Food System Organization Problems in Developing Countries

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FOREWORD

Problems of marketing have long been an interest of the Agricultural Development Council. Since late 1970 the A/D/C has sponsored eighteen seminars and workshops in the field of marketing. In general, meetings have focused on either rural marketing or international trade and development, exploring these matters from the perspective of the developing nations.

Over the past decade, important changes have occurred in world conditions to affect research and training needs in the field of marketing. Evolving institutional arrangements for dealing with food security and internal development have brought about greater recognition of the importance of marketing institutions. Production expansion schemes have put marketing needs in sharper focus. And the priorities of some of the international agencies, such as the World Bank, have shifted to the marketing problems of the small farmer and the rural poor.

The workshop on Food System Organization Problems in Developing Countries had its genesis in discussions among members of an informal steering committee. They agreed that changes in marketing systems have created a need for a new perspective. As a result, the twenty-three workshop participants—largely agricultural economists, representing both universities and international agencies—were charged with the responsibility of assessing current research and training needs in agricultural and food marketing and of determining ways of stimulating useful research on food system organization problems. As the present report indicates, the participants reviewed the history of marketing policies and past research emphases, pinpointed both short-term and long-term needs in current research efforts, and formulated an agenda for follow-up activities designed both to encourage significant research and to improve professional capabilities for the conduct of research and the management and evaluation of marketing programs.

The Agricultural Development Council is grateful to Michigan State University for hosting the workshop and to the members of the steering committee—Olan Forker, Cornell, Kelly Harrison, formerly USDA, William Jones, Stanford Food Research Institute, Richard King, North Carolina State, and Harold Riley, Michigan State—for their time and effort in planning and organizing the meeting. The Council also wishes to thank the authors of this report for their careful and thought-provoking summary of the workshop discussions.

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It is widely anticipated that population growth will place increasing pressures on world food production capabilities over the next few decades. Far less appreciated is the tremendous build-up of pressures on the assembly, processing, and distribution segments of food systems in developing countries. In some middle-income countries, the rapid growth of cities, the increasing specialization in farm production, and the continuing rise in income levels will double the volume of food moving through commercial channels over the next 10 to 15 years. This increased volume will be accompanied by an even greater increase in the demand for food marketing services. Many poorer countries' logistical systems and institutional arrangements are simply inadequate to cope with the rural and urban food production. And it is often difficult to provide producers with economic incentives—by such means as improved input availability, attractive product prices, and dependable markets—and at the same time to provide consumers with low-cost, nutritious diets.

It seems clear that there is an urgent need for programs that will develop in-country capabilities to plan and manage rapid changes in food systems—changes not only in farm production but in food distribution and overall system coordination. Up to the present time, however, donor agencies and developing country governments have given less support to the development of marketing institutions than to the development of farm production technology and basic infrastructure. This relative neglect of marketing probably reflects a combination of factors, including a general lack of knowledge about the complexities of market processes and the role of the private sector in essential marketing functions; a widely held anti-middleman attitude; and a realization of the politically

sensitive nature of price policies and public sector interventions in food marketing.

Recently, agricultural economists' traditional approaches to analyzing marketing problems and designing public sector interventions have been subjected to several criticisms. One of the most important of these critiques argues that the static, perfect competition model, though still useful, must be supplemented by conceptual and analytic procedures that give more attention to the dynamics of the development process and to the roles of institutions, policies, and rules in achieving market performance goals.

In all food systems there are multiple performance goals, and many of these goals can be specified only in the context of a particular country and culture. But all economies also share certain performance goals—notably, equity, progressiveness, and the traditional goal of economic efficiency. We need a conceptual and analytic approach that will encompass these commonly sought goals.

In addition, there is a growing concern among agricultural economists that "a food system perspective" be adopted as a framework for assessing the workability of alternative market interventions. Such a perspective broadens the scope of marketing research to include not only the product movements and transformations that occur after farm-level production but also farm input marketing and policies on prices, trade, and institutional reforms.

The participants in the A/D/C workshop on "Food System Organization Problems in Developing Countries" adopted as their general goal the articulation of ways *to stimulate and strengthen professional research and related training activities so as to contribute to the development of improved food and agricultural market systems in developing countries.* As a basis for the workshop discussions, participants prepared and circulated brief statements on the following topics:

- Perspectives on Past Research and Training and Perceived Long-Term Needs of Developing Countries
- International Agency Programs and Priorities in Respect to Food System Organization and Management
- Conceptual and Operational Approaches to Research on Food System Organization and Management
- Toward a Strategy and Agenda for Research and Professional Development

The first four major sections of this report deal, respectively, with traditional approaches to marketing policy and the changes that are occurring in these approaches; the body of research on marketing, which includes studies by geographers and anthropologists as well as economists; some issues in future marketing research; and a number of institutional issues, among them the need to strengthen professional capabilities in developing countries. The final section of the report outlines follow-up actions recommended by the participants in the closing sessions of the workshop. Throughout the report the authors have attempted to synthesize the various discussions and views expressed and to articulate the consensus of the group. No attempt has been made to identify individual participants with particular views or arguments.

MARKETING POLICIES: GOVERNMENT AND DONOR APPROACHES

Governments of low-income countries and donors have increasingly recognized that the agricultural marketing system plays a crucial role in economic development, not only by physically distributing increased production but by influencing production incentives and distributing the benefits of growth. As a result, governments and donors have tried many approaches to marketing improvement, but with varying degrees of success. For one thing, these efforts have often been colored by stereotypical views of marketing as an essentially unorganized, exploitive, and nonproductive activity that is not really amenable to scientific analysis. In addition, past policies have often assumed that a clear dichotomy existed between production and marketing and that the major task was to combat the monopoly position of private-sector merchants. Finally, many past efforts have underestimated not only the technical and management expertise required in marketing but the large number of the very poor who are marginally employed in the marketing system.

Workshop discussions focused first on the three principal approaches traditionally taken by governments and donors in attempting to improve marketing: (1) the creation of government-backed agencies to market agricultural products, either in place of or in competition with private traders; (2) the provision of physical infrastructure and various services to facilitate private trade; and (3) the training of professionals and market participants in improved marketing techniques. The group then considered some of the new approaches adopted by governments and donors in recent years.

Creation of Public Marketing Agencies

Many countries have established parastatals, marketing boards, and cooperatives—often with statutory monopolies—to handle the marketing of certain agricultural products. These government-backed agencies, however, have been less successful in handling food crops for domestic consumption than in handling export crops. There are three primary factors

in this lower success rate: the greater complexity of domestic food marketing systems, which involve thousands of assembly and distribution points; the generally lower level of value-added in the processing of domestic food crops as compared with export crops; and the existence of a well-established private trade. The performance of public marketing agencies has often been hampered by high overhead costs; few incentives for efficiency, particularly when deficits can be covered by a public treasury; and a lack of marketing expertise, especially during initial years of operation.

One reason why governments and special interest groups have continued to support public marketing agencies, despite their poor performance, is the ability of these agencies to grant preferential market access to favored groups; for example, farmers in remote areas and politically powerful urban consumer groups. Another, more positive reason for continued support of public agencies is the fact that, where they have not been granted statutory monopolies, they may have improved private trade performance by increasing competition.

Facilitation of Private Trade

Governments and donors have also attempted to strengthen marketing generally by providing physical infrastructure, information services, and credit and extension programs aimed at improving private trade performance. Improving infrastructure has often led to better market performance, but this method has had two shortcomings. First, the type of infrastructure provided has frequently been more appropriate to relative factor prices in Europe or North America (where the infrastructure plans are usually formulated) than to those in low-income countries. As a result, expensive imported capital has often displaced cheap domestic labor in technically complex, new processing and marketing facilities. Second, when they have stressed physical infrastructure, governments and donors have sometimes neglected to provide other important public goods—such as improved information systems, uniform weight and measures, and changes in laws and regulations—that would encourage innovations. Alone, an individual market participant might not find it profitable to adopt such innovations; if they were adopted by all participants, however, these innovations would greatly enhance food system productivity. It may be that such public goods have been underemphasized because it is difficult to estimate their costs and benefits *ex ante*.

Training of Professionals and Market Participants

Graduate, undergraduate, and technical training in agricultural marketing has been provided by governments and donors for some time. However, professional training has been hindered by several factors: the failure of many programs to include the practical, business-oriented training necessary for successful management of private or parastatal entities (e.g., basic budgeting and accounting); the lack of teaching materials specifically relevant to marketing in low-income countries; and the lack of field experience in how marketing systems in low-income countries actually work. Because of these weaknesses in training programs, students often find it difficult to apply the general principles they have learned to the practical marketing problems they face in their own countries.

Training programs have, to a great extent, neglected short-term, in-service training for market participants. The extension programs of most low-income countries are oriented almost entirely toward farm production and give little attention to marketing. Providing small merchants and shippers, for example, with basic instruction in accounting, inventory management, and packaging techniques might contribute substantially to market efficiency.

Recent Changes in Approaches to Marketing

Experience over the past 30 years has demonstrated that without appropriate government action there is no guarantee that a marketing system adequate to the needs of a rapidly growing country will evolve spontaneously. At the same time, it has become clear that good marketing performance requires both technical expertise and incentives, and that simply replacing private traders with state agencies in no way assures such performance. As a result, governments and donors have begun not only to give more attention to agricultural marketing but to attempt to differentiate between marketing system functions that are best handled by centralized means—for example, through the government—and those that are better handled by relatively decentralized means—for example, through private trade. Many countries have given greater emphasis to the role of private trade in an effort to use both the human capital already in the system and the strong incentives for marketing efficiency that often exist in the private sector. Other nations continue to see a strong role for public marketing organizations but have given considerable attention to the design of incentives for good performance by such organizations.

Many donors and governments have come to see the old dichotomy between marketing and production as arbitrary and misleading. Like farming, marketing involves production processes that use inputs and create value; it includes the off-farm elements of the food production system. Marketing also includes the system by which production is allocated among consumers. Increasingly, therefore, marketing discussions

are taking place in a *food systems* context and include broader issues such as food subsidies, trade policies, dual pricing schemes, and the impact of the market structure on nutrition and on production incentives.

MARKETING RESEARCH: STUDIES TO DATE

Economists, geographers, and anthropologists have carried out numerous studies of agricultural marketing in low-income countries. Over time, the problems studied and the methods used have adjusted to the criticisms of other researchers and to the demands of governments and donor agencies. Workshop participants critically assessed past research and the problems of integrating the work of these three disciplines.

Work by Economists

Many of the studies by economists have been largely descriptive, whereas others have been diagnostic and prescriptive. The conceptual approaches to these studies have in general taken two forms: approaches that emphasize the perfectly competitive market as a norm and those that use a broader, food systems framework of analysis.

Research Using Perfect Competition Norms. Several studies of marketing in low-income countries have used norms drawn from the model of perfect competition in order to evaluate technical and economic inefficiencies and to suggest possible improvements in existing marketing systems (Center for Research on Economic Development, 1977; Jones, 1972; Southworth, Jones, & Pearson, 1979). These studies have often evaluated market efficiency by comparing price differentials through time and space with the costs of spatial and temporal arbitrage; by calculating net margins for various marketing functions; and by evaluating the degree of intermarket relatedness, using correlations of price movements across markets.

Research using perfect competition norms has made several important contributions. First, it has provided a good empirical description of how several important food marketing systems work, information that is essential to intelligent policy making. Second, it has challenged many of the prevailing stereotypical notions of indigenous marketing systems and of the market behavior of farmers and merchants in low-income countries. It has demonstrated that these systems are often not as exploitive as supposed and that, given the institutional and infrastructural setting in which they operate, they tend to be fairly efficient. Furthermore, by showing that "traditional" market participants are indeed "economic men and women" who respond to market incentives in predictable ways, this research has revealed that standard economic policies can be used to influence market behavior. By focusing on market efficiency, the research has also drawn attention to unexploited economic opportunities within existing marketing systems and has outlined ways in which infrastructural and policy constraints have hindered such efficiency.

The perfect competition approach also has several limitations. Consistent with the model, market performance has been defined almost solely in terms of static economic efficiency. Relatively less attention has been given to other dimensions of performance such as stability of product flows and prices, product suitability, and equity. Furthermore, following a structuralist view of the industrial organization framework, this approach has tended to focus much more on issues of horizontal concentration within a subsector than on vertical coordination issues (such as the effect of wholesaling arrangements for a particular commodity on farmers' incentives to produce). The perfect competition approach also does not address some of the dynamic aspects of market development, such as the effects of economies of size in marketing and processing. And the approach has been criticized for sometimes drawing unwarranted conclusions from correlation analyses based on unreliable secondary data (Harriss, 1979).

A final limitation of the perfect competition approach is that it has sometimes exaggerated the importance of improving the physical infrastructure of marketing systems relative to the importance of changing institutions, standard operating procedures of firms and government agencies, and market rules—all of which might contribute substantially to improved market performance. This tendency probably reflects the fact that it is easier to assess the costs and benefits of infrastructural changes than those of institutional changes. At an extreme, the policy recommendations of studies using perfect competition norms might be characterized (some would say, caricatured) by the Schultzian "efficient but poor" hypothesis as applied to marketing, arguing that nothing but physical infrastructure need be improved.

Systems-Oriented Research. Another group of economists has attempted to look at food production and distribution more as a unified system and has stressed the interdependence of activities at different levels in that system. These researchers have argued that small increases in productivity in one part of the system (for example, improved inventory management at the wholesale level) may greatly improve the potential of the whole system. Similarly, they argue that failure at any level may cause stagnation in the entire system.

This systems approach shifts the focus of research from the farmer or merchant acting as individual to all market participants acting as a coordinated group. A major goal of this research has been the discovery

of ways to facilitate better coordination among participants at different levels of the food system—such as developing new operating methods, rules, and institutions—in order to increase the productivity of the system as a whole. This approach contrasts rather sharply with the perfect competition approach, which emphasizes increasing the efficiency of individual market participants within a given institutional framework.

According to the systems approach, food system performance includes many dimensions not stressed by the static economic efficiency approach. Thus, for example, systems-oriented researchers have emphasized the influence of the form of market organization on economic growth and equity. The systems approach views markets as the means by which linkages between different sectors of the economy are activated, and it stresses the importance of laws and regulations in shaping the behavior of market participants.

By stressing the unity of production and marketing and the multidimensional nature of market performance, the systems approach has provided a broad framework for the analysis of marketing problems. The emphasis of this approach on dynamic issues, such as the possibilities for capturing external, system-wide economies through the introduction of new technologies and institutions, has helped to place marketing policies firmly in a developmental framework.

Like the narrower, perfect competition approach, the systems approach has its drawbacks. Its performance norms, based in part on the concept of *workable competition,* are much less clearly defined than are those of the former approach. In addition, despite its emphasis on institutions and their effects on market behavior, the systems approach lacks a well-developed methodology for *ex ante* evaluation of the performance consequences of alternative institutional arrangements. Used indiscriminately, this approach would be completely unwieldy: everything in the food system would affect everything else in the economy and vice versa. Used with caution, however, the systems approach helps place marketing problems in their long-term developmental context. As outlined in a later section, a major challenge to economists is to make the systems approach more operational by developing methodologies to evaluate the performance consequences of alternative interventions in the food system.

Work by Geographers and Anthropologists

Geographers and anthropologists have stressed spatial considerations in the organization of markets and the relations between economic organization and other aspects of culture. Geographers, developing concepts such as *central place theory,* have built on Von Thunen's concepts of the spatial organization of markets and production, concepts economists have sometimes disregarded. (Some economists have, of course, pursued these lines of inquiry; see, for example, Bressler & King, 1978.)

Marketing research by anthropologists falls into three main categories:

- *Regional analysis* addresses many of the issues investigated by geographers, examines the spatial organization of markets and the causes, consequences, and correlates geographical patterns of market organization (see, e.g., Smith, 1976).
- *Microbehavioral studies* investigate decision making by individual market participants, comparing the outcomes with those predicted by microeconomic theory (see, e.g., Gladwin & Gladwin, 1971).
- *Organizational analyses of social interaction in the marketplace* study the interaction between social relations and economic processes, examining, for example, how kinship networks influence the flow of information and the structure of retailing in a given market and how these factors, in turn, reinforce certain kinship obligations.

Clearly, geographers and anthropologists have viewed marketing from a different perspective than that chosen by agricultural economists. However, partly because these researchers have traditionally been excluded from program design and implementation, their work has often been purely descriptive; they have rarely diagnosed specific problems or prescribed specific methods of improving market performance. When these researchers have addressed the economic performance of markets, they have frequently used perfect competition norms.

Integrating the work of anthropologists and geographers with that of economists is often difficult because each discipline has its own conceptual framework and asks a different set of questions. As a result, the information collected by one discipline may not directly address questions that are of central interest to others. Merging the conceptual approaches of the three disciplines would endanger the unique contribution of each. Greater coordination of the three can probably be achieved, however, if members of the three disciplines work together in specific problem-solving situations. Workshop participants expressed the belief that anthropologists and geographers must be more fully integrated into design and implementation teams if marketing policies are to benefit from their specific contributions.

ISSUES IN FUTURE MARKETING RESEARCH

To improve on past government policies and research on marketing, we need to evolve conceptual

approaches to food system development that address the problems discussed in the preceding section. The urgency of marketing problems in many countries dictates the need for improved policy-oriented research. Increased population, urbanization, commercialization, and the other dislocations associated with the structural transformation of an economy are straining existing food marketing systems. Policymakers need to understand these systems better if they are to design effective marketing policies, and there is a critical need for marketing research to be more closely integrated with action programs aimed at improving food system performance. Such integrated programs should include components for project monitoring, evaluation, and redesign. And we can increase the cost-effectiveness of these components by involving graduate students, particularly students from the developing countries, in this type of project-related research.

If, as many suggest, the real price of food increases substantially during the coming years, there will be a greater payoff to well-designed interventions that increase market efficiency. Careful research on alternative types of interventions, carried out within a broad framework that takes account of major government actions throughout the food system, may thus become increasingly important.

Immediate Research Tasks

Many policymakers still need basic descriptions of how food systems operate in their countries. Descriptive studies can do much to demystify marketing. Such studies should include discussions of who the major market participants are, what these participants do, and how they make market decisions. (Anthropologists can make important contributions to this type of study.) These studies should also make preliminary assessments of major problems in food systems, based on discussions with market participants and local officials. It is also very desirable, in any descriptive study, to outline product flows, price surfaces, and transfer costs within the marketing system and to estimate the variability of these factors. Such information helps identify the sources and approximate magnitudes of inefficiencies within the existing system and serves as a guide in developing actions to reduce these inefficiencies.

The major conceptual and analytical approaches used to date in marketing studies have difficulties, as we have pointed out, in predicting the performance of alternative government interventions and in quantifying the tradeoffs between efficiency and other dimensions of market performance. Faced with these difficulties, some argue that researchers should press ahead in the short term with "old-fashioned empiricism," gathering information on how various food systems work in the hope that this information may suggest new conceptual models. There is a danger, however, of doing a large number of studies of individual food systems that are so location specific that the information obtained does not build up a generalizable body of knowledge. If research is to generate information useful to policymakers in areas outside a specific research site it must focus on underlying economic and social relations as well as on idiosyncratic characteristics of individual marketing systems. A balance between theory building and pure empiricism is needed. As discussed in the fourth major section of this report, new institutional arrangements can help reduce the frequency of nonadditive, situation specific research.

Long-Term Research Challenges

In the future, a major challenge to researchers will be to develop a conceptual approach to marketing that will be both broader than the perfect competition model and more operational than existing systems-oriented research. At the most fundamental level, marketing research should evaluate how well the food system of an area works relative to the goals defined for that system by the residents of that area. Thus "appropriate" market organization and institutions will vary according to the social, political, and cultural situation of each country.

Measuring Market Performance. A major task in carrying out applied market research is discovering the local definitions of good market performance and developing workable norms against which to measure current performance. Since there are likely to be many aspects to performance, evaluating it requires a multidisciplinary approach.

Given the rapidly changing demands on most developing countries' food systems, it is not enough to simply describe and evaluate the performance of current marketing systems. As already indicated, researchers must develop methodologies capable of projecting the consequences of alternative market interventions (one of which should be the continuation of current policies). Possible methods include formal and informal simulation modeling and comparative institutional analysis. *Simulation modeling* would permit researchers to vary important policy parameters and trace their consequences over time. Formal modeling of an entire marketing channel, however, can be very demanding of data, trained personnel, and computer time.

Comparative institutional analysis involves evaluating the feasibility in one locale of market interventions that have worked in another, or trying several interventions during project implementation and redesigning them in the light of their comparative perfor-

mance. In selecting alternative interventions, it is important to choose those that encompass both system-wide economies (e.g., standardization of shipping containers, or regional specialization in production) and the institutional changes necessary to capture those economies.

Ensuring Acceptable Performance. A second major task for researchers is to investigate ways in which imperfectly competitive marketing systems can be made to perform better. Frequently markets in developing countries are too small to support more than a few modern processing plants or certain types of exporters or importers. Little research has addressed the question of how to ensure that such components of the marketing system, whether private or public, perform acceptably. In the past, policymakers seem often to have assumed that if the activities of processors, exporters, and the like were controlled by the private sector there was no way to induce good performance, but that if they were controlled by the public sector good performance was guaranteed. In reality, the performance of both public and private entities is conditioned by the incentives and sanctions provided to individuals in these organizations (e.g., tax policies, or rules governing the setting of wages). Nevertheless, little research has considered how to design incentives and sanctions that will elicit better performance from both public and private marketing organizations.

Developing Cost-Effective Methodologies. Developing more cost-effective research methodologies could involve making use of the data base (some of it from previous marketing studies) that already exists in many countries. Cost-effectiveness could also be increased by developing quick, preliminary survey techniques, based on informal interviewing and inspection of market facilities, that would attempt rapid identification of the critical constraints in a marketing system. Such techniques were developed by farming-systems researchers at CIMMYT—the International Maize and Wheat Improvement Center (Byerlee, Collinson, et al., 1980). Further research effort could then be concentrated on finding ways to relieve those constraints.

Other Crucial Research Issues. Determining the relative roles to be played by the public and private sectors in food system development represents, for every country, a fundamental political–economic decision. As countries develop and new demands are made on their food systems, the "appropriate mix" undoubtedly changes. Researchers can play a significant role by helping to shape the discussions of this issue, by outlining some consequences of alternative actions, and by helping to design appropriate interventions once a political decision regarding the "appropriate mix" has been reached. When some private trade is allowed to coexist with public marketing organizations, as is the case in most countries, a critical research issue is the design of policies to coordinate the behavior of private and public market participants so as to ensure price stability, food security, and other food-system goals.

In many countries, a critical research issue is the design of market arrangements that will give small-scale participants, both small farmers and traders, viable market access. Equity is an important aspect of market performance, and if food system development is not to be characterized by a "trickle-down" approach, questions of market access for small-scale participants (e.g., through cooperatives) need to be carefully analyzed.

Because food prices are both incentives for agricultural production and major determinants of the real income of the poor, many countries face a major political and economic dilemma when establishing their agricultural price policies. In most low-income countries, population and income growth make it critically important to boost agricultural production. But it is becoming increasingly difficult to raise prices in order to increase production because of the adverse effect higher prices would have on the growing number of landless and urban poor. Marketing researchers face one of their very greatest challenges in attempting to discover ways of insulating low-income consumers from higher food prices while still providing farmers with adequate incentives to increase production.

INSTITUTIONAL ISSUES AND CONCERNS

The long-term objectives agreed upon by the workshop participants were (1) *to help strengthen developing countries' professional capabilities to conduct action-oriented research, to design and manage marketing programs, and to monitor and evaluate the consequences of market system interventions in relation to country development goals; and* (2) *to support and encourage continued expertise in these areas among United States professionals.*

Strengthening Professional Capabilities in Developing Countries

In nearly all developing countries there is a serious lack of local professionals trained to carry out tasks that are essential to the development of a dynamic, efficient, and equitable food production and distribution system. Even in countries where the numbers of trained professionals are actually growing, talent is often drawn off into administrative positions or is underutilized because of political instabilities and ineffectively organized institutions. When governments

and institutions rely on foreign technicians and advisors, provided by donor agencies, projects are often not well integrated into local institutional operations and programs lack continuity because of the constant turnover of expatriate professionals. Thus there is a critical need to create and expand core groups of indigenous professionals who can assume major leadership and supportive roles in food system organization and management in both the public and the private sectors within each developing country.

Building In-Country Capabilities for Training and Research

It is generally recognized that the development of indigenous training and research institutions will take time. Such investments in human resources, however, can produce high rates of return in the long run.

Universities in the United States and other developed countries have played a major role in the establishment of educational and research institutions in a number of developing countries. The United States Agency for International Development (USAID) has provided financial support for a wide range of institution-building, research, and training activities. In Asia, the Agricultural Development Council has for a number of years maintained a significant, long-term program of assisting in the development of professionals in the areas of agricultural economics and related rural social sciences. And the Ford Foundation, the International Development Research Centre of Canada (IDRC), and the Australian Development Assistance Bureau (ADAB) have supported the United States and Asian training of professional agricultural economists.

Since the early 1960s there has been a substantial flow of developing country students through United States university graduate programs in agricultural economics. A recent assessment of this activity (Fienup & Riley, 1980) indicates that a high percentage of United States-trained professionals have returned either to their own countries or to the region of the world from which they came and that nearly all are employed in positions that make use of their training. Professionals surveyed gave relatively high ratings to the usefulness of their training. They also made suggestions for further strengthening United States training and for encouraging collaborative efforts to build in-country capabilities for training and applied research.

During the 1970s there has been a significant shift by USAID and other donor agencies away from support for graduate degree training and toward short-term, project-related training activities. Although they recognized the contribution such short-term training can make to project effectiveness, workshop participants expressed the firm belief that donor agencies and developing country governments should reexamine the long-term consequences of reducing their investments in graduate degree training, both in-country and abroad.

It was also the consensus of the group that the relevance to developing country conditions of United States university degree training of professionals preparing for overseas careers should be increased. This is particularly important in the subject matter areas useful in food system organization and management. High priority should be given to arranging thesis research in developing countries and, when possible, involving local professionals in field supervision. Efforts should also be made to include United States university Ph.D. candidates on research teams financed by donor agencies and local governments.

The group recognized the importance of extending professional development beyond the completion of formal degree programs and through collaborative research projects led by mature professionals and staffed by young, less experienced researchers. It was also agreed that participation in professional networks, short courses, and sabbatical programs is important for the continued growth of young professionals. In developing countries, the latter are frequently handicapped by isolation; often they lack the stimulation and reinforcement that come from professional interchange. Finally, the participants noted an apparent need for short, in-service training programs for mid-career administrators and young professionals who find themselves thrust into administrative positions for which they are unprepared.

Maintaining Professional Capabilities in United States Universities

A number of United States university faculty members acquired significant foreign experience during the 1950s and 1960s. There is growing concern, however, because many of these professionals are retiring or moving into positions outside the university system (Wharton, 1980). Although many younger professionals with strong international interests completed doctoral programs in agricultural economics during the late 1960s and 1970s, relatively few have settled into tenure-system positions where they can pursue major research programs that focus on developing country problems.

The problem of diminishing faculty capabilities for international development research, training, and technical cooperation can be exacerbated by current United States policies. Budgetary support for United States universities has declined, and academic institutions are being pressured to focus more attention on critical domestic problems. Faculty members also express some reluctance to participate in such international development work because of the difficulties of

arranging for graduate students to do their research in developing countries with financial and institutional support from those countries.

The critical resource problem is the lack of stable, long-term funding to support a core faculty capability for international development work. The resolution of this problem will require greater organizational flexibility and commitment on the part of universities and donor agencies such as USAID, the World Bank, and FAO than these agencies now demonstrate.

Strengthening Research on Food System Organization and Operations

The weaknesses of past research, as outlined in the second major section of this report, suggest the need for institutional arrangements that will reduce the frequency of nonadditive, fragmented studies of limited long-term usefulness. Workshop participants agreed that greater efforts should be exerted to develop a systematic, longer-term research strategy that would provide for a reasonable balance between specific problem-solving studies and the kind of subject-matter research that serves a variety of information needs in policy making, teaching, and the planning of further studies.

It was suggested by group members that research seminar groups, such as those facilitated by A/D/C's Research and Training Network, can serve a useful purpose in planning and coordinating research among people located in different institutions and in different countries. It is important, however, that professionals in each country develop long-term programs of marketing research that are consistent with country development goals and the realities of local conditions. In this way, evolving programs will have greater cost effectiveness.

Specific suggestions on the organization of research activities included the following:

- Broaden the scope of "marketing research" to include topics such as the public distribution of food to low-income urban families; the performance of marketing boards, especially in comparison with alternative institutional arrangements; pricing policies for agricultural inputs and products; and the regulation of foreign trade.
- Incorporate "marketing" subprojects into larger, more comprehensive projects on agricultural production, post-harvest handling, nutrition, and integrated rural development.
- Combine applied research, training, and extension activities with operational market intervention programs.

AN AGENDA FOR FOLLOW-UP ACTIVITIES

In their closing sessions, workshop participants made the following recommendations to the Steering Committee.

A. Follow-Up Seminars

To further stimulate and improve research on food system organization problems in developing countries, the Committee should seek financial and institutional support for at least two follow-up seminars, as follows:

1. *Research Findings*
   In the first seminar, a group of 15 to 20 professionals, including both those who are new to the field and those with lengthier experience, would review and discuss 6 or 8 papers prepared by young professionals who have completed significant field studies. Subsequently, the papers would be revised and published as a monograph or book. In order to develop networks of professionals involved in research and teaching, additional seminars of this type, for regional or multicountry areas, should be considered.
2. *Analytical Methods*
   A second seminar would focus on estimating costs and benefits of government interventions in market processes, such as rural roads, assembly markets, rural service centers, marketing boards, and information systems. Again, the group should be varied and include professionals with greater and lesser amounts of experience. The seminar could lead to a series of comparative studies assessing the workability of selected market interventions under different environmental conditions.

B. Professional Linkages

To promote the establishment of institutional arrangements that would strengthen linkages among professionals within developing areas and between these persons and professionals in developed countries, the Committee should undertake the following activities:

1. *Newsletter*
   Develop a newsletter to facilitate the exchange of information on research, training, and new publications.
2. *Bibliographies*
   Support the continuation and improvement of the existing FAO Bibliography on Marketing. In addition, support the development of supplemental bibliographies, such as a bibliography of United States university doctoral dissertations on topics related to food system

organization and management in developing countries.

3. *AAEA Program Events*
   Assist the International Committee of the American Agricultural Economics Association in (a) arranging for annual meetings to include program events on important food system problems and (b) attempting to strengthen United States graduate training for international development work.
4. *1982 IAAE Marketing Session*
   Organize a session on marketing research and training at the 1982 meeting of the International Association of Agricultural Economists, to be held in Jakarta, Indonesia.

C. **Institutional Setting for Research and Training Coordination**

Explore the possibility of creating an international, donor-financed university consortium or some other institutional arrangement to provide leadership and long-term coordination for research and training, with an emphasis on food system organizational and operational problems. Such an institution could do the actual follow-up on several of the activities described in this agenda. In addition, it could arrange and/or support such activities as in-service training programs and short courses for public-sector administrators and analysts concerned with the planning and implementation of food system interventions.

APPENDIX

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