of the absorption and re-integration of returned migrants in the rural areas will become increasingly critical. It is important to understand how migrants affect the process of social change and how they are involved in building links between the center and the periphery.

#### What Should Be Studied?

Throughout this paper there have been references to various research topics that might be explored in order to get a better understanding of the process of rural incorporation. Such research would be an important step towards theory. However, since it could be imbedded in issue-oriented research, the research priorities given

here have been framed in terms of pressing issues. These are three: reincorporation; incorporation of the remote areas; and reducing the vulnerability of the system to disincorporation.

### 1. Reincorporation

This is such a new problem for the developing nations that we know relatively little about it. It will therefore be necessary to begin by means of case studies. Some of the following questions need to be answered:

Are there significant differences in the reincorporation process depending on whether the source of disincorporation has been violence or policy failure?

Are there significant differences in reincorporation depending on whether the disincorporation has occurred in the political, economic, social, or all three spheres?

How does the process of spontaneous reincorporation (the evolution of informal parallel markets, for example) occur? What does the presence of such a phenomenon mean for the re-establishment of formal institutions?

What links are critical to the re-incorporation process?

Can disincorporation occur in one sphere without affecting the others?

What actors are essential for reincorporation?

How does the process of reincorporation differ from incorporation?

If disincorporation has occurred in all three spheres, must reincorporation be started in any particular sphere first?

How can conflicting interests of the center and the periphery be balanced in the re-incorporation process?

Are there instances when re-incorporation is neither possible nor a "good thing?" What steps should be taken then?

What structural arrangements are conducive to reincorporation?

What factors prevent or interfere with reincorporation?

## 2. The Incorporation of Remote Areas

Addressing this problem currently offers a unique opportunity for damage containment. Existing data already indicate that we are not doing very well at this most recent incorporation venture.

What are the negative effects of incorporating remote areas?

Who or what are actually the objects of incorporation?

How can the negative effects of rural incorporation be minimized in both environmental and social terms? By changing the style of incorporation? By changing the means of incorporation? By controlling certain types of incorporators such as big business?

What institutional arrangements might be made to the mutual benefit of the center and the more mobile remote peoples?

Is the incorporation of remote peoples beneficial or necessary?

What are the costs of leaving both such people and their land and land-based resources untouched except for informal means of incorporation?

What will be the ongoing effects of leaving rural incorporation initiatives to operate as they are?

## 3. Reducing the Vulnerability of the System to Disincorporation

For the most part, disincorporation seems to result from peripheral discontent, for whatever reasons, with central actions. It should, therefore, be clear that inequitable, demeaning, or exploitative forms of rural incorporation may lead to disincorporation. Avoiding unintended negative consequences must be a hallmark of any attempt to reduce the system's vulnerability to disincorporation.

What are the existing forms of rural incorporation and what are the negative consequences of them?

What negative consequences have been associated with past forms of rural incorporation?

Are the negative consequences concentrated in any particular segment of the periphery?

Is there any association between particular styles of incorporation and the likelihood of disincorporation?

Does the involvement of any particular kind of central or peripheral actor reduce the likelihood of disincorporation? Increase it?

Does any particular means of incorporation reduce the likelihood of disincorporation? Increase it?

What are the costs of disincorporation to the center? To the periphery?

What structural arrangements decrease the likelihood of disincorporation? Increase it?

What styles of incorporation decrease the likelihood of disincorporation? Increase it?

Is there a "level of tolerance" after which disincorporation is almost inevitable? Does it differ for different spheres?

Can disincorporation take place in one sphere and not another?

### Summary

Rural incorporation provides an analytical framework for addressing the process of rapid change in rural areas. It brings together elements that might otherwise appear to be unrelated. It permits the prediction of the results of certain actions. As the center and periphery become more and more interdependent, this will become critical in avoiding the costs of disincorporation and the negative effects of the incorporation process. Above all, it is important to understand the complex nature of the processes which

bring about social change. Their causes and effects are various and the diversity and complexity that they create are by no means uniform, nor is the process of rural incorporation itself uniform. As we have seen, things do indeed fall apart and it is quite legitimate to question whether they should always be put back together again. All this has serious implications for the design of rural development policy and programs. Just as agricultural research has come to recognize that the ability to design effective technical interventions depends on understanding the entire farming system, so must social scientists come to recognize the necessity of understanding the process of change in its complex entirety. The concept of rural incorporation is an important tool in achieving this understanding.

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Issues Raised During the October Workshop on the Presentation by Louise Fortmann

Of the five papers, Louise Fortmann's on rural incorporation generated the most evident divergence of opinions. Some participants argued that the concept of rural incorporation was another way of calling attention to the negative side-effects of the development process and that AID and other agencies were already doing what they could to implement programs and projects that attempted to minimize the deleterious effects. Others saw rural incorporation as a useful notion around which to begin constructing the theoretical underpinnings that rural development currently lacks.

More specifically, one participant argued that while rural incorporation was illuminating as a concept, the process it describes has been well identified and well documented. He noted that authors like Karl Polyani and those in the nation-building tradition had already provided a theoretical framework for understanding the costs of change and modernization. In addition, he noted that there was already a large body of literature that described both the good and bad side-effects of development at the micro level.

From these observations, two points were made. First, the accumulation of precisely this knowledge through research efforts in the 1960s had been responsible for the "new directions" mandate of the 1970s to design and implement projects and programs in order to minimize these side-effects. And it was to further their objective that AID has included social soundness analysis in project designs, has required institutional profiles in its country development

strategy statements, and has undertaken ex-post impact evaluations. In short, it was argued, AID has the knowledge and experience base with which to attempt to minimize negative side effects. What AID needs in this area, then, is not more research but more resolve to use what it already knows.

The second point was that even if AID were more diligent, it is an inescapable fact that development imposes costs and hardships on people. Given this situation, how much more can AID afford to be concerned with side-effects? In response, some participants noted that while rural incorporation might be synonymous with the negative consequences of development, AID did not know all there was to know about it and that rural incorporation might prove a useful vehicle for integrating knowledge and improving practice within the Agency.

In contrast, other participants in the workshop held that rural incorporation is more than a way of categorizing or aggregating good or bad consequences of modernization. Instead, they argued that rural incorporation provides the beginning of a theory about how change happens in rural areas and to their inhabitants. Pursuing such an endeavor is important and worthy of inclusion on a list of research priorities.

Supporters of this view made several points. The first was that efforts at theory building were desperately needed. They noted that the conclusion of a recent examination of research funded by AID's Office of Multisectoral Development was that while the contractors had been generally successful at hypothesis generation and

middle range theorizing, they had not generally addressed higher order theories on which to ground their work (Cohen, Grindle, and Thomas, 1983). One implication of the lack of macro-theories noted in the study was that the research displayed inconsistencies that might otherwise have been avoided. The academics noted that these inconsistencies were even more characteristic of the wider field of rural development and that efforts at synthesis and theory building held great promise for a better understanding of rural development and consequently for better designed projects. The issue, then, is whether rural incorporation is a promising step in the direction of theory building.

Some participants also questioned the premise that the effects of rural incorporation were reversible and therefore neutral in terms of long-term implications for growth potential or institutional development. Instead, they argued that it may matter a great deal how the process of incorporation proceeds and that certain kinds of consequences may transform the process and lead to irreversible long-term consequences for economic development. In other words, the question may be posed as "does history affect prospects for the future?"

A final point was made by the academics that the synthesizing attributes of a concept like rural incorporation might have practical utility in reaching developing country policy makers. Rather than confronting them with disparate projects with no common approach,

rural incorporation might provide a useful way of packaging an integrated and mutually reinforcing set of initiatives.

In response to these points, those skeptical of the concept's utility maintained that rural incorporation was too large a topic to generate support within the Agency. They also suggested that the notion of rural incorporation may be overly influenced by recent African experience of far less applicability to Latin America or Asia. A number of participants took issue with this observation.

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SECTION V

HOUSEHOLDS, DECISION MAKING, AND RURAL DEVELOPMENT:  
DO WE NEED TO KNOW MORE?\*

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Introduction

In the 1960s and early 1970s, research and policy debates in the field of rural development focused on the development and dissemination of improved agricultural technology in developing countries. While such activities have not ceased, since the mid-1970s attention has shifted from improving the technical capacity of smallholder agriculture to the macroeconomics of third world agricultural performance--in particular, the interrelations between world trade, international financial stability, and national economic policies on the one hand, and developing countries' capacity to feed their people and sustain agricultural growth on the other. In view of growing strains in the international financial system and worsening food crises in many parts of the third world, concern with the global and national causes and consequences of agricultural performance seem likely to remain at the forefront of rural development research for

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\*In writing this paper, I have benefitted from the comments of participants in the AID workshops of October 20-21, 1983, and of Gillian Hart, Christine Jones, and Pauline Peters. I am, of course, solely responsible for the contents.

some time to come. It is thus an appropriate time to reassess the significance of research on rural household decision making, both for our understanding of past patterns of agrarian change and as part of a research agenda for the future. In initiating such a reassessment, it is important to distinguish between studying the economic and social behavior of rural households (and household members), and doing so within the theoretical framework of decision making analysis. The former is essential, both to document agrarian change and to improve our theoretical understanding of it; the latter has, by and large, outlived its usefulness.

#### Decision Making Analysis: A Description

Most micro level research on rural decision making explains the behavior of individual farmers and/or rural households to be the result of rational choices among discrete options. Choice is held to be rational if it is based on consistent, transitive orderings of preferences among expected values of the outcomes of alternative courses of action. A rational choice need not, in other words, be a profit maximizing one. The rational decision maker may weigh options with reference to any goal, and forecast and evaluate outcomes by any set of norms and procedures, so long as s/he does so consistently. Such explanations are held to be useful not only for predicting people's responses to policy interventions, but also for explaining aggregate patterns of agricultural performance and rural social change. DeTray's (1980) statement that "the sum of individual economic development produces the aggregate growth statistics by which

national economic development is measured" (p. 69) reflects a widely held presumption that agrarian processes are best understood as sums of individual decisions.

Applications of decision making analysis to the field of rural development have expanded in several directions, since T.W. Schultz (1964) and others first advanced the proposition that "traditional" farmers are economic men who allocate scarce resources among alternative uses in an economically efficient manner. Some major developments in this field have been:

1. Explorations of the effects of uncertainty and risk on rural social and economic behavior. Schultz and other early proponents of the "efficient but poor" hypothesis abstracted from the problem of risk. Others have argued that farmers act so as to maximize expected rather than actual net returns (Roumasset, 1980); to minimize risk rather than to maximize profit (Lipton, 1968); or to achieve other, culturally sanctioned goals. The major theme in these studies is that variations in behavior are to be explained, in part, by variations in preferences, which may or may not be correlated with differences in culture, class, or resource endowments. This literature includes work by anthropologists (e.g., Barlett, 1980; Ortiz, 1973 and forthcoming), as well as economists.

2. The New Household Economics seeks to integrate analysis of productive and reproductive activities that take place within the household activities into standard models of economic behavior. The New Household Economics was first developed by scholars seeking to

explain patterns of labor force participation by women in advanced industrial economies. It has subsequently been applied to developing economies, to explore both relations between market and nonmarket forms of production, consumption, and investment in developing rural economies, and the allocation of individuals' time between "economic" and "noneconomic" activities--wage employment, home production, raising children, etc. Some proponents of the New Household Economics treat the household as a single decision making unit. Others have criticized the notion that households may be regarded as sharing a joint utility function, but retained the view that activities such as marriage, child-bearing, education, and family structure may be explained as "economic" choices concerning the allocation of scarce resources among alternative uses (Binswanger, et al., 1980; Evenson, 1981).

3. Farming Systems Research, which is concerned with the effects of specific environmental, technical, and institutional conditions on patterns of rural resource allocation, also draws heavily on decision making analysis. FSR explains patterns of individual or household behavior in terms of a wide variety of factors, but adheres to a decision making framework in analyzing detailed sets of data on rural farming practices, social structures, and economic performance. FSR studies frequently argue that "traditional" techniques of cultivation represent rational adaptations to specific ecological and social circumstances, and view the problem of designing rural development strategy in terms of marginal modifications in the status quo (Norman, et al., 1982).

Decision Making Analysis: A Critique

Insofar as decision making studies have drawn attention to the multiplicity of factors that influence the behavior of rural household members in developing economies and have stimulated efforts to analyze behavior in terms of specific local conditions, they have promoted understanding of the complexity and diversity of local farming systems. Clearly, it is important to recognize that agricultural production and investment take place under conditions of uncertainty; that farm production strategies are related to patterns of consumption, investment, education, family formation, etc., and that the form of those interrelations varies from one social context to another; and that individuals' strategies of resource allocation both reflect and influence their positions in various social units (ranging from the household to the nation), as well as the economic and environmental context in which they live and work. Studies of the effects of risk on economic behavior, of the allocation of time between production for the market, production for home use, and other domestic activities, and of specific farming systems have drawn attention to the limitations of conventional separation of "economic" and "noneconomic" spheres of social action, and have contributed to more realistic descriptions of the options confronting agricultural producers and rural household members in specific settings.

However, decision making analysis offers an extremely restricted framework for analyzing the complexities of intra- and inter-household processes, and their implications for macro performance.

Decision making models can be used to explain or predict behavior only if we already know what the individual's options are and how s/he perceives and evaluates them; they do not explain how options are determined and how they change over time. Nor do they really explain choice, since neither preferences nor forecasting procedures can be observed, they are often inferred from behavior, which is tautological. Also, by treating preferences as exogenous, most decision making models fail to allow for the possibility that people's attitudes and perceptions are influenced by their experiences, as well as vice versa. In short, it does not help much to be told repeatedly that people have good reasons for acting as they do and that they usually make the best of the immediate situation. Good reasons do not guarantee good outcomes, much less serve as a guide to improving the circumstances in which poor farmers and rural households find themselves.

Take, for example, the much discussed issue of price response. Schultz's and others' confidence that farmers' eagerness to turn a profit provides the key to agricultural growth has come in for a good deal of criticism. In 1966, Michael Lipton began an extended critique of the Schultzian hypothesis with a review essay entitled "Should Reasonable Farmers Respond to Price?" He argued that often they shouldn't, both because market imperfections may drive a wedge between official or published prices and what farmers receive for their crops or pay for inputs and consumption goods, and because agricultural prices are so unstable that last year's price is often useless as a

guide to this year's returns. Given their poverty and insecurity, Lipton (1968) argued, third world farmers are risk averters rather than profit maximizers. Hence, their resource allocation decisions cannot be predicted with models based on profit maximization.

The Schultz-Lipton debate has stimulated a large and inconclusive empirical literature on farmers' rationality and its implications for agricultural performance. Econometric evidence has been adduced for and against the argument that third world farmers act so as to maximize profits--or minimize risk, defined in a variety of ways. Part of the inconclusiveness of this literature arises from the authors' preoccupation with short-run responses and their propensity to ignore the dynamic interrelations between market stimulus and production response. Profits, after all, provide the means to accumulate assets which, in turn, increase producers' capacity to bear risk. In a dynamic context, the choice between profit and security often proves to be a false dilemma (Berry, 1977)--and both may be consistent with varied behaviors.

However, the inconclusiveness of the price response literature also reflects the partial nature of the underlying theoretical formulations. Decision making analysis tends to downplay, or ignore, relationships among economic actors--which may be crucial for understanding their behavior. For instance, a producer's response to a given change in the farm-gate price of one crop depends not only on relative prices of inputs and alternative crops, and the farmers' budget constraints, but also on who is offering the price and/or who

may lay claim to the proceeds of the sale. Thus, if a farmer is indebted to the buyer of the crop, s/he may expand production and sales in response to a relatively low price; if s/he is a consumer as well as a seller of the crop, a high price may lead to a reduction in the amount offered for sale. Men and women may respond differently to the same change in relative prices, if they have different obligations to feed family members, provide cash for extraordinary expenses, or maintain extra-household relationships.

Often, behavior that is attributed to risk aversion or "market imperfections" can also be understood as part of farmers' strategies to maintain or increase their access to productive resources and opportunities over time. It has not proved very satisfactory, for example, to attribute persistent net rural-to-urban migration to differences in the expected real wage rate between rural and urban areas (Harris and Todaro, 1970); if expectations are based on the probability of finding employment, migration should eliminate the expected wage differential and net migration disappear. However, when one takes into account that urban residence often gives people the opportunity to acquire skills or develop contacts that enhance access to productive resources or opportunities in the long run, it is easier to understand why net migration persists; why people endure long periods of unemployment and/or privation in urban areas; and/or why they may be unwilling to return to farming, even when incentives for agricultural production improve (Berry, 1984). Conversely, people may go to considerable trouble to acquire rights to rural land that they

cannot afford to farm, because such rights enhance their standing within the rural community and, hence, their ability to make claims on the resources of other community members (Spiegel, 1980; Ross, 1982). In short, if responding to a shift in relative prices entails giving up or endangering social relationships that, in turn, affect one's access to resources, farmers may not respond even to prices when they can be fairly certain to receive.

Much the same argument applies to studies in the New Household Economics and Farming Systems Research that treat households as monolithic decision making units. In actuality, rural households often serve as fora for overlapping but not completely coincidental social relationships that, despite the fact that they are played out face-to-face among small groups of people, may change with changes in socio-economic conditions, and involve conflict as well as cooperation among household members. To treat the household as a unit, whose members pool resources and coordinate productive and reproductive activities in frictionless harmony not only abstracts from the daily realities of intra-household bargaining and conflict, but also obscures an important dimension of social change. Changes in the structure of employment opportunities, technical options, or relative prices may lead to shifts in bargaining power, patterns of authority, and mutual expectations within households as well as among them. For example, if men respond to higher crop prices by cutting down trees to clear more land for cultivation, their wives may have to spend more time (or money) to obtain firewood for household use, thus reducing

the time and money available for other productive activities, and/or provoking conflict or resistance as well as a reallocation of resources with the household (Leonard, 1983). Similarly, the provision of rural schools may reduce the amount of children's labor available for farm and household tasks; the introduction of simple hulling or grinding machinery may release women's labor from food preparation for alternative forms of employment; and so forth.

Understanding the dynamics of such changes can, in turn, be crucial for explaining or predicting the aggregate consequences of changes in economic conditions or policy interventions. The same point applies to other levels of social interaction that engage or impinge on individuals' efforts to cope with changing circumstances. To the extent that decision making analysis promotes a view of social processes as additive, frictionless, and unaffected by relations of power, it hinders better understanding of rural development processes and of the possibility of effective intervention by state or donor agencies.

#### Households and Agrarian Change

In arguing that decision making often fails to incorporate or elucidate the dynamics of macro processes, I do not mean to endorse structuralist paradigms that treat individuals as ciphers, whose actions follow inevitably from social imperatives and do little to change their thrust. Efforts to explain resource allocation or rural institutional change in terms of aggregate factor proportions (Hayami and Ruttan, 1971; Hayami and Kikuchi, 1981), urban bias (Lipton,

1977), or the logic of capitalist expansion (de Janvry, 1981) don't take us very far either. What we need is a fuller theoretical and empirical elaboration of the ways in which "people make their own history but not exactly as they please." To this end, paradoxically, it is often necessary to disaggregate the household, in order to understand its role in aggregate socio-economic change. Changes in technology, market opportunities, or policy initiatives often affect different members of a household differently, altering the distribution of resources and/or the balance of power within rural households and, in the process, affecting the way household members allocate resources, separately or together. Resource allocation within or by the household, in turn, affects broader patterns of economic performance and change, but in complex ways, involving changing patterns of cooperation, conflict, exchange, and domination among individuals, households, and other social groups or institutions.

Indeed, some of the most important recent critiques of macro paradigms of agrarian change and the role of agriculture in economic development have arisen from micro level research. Dissatisfaction with Schultz's notion that Indian and other third world farmers are efficient but poor led Michael Lipton (1977) not only to propose an alternative paradigm of individual decision making, but also to explain this paradigm as a "rational" response to a macro-structural situation that he called "urban bias"--a political and social structure in which rural and urban classes are pitted against one another in a struggle over the distribution of investable surplus,

which the urban classes usually win. Lipton has been criticized for ignoring the role of rural elites--or treating them as part of the "urban class," and hence obscuring the real causes of agricultural stagnation and rural poverty.

In a recent essay, appropriately titled "Why Poor People Stay Poor in Rural South India," John Harriss (1982) uses his own field research in Tamil Nadu to show how micro level research can be used to clarify our understanding of rural development. Before the introduction of Green Revolution technology in the 1960s, agricultural production was limited by the scarcity and uncertainty of rainfall. Output kept pace with population growth, but growth occurred through the expansion of cultivated area and practice of multiple cropping where groundwater irrigation was readily available, rather than through increases in productivity. The poverty of many rural households created an opportunity for prosperous farmers to expand their incomes by making consumption loans to their poorer neighbors. Such loans did not generate a sustained expansion of the rural market, however, and successful moneylenders could find further outlets for their profits only outside the agricultural sector--in trade or urban enterprise. With the introduction of high-yielding varieties of rice, it became profitable for rich peasants and merchant/moneylenders to invest in tubewells and increased agricultural production. To follow their lead, poor farmers needed additional credit. This served to expand the scope for rural moneylending and to perpetuate differentiation among rural households. Once again, however, growth

of the rural market tapered off, as indebtedness prevented poorer farmers from achieving cumulative increases in real income, and their poverty in turn constrained the growth of the rural market and the scope for investment in rural, nonagricultural enterprise.

Indebtedness and inequality were also enhanced by the spread of dependent labor relations between poor farmers seeking credit and rich ones who took advantage of their need to secure cheap labor for their own farms. Harriss, in other words, uses detailed evidence on changing resource endowments, production strategies, credit flows, and labor relations among households to show not only how technical change has perpetuated and even intensified rural differentiation in south India, but also why even widespread dissemination of HYV's may not give rise to self-sustaining growth. Similar conclusions have been reached in a similar way by Bhalla (1976) for Haryana.

Micro studies of resource allocation by rural households and household members may also be used to illuminate the rural policy options facing governments in times of aggregate economic change. In Indonesia, rice production increased substantially during the 1970s, with the dissemination of high-yielding varieties promoted by price supports and input subsidies financed out of Indonesia's burgeoning oil revenues. In recent years, declining oil revenues and the rising cost of subsidies and price supports (aggravated by an unwieldy system of rural cooperatives) have made it difficult for the government to maintain incentives for expanded rice production. It has been suggested that the supports be dismantled and market forces given a

greater role in directing rural resource allocation. Because of increasing corruption and mismanagement in the cooperatives, it is argued that reduced government intervention in the rice economy would promote equality as well as efficiency, by improving poor households' access to market incentives.

From a study of household labor allocation patterns in a central Javanese village, Gillian Hart (forthcoming) has argued that it may be difficult for the Indonesian government to follow such advice. The spread of HYV's and growth of rice production in the 1970s was accompanied by a process of labor market segmentation and the proliferation of selective contracts for agricultural laborers, which provided steady employment and a share of the crop to a limited number of workers. Such contracts were profitable to farmers because they minimized the need for supervision of farm workers; laborers, conscious of their relatively privileged position vis-a-vis many of their landless and intermittently employed neighbors, worked hard to ensure renewal of their contracts the following season. This freed rural landowners for other activities--often nonagricultural forms of investment and enterprise, to which they in turn enjoyed privileged access as village elites with direct access to state patronage. If the government dismantles the system of rural co-ops and agricultural subsidies, Hart argues, rural landowners will be cut off from valuable economic opportunities and from their secure political position as minor state clients, and hence will become increasingly vulnerable to the hostility of their poorer neighbors. To counteract this threat,

they are likely to shift to more inclusive forms of labor employment, which might involve increased supervision of workers, more open harvests, and higher costs of agricultural production. Such changes could also lead to a resurgence of general rural opposition to the regime, similar to that which contributed to the upheavals of the late Sukarno period. In short, by following the cost-efficient strategy of dismantling price supports and rural institutions they can no longer afford, Indonesia's rulers run the risk of curtailing agricultural growth as well as incurring the combined hostility of the rural rich and the rural poor. Hart's study illustrates both dimensions of the argument being advanced in this paper--that research on rural households is crucial to understanding macro processes, and that it must encompass the full range of economic, social, and political relationships among households, and between villagers and extra-village agencies, rather than focusing narrowly on market costs and returns to alternative crops and forms of employment.

As a final example of some of the ways in which research on households and household members can illuminate macro trends and policy issues, I would like to cite my own research in western Nigeria (Berry, 1983, 1984). Like Indonesia, Nigeria enjoyed surging revenues from oil exports for most of the 1970s but, unlike Indonesia, it experienced no significant growth in food production, despite rapidly rising domestic food prices and a well-established internal marketing system. Here, as in south India, rural resources were channelled out of agriculture even during the oil boom--not so much because farmers'

profits were deliberately appropriated by an urban class, but through farmers' own strategies of self-advancement. In the 1960s, Nigerian farmers were taxed quite heavily but, in the 1970s oil revenues dwarfed what the government had previously been able to extract from the agricultural sector through taxes and marketing board surpluses, and the government largely abandoned efforts to tax agricultural producers. The official domestic price of cocoa, for example, was raised by 350% between 1970 and 1977, and domestic food price controls designed to protect urban consumers were honored mostly in the breach.

Whatever Yoruba farmers gained from rising crop prices was, however, either absorbed by the rising cost of living, or used to enable farmers and/or their children to leave agriculture. This is not a new pattern in western Nigeria. In 1978-79, I collected individual life histories of migration, employment, and income use from farmers in two cocoa producing villages and from their descendants, most of whom were employed outside of agriculture. Even in the colonial period, most farmers used part of the profits from their cocoa farms to advance their own and their children's access to non-agricultural opportunities--through investment in trade, transport, or other service enterprises, or through training (formal or informal) for nonagricultural (self-)employment. They also devoted considerable income to kin and community--enlarging their families, maintaining and/or educating relatives in addition to their own children, contributing to community projects and family ceremonies, and often building a house in their community or origin, even if they spent most of their working lives away from home.

In the short run, much of this expenditure was devoted to consumption. Viewed over time, however, it is clear that farmers' outlays on consumption or interpersonal income transfers served to maintain and develop social relationships that could enhance their access to productive resources and economic opportunities. Since colonial days, if not before, access to property, labor service, markets, and even some commodities in western Nigeria has depended on patronage relations, which operate both within and across lines of kinship, community, and ethnicity. Descent-based or residential networks can serve as channels of access to state as well as local power and resources, but they are not the only avenues to upward mobility. Wealth, occupational ties, and education can also provide the means to advance or protect access to resources and opportunities. Most people seek to diversify their options: thus, people of all socio-economic levels retain ties with the communities of origin, however remote or impoverished, while even the poorest do what they can to gain a foothold in expanding markets, trades, and/or the political hierarchy. In short, a good deal of individual investment is directed toward obtaining control over resources and opportunities, rather than effecting immediate increases in output and productivity.

Understanding farmers' strategies of accumulation and the direction of rural resource flows helps, in turn, to explain why agricultural output has stagnated in recent years, despite rising demand for foodstuffs. During the oil boom, low income farmers were caught in a squeeze between the rising cost of living and the rising

cost of agricultural labor, which has left them with neither means nor incentive to invest in labor-saving methods of cultivation. Those with liquid capital to invest in farming are often merchants or salaried urban dwellers, who have to mobilize land and labor, and find a way to manage a farm in absentia. To do these things, they too need dependable relationships with their kin to activate descent-based claims to cultivatable land and/or to persuade indigent relatives to work on or manage their farms in exchange for future assistance in advancing their own careers--and with the state--which, under the Land Use Decree of 1978, holds ultimate jurisdiction over land rights, as well as controlling access to the oil wealth itself. Thus, a good deal of the revenue that might be invested in increasing food output is diverted to obtaining and defending access to the means of doing so.

Similar considerations apply to nonagricultural enterprise and, indeed, to the use of resources within the government itself. In following the careers of farmers' children, I extended my study of people's histories of resource use into the "informal sector" and the civil service, and found that the ubiquity of patronage relations as a condition of access to resources not only diverts investable surplus from directly productive activity, but also shapes strategies of management in Nigerian firms and institutions, often in ways inimical to the growth of productivity. The multiplicity and instability of patronage relations also exerts a determining influence on patterns of political mobilization and conflict in contemporary Nigeria.

For the present discussion, the point I wish to emphasize is that understanding micro level strategies of investment and resource allocation is crucial to explaining macro processes, as well as vice versa. Farmers' (and other Nigerians') expenditure patterns, which could easily be dismissed as conspicuous or culturally determined consumption, can provide clues to the dynamics of investment, economic growth, and structural change. However, I did not learn to read these clues by searching for the revealed rationality (economic or otherwise) lurking in individuals' acts of production or expenditure, but rather by attempting to understand how peoples' uses of income are shaped by local and regional structures of economic opportunities and conditions of access to them, and vice versa.

Conclusion: What Needs to be Studied

The study of rural households is crucial for understanding macro agrarian processes. Often, aggregate data are not reliable and, even when they are, they reveal only the combined outcome of people's patterns of resource use and their social interactions--not the processes themselves. Nor, because of interactions, can process be deduced from outcome. Just as Keynes showed that individuals' efforts to save more could result in less saving for all, so farmers' efforts to improve their families' standards of living often have unintended and/or unwanted consequences for rural development. To understand patterns of rural change, it is necessary to study households and rural resource allocation at the micro level, but from an analytical and methodological perspective different from that adopted in most decision making studies.

First, rather than taking the household as a unit of analysis, it seems to me appropriate to treat it as a point of departure from which to study the dynamic relations between people's strategies of resource acquisition and allocation and the economic, social, and political context in which they live and work. The questions we need to ask are not what do "households" decide and how, but rather how does membership in a household affect people's access to resources, obligations to others, and understanding of their options--and vice versa? From this perspective, understanding the changing relations among people within a household becomes a point of entry into the analysis of social dynamics in general, rather than an escape from the complexities of macro analysis, or a tautological exercise in ex post rationalization.

Second, emphasis should be shifted from short run patterns of resource allocation to longitudinal analysis of: 1) relationships between people's strategies of resource acquisition and patterns of resource allocation; and 2) the interplay between individuals' behavior and the conditions under which they act. In particular, increased attention should be given to documenting and analyzing patterns of investment out of agricultural surplus--not only because investment is not well explained by existing price response models, but also because it is through investment that the allocation of resources at a given point in time affects the conditions under which they may be acquired and used in the future. Thus, understanding investment at the micro level is central to improving our ability to

conceptualize processes of agrarian change. Moreover, since the conditions of production depend on legal and institutional factors, as well as on relative prices and technological options, the study of investment must address, and may help to clarify, interactions between directly productive activity, and the social institutions and relationships within and through which economic activity is organized.

Two related issues, which are also poorly understood and central to furthering our understanding of agricultural performance and rural development processes, are: 1) relationships between agricultural performance and the organization of agricultural labor; and 2) the effects of strategies of domestic organization (marriage, child-bearing, residential patterns, etc.) on resource allocation, and vice versa. In all three of the case studies cited above, insights into the determinants of agricultural growth, productivity, and policy issues on a macro level were derived from detailed study of the way in which farmers and other small scale rural enterprises recruited and managed labor. Further research on this issue would not only advance our understanding of the processes whereby changes in incentives are translated into production and investment, but could contribute to a more powerful and useful conceptualization of the relations between culture, power, and productivity than that provided by models of constrained utility maximization and the axiom that preferences are exogenous to economic processes. Similarly, it is important to seek explanations of strategies of domestic organization that go beyond

simple economic determinism, in order to clarify interactions among demographic, economic, and social dimensions of agrarian change.

The themes and theoretical issues outlined here cannot be explored in the laboratory. Social processes take place in specific historical contexts and must be observed when and where they occur. To study the dynamics of rural development, it is essential to collect longitudinal evidence on patterns of resource acquisition, resource allocation, and the conditions under which they occur. The need to study social behavior in specific circumstances does not condemn one to empiricism, however; general propositions can be formulated from the study of a single case and tested through comparative analysis. Indeed, the value of longitudinal evidence on rural economic processes is becoming more and more widely recognized, and such data already exist on a local level for a number of specific cases. A good deal of the research and reconceptualization of individual behavior and agrarian processes advocated in this paper could be carried out through collection and synthesis of existing case studies, and active networking among scholars already engaged in such research, with perhaps a few additional field studies to explore specific problems or hypotheses that emerge in the process of synthesis and reconceptualization.

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Issues Raised During the October Workshop on the Presentation by Sara S. Berry

There was no question in the minds of the workshop participants that Sara Berry's presentation on rural household decision making was challenging. The questions that arose in the discussion centered around the nature and extent of the challenge and whether such a challenge was an appropriate element in a research agenda.

Much concern centered on Berry's critique of the decision-analysis model and her proposal for a "life histories" methodology. It was questioned if the critique was limited to the issue of household decisions on accumulation and investment or was more generally directed to the way rural development is studied. One participant noted that Berry's approach offers a useful way of understanding the investment decisions of the poor, an area that economists know little about. Berry indicated her more general concern about the way rural development issues are usually approached. The discussion also addressed whether Berry's critique was a challenge to the central tenets of existing analytical tools or whether it was a forceful reminder that unsophisticated use of any analytical tool is poor scholarship.

Several participants took the latter position, arguing that in rejecting the decision-analysis model, Berry was not saying that rural people were not rational or uncritical; rather, she was saying that it is vital to understand the local context in which those decisions are made. Therefore, the issue was to perfect analytical tools to study the context of rural decision making and how it relates to broader

processes of change. Life histories seem to be one such promising tool. Other participants in the discussion argued instead that Berry was presenting a broad indictment of the way social scientists study rural development. They were concerned that her approach was too time and location specific and did not provide adequate scope for the development of generalizations and theory. In reply, Berry suggested that the problems for social science derive from aggregating or generalizing macro patterns as if they were the summation of micro observations.

Others raised the issue of the importance of models. They argued that models are only approximations of reality and since it is difficult to say which approximation is better, the question is which approximation best helps us understand what is going on and best predicts what will happen in the future. Hence, the way to determine if one methodology is better than some other is to determine whether it does a better job of prediction. Berry responded that it does make a difference how one approximates reality and that decision analysts were mistaken in committing themselves heavily to models that predict and lose their richness.

Several participants raised questions relating to whether a methodology was an appropriate subject for research, and if so what type of research was needed. Berry and a number of others argued that a methodology was entirely appropriate as a subject for research, and that while this particular methodology had been field tested, it needed refinement through application to different issues and

different contexts. However, Berry made the case repeatedly that she was more concerned that the methodology be used in the analysis of those problems eventually selected as research priorities than in seeing research done on the methodology exclusively.

Besides the life histories methodology, several others were suggested by participants as being useful at uncovering the complex relationships between individuals, local institutions, and larger economic, political, and social forces. One suggestion was to use cohort analysis to understand the effects that age or other demographic characteristics may have on the response of individuals to change.

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