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COMMUNICATION  
PLANNING  
PROCESSES IN THE  
MUDA AGRICULTURAL  
DEVELOPMENT  
AUTHORITY

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## SERIES FOREWORD

In 1976 the East-West Communication Institute (now the Institute of Culture and Communication) began a collaborative research project in communication policy and planning. It had become evident that problems in the development of policies and plans for the creation and use of communication resources in society were becoming increasingly acute. Not only were new technologies rapidly expanding the potential of communication systems to serve a variety of purposes, but there was an increasing emphasis on the planned use of communication as part of programs for development and social change. With this project, the Institute set out to document and analyze policy development and planning processes of communication systems, East and West. Our intent has been to produce a range of research and educational products that could serve as a foundation for continued and expanded research in this field.

The project as a whole has dealt with three principal components, or levels, of policy and planning problems. At the international level, work has gone forward on international policy issues and the roles of international organizations. At the national level, the project has examined policies and policymaking processes in a number of countries. At the level of agencies and organizations, termed the institutional level, the project has concentrated on analysis of communication planning processes. Other research undertaken by the project has included initial work on the economics of communication and decision making in communication organizations.

This case study is one of a series undertaken to document and analyze the processes of communication planning at the institutional level. These studies describe the communication planning process in a radio correspondence education project in Thailand, a rural development agency in Malaysia, a national population program in the Philippines, a national voluntary health agency in the United States, and an organization designed to secure citizen participation in broadcasting policy development in the Philippines.

Research at the institutional level began with the compilation of an annotated bibliography of key academic and pro-

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fessional materials, mainly fugitive, relevant to this kind of communication planning (Adhikarya et al. 1979). From this review it became clear that while much had been written about planning, much less had been written about institutional-level communication planning. The materials that we did find on institutional-level communication planning supported one of our early hypotheses—that there is a lack of consistency between the various proposed normative models of communication planning and the way it is actually done. In short, planners appeared to be planning in a variety of ways that were different from how the literature said they ought to plan.

To better understand this discrepancy, it was decided to document as completely as possible how people go about planning communication strategies, activities, and events at this level under field conditions. Our purpose was not to evaluate these planning activities using abstract and normative criteria of excellence, but rather to study them as ongoing dynamic planning processes in a range of cultural and organizational settings. We believed knowledge of this type could serve several purposes. First, it could provide a foundation for further research. Second, it could provide a basis for evaluating existing normative models of planning, strengthening the adaptability of these models to different worlds of reality and, equally important, pointing toward the development of new normative models.

A request for proposals for case studies of institutional communication planning processes was circulated to scholars in Asia and the United States in early 1977. Resultant proposals were evaluated, and six (covering four countries) were selected for inclusion in the study series.

The studies were inaugurated with a research planning meeting in the spring of 1978 at the Communication Institute. Principal investigators for each of the studies attended. During this meeting, each researcher completed a general theoretical and methodological approach to be used as a guide by the field investigators.

This research design was based on a foundation of grounded theory, a sociological research approach that emphasizes participant observation, unstructured interviews, document analysis, and inductive development of concepts and generalizations. Under this approach, the investigator begins the study with as few preconceptions as possible. As data are gathered, the researcher prepares interim summaries and partial analyses that are shared and discussed with members of

the organization being studied. From these cooperative analyses, revised concepts emerge, and these in turn are used as the bases for collecting additional data and carrying out further analyses. The evolutionary process continues until both the researcher and the members of the subject organization are satisfied that the study accurately portrays the processes under investigation.

This approach to the studies was adopted by each member of the collaborative research team, with some modifications. The principal departure from grounded theory was the delineation of six broad areas of inquiry to guide the studies: problem definition, planners, process, plans, resources, and environment. It was agreed that these broad data-gathering categories set broad parameters within which data would be collected and analyzed.

Following the planning meeting, individual investigators returned to their countries for a year of data gathering and analysis. During this period most were visited by one of the coordinators of the study series.

The team members returned to Honolulu in the spring of 1979 for a three-month data analysis and report writing workshop. During this period, researchers interacted frequently with each other and the activity coordinators during the preparation of draft studies.

These reports were then reviewed in preliminary form at a two week working conference by a panel of communication planning scholars and communication planners, some of whom held responsible positions in the organizations studied. Following this review and evaluation in June of 1979, the individual investigators returned to their home bases for supplementary data collection and preparation of final reports. The drafts became available during the fall of 1979 and spring of 1980. They were reviewed by the study coordinators and in some cases additional data collection, analyses, and interpretations were carried out.

From this process have emerged case studies of a wide range of organizations in four cultures. We expect them to be useful in a number of ways. As noted, they can serve as a rich source of ideas and problems for further studies of communication planning. Second, they will have significant educational uses and, in fact, have served in draft form as the basis for the development of a university course on communication planning. Finally, as examples of a range of

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real-world planning efforts, they may help working planners achieve new insights into their own efforts.

As coordinators of these studies, we feel especially indebted to a large number of people. Dr. S. A. Rahim, leader of the EWCI Communication Policy and Planning Project, was instrumental in developing the project framework within which the studies have been developed and has strongly supported our work as it progressed. Our close colleague, Dr. Meheroo Jussawalla, provided significant assistance in conceptualizing economic aspects of the studies and participated extensively in support of data analysis. Meow-Khim Lim and Mark Rasmuson, participants in the Communication Policy and Planning Project, provided invaluable assistance at various stages.

Special thanks are due to Alan Hancock of Unesco's Division of Development of Communication Systems. Alan encouraged us in our work and provided significant professional advice. He was instrumental in taking the lead to coordinate this series of studies with similar work being done under the auspices of Unesco and facilitated co-funding by Unesco for one of the studies in this series.

Staff support from the Communication Institute has been, as always, outstanding. Phyllis Watanabe oversaw the preparation of the manuscripts at several different stages. Terry Schulze, Institute Publications Officer, provided excellent editing and production support. Program Officer Merry Lee Corwin provided able assistance in arranging the several meetings that supported the research work.

All of these individuals have contributed in important ways. The major contributors, though, have been our colleagues from Asia and the United States who carried out the studies and whose manuscripts have been approved for publication: Zenaida Domingo, Gerald Klonglan, Chun-Nan Lo, Ramli Mohamed, Melina Pagne, and Boonlert Supadhiloke. Their diligence, intelligence, creativity, and energy have been a source of constant inspiration and collaborative learning. We present their work proudly, with full recognition of the difficulty of the tasks they undertook.

John Middleton

George Beal

## ACKNOWLEDGMENTS

A number of changes have taken place in MADA since the fieldwork research for this case study was conducted in 1978 and 1979. However, these changes do not make the foregoing analysis on communication planning obsolete. Many of the principles and methods of operation of communication activities in MADA remain intact today.

The research was supported by a grant of the East-West Communication Institute, Honolulu, Hawaii. At this Institute I was fortunate to meet, interact, and work with Drs. John Middleton and George Beal. They provided the intellectual guidance and support that transformed the research ideas into this report. MADA provided the data and material support. Its general manager, Jato' Syed Ahmad Almahdali and his staff have been generous in making the fieldwork stimulating and bearable. My sincere gratitude and admiration go to them. The Universiti Sains Malaysia provided the administrative and academic leaves necessary for the completion of this report.

The staff of the East-West Center Publications Office have been patient in going through the manuscript. Senior Editor Terry Schulze, Michael E. Macmillan, Ellen Kawata, and several other individuals have been instrumental in preparing the manuscript for publication with speed and accuracy. Mahalo.

My son, Ricky, was born two months prior to the commencement of the project. So he has nothing to do with it. My wife, Hamidah, did. She had to bear all the burdens during my absence.

The conclusions, opinions, and other assertions in this work are mine and not necessarily those of the institutions or other people who cooperated in this project.

Ramli Mohamed

## RATIONALE

This is a study of communication planning in the Muda Agriculture Development Authority (MADA), the largest rice irrigation and development scheme in Malaysia. Its general objective is to describe, conceptualize, and analyze the communication planning processes as they actually occur. It is not a study to evaluate the effectiveness of these planning processes nor does it attempt to suggest changes in the processes currently in use. It attempts to understand how communication planning is implemented by an organization such as MADA.

This case study is one of a series undertaken to provide better understanding of how organizations, especially those that are development oriented, obtain, allocate, organize, and distribute scarce communication resources. Such understanding should provide at least a partial basis for decisions on what needs to be done and avoided in future communication planning to maximize successes and minimize failures and wasted resources. Thus, these studies may eventually provide a basis for the construction of a viable framework of communication planning that could be advantageous to many organizations. This study on communication planning in MADA is an attempt to move in this direction.

For general applications, these studies involve different types of program activities and transcend political boundaries to permit the comparison of processes that operate in diverse social, cultural, and political environments. The resulting studies are based upon the New York Cooperative Extension System and the American Cancer Society in the United States, the Radio Correspondence Education Program in Thailand, and the Philippine Commission on Population and the Community Advisory Boards of the Broadcast Media Council in the Philippines. These studies on communication planning at the institutional level should provide improved understanding and greater insight into how organizations operating in different environments allocate and utilize their communication resources.

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A strong case can be made for the utility of such studies. First, studies on institutional communication planning can illuminate the procedural operations practiced in a number of development-oriented institutions, providing empirical data in a field where little exists. Furthermore, such studies could contribute significantly to the ultimate goal of designing a communication planning framework. Communication scholars can learn more about planning from fields such as education, management, engineering, and agricultural development in which there has been much progress and development of planning concepts, models, and analyses. In these areas, planners using comprehensive planning frameworks have tried to design effective and efficient strategies for optimum use of scarce resources. Thus, the overriding utility of the institutional-level studies on communication planning is that they can help planners and academicians alike identify and understand how communications are used by development-oriented institutions and contribute to the evolution of communication planning frameworks.

### OBJECTIVE OF THE STUDY

The objective of this study is to describe, conceptualize, and analyze the communication planning processes in the Muda Agriculture Development Authority. This authority, which is discussed at length in chapter 2, is a statutory agency of the Malaysian federal government, established to design, plan, and implement agricultural development programs in the Muda region. The acronym MADA will be used throughout this report to refer to this agency. The proper noun Muda will refer to the locale (region) in which MADA has jurisdiction.

In conceptualizing tasks, communication planning is defined as:

The process of allocating communication resources to achieve organizational goals, where communication resources include not only mass and interpersonal media but also other forms of organizational action designed to change levels of information or skill among individuals or groups within the organization's task environment. This process involves the creation of action by the application of theory (or images) to data. (Middleton 1978:4)

The operationalization of this definition can be seen, at least partially, in the six conceptual planning areas used in this study. These areas are heuristic in that they help provide better understanding of communication planning parameters of the organization. Furthermore, they provide useful guidelines, especially in the analyses of projects and activities of the organization related to communication planning.

The six areas are: the planners (Who are they? What are their backgrounds and training? What do they know? What are their attitudes/behavior?); the problems (What are they? How complex are they? How are they chosen? How are they conceptualized?); the process (dynamics of the interactions, degree of formalization and routinization, time-frame images, phases, etc.); the resources (the information base used for planning decisions, theory/images used, financial, physical, and personnel considerations, etc.); the environment (political, social, religious; degree of participation of clients, available media systems, etc.); and finally, the plans (their forms, functions, and continuity).

#### RESEARCH APPROACH

In an exploratory study such as this, there is a danger in beginning with formal theories, propositions, or hypotheses. This could result in overly structured and limited observations. What is important at this stage is observing and describing how communication is planned and used. This study utilized the principles of grounded theory, though not with strict adherence. These principles prescribe observations and relatively unstructured interviews with informants (staff and others formally associated with the organization) regarding their observations and knowledge of how planning is carried out in the organization. The data collected through these observations and interviews are then drafted into research memos and circulated back to the informants for their comments. This procedure is repeated until agreement is reached between researcher and informants that the memos reflect how planning is actually done. Based on this interactive process and the agreed-upon information, concepts, interrelations, and generalizations are derived that appear to reflect, clarify, and organize the observations.

Additionally, in some instances planning documents were examined and observations made of the planning in progress and the implementation of some of the plans. Data from these interviews, observations, and documents have been analyzed, and

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a number of research generalizations resulted that will be discussed later in this report.

##### Interviews

The fieldwork began with several staff interviews. This was done for two reasons: first, to get assistance in understanding how the organization functions and second, to ensure better understanding between the staff and the researcher so as to prevent any feelings of uneasiness or mistrust which might color the findings. Since the study relies heavily on the organization's own materials, winning the confidence and cooperation of the planners was considered an important first step. Approximately 30 people, mainly from MADA, were interviewed many times during a nine-month period.

##### Documents

Through the interviews, several relevant documents were identified for examination. These documents were prepared by the organization as well as other organizations such as universities, the World Bank, and the Agriculture Development Council, Inc. Other documents examined included the Third Malaysia Plan (1976-1980), the Malaysia Treasury Report, and the Malaysia Year Book. Minutes of meetings with the senior officers and the agricultural and engineering divisions of MADA were made available by the organization and examined by the researcher.

##### Observations

As a result of the initial interviews, several relevant activities were observed. One observation was of attendance at two organizational meetings: the senior officers' meeting and the representative council annual general assembly of a farmers' association.

Another observation was of the communication activities organized by MADA as well as by the farmers' association. These included information and extension campaign meetings and several training courses.

#### REPORT APPROACH

The report is divided into several chapters. The purpose of this first chapter is to present a general overview, an introduction to the case study. Chapter 2 outlines the general

structure and operations of the Muda Agriculture Development Authority (MADA) including its organizational, administrative, and planning structures. In chapters 3, 4, and 5, three distinct project activities undertaken by the organization are described, providing information on how the organization undertakes its tasks and applies the various planning elements. In chapter 6 the three cases and MADA are discussed, cross-case analyses are made, and conclusions regarding the communication planning processes in MADA are presented.

#### HOW TO USE THIS REPORT

This report is intended as a case study and should be used accordingly. It is not a theoretical discourse. It does not begin with any hypothetical formulations, nor does it attempt to develop a theory of institutional-level communication planning. It is written with the hope of helping readers understand how communication planning processes are carried out by a development-oriented organization in a Third World country. Specifically, it seeks to describe, conceptualize, and analyze the processes as they actually occur.

**MALAYSIAN RICE POLICY**

The development of the Muda Irrigation Scheme was a culmination of changes in Malaysian government policies and actions regarding the nation's rice production. These changes can be traced back to World War I. Before 1931 they were merely statements of concern. The formation of the Rice Cultivation Committee in 1931 indicated for the first time that the concern about this sector of the economy was based on the shortage of rice for domestic needs and the concern for the Malay rice peasantry. Still, the work of this committee did not go beyond the establishment of the guaranteed minimum price of padi.

After World War II, however, the policy environment pertaining to rice production changed. Food shortages, concern over farmers' welfare, the increasing role of the Malays in the transition period toward independence, and the desire to limit the import of rice as a step to remedy the unfavorable balance of payments led to the first statement of self-sufficiency in the government's rice policy. In 1957, when the Federation of Malaya gained independence from the British colonial government, this policy became more dominant.

In attempting to achieve self-sufficiency, the government engaged in three major activities: opening up of new land, double cropping of padi per annum, and improving inputs to ensure higher yield. The first step was achieved with remarkable success. For example, between 1950 and 1972 the total land acreage under padi increased from 686,290 acres to 937,140 acres. However, satiation of land suitable for padi cultivation soon led to the shift in attention to other means of increasing output.

Irrigation projects began in areas where surplus production appeared possible. As a result, a tremendous increase in the acreage of land under irrigation was achieved. In 1962, double cropping was used only on approximately 46,000 acres of

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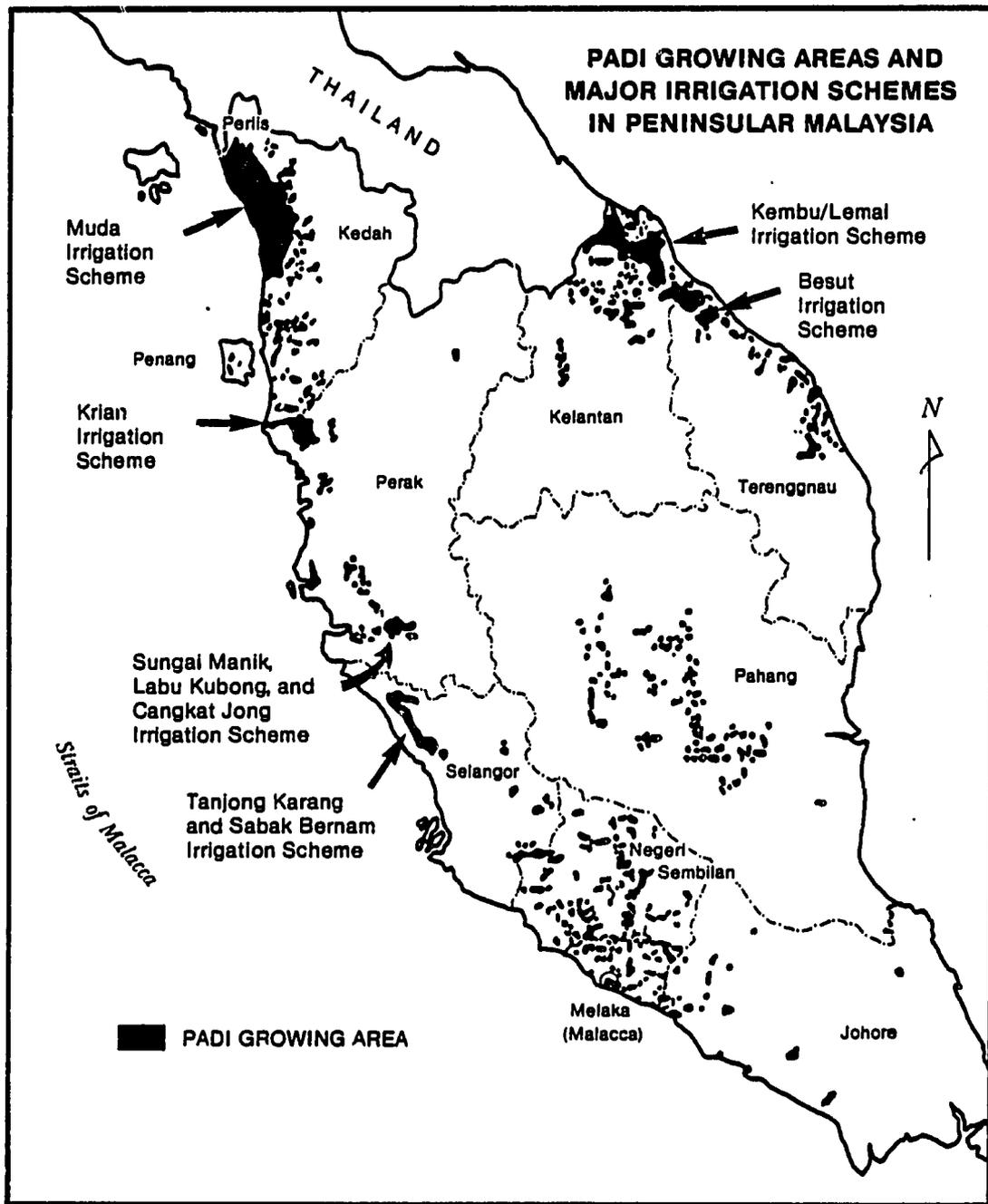


Figure 1.

land, but by the end of 1972 this amount had increased tenfold to about 536,300 acres. This increase can be attributed to the establishment of irrigation facilities and accompanying infrastructure in several states in Peninsular Malaysia (see Figure 1).

The government has also engaged in activities to increase padi yield through the improvement of inputs. This is mainly through the work of the Malaysian Agriculture Research and Development Institute (MARDI), which is engaged in the research of padi hybrids, fertilizer applications, and pest control. MARDI developed better padi hybrids and, with improved outputs and irrigation facilities, a substantial increase in the yield of padi per acre resulted. In 1960, per hectare yield recorded only 2,680 kilograms of production, but in 1972 it increased to 2,799 kg/ha for normal season and 3,201 kg/ha for off-season plantings.

#### THE MUDA IRRIGATION SCHEME

The Muda Irrigation Scheme is a by-product of the government's self-sufficiency policy for rice production. Covering the northwestern coastal plains of Peninsular Malaysia, the scheme stretches 50 miles north to south and extends 12 miles east to west. Bound by two northern states of Malaysia (Kedah and Perlis), the scheme at present covers 26 percent (240,000 acres) of total padi land. It affects the main source of income and economic activity of more than 60,000 farm families and governs the only source of irrigation water for about two-thirds of them (see Figure 2).

This area was once a single-crop belt. However, by the end of 1975 the scheme had completed 12 full padi-cropping cycles with the following results: 95 percent of the fields earmarked for earlier double cropping began to produce two crops annually; a 141 percent increase in the yield per annum (314,000 tons in 1969 to 757,000 tons in 1975) occurred; a 225 percent increase in the per capita income of the scheme population occurred; the area provided 45 to 48 percent of the nation's total rice production; and there was an increase of 18 percent in the rate of return on investment as compared to a 10 percent target at the project outset (MADA 1979).

The project is designed to furnish water for double cropping and to provide integrated social and economic progress for the region's population of about 345,000 inhabitants. Indirectly the scheme is aimed at increasing the base income and employment opportunities for thousands of others (espe-

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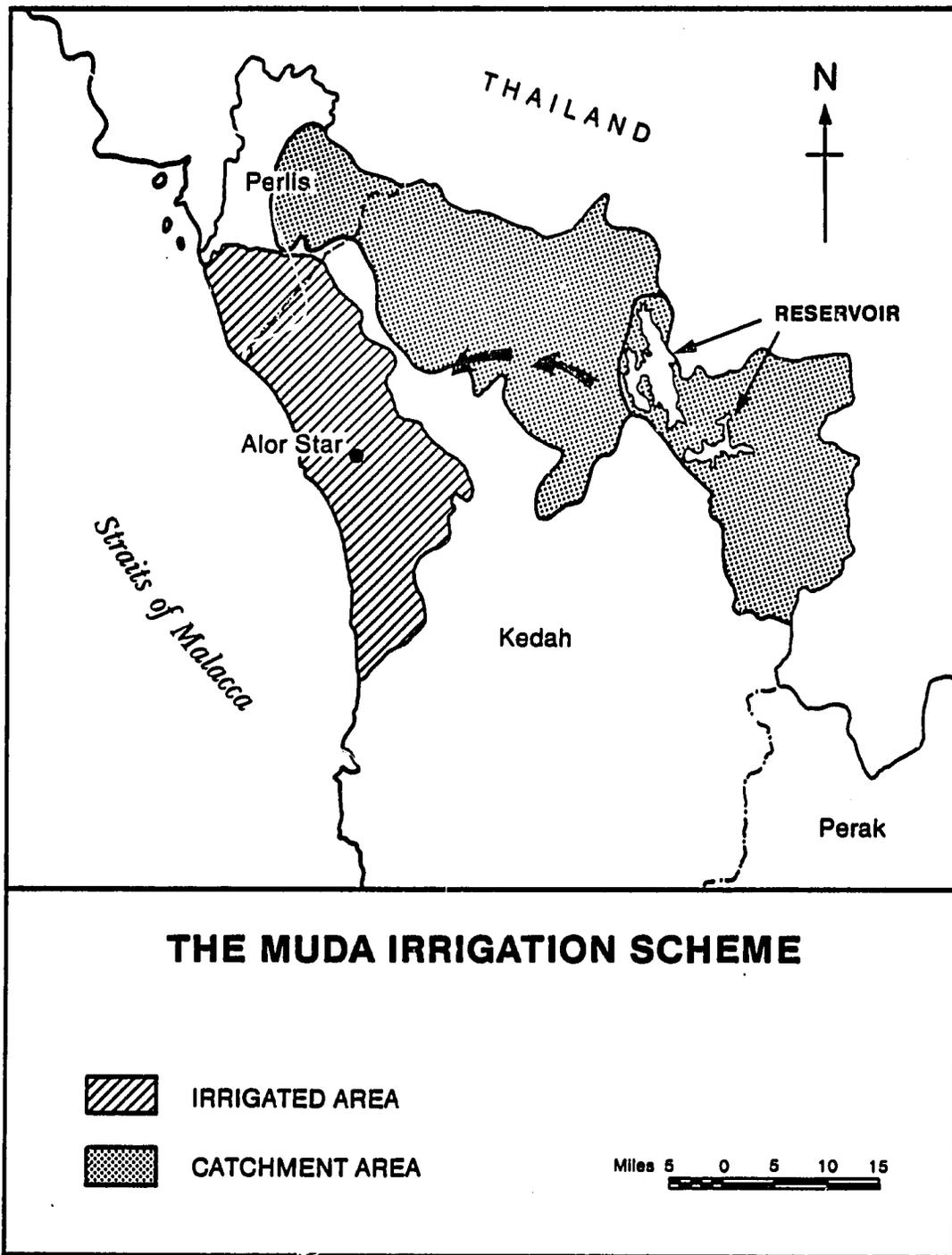


Figure 2.

cially farmers' dependents) in such fields as machinery maintenance, supply industries, shopkeeping, and rice-milling.

### The Organization

The administering agency of the scheme is the Muda Agriculture Development Authority (MADA). Established as a public corporation by an Act of Parliament in 1972, MADA plans and implements agricultural development in the region.

The organizational structure of this Authority has been designed to provide machinery to plan and coordinate agricultural development on a regional basis. As stated in its Organizational Structure and Management Policy (MADA 1970), the Authority has been structured so that, "a major part of such coordination involves the establishment and strengthening of linkages required between the farm localities and the region. Each agricultural support activity in farm localities must be connected with the related regional organization activities. The organization either provides the linkages itself or assists in their development" (MADA 1970c:2).

Funding comes from two sources: the federal government through annual allocations to the Ministry of Agriculture (the main source), supplemented by allocations from the state governments of Kedah and Perlis in the form of grants (collections of irrigation tax from the farmers by these governments). MADA is within the framework of the Ministry of Agriculture, and the general manager of MADA is answerable to the minister. The manager is also expected to cooperate with the chief ministers of Kedah and Perlis as well as the state legislative assemblies of these two governments.

### Organizational Structure

The organizational structure of MADA (see Figure 3) can be divided into four major components: (1) the Office of the General Manager, (2) the Division of Agriculture, (3) the Division of Engineering, and (4) The Division of Industry.

The governing body exercising policy and program decisions of the Authority is the Board of Directors (BOD). The Board, consisting of individuals who represent several government agencies, is responsible for policy determination, program approval, the annual budget, and external relations. The chairman of the Board is appointed by the prime minister. The two state governments each have representatives on the Board, and the following organizations have at least one member sit-

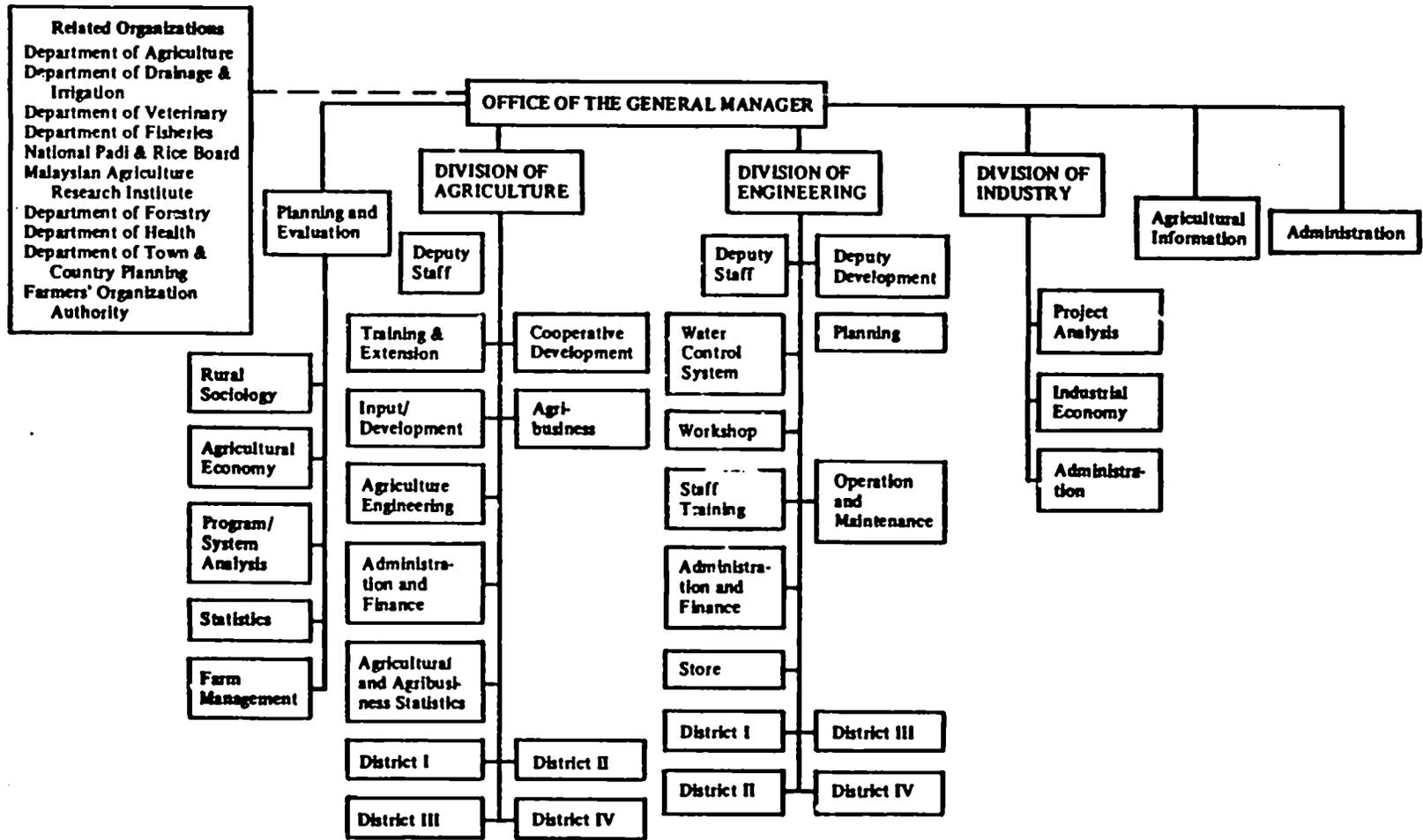


Figure 3. Muda Agricultural Development Authority Organizational Structure

ting on the Board: the Department of Drainage and Irrigation (DID), the Agriculture Bank, the National Rice Board, and the Federal Agriculture Marketing Authority (FAMA).

Executive power in the organization is exercised by the deputy chairman of the Board, who is known as the general manager. The general manager is responsible for coordination between the Board and the organization, as well as for the activities of divisions and units within MADA. This chief executive is also responsible for the coordination of resources and activities with other government agencies and private organizations to ensure the successful integration of resources into activities pertinent to the development of the region.

The Office of the General Manager is the administrative and financial branch of the organization and is often considered the "management support section" of MADA. The staff is responsible for the "review and appraisal of proposals for projects with regard to technical soundness, administrative feasibility, budgetary justification, public relations effect, and integration with other programs before they are submitted to the General Manager" (MADA 1979:2).

Personnel in this office include specialists in personnel management, public relations, accounting, agricultural economics, sociology, statistics, technical management, systems analysis, engineering, and administration. The management support section ensures that these "specialists, as well as those within the Divisions of Engineering and Agriculture, are organized into homogeneous units which can be effectively supervised and held responsible for results" (MADA 1970c:4).

The Division of Agriculture is responsible for the planning and implementation of the organization's agriculture policy and programs. Specifically, it establishes and administers the farmers' associations, provides assistance to these associations, and coordinates programs with the Agriculture Bank as well as with other organizations such as the Department of Agriculture, Federal Agricultural Marketing Authority (FAMA), Malaysian Agricultural Research and Development Institute (MARDI), and the National Rice Board.

To facilitate and systemize its activities, the Division of Agriculture has been divided into several functional units. These are: Input/Development (responsible for the acquisition and distribution of agriculture inputs and resources); Training and Extension (for the general training and extension

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programs and activities); Cooperative Development (for the coordination of farmers' cooperative societies); Agri-Business (for the implementation of the organization's agri-business programs as well as coordinating and managing business activities of the farmers' associations); Agriculture Engineering (for the implementation of MADA's farm machinery policies and coordination of activities with the Federal Farm Machinery Training Center of the Ministry of Agriculture); Agricultural and Agri-Business Statistics (for establishing and maintaining records for the division's statistical needs); and Administration and Finance (manages division).

The Division of Agriculture has divided the irrigation schemes into territorial units known as Agriculture North and Agriculture South, and each is controlled by an agriculture officer. These units are in turn divided into four agriculture districts (two districts in each unit), and each district is supervised by an agriculture assistant (AA). The AAs supervise daily activities of the fieldworkers such as farmers' associations' membership drives, extension, credit, tractor services, input supplies, and padi marketing.

The Division of Engineering is responsible for the implementation of the organization's policies on water use and for the maintenance of the irrigation infrastructure in the scheme. Specifically, it is responsible for operating and maintaining the irrigation and drainage systems, collecting and processing hydrological data, investigating the farm machinery capability and requirements of the Division of Agriculture, and constructing and maintaining MADA's physical facilities.

This division is also organized into several functional units: Planning (technical planning such as soil study, design of canal structures, and positioning of pumping stations); Development (monitoring of division activities such as assessment of ongoing projects, expenditures, etc.); Operation and Maintenance (overall implementation of irrigation facilities); Water Control System (bulk supply of irrigation water and irrigation schedule); Workshop (maintenance of all machinery installations and equipment of MADA); and Staff Training (training of staff in engineering-related skills).

In administering the irrigation scheme, the Division of Engineering has also divided the region into two units and four engineering districts which parallel those of the Division of Agriculture. Each unit is managed by a senior engineer, and each district has a supervisory engineer. The

district engineers maintain and supervise irrigation activities and oversee the activities of the irrigation inspectors and junior irrigation inspectors. The inspectors control the capacity and levels of water in the distributaries and drains, supervise gate operators and gatekeepers, and maintain records of water distribution.

The Division of Industry is a recent addition whose structure and composition do not match the scope of its counterparts in the Engineering and Agriculture divisions. However, the organization anticipates that the future role of this division will be more significant, especially in areas of industrial development that can siphon off marginal labor. The establishment of a footwear industry in 1974 followed this objective.

In analyzing the organization of the Authority, it was found that many positions were vacant. For instance, in 1977 the Division of Agriculture filled only 85 percent of the available positions. Vacancies included such key positions as a sociologist, systems analyst, and statistician.

In the Division of Agriculture, the vacancy problem is most conspicuous. For example, in 1979, of the 154 agriculture technician positions available, only 139 were filled and only 12 of 30 assistant agriculture officer positions were filled. Some vacancies are intentionally unfilled to give promotion incentives. With this incentive, MADA hopes to overcome the recurrent problem of high staff turnover. However, in some cases no suitable candidates were found after several recruiting exercises.

As a result of these shortages, some staff in the organization deputize their subordinates beyond their routine responsibilities. This is prevalent among field officers, who are being assigned administrative duties. The shortage of agriculture technicians in the Training and Extension Section has led to the recruitment of technicians from other sections. At times, retired staff are rehired by the organization because of the shortage of trained personnel.

In Figure 3, MADA is related to 11 other organizations in the process of developing the scheme. These organizations are: the Departments of Agriculture, Drainage and Irrigation, Veterinary, Fisheries, Forestry, Health, and Town and Country Planning; the Malaysian Agriculture Research and Development Institute; the National Padi and Rice Board; the Farmers' Organization Authority; and the Agriculture Bank.

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One important feature inherent in the coordination between MADA and the other organizations is that there is no formal mechanism for such coordination. Interorganizational coordination operates along two procedures. In the first, inputs from a MADA counterpart organization are channeled to the Authority, and the Authority is then responsible for the distribution of these inputs. This is the procedure used in coordination with organizations such as the Agriculture Bank, the Department of Agriculture, the Department of Drainage and Irrigation, and the Farmers' Organization Authority (FOA). For example, in dealing with the Agriculture Bank, the Bank provides all monies required for the farmers' credit program to MADA, and the Authority administers all applications and distribution of loans to the farmers as well as the collection of loan payments from them.

In this way, the coordinating organization (the Agriculture Bank) does not necessarily come into contact with the clients (farmers). This procedure is also in operation for coordination with the Department of Agriculture (as in the distribution of agriculture inputs), DID (in the areas of manpower and technical materials), FOA (in the areas of farmers' associations and memberships), and so forth.

A second procedure is a loose arrangement between MADA and other organizations to provide necessary back-ups to the regional development program in the scheme. Such arrangements are made with organizations like the Departments of Health, Fisheries, Veterinary, and Forestry. In these cases, MADA provides the link between these organizations and the farmers. The organizations may conduct whatever activities they feel are needed in the scheme, and MADA provides assistance whenever possible.

For example, the Department of Health will carry out its health responsibilities in the scheme without getting much assistance from the Authority. Should this organization require the use of facilities and manpower in the Muda localities, these would be granted. However, coordinating organizations are informed of MADA's general development strategies through the State Planning Units (Kedah and Perlis) and they are expected to abide by these strategies.

The second type of arrangement is predominant and encompasses the majority of interorganizational coordination activities between MADA and other organizations. Generally, arrangements are based on informal contact and conducted as needed.

### Administrative Structure

The overall administrative structure of the irrigation scheme encompasses three different tiers: the central office, the districts, and the localities. We have examined the central office structure and will now focus on the district and locality structures.

In managing the scheme, the Authority has administratively divided it into four districts. The sizes and compositions of these districts vary. Each district has organizational components similar (though at a slightly lower level) to those of the central office. For example, at the district level, agriculture activities are managed by an agriculture assistant whose duties include the supervision of daily fieldworker activities. The activities include the maintenance of the farmers' development centers, membership drives for the farmers' associations, extension, credit, input supplies, and padi marketing.

The Engineering Division representative at the district level is an engineer. Similarly, the duties of a district engineer are to supervise the activities of technical staff in the localities. These staff members—irrigation inspectors, irrigation overseers, gatekeepers, and gate operators—are responsible for controlling the capacity and levels of water in the distributaries and drains, keeping records of water distributions, carrying out major repairs, conducting hydrological studies, training farmers in water management, and collecting necessary data.

Altogether there are 27 localities in the four administrative districts: 5 localities in District I, 9 in District II, 6 in District III, and 7 in District IV. The size of the localities varies from 8,000 to 10,000 acres with populations of about 10,000 to 12,000 (or on the average about 2,100 farm families each).

In each of these localities, MADA has established a farmers' center, known as the Farmers' Development Center (FDC), which acts as the distribution center for agriculture inputs and technical information. The Division of Engineering stations a minimum of one full-time staff person in each center.

Each FDC is headed by a manager who holds the rank of an agriculture assistant or agriculture technician. The routine duties of this manager are to supervise the daily activities of the center as well as the locality staff of the Division of

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Agriculture. Four types of services are rendered to the farmers in each FDC--extension, credit, economics, and accounting. Farmers are encouraged to make regular visits to the center to take advantage of these services as needed. Each activity is supervised by a locality worker. (The organizational structure of the FDC is shown in Figure 4.) The FDC manager is also responsible for the supervision of the activities of the farmers' association in his locality.

### The Farmers' Associations

To encourage the widest possible participation of farmers in collective organizations, farmers' associations were established in each locality. Unlike other farmers' associations in the nation, farmers' associations in the Muda region fall within the jurisdiction of the organization (MADA) and not the national government-level Farmers' Organization Authority (FOA). The association's jurisdiction includes approval of spending, financial auditing, and other activities.

The structure of the 27 farmers' associations in the scheme parallels that of the FDCs. At times, the roles of these associations and that of the FDC intertwine. The Authority encourages use of its local FDC facilities as a

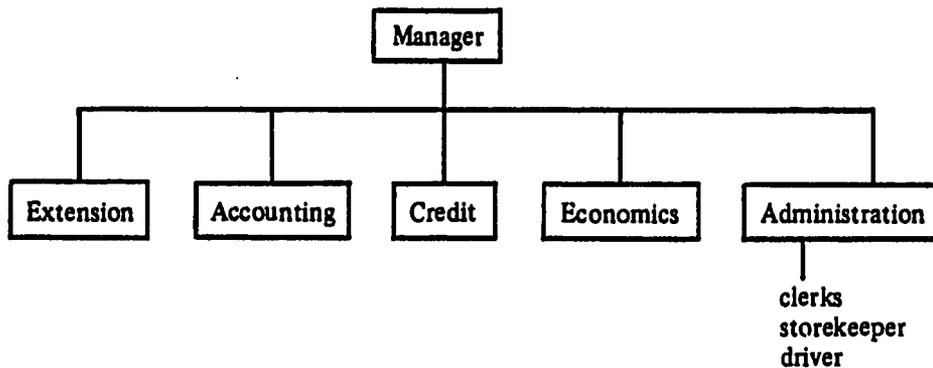


Figure 4. Organization of the Farmers Development Centers

location for meetings, social gatherings, and other activities. (The terms FA and FDC are used interchangeably hereafter.)

The manager of the FDC is advisor to the association in the locality and is also responsible for reporting association decisions and resolutions to the head of the Division of Agriculture. At the same time, the manager and staff attend BOD meetings of the FA in the locality, mainly in an advisory capacity.

Each locality has an FA structure at four levels: the farmers as ordinary members, the Small Agriculture Units (SAU) as a grassroots arm of the FA at the village level, the Farmers Representative Council (FRC), which acts as a council of the association, and the Board of Directors (BOD), which exercises executive responsibilities of the association. The existence of these units or bodies is contingent upon one another. Ordinary farmers in each village (or a composite of two villages) annually elect representatives to the Small Agriculture Unit, and the SAU in turn appoints representatives to sit on the Representative Council. Every other year this FRC will appoint representatives to the Board of Directors.

The BOD is elected by the FRC and has been empowered to formulate policy guidelines, determine projects, and approve the association's spending. It is also responsible for channeling farmers' grievances, problems, and complaints to MADA. Sometimes a direct route is used through the arrangement of special meetings between MADA personnel and the BOD. An indirect channel, which is the most frequently used method, is by presentations at BOD meetings, which are attended by FDC management or other MADA representatives.

The minutes of the BOD meetings are written by the FDC manager or staff, and issues arising in those meetings are transmitted to the central office through these reports. This method is an important link between the farmers and the organization.

The FRC meets once a year to appoint the BOD and to approve the activities, programs, and expenditures of the association. Generally, the BOD is answerable to this Council for all activities and spending. The SAUs are considered the administrative arm and facilitate the administrative functions of the association, such as collecting fees, selling shares, and electing representatives to the Council.

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These bodies, especially SAU, serve as channels for the dissemination of informational messages and the gathering of feedback. Based on the existing village structure, they provide a convenient method for MADA to reach individual farmers to whom physical accessibility is often limited.

The general structure of the farmers' associations (FA) in the scheme was designed in accordance with the "participatory economy" policy of the Authority. (The FA organizational structure is shown in Figure 5.) Under this policy, MADA hopes to achieve greater farmer participation, not only in the production of rice, but also in other activities such as the distribution of inputs, cottage industries, and other nonagricultural activities.

The Authority has provided greater incentives and encouragement to the farmers (through the FAs) to participate in the process of diversifying the economy as well as in the operation of acquiring and distributing agriculture inputs in the region. This has been realized to some extent through the formation in 1975 of the Syarikat Perniagaan Pertanian MADA (SPPM)—MADA Peasant Trading Company Limited. This company was formed through a partnership between the FAs and MADA and is engaged in several agricultural and nonagricultural activ-

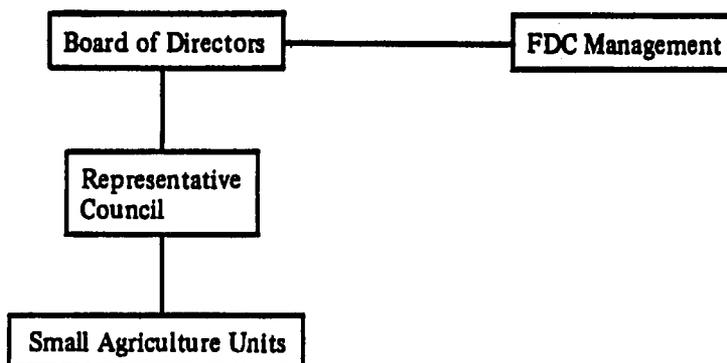


Figure 5. Organization of MADA Farmers' Associations

ities. For example, the company is involved in producing construction materials for the Muda 2 project. SPPM has also taken over 40 percent of the distribution of agriculture inputs, which was once a traditional monopoly of private companies. The company was designated as the government's agent to distribute fertilizers to the farmers in the states of Kedah and Perlis under the fertilizer subsidy scheme which began in 1980. This scheme has been estimated to cost M\$6 million annually.

FA membership drives have been very successful. By the end of 1978, about 34.5 percent of the farmers in the region had become members of one of these associations, and the total shares for the 27 associations was recorded at M\$2.1 million. The membership and total shares exceeded that of the rest of the nation combined. In 1977, these associations made a total profit of approximately M\$0.5 million.

In 1978, the Authority noted that 24 activities had been carried out by individual associations, ranging from the purchase and operation of lorries for transportation to the operation of coffee shops, mini-markets, gasoline sales, and auto repair workshops.

#### Organizational Planning

There is virtually no distinction between program planning and program implementation in MADA. Although it is directly responsible to the Ministry of Agriculture and the general manager is responsible to the minister, MADA has been given wide latitude to design activities to achieve the objectives of the organization and the scheme.

When the scheme was first envisaged, Halcron and Partner, a British consultant firm, was assigned the task of conducting a feasibility study of the irrigation scheme. This is the only known planning and consultancy work completed by an organization outside the Authority. The Authority is also independent of the sphere of influence of other government agricultural agencies, such as MARDI and the Department of Agriculture, in terms of decision making and planning in the scheme.

At the same time, there is evidence that the general policy of the Ministry of Agriculture is being adhered to in the scheme. This policy, as embodied in the Agriculture Input and Development Program (AID) of the ministry, is based on the diversification of agriculture nationally. Such diversifica-

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tion is intended to encourage a broader base in cropping activities for farmers, rather than their being dependent on a single crop. This protects the farmers when there are serious deteriorations of a crop's market potential. This policy has also been extended to the irrigation scheme.

Nevertheless, there is strong evidence that MADA plans and implements its own programs. For example, in the planning and implementation of the Muda 2 project, a majority of the resources that have been extended to this effort are from the organization. This project covers the provision of irrigation, drains, and access facilities to improve water and farm management. This management is expected to generate greater agricultural productivity and farm incomes. The project is expected to be completed within 15 years and to cost M\$173.2 million.

The Muda 2 project, as indicated by its feasibility study report, has been designed using the expertise of the organization. The study team was made up of the Authority staff, and the project was designed by the Division of Engineering staff.

Examining the planning structure and decision-making sphere of the staff, it is apparent that decision-making authority is held by senior officers of the organization. Meeting fortnightly, this body appeared to determine the general direction and approach of the organization. In the three subcase studies analyzed in this report, senior staff members have been significant in determining the general activities of the organization as well as supervising activities originating from other sources within the organization.

The composition of this body of senior officers represents an incorporation of high-level expertise from each part of the organization. Sometimes referred to as the Management Service Council, this group meets to communicate the progress of ongoing projects and to plan and coordinate major Authority programs. The general manager is the chairman of this body.

The Planning and Evaluation Unit has theoretically been charged with the responsibility of coordinating planning activities, analyzing and developing operational programs, reviewing, appraising and evaluating proposals, and coordinating implementation of programs of the organization. However, in practice it does not perform these functions, especially for agriculture and engineering programs. This is mainly due to the lack of trained manpower and the unit's staffing pattern. Headed by a rural economist, the unit staff members

were trained in economics, sociology, and statistics, so the unit is limited in the skills necessary to operationalize its documented responsibilities.

This weakness explains why the senior officers are more effective and influential in determining the general approach of the Authority. However, the unit provides important support for planning decisions of senior officers and other groups in the organization. Subject-matter specialists available to the unit to evaluate the programs undoubtedly can be effectively used in this decision-making process.

SUBCASE ONE: THE MUDA 2 PROJECT

INTRODUCTION

The Muda Agriculture Development Authority was established with the objective of "undertaking the responsibilities of planning and implementation of agriculture-based development in the region" (MADA 1979:1) to improve the general well-being of the population in the Muda irrigation scheme. As a result, the organization not only provides information and services and helps to improve agricultural production in the region but also designs other activities to improve the incomes of the farmers and their dependents.

The organization designed intricate organizational networks from the central to the locality levels to ensure that the various components of agricultural development required by the scheme are integrated into coherent projects and programs. These levels of organizational management, through proper integration and coordination, are responsible for planning and implementing the development projects.

The purpose of this part of the study is to examine some of these projects and the various planning elements. Wherever possible, these elements will be scrutinized to select and distinguish communication planning decisions and activities in the planning process.

MADA is not only an extension agency of the government but also a development institution with considerable independence to determine the general direction of the scheme as well. Its responsibilities are not only to extend improved farm practices throughout the scheme but also to determine those practices. The Authority is a task-oriented institution whose activities are mainly confined to providing agricultural resources and the supporting infrastructure. Examining these activities helps us determine the extent of communication planning processes in the organization. The presentation of data has been guided by the six planning areas of inquiry mentioned in Chapter 1.

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The projects selected as subcases are: the Muda 2 project (a project to improve irrigation and access facilities in the scheme); the drought-relief programs (activities to cushion farmers from injurious effects resulting from a dry spell during the 1977-1978 planting seasons); and the kursus tempatan (a local training course developed to reorient farmers toward improved farm practices).

Each subcase has a brief note on the methodology of data collection. In general, three methods of inquiry were used to generate the data: interviews with the staff of the organization, particularly those involved directly with the specific project; examination of documents pertinent to these projects; and observation of some of the activities connected to them.

The Muda 2 project was chosen as a subcase for several reasons. First, it is one of the most important projects the organization has ever undertaken, with its long-range goal of improving the social well-being of the people in the region. The complexity and sophistication of the project have already consumed considerable institutional resources. The project has posed serious challenges to staff and resource capabilities, especially in the attempt to communicate concepts and ideas to farmers.

Second, the Muda 2 project has been well documented. These documents incorporate many aspects of planning, especially the physical, social, and material goals that the project hopes to attain. From these documents, communication elements can be extracted.

Of particular interest was the document, "Feasibility Report on Tertiary Irrigation Facilities for Intensive Agricultural Development in the Muda Irrigation Scheme" (MADA 1977a). This two-part feasibility study report was prepared by a team of MADA staff members. Part I covers the main text and the appendices in two volumes. Part II has detailed plans of sample areas and computations of economic analysis. The 15 appendices in the report incorporate descriptions of the various elements of program planning.

Other data for this case were gathered through interviews with planners responsible for both planning and implementation. These interviews enabled the researcher to trace the relevant data for analysis, especially for information not included in written documents.

Another method of data gathering was to observe the organization's implementation of activities for the Muda 2 project.

#### NATURE AND SCOPE OF MUDA 2: BRIEF BACKGROUND

In 1972, when MADA was a newly formed organization, it was apparent that it had inherited a defective irrigation system. Three years later, management recorded the following defects in the system:

1. The secondary canals and the distributaries are too far apart to effectively irrigate the present field-to-field flooding regime due to the absence of an in-field delivery system. This leads to poor water supply and irrigation shortages in some areas and to delayed supply in others. It takes as long as 40 days for some places within the block to be presaturated at the beginning of off-season supply.
2. The secondary drains are too far apart, which results in poor drainage or the inability to drain because of the varied planting schedules within the block.
3. The topographical unevenness of the scheme area has not been effectively resolved by the irrigation canals. The considerable amount of high ground, together with the depressions (which form drainage channels) and the complexity of the residential settlements, lead to the cutting off of water supply to back areas, localized pondings, and irrigation shortages.
4. The inadequacies of farm roads and other access facilities hinder the implementation of progressive agricultural practices in the scheme. Problems with bringing inputs such as fertilizers, insecticides, and machinery into the fields and transporting produce out of the area were caused by these inadequacies. These difficulties could ultimately weaken the marketing advantage for padi, and cause subsequent reluctance to use prescribed extension services.

In 1974 MADA undertook an intensive feasibility study to find remedies for these defects. The organization published its findings in 1977 in the Feasibility Study Report. As a result of the report, an extensive program to overhaul the physical and social environments was recommended, and the Muda 2 project evolved.

The Muda 2 project encompasses irrigation drains, access facilities, and other agricultural support facilities. Eventually these facilities will enhance water management and could generate increased agriculture productivity and farm incomes. This substantial project involves about US\$137.2 million and will take approximately 15 years to complete.

The project was divided into three five-year phases. In the first phase, 37 areas within the scheme were designated for construction of irrigation and access facilities. These scheme areas were considered to be the most critical in terms of need. Each area contained one or more villages and might be located along the fringes of the scheme areas.

#### THE PLAN

The Muda 2 project was designed to overcome the physical defects of the irrigation scheme. As mentioned in the Feasibility Study Report, overcoming these defects would eventually lead to improved farm practices and, in turn, to higher yields and incomes to the farmers. The report emphasized that farm incomes could be increased as much as 33 to 36 percent following project completion. According to the report, "The project would result in two main benefits. It would result in a significant boost to the incomes of the padi farmers in the [project area] and would also cut down the import bill of rice. This is achieved mainly through the increased production per unit made possible by the more efficient irrigation infrastructure" (MADA 1977a:20).

There are other plan benefits. These include the conservation of water to ensure adequate supply to the fields in times of drought, thereby reducing crop loss, and with improved roads produce could be taken out to processing centers quickly. The project would also reduce the risk factors involved in padi cultivation.

A number of planning factors were considered by MADA and were mentioned in the report. These included climate and availability of water, topographical features, water management, labor utility and mechanization programs, plant-water relationships, economic and production factors, social and political factors, legal implications, and finally, environmental impact.

One important feature of this project is that the goals stated in the plan have been calculated in terms of the physical layout of the project. In other words, the project plan

overwhelmingly focuses on the means of achieving social benefits rather than concentrating on the benefits as a whole. Thus, the organization seems to have assumed that if physical constraints are remedied, social benefits will result.

This may explain why sociological considerations and communication strategies have not been given much attention in the Feasibility Study Report. Evidence suggests that the project developed some strategies for communicating the plan to the clients (the farmers), but there was no mention of procedures for action.

In general, the planning considerations mentioned may indicate rational planning for this project, especially since the report showed that several alternative solutions were considered by the organization. The idea of Muda 2 was based on six pilot projects. These pilot projects encompassed an area of about 12,000 acres (5 percent of the project area), with detailed engineering designs and detailed costs for the whole project based on these six sample areas. Therefore, the Feasibility Study Report has not been conclusively translated into an operational plan. The researcher postulates that operationalization of this project has yet to be carried out, since the feasibility study is merely a plan for the strategy of the project rather than operations.

Appendix 13 gives a synthesis of the organization and management structure of the project. The prevailing organizational structure of MADA will be maintained for the Muda 2 project, as it was decided that a separate organization to handle the project was unnecessary.

MADA has been structured to integrate all functions dealing with agricultural development. A separate organization might conflict with the operation and maintenance of the scheme throughout the duration of the project. Also, from a financial and economic standpoint, the project could be made more efficient by strengthening the present organization rather than establishing a new one, particularly in the area of engineering. The elimination of the organization after completion of the project could pose a problem of linkage and continuity.

Though the project has been given a specific duration of 15 years, each phase consisting of five years, communication has not been given such consideration. As we shall see later, the only indication that communication would be part of the project is the reference to four extension strategies. These

strategies include the training of extension workers, especially those in the technical branch of the organization, programs to train farmers and their wives, and intensifying demonstration activities as a means by which to influence farmers. These strategies are expressed only as statements of intent without any specific recommendation for action.

#### THE PROBLEMS

Since the project involves the participation of the farmers, it is anticipated that the planners and implementers must sell the ideas embodied in the Muda 2 project to them. While they are not referred to in the report, some communication issues or problems of the Muda 2 project which the researcher identified after analyzing the report are:

1. The Muda project transcends the furnishing of irrigation and access facilities. When completed, the project will have evolved a new concept of padi planting in the scheme. Since the project establishes irrigation blocks (Irrigation Service Units and Irrigation Service Areas or ISU and ISA, respectively), fieldwork groups will become a way of life for the farmers in the area.
2. As a result of this, the project will develop a new concept of village neighborhood. It would not revolve around kinship patterns or residential proximity but around field environment, where farmers whose fields are clustered in a block will necessarily develop the social ties among themselves to make this project successful.
3. The project would also require the establishment of cohesive farm leadership. Once they are clustered into field neighborhoods, farmers must choose two leaders in field activities to provide the link between the cluster and MADA and its extension agents.
4. The project involves taking over about 60,000 lots of land now belonging to the farmers for the construction of the facilities. The nature of land ownership in the scheme suggests that this could generate farmer resistance. Land holdings in the area, as documented by studies conducted by MADA and the Universiti Sains Malaysia, are small in size and any substantial acquisitions by MADA are likely to meet opposition. Studies have found that 67 percent of the farms are smaller than six acres; the average is four acres (Lim 1975).

5. Other communication issues connected with the project include the need to provide development training, setting up of pilot projects, and greater emphasis on the use of farm machinery following the completion of the project.

The report clearly states the physical problems facing the irrigation system. Its discussion illuminates the rational and empirical data gathering upon which the Muda 2 project is based. For example, the report states that the system's problems can be alleviated by the construction of short-distance canal and drain structures, farm roads, and other access facilities. These conclusions seem to be rational and provide good insight into the engineering methods that the organization is practicing.

Since the success of the project depends entirely on the ability of the farmers to understand and accept the ideas embodied in the project, communication problems might have been anticipated as a component in planning. However, they are not covered in the report, even to the extent that it is inferred that communication is not within the planning parameters of the organization.

#### THE PROCESS

As noted, the Feasibility Study Report contains certain extension strategies for the Muda 2 project. However, these strategies merely identify the various avenues that extension services would take, without referring to administration plans. They are mentioned to accommodate the more general social welfare goals. These strategies appeared in Appendix 5, entitled "Sociological Considerations."

The first strategy is related to the extension work itself. The plan recognizes the need to help extension agents understand the socioeconomic values of the farmers. In this case, the report points out some of the problems MADA faces in this regard. For example, it indicates, "the approach in the work of some irrigation officials is more of an authoritarian and overseeing type rather than an extension type. Farmers' reactions to their attitude take an alienated form. They do not consider such officials as friends, as they would to agricultural extension officials. On the other hand, the attitude among some irrigation officials toward farmers could be described as condescending" (MADA 1977a:Annex 5, p. 10).

Since the success of the fieldwork groups depends greatly on the influence of the irrigation officers, the report calls

for a role change from policing responsibilities to irrigation extension responsibilities.

A second strategy that the Muda 2 project calls for is the effort to train the farmers. Intensification of training activities is vital to give the farmers opportunities to discuss their problems among themselves and with the extension officers. Since classroom training may not be effective for this group, the report calls for training to take place within the farmers' physical and social environments, in hopes of enhancing interpersonal interactions. Thus, it suggests that kursus tempatan (local or informal courses) should be intensified in the villages. These courses are to be held in the farmers' homes or suraus where a group of three or four extension workers would address various aspects of the project.

A third strategy is to use housewives as a way of reaching the farmers. Based on a study in which 71 percent of farm housewives reported that their husbands consulted them in all aspects of socioeconomic decision making and that among the husbands 54 percent were found to turn over nearly all proceeds of crop sales to their wives, a new emphasis has been placed on the farm housewives as a message dissemination channel (Afifuddin and Nor Aziyah 1974). By training farm housewives, it is hoped that the wives eventually would reinforce the Authority's desired innovations in all aspects of family decision making. Similarly, this approach has been extended to the training of farmers' daughters.

A noted characteristic of the farmers in this region is their "wait-and-see" attitude. MADA attributes this to two factors: first, the farmers are conservative, and second, "follow-the-leader" behavior is widespread in the region. This is especially noticeable during planting season, when work is delayed until after irrigation water has been supplied to their fields, and again during harvesting, when they seldom anticipate labor shortages.

To change such attitudes, another strategy is to intensify demonstration activities through the use of extension workers. The report indicates "that high values in planning [should] be inculcated in every operation. Farmers should be made aware of the significance of water management. If they are aware that the loss of irrigation water (as a result of the 'wait and see' attitude) is, in the final analysis, a loss to them, then there will be fewer problems of this deliberate delay in the work. Increase in water rates would also be perceived as an economic commodity or capital output" (MADA 1977a:Annex 5, p. 12).

These strategies are included in the Feasibility Study Report, but they fall short of being implemented. Furthermore, although these strategies have been mentioned as avenues for communication activities, they are not specific to this particular project. For example, the kursus tempatan and the training of farm housewives have been conducted by MADA for other purposes. In addition, it is apparent that the strategies are not necessarily designed to assist the project implementation, but to reflect some of the steps MADA would take to ensure its success once the project is completed.

The strategies are significant in this study because they represent the first time the organization has established specific guidelines on methods for communication activities. In other projects, as we shall see in two additional cases, a specific reference to communication activities is almost entirely absent.

In an earlier discussion it was pointed out that this project has been planned primarily as a series of physical changes intended to generate social benefits. In terms of physical planning, the report tends to be very precise and conclusive. For example, various alternatives are considered in the selection of the most efficient and economical material for the construction of the irrigation and access facilities.

In deciding the types of tertiary irrigation systems to be used for the project, the various alternatives (pipeline, laterite systems, local earth system, concrete-lined system, etc.) were considered in terms of capital investments, incremental annual maintenance costs, speed of construction, and trafficability of farm machinery. Several other examples clearly show that the physical construction of the project has been thoroughly considered through the analysis of various alternatives.

The report also explains how the construction of the irrigation and access facilities would be carried out. For example, in constructing the canal using imported laterite, three steps were planned: spread laterite over the alignment to act as a temporary access; excavate laterite to form bunds; and excavate local earth and deposit beside the bunds.

This indicates that great efforts were made by the organization to give detailed planning consideration to the physical components of the project. However, this is not the case for social and communication inputs. For example, there was no mention of the possible alternatives for social improve-

ments that the project hopes to achieve. In fact, these improvements were stated in terms of the benefits that the improved irrigation and access facilities could bring.

Communication activities for this project are the responsibility of the units charged with communication and extension duties. These units should include the Public Relations Office, the Agriculture Information Unit, and the Training and Extension Section of the Division of Agriculture.

However, after observing the present stages of implementation of the project (discussed later), it is apparent that only one of these units, the Training and Extension Section, is being used. Of all the training activities available, only one method has been used for communication and extension activities of the Muda 2 project--the kursus tempatan or local training course.

As mentioned earlier, the Muda 2 project has been targeted for completion in 1994, 14 years after the project's 1979 start. In the absence of a formal communication program, it is difficult to chart the communication activities that the organization will administer throughout the project period. However, since the end of 1978 the institution has carried out several communication activities for the project. A description of these activities may help illuminate MADA's communication philosophy.

Currently, the organization is focusing on the first phase of the project, covering the 37 most primitive areas of the region in terms of irrigation and access facilities. The goal is to popularize the project and minimize the opposition to its land acquisition plan. At the end of March 1979, 15 percent of the land required for the construction had been acquired. Communications policy is being implemented through the following process.

Based on the second strategy of the report, management has increased the role of kursus tempatan (which is discussed at length Chapter 5)--training the farmers within their physical and social environments. This course has been considered by the planners as the pillar of the project's communication component.

The procedure for conducting the course is based on the characteristics of the areas affected. Once the engineering design for the affected area has been completed, the area leaders will be invited to the central office for a project

briefing by the head of the Agriculture Division.\* The leaders will be told why they were invited, problems that MADA knows they are facing will be discussed (i.e., the irrigation difficulties), and the steps MADA plans to take to solve these problems will be outlined. The leaders will then be shown the engineering design for their own areas and their comments will be encouraged.

Following the briefing, a convenient time is planned for a visit by the extension officers to give a day-long kursus tempatan in their village. The leaders are asked to spread the word about the project and about the upcoming visit of these officers.

When the kursus tempatan is conducted, average attendance is about 60 people and food and drinks are provided by MADA.† Farmers receive the same information as their leaders. Concepts are offered in layman's terms so that the audiences will understand. Farmers are shown the scheme's design and layout and are invited to make suggestions and objections. During two courses that the researcher attended, no serious objections were raised.

Later, those farmers whose land must be acquired for the project will be invited to the land office. Here they will be told how much of their land needs to be acquired and how much compensation they will receive. Once the price is agreed upon, immediate payment will be made. Management reports that so far no significant objections have been raised.

From the observation of several kursus tempatan, the following can be reported about the course:

1. The course uses the two-step flow approach to message dissemination.
2. It incorporates the concepts of "participatory decision making" and "participatory communication." Farmers are

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\*Based on their experience in this area, MADA has a list of individuals who are considered to be opinion leaders of the farmers. They include ordinary farmers, officials of the FAs, religious elders, and school teachers.

†This provision was made so that the farmers did not need to go home for their meals, and attendance was maintained throughout the meeting. This was done for the ordinary kursus tempatan conducted in the villages.

told that MADA has designed and planned the Muda 2 project, but that the project's initiation was a result of farmers' resolutions through their local farmers' associations.

3. The approach also attempts to transfer the responsibility for the irrigation defects of the original project to a third party, the foreign consultant, who was unfamiliar with the needs of the farmers. Now the emphasis is that the Muda 2 project is designed and planned with local expertise for the local people. This is significant in that it implies empathy and homophily.
4. The project may be modified and amended by the farmers. Since the farmers are consulted, the project is "participatory" and the implication is that it will evolve as a direct result of their needs.

#### THE PLANNERS

An interesting characteristic of the Muda 2 project is that the cost is little more than the cost of the actual physical construction of the irrigation scheme. Furthermore, the planning and designing of the project depend upon local expertise and resources. The feasibility study was conducted by a team of MADA employees. It should be noted that a great many of the staff were assigned to various government departments well before the establishment of the Authority. Among the major departments participating are the Department of Agriculture (DOA), the Department of Drainage and Irrigation (DID), and the Public Works Department (PWD).

The feasibility study team was headed by S.H. Thavaraj, who was at that time on loan to MADA from DID. Trained in civil engineering, he joined the organization in 1969 and left MADA after the study was completed. Currently, he is a deputy director-general for the Ministry of Agriculture (the parent organization of the DID).

Thavaraj was assisted by a number of individuals who specialized in engineering, agriculture, administration, and sociology. Most of the engineers had specialized training in such areas as civil, soil, construction, and mechanical engineering, and were also on secondment from the DID. Some had already transferred to MADA.

The engineers were Sardar Ali, charged with engineering planning in the Division of Engineering; Tay Chong Sim, a senior engineer in charge of reservoirs and control systems;

Martin Dorai, who specialized in drainage and irrigation engineering; and Teoh Tiaw Siang, the current head of the Engineering Division, who has worked for the organization since it started.

The following individuals contributed to the agricultural aspects of the project: Wong Hin-Soon, a rural economist attached to the Planning and Evaluation Division of the organization; Ho Nai-Kin, an agricultural agronomist in charge of Farmers Training and Extension, who has been with MADA for more than six years; and Phang Cheng Chong, an assistant agriculture officer for the Input/Development Section of the Division of Agriculture.

Contributions were also made by individuals within the organization: Yem Othman, a rural sociology graduate from the Universiti Sains Malaysia, who holds the post of sociologist in the organization; Syed Ahmad Almahdali, currently the general manager, who has many years of experience in public administration (especially in land matters) as a Kedah Civil Service member and has been with the scheme since well before the establishment of the Authority; and Abdul Aziz Tajuddin, now the head of the Agriculture Information Section, who designed graphics and charts for the report.

Discussions left the impression that each was competent in his specialty and can foresee the kinds of improvement that the project would achieve. However, the group's perception of the contribution of the other disciplines seemed to be quite narrow, which created a problem. For example, some agriculture officers expressed disappointment with their counterparts in the Engineering Division. The principal complaint was that the engineers and technicians failed to see the "human side" of the planning process and ignored social considerations in their efforts to rapidly develop the physical construction of the area.

The report notes that in response an attempt was made to reduce the condescending attitudes of the irrigation officials by replacing their policing functions with those of extension services. The report says that,

creative planning demands lateral consultation between professionals of different disciplines within and without the organization. However, good plans cannot be made by compromises among specialists, who understand only their own narrow fields. Each specialist who participates in planning needs general

understanding of the project at hand. Future planning adopted for this project will therefore be viewed as a sequential process of problem identification and solving, incorporating not only multidisciplinary, but also an integrated approach. . . . (MADA 1977a:Annex 6, p. 2)

This narrow-minded approach could be attributed to the staff's educational background. The engineers are trained at either the University of Malaya's Engineering Faculty or in the United Kingdom. At the University, the training is strict and students are not encouraged to enroll in courses offered outside the institution. If they do, they are given strict instructions as to what they should take. Generally, an engineering graduate does not expose himself to other disciplines, which helps to explain his narrow way of thinking.

Similarly, in agricultural training, each student is confined to his own faculty. There is no encouragement toward a well-rounded national system of education. The educational system in Malaysia strictly follows the norms of the British system.

There are three levels of training that agricultural personnel may receive. Agriculture officers may graduate either from the Agriculture University in Serdang or the University of Malaya. In these universities, specializations such as agronomy, soil science, business, agriculture-economy, and animal science are offered. Agricultural extension is not a major subject in any of these universities, but some courses in extension are offered as options. In both universities, degree-level education is offered.

Agriculture assistants are trained in the Agriculture College in Serdang. A graduate of this college will complete three years of agricultural education and receive a diploma. Here, the students are given a more balanced agricultural education with no specialization.

Agriculture technicians and junior agriculture assistants are trained in agricultural institutes in several areas of the country. The education here is elementary, requiring one to two years to receive a certificate.

From the above analysis, we can conclude that MADA is a planning as well as an implementing government agency. The organization's staff is trained in the specific areas of agricultural development, agriculture, engineering, and economics.

It is apparent that most of the planning activities do not include communication components. The organization has inadequately trained staff in the area of communication.

While none of MADA's planners have had formal communication training, our earlier analysis of extension strategies suggested that they do not necessarily lack basic communication skills. Interviews with several individuals indicated that they are highly articulate and knowledgeable in the area of communication. For example, they realize that they face sensitive areas when addressing their farm audience. They understand that messages need to be carefully delivered and that the situation must be appropriate for general acceptance. Furthermore, they are concerned about message credibility and know that not just anyone can effectively talk to the farmers. Subordinates are instructed that any meetings they plan to have with farmers will require the officer's consent.

These are illustrations of communication awareness in the organization's staff. The organization has designated only a few individuals from the central office to meet with the farmers. These few untrained people are the organization's most reliable and credible communication sources. They represent the organization in scheduled meetings with the farmers.

Another important characteristic of the staff is that about 70 percent of them were born or raised in or around the scheme. Most of their parents are padi farmers, and some have padi lands themselves. There is a tendency within the organization to employ personnel who have agricultural backgrounds and who come from the two states included in the irrigation scheme. One result of this practice is a low staff turnover rate.

Most staff are also Malays. It is a practice of the organization to stress the image of a person working for improved conditions for his own people. About 99 percent of the farmers are Malays, and national unity is a major problem in the country.

These practices seem to result in healthy devotion and commitment to change on the part of the staff. The researcher was also impressed with the staff's capability to articulate their roles and the future of the organization as well as that of the irrigation scheme.

## THE RESOURCES

It is apparent that the organization relies on limited resources for the dissemination of communication messages pertinent to the Muda 2 project. The organization depends heavily on interpersonal contact rather than on mass resources. According to the planners, there is no plan to use the media for this project. Several reasons for this have been offered. First, because the first phase of the project is not going to be implemented for the whole Muda irrigation scheme, the planners felt that any mass dissemination of the message might raise the expectations of the whole population. It was felt that this could damage the credibility and efforts of the organization.

Furthermore, they felt that part of the implementation process, that is, land acquisition, is a very sensitive subject to the populace and that interpersonal communication would more effectively eliminate uncertainties because of the immediate feedback it allows.

Similarly, during the early stages of the communications plan the organization felt that the farmers' associations (FDC) should be put to other uses. The planners felt that since the project does not necessarily affect the entire locality in which an association operates, FA management should be spared this burden. Secondly, since FA staff are not familiar with the project, it was considered most beneficial that someone from the central office conduct these activities. Thirdly, the organization also felt that the FAs were understaffed and that additional responsibilities could seriously undermine their efficiency. However, in the briefings for the leaders and farmers, FA managers were required to be present.

The responsibility for conducting the kursus tempatan has been given to two experienced central office extension personnel who had received no formal communication education or training. Haji Shafie Salleh, a religious scholar, was with the Department of Agriculture for nearly 20 years before retiring and joining the organization in 1970. He has considerable credibility in spiritual discussions, which management felt could aid in its operations since the farmers are guided by strong spiritual beliefs in their daily activities, including padi cultivation. His lessons were normally supported with verses from the Koran, which made him a popular spokesman.

The other officer, Rahim Ahmad, graduated from the Sultan Idris Teachers College and then joined the Department of Agriculture. He has been with the department for a number of years and switched to MADA soon after it began.

The strategy that these two officers use in the kursus tempatan is quite remarkable. They believe that in any meetings with the farmers, one must have credibility to be accepted and once this has been established, it is not difficult to get the attention of the audience. Thus in the meetings, Haji Shafie begins the discussion with some religious emphasis, and once he has captured the audience's attention, the idea of the Muda 2 project is introduced by Rahim.

One important note about the communication activities is that the organization has no plan to print publicity brochures, leaflets, or handouts regarding the Muda 2 project. This decision may have been the result of management's desire to reach the people personally.

There is evidence that the use of mass media was considered for the Muda 2 project. However, inherent weaknesses as well as the inability to serve the objectives of the organization excluded the mass media as communication resources for the project. Various mass media reports pertaining to this project suggest that these reports were distributed to the media by MADA for general public information rather than to promote of the scheme.

In determining communication strategies, evidence indicates that management used several information sources for planning decisions. The Afifuddin-Nor Aziyah study on the influence of rural farm housewives on farming decisions led to the evolution of training programs for these wives.

Another important study that may have been used in these decisions is one conducted by Afifuddin Haji-Omar, the current head of the Division of Agriculture, entitled "A Study of Leadership Pattern and Behaviour Among Leaders of Farmers Association Within the Muda Scheme" (1972). Afifuddin found that leadership identification in the Muda region revolves around three distinct factors: age, wealth, and religiosity. The degree of importance and priority would be determined extensively by the community structures represented in the scheme. Afifuddin identified three types of community structures: cluster, linear, and dispersed. Each of these structures would be governed by different sets of social values, attitudes, and behaviors (Afifuddin 1972).

In identifying the leaders for the communication activities of the Muda 2 project, it cannot be confirmed that the findings of the above study were used as a guideline. However, it can be assumed that these leaders were identified in accordance with those findings, since they were identified by local staff of the organization who mixed with the people for a number of years.

The total project expenditure has been estimated to be US\$137.2 million. Of the various allocations, three items are relevant to this study: Agriculture and Extension, US\$2.07 million, Development Training, US\$0.20 million, and Pilot Projects, Surveys and Studies, US\$0.80 million.

The report suggests the strengthening of Agriculture and Extension services throughout the area by increasing the number of extension workers to a ratio of 1:1000 farmers as compared to the current 1:2000 and by integrating the agriculture and irrigation extension. These increments are required as a result of the establishment of the Field Works Group and the Irrigation Service Area Committees.\*

For the development and training expenditures, the feasibility study suggested that provision be made for field trips within and outside the country to acquaint staff with new concepts and ideas and to ensure that mistakes made elsewhere are not repeated in the scheme. Haji Shafie and Rahim Ahmad have been abroad to Taiwan and Japan, respectively, for this purpose.

#### THE ENVIRONMENT

Why does the Muda 2 project contain so little communication planning as contrasted with physical planning? Why have the benefits of the project been interpreted mainly in terms of physical rather than social changes that will result from the project? Why is kursus tempatan preferred over mass media as a communication channel? Why does the organization fail to use the farmers' associations for its communication activities?

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\*The transformation of the Muda region into clustered blocks (known as the irrigation service units of ISUs) required the establishment of a block committee under the Muda 2 project. A combination of several ISUs (seven to eight) formed the irrigation service area (ISA), whose committee included leaders of the ISUs.

Some of these questions are pertinent to understanding the style of management operations and no doubt the answers would not easily be obtained. Discussion of some of these questions so far has shed some light on this style. A brief description of the environment in which this plan is being implemented can give us greater insight.

From the documents and interviews, one can conclude that the organization feels that neither the physical nor social environment has been constraining in meeting the organization's goals. Some of the planners feel that the environment helps project implementation in the irrigation scheme.

The most frequently cited illustration is of the strong religious orientation of the clients in the area, which the planners exploited for the organization's activities. Generally, prior to the implementation of a project, planners would initiate religious gatherings and use the discussions that followed to communicate project-related messages. For example, the Friday prayer sermons frequently have been written by some of the MADA staff. The religious establishment in the region has been beneficial, since it legitimized the organization's activities.

In conducting communication activities for the various Muda 2 pilot projects, this approach has been quite commonplace. Planners who are well-versed in religious teachings have been encouraged by management to lead religious gatherings, which eventually lead to the discussion of the projects. In the case of the current communication activities, the use of suraus has predominated.

Planners say that the socio-political environment does not bother them at all. Some are proud of their ability to avoid letting the institution become politicized, despite the fact that the chairman and two members of the Board of Directors are politicians. This was accomplished by the previous general manager, who requested as one of the conditions of appointment that he be given a "political umbrella" (Afifuddin 1978) to ensure against unwarranted intrusion of political forces into the operation of the organization. Apparently, this condition was accepted by the then-prime minister when he announced the appointment of the general manager.

However, in one instance communication activities of the Muda 2 project were hampered by the political situation in an area. It happened in one of the six pilot project areas (in the ARDB 2 area in Arau, Perlis), where the choice of the

village leaders had been based on political influence. The incident occurred shortly after the general election in an area that had been fiercely contested by two political parties. As a result, the followers of the opposition party boycotted the meeting between the farmers and the organization's extension officers. This incident resulted in the organization's deemphasizing political influence in determining leadership qualities in the scheme.

Nevertheless, the most important environmental determinant of the communication planning and activities of the organization has been the audience--the farmers themselves. These farmers are small-scale agriculturists whose methods have been passed down for generations. In the case of the Muda 2 project, a new dimension of farm practice will be introduced that will be more rigorous and strict. To introduce this project, the organization prefers to seek closer communication between the planners and the farmers through interpersonal contact. Kursus tempatan is based on this philosophy.

Planners felt that the mass media can never fulfill this need of the institution. First, they fail to understand farmers' sensitivities as well as the planners do. Second, mass media are not seen as serving the needs of the people in the scheme. Third, the project involves acquisition of some land that is owned by some of the farmers. Planners felt that mass media might jeopardize and misinterpret the intent of the Muda 2 project. Therefore, reliance on mass media as a means of communication has been ruled out.

Planners felt that it was difficult to reach the farmers because of the demands of their work. Kursus tempatan could overcome this difficulty by dispatching extension personnel to the villages instead of asking the farmers to come to a specified meeting place.

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SUBCASE TWO: THE DROUGHT RELIEF PROGRAMS

INTRODUCTION

In 1977, the Muda Irrigation Scheme suffered an unprecedented drought, with the lowest rainfall in 40 years. This cancelled the off-season (or first) planting of 1978. Since this threatened the well-being of the farmers, who were already accustomed to the yearly double cropping of padi, MADA implemented several drought relief measures to cushion any injurious impact that this cancellation might have on the population.

The purpose of this subcase study is to add to our understanding of the communication planning processes of the organization. As in the previous subcase, we will begin with analysis of the nature and scope of the measures undertaken, followed by analysis and discussion of the communication components.

This subcase topic was selected for several reasons. First, it illuminates planning processes for a nonroutine, or crisis, activity of the organization. Second, it reveals how communication was used in the emergency material allocation and distribution programs of the drought relief program.

The collection of data was similar to the first subcase study. Interviews with the planners and implementers were heavily relied upon. "Background and Impact of the 1977 Drought on the Muda Scheme," an eight-page document printed in March 1978 and produced by the Public Relations Office of the Authority, may help to fill in some missing details. Among the issues discussed in it are the problems that caused the water shortage, the effects of drought on the production of rice and on farmers' incomes, and measures to counter the problem.

NATURE AND SCOPE OF THE PROGRAM: A BRIEF DESCRIPTION

The Muda Irrigation Scheme depends upon three sources of water: rainfall (60 percent of project requirements), water from the dams (30 percent), and water from river tributaries flowing into the scheme area (10 percent) (MADA 1978).

Under normal weather conditions, rainfall is adequate for the requirements of the regular season planting (i.e., the second season--August to January). Together with water from the tributaries, dam water is used only for the off-season planting (i.e., the first season--February to July). However, there were occasions when water shortages during the second season were supplemented by dam water.

Erratic rainfall distribution in the scheme could seriously affect the efficiency of the irrigation facilities. In the past, minor shortages in rainfall supply had been recorded, but their effect had always been marginal. However, in 1977, only 64.46 inches of rain fell, and there had also been a mild drought at the beginning of 1977. These conditions reduced the water supply in the scheme, which required the cancellation of the first season cropping of 1978.

As a result, MADA designed several projects to sustain the income of the farmers. An appeal to the government for additional funds was met with a federal grant of M\$6.3 million, which the organization used to conduct the following drought relief projects:

1. Temporary employment for the farmers in drain and canal cleanings, restoration and construction of bridges, farm-roads repair, digging field irrigation ditches and bunds, etc.
2. Temporary employment in the poultry project of the farmers' associations.
3. Short-term cash crop planting incentives.
4. Short-term, interest-free loans of US\$269 million to the FAs and cooperative societies in the scheme.

In addition, MADA tried to minimize the farmers' burden through the following incentives:

1. Reduction of irrigation tax for 1978 by 50 percent.

## 2. Deferred loan payments to the Agriculture Bank.

In deciding which farmers would receive assistance, the organization set three criteria of eligibility: landless farmers, tenants, and small owners. About one-third of the 60,000 farmers in the scheme qualified for assistance.

### THE PLANNING PROCFS

In this case, the organization's task was not only to channel resources to the farmers to help alleviate income loss but also to notify them of the cancellation as well as the availability of relief assistance.

From the incomplete documents available, as well as from interviews, the following process appeared to be used by the organization.

The minutes of the fortnightly senior officers meetings in 1977 recorded a number of discussions about the effects of the drought. As early as July, the organization had closely monitored the effects, and the chairman of MADA had indicated through the mass media that the first season planting of 1978 might have to be sacrificed. However, at this stage no concrete decisions were made beyond the expression of concern and close monitoring of the situation.

As conditions deteriorated toward the end of the year, the organization began to discuss measures to be taken. In the senior officers meeting of January 1, 1978, the head of the Agriculture Division indicated that he had contacted all localities to assess losses and would forward a report. The agriculture information officer was instructed to prepare a map showing the affected areas. Still, at this meeting there was no specific mention of the drought relief programs.

At a subsequent meeting held on January 12, there was discussion of the M\$6.3 million federal grant. Moreover, the minutes of the meeting recorded that, "after lengthy deliberations, the meeting had decided to carry out several projects. The chairman [i.e., the general manager] instructed the public relations officer to prepare a list of possible projects (in terms of their priority) to be carried out in conjunction with the drought situations." However, there was no indication as to when the decision to seek federal aid was made and what form it took. It can be assumed that the decision to apply

for these funds could have been made in private meetings between the general manager and his staff in consultation with the chairman of the Board.

At the meeting of January 26, the minutes record the following:

the chairman clarifies that among the information campaigns which are to be conducted are the distribution of handbills explaining the cancellation of the off-season planting of 1978. According to the information officer, about 30,000 copies of handbills are in print. . . . The meeting has agreed to prepare posters between February and July 1978 to be placed on the planting schedule billboards in the scheme. . . . A series of briefings to MADA officers, government officers, local leaders, and government agencies has been arranged. The objective of these briefings is to coordinate activities pertaining to the cancellation of the planting season. . . . Campaigns will also be carried out with the preparation of material for distribution through the mass media . . . (actions of the information officer and the public relations officer).

It is apparent from these minutes that the decision to cancel the season was not made at the meeting of the senior officers, as there was no record of this transaction at preceding meetings. Other decisions about communication activities pertinent to the drought problem were also being made outside of this meeting.

Two implications are indicated here about MADA's planning process. First, the planning decisions of the organization also could have been carried out through informal gatherings or meetings among the staff members of MADA. These decisions could vary from the most important (such as the cancellation of a planting schedule) to the least important. Second, decisions made at the senior officers level do not provide the operational definitions of the programs to be carried out by the organization. For example, the decision to print posters and handbills and to hold briefings is stated in very general terms. Decisions such as when and what is produced were made by the individual staff members who attended the meeting or by others outside MADA. Responsibility for conducting the information campaigns and briefings has been assigned to the information officer and the public relations officer.

Interviews and the examination of documents indicated that these officials coordinated those activities and did not carry them out. Handbills were produced entitled Kemarau: Apa yang patut kita buat? ["Drought: What we should do?"], which were written by three Division of Agriculture technicians (Haji Shafie Salleh, Rahim Ahmad, and Khalid Othman). The public relations officer supervised the briefings to officers and leaders from other government agencies, which were conducted by several senior staff members of the organization, including the general manager.

At the January 26 meeting, decisions were also made to provide facilities for the poultry project to be carried out by the 27 FAs in which 400,000 chicks would be distributed. Another decision was made about the registrations of the three categories of farmers eligible for the drought relief projects. The FAs had been structured as subcontractors for the temporary employment project, and at this meeting, a sum of M\$10,000 was approved as an advance to the FAs for registration purposes.

At subsequent meetings, discussions revolved around the progress of earlier projects. There was constant monitoring of the progress of the temporary employment project (such as the number of farmers employed to date), the information campaign (including the rate of deviancy), the poultry project (such as the number of chicks distributed, mortality rate, and market potential), and so forth. Minutes of the February 26 meeting note that, "information campaigns (to farmers and officers) about the cancellation of the off-season planting at its early stage had been undertaken smoothly. It has been agreed that the second stage of the campaign will begin at the end of March."

During February and March, discussions of the drought relief programs revolved substantially around the implementation of activities and, to a certain extent, evaluations. For example, the March 26 minutes read,

there exist several problems in the implementation of minor projects. The chairman instructed the public relations officer to collate all these problems to be presented to the authority concerned. . . . According to the agriculture officers of Northern and Southern Districts, so far 1,016 people have been employed in the employment project with a ratio of 30 percent member and 70 percent non-members (of farmers' associations).

## 50 / THE DROUGHT RELIEF PROGRAMS

Discussion of the drought relief programs dominated the meetings of the senior officers until the end of May. These discussions diminished with the approach of the second season planting scheduled to begin in July. Minutes of the May 7 meeting indicate that the organization was discussing the coming season's planting schedule and the necessary charts.

In examining the minutes of the senior officers meetings throughout this period, it appears that there were several planting decisions pertinent to communication activities. These decisions were fundamentally strategic policies rather than operational directives. No doubt the actions were carried out eventually under the direction of the information officer and the public relations officer.

Attendance at the senior officers meetings is made up of the highest ranking staff personnel of the organization. The general manager, heads of divisions, and heads of sections or units are included in these meetings.

At divisional-level meetings, the head of the division is chairman. The meeting is attended by all the staff in the division holding the titles of agriculture officer, agriculture assistant, and agriculture technician. The FA managers (either agriculture assistants or agriculture technicians) attend the meetings of the Agriculture Division.

To determine the flow of ideas on a project through the organization, minutes of the Division of Agriculture meetings were examined as well as the minutes of selected FA Board of Directors meetings.

According to the minutes of the monthly Division of Agriculture meetings, the same sequence of events occurred. Evidently, the ideas for the projects were generated at the senior officers meetings. For example, in its February 1, 1978 meeting, the head of the Agriculture Division (as chairman of the meeting) informed his staff of the projects to be carried out by MADA as drought relief measures. The eligibility criteria were also announced.

In this meeting, some operational planning was done on the projects that had been decided upon at the senior officers meetings. Detailed discussions were held on the distribution of relief registration forms. It was decided that each locality would have an area committee to shortlist the applicants for the temporary employment project. Headed by the chairman of the Board of the FAs, this committee would also

include the manager of the FAs. The penghulu (traditional Malay village head) and a local notary public would form the committee, and the irrigation inspector would be included as an observer.

At this meeting, it was also decided that for two days of employment the farmers would be paid M\$30, with an extra M\$5 to the leaders of the working groups. The types of jobs and duties were to be determined by the Division of Engineering. Furthermore, it was decided that the Planning and Evaluation Unit would be responsible for evaluating the project as well as gathering relevant information. Representatives of both the Division of Engineering and the Planning and Evaluation Unit attended this meeting of the Division of Agriculture.

There was no discussion of communication responsibilities at this meeting. This implies that, at the divisional level, though program strategies were put in operation, there was no communication strategy. The general responsibility of the divisions is to develop specific technical programs, and communication planning is not assigned.

Since drought relief inputs are to be directed to the FAs and the managers of these associations also attended the Division of Agriculture meeting, some assumptions about communication could have been made. There was no evidence that the managers were specifically instructed to inform the Board of Directors of their FA about the availability of these programs and the cancellation of the planting season, but they were obviously expected to do so, and evidence indicates that they did, since these managers have been designated as the links between the organization and the farmers' leaders.

After examination of the Division of Agriculture minutes, some minutes of the FAs' Board of Directors (BOD) meetings were examined. Here again, the minutes tended to show that the drought relief programs, including the communication components, originated from the senior officers meeting. For example, in the BOD meeting of Simpang Empat FA held on February 2, 1978, Board members were informed by the FDC manager about the drought relief projects to be administered by the organization. At this stage, the projects had been translated into operational tasks. The minutes indicate that job descriptions for activities for the temporary employment project, along with work locations, were determined. At the same time, the manager requested that Board members inform the heads of the Small Agriculture Units (SAU) in their areas to verify employment applications made by the farmers to ascer-

tain their eligibility. As with other projects, the Board members were informed that a poultry project would be conducted by the FA and would employ a number of farmers. In addition, Board members were informed that seeds for the cash crop project were available for collection by the farmers.

Minutes of other FA meetings show that similar procedures were followed. However, the transmittal of information from the FA's BOD to the farmers can only be assumed, due to the lack of information available. In general, once BOD members were informed, they would pass on the information to their unit leaders. Leaders of the SAU attended some BOD meetings as observers. From these leaders, the farmers would be informed either at the unit meeting or through personal conversations.

The discussion thus far has centered on the flow of information about the drought relief programs from the organization to the farmers. The flow can be illustrated as in Figure 6. The planning process for the drought relief programs began at the senior officers meeting, the highest level of the organization. Although much of the activity carried out by the Authority in conjunction with these programs has been recorded in the minutes of these meetings, evidence shows that such planning was not confined to the meetings.

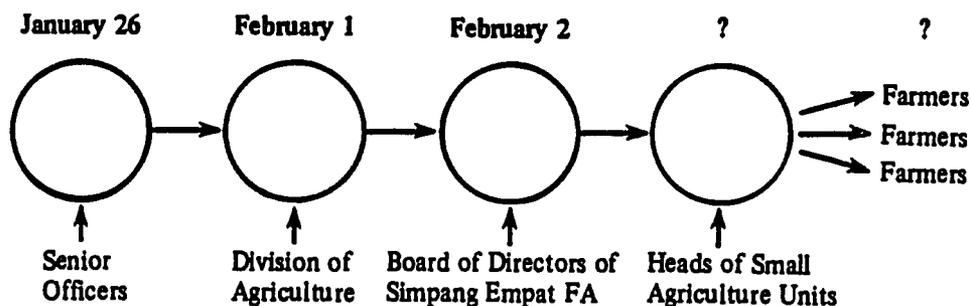


Figure 6. Drought Relief Program: A Case in Simpang Empat Farmers' Association

After the strategy of the program was outlined at the senior-officer level, detailed discussions, particularly about the operational aspects of the program, were held at the divisional level. This is shown in the February 1 minutes of the Division of Agriculture meeting.

Information then flowed to the local FAs, and managers of these associations attended the Division of Agriculture meetings. However, the minutes of the Simpang Empat FA Board of Directors meeting on February 2 show that communication at this stage was predominantly information giving rather than discussion. Members at this level did not discuss actual program planning but focused on program implementation issues.

A similar procedure was followed for the announcement of the planting cancellation. MADA, after detailed monitoring of the situation, requested that the chairman recommend to the minister of agriculture that an announcement be made about the cancellation. The recommendation had enough justification to convince the minister and other agencies that cancellation was mandatory. In the meantime, briefings were conducted with the officers in the Division of Agriculture and in the Engineering Division about the decision. Subsequently, the BODs of the FAs were informed by the managers.

No discussion was recorded in minutes from meetings about the timing of the press releases or which medium was to be used to reach the farmers. The minutes did show that the public relations officer was responsible for these releases. As a result, throughout December 1977 and January 1978, several media carried the news about the cancellation, including the announcement made by the minister, the federal aid given to MADA, and the cloud-seeding activities.

As to the use of leaflets and posters, plans were recorded regarding distribution and who was responsible. Minutes of the senior officers meeting of January 26th show that the agriculture information officer was charged with these responsibilities and with coordination of the organization's staff members in the localities.

#### THE PROBLEM

Since the drought occurred despite the irrigation scheme, some of the planners felt that there were serious implications in terms of the organization's ability to provide for the welfare of the people. They felt that the drought directly challenged the organization's ability to overcome the problem and

thus maintain its credibility. They expressed relief in the interviews that because of the strong religious adherence in the region, the local population felt the problem was an act of God rather than MADA or any other organization.

Although communication problems were not specifically mentioned in the minutes, the planners, according to interviews, felt they had three urgent activities to carry out: (1) to announce the cancellation of planting; (2) to announce the drought relief programs so people would know that MADA was doing something about the problem; and (3) to encourage the farmers to register for temporary employment and other drought relief benefits.

### THE PROCESS

The communication channels used in this process to reach the farmers were the FAs, especially for activities 2 and 3 above. For activity 1, FAs were used along with mass media and other channels.

Those interviewed gave several reasons for using the FAs as a part of the communications strategy. First, the organization felt that it had been common procedure for MADA to channel all material resources through the FAs. In the past, this procedure had been successfully used to distribute fertilizers, seeds, insecticides, farm machinery, agricultural diversification, etc. Through the FAs, farmers in a locality collected whatever was required for their daily activities. With this precedent, management felt that material allocations and distributions for the drought relief programs should be similarly handled.

Second, the informants stated that they hoped to broaden the image and scope of the FAs as a useful and credible organization upon which the farmers could depend in difficult times. The measures of the drought relief programs were seen as beneficial to the image of these associations in the long run, since the farmers perceived them as trustworthy, credible, and able to undertake collective actions.

The third reason this approach was used was inherent in the very purpose for the establishment of FAs. When it first began, MADA planned on the farmers' participation in the organization's decision making and the general approach undertaken for the irrigation scheme. The leaders of the organization realized that the success of the project would ultimately depend on such participation. Dr. Afifuddin Haji-Omar, head of

the Agriculture Division, stated that many development efforts elsewhere have failed because "programs and projects have been planned in the administrative centers with the peasantry at best passively adopting innovations extended by the government agencies. As a result, most of the gains accrued to the peasantry are not sustained once the active role of the government officials is withdrawn" (Afifuddin 1978).

Thus, MADA had emphasized farmer participation as a development strategy in the region. Participation could be seen at two levels: in the decision-making processes and in the economic activities designed, organized, and sponsored by MADA. For both levels of participation, MADA realized that the farmers need to be collectively organized to ensure systematic and efficient participation.

Fourth, the organization felt that since the entire scheme was affected by the drought, resources had to be distributed to some 21,000 farmers. This could only be effectively and efficiently managed through decentralizing the distribution process via the farmers' associations.

In December and January, Malaysian mass media gave substantial coverage to the difficulties faced by the region. The news was headlined in several daily newspapers when the federal grant was announced.

In addition, leaflets and handouts were printed and distributed through the FAs. Posters were printed and affixed to all planting schedule billboards, in the compounds of mosques, and in suraus, coffee shops, and other gathering places. These posters carried the following message and appeared in both romanized and jawi versions:

Kenyataan: Akibat Kemarau Panjang Padi Musim Pertama 1978 (Bulan Februari hingga Julai) Dibatalkan Dan Air Tidak Dapat Dibekalkan. [Notice: As a result of the long drought, first planting of 1978 (February to July has been cancelled and water will not be supplied.)]

Mobile units were dispatched to announce the cancellation. This was done mainly in the town and village centers with a tape-recorded message that explained the drought situation and emphasized the termination of irrigation water supply.

### THE RESOURCES

Compared with the Muda 2 project, the communication resources used for the drought relief project were more diverse. Mobile vans, newspapers, radio, television, leaflets, and posters were all used. All activities were undertaken in response to the immediacy of the situation rather than according to a long-range plan.

Financial allocations for the projects had been made through the federal grant, but no detailed breakdown was available. However, it can be assumed that most of the funds were allocated to specific relief projects such as temporary employment and the poultry project.

It was decided that cancellation announcements and other related activities were to be repeated several times throughout the period. Responsibility for this general publicity was assigned to the agricultural information officer (AIO) and the public relations officer (PRO). The former was responsible for the mobile vans and leaflets and the latter for press releases.

Neither officer was trained in communications. The AIO, Abdul Aziz Tajuddin, had been an agriculture assistant with the Department of Agriculture (DOA) for a number of years before joining MADA. He rose through the ranks and had attended several in-service training programs, especially in photography and graphic design. He was hired by the organization for his ability to prepare graphic materials and his "flair" for photography and the preparation of charts.

The PRO, Abdul Razak Senawi, was a teacher for several years before joining the organization. He was hired after MADA was unable to recruit a candidate who was both trained in public relations and resided in the Muda region.

### THE ENVIRONMENT

During this project period, MADA was affected by two external political situations. As a result of these factors, tremendous publicity was given to the efforts of the organization to assist the farmers.

The first factor was intense insurgent propaganda in the region. A number of insurgent broadcasts caused the government some concern. In these broadcasts, the insurgents accused the government of exploitation and lack of concern for the

peasants' suffering. The messages urged farmers to organize themselves and participate in peasant revolt.

The second political factor was the upcoming general election. Though the date had not been announced (it was eventually held on June 8, 1978), speculation was rife and the opposition political parties were ready to exploit the situation. In the Muda region, as well as in the two states that are included in the scheme, the struggle became more fierce between UMNO (a Malay-based component party of the coalition federal government) and Parti Islam (an Islamic ideological party, also Malay-based).

The government viewed the political situation with great concern since it would soon face the electorate. As a result, government resources were made available to give whatever assistance MADA needed. Ministerial visits were frequent, resulting in prompt assistance from the various government departments, such as the departments of Agriculture, Veterinary, Drainage and Irrigation, the Agriculture Bank, and the Federal Agriculture Marketing Authority.

Additionally, intense publicity was provided by the mass media, especially by those that were government owned. At times, the information was misleading because some politicians wished to appear to have come to grips with the problem. For example, the poultry project was reported in the media inaccurately. Newspapers and other media said that chickens would be distributed to individual farmers, which was not the case. It was only through interviews that the researcher managed to get a factual picture.

Informants stated that most communication activities have been successful, judging from the response of the people to the message. In a survey, it was found that the rate of deviancy was small in that fewer than 15,000 acres were actually planted during the cancellation period.

Temporary employment projects received a cool reception from some farmers in the beginning. However, as they saw other farmers receiving substantial remuneration for two days of work (M\$30), they appeared for assistance. In the senior officers meeting held on April 9, 2,458 people were reported to be employed under the project as compared to 1,016 on March 26.

Informants felt that there was no communication problem in the poultry project. The project calls for the distribu-

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tion of chicks to the FAs, which would then carry out local distribution as one of their permanent activities. Facilities were made available by the Department of Veterinary, and marketing was handled by the Federal Agriculture Marketing Authority (FAMA).

SUBCASE THREE: KURSUS TEMPATAN

INTRODUCTION

The establishment of MADA under Section 9 (1) of the Muda Agriculture Development Authority Act of 1972 meant the introduction of double cropping of padi in the region and the introduction of an integrated farming system for the first time in the country. These concepts challenged farming practices that have existed since the region started in as a padi cultivation center (the "rice bowl" of the nation) in the fifteenth century.

For generations, the area farmers practiced single-crop plantation. Farming knowledge is virtually handed down from one generation to the next. Some of these practices were classified as unsuitable and incompatible with MADA's goals. For example, some conditions prevalent in this region were: the farmers' lack of knowledge of protection for their farms against pestilence and diseases, their inability to incorporate improved agricultural inputs such as fertilizers and insecticides into farm activities, the lack of cohesiveness among farmers, and the custom of using traditional practices to solve practical problems (such as religious incantations as part of planting activities to ensure bumper crops).

To alleviate some of the problems, MADA designed farmers' training programs as one of its extension and communication strategies. This led to the establishment of the Farmers' Training and Extension Section within the Division of Agriculture. Working closely with the Agriculture Department, this section initiated five courses for farmers' training. In conjunction with the State Department of Agriculture, MADA assumed responsibility for the state-owned Farmers' Training Center to facilitate the program. One of the five courses is the kursus tempatan (hereafter known as kursus, a Malay equivalent for "course").

The purpose of this subcase is to examine and analyze communication planning processes within this kursus particu-

larly and other courses in general. Kursus tempatan is a communication project of MADA providing wider latitude in identifying communication elements as practiced by the organization.

Three methods used to gather data for this subcase were: interviews with the planners and the staff who were involved in this kursus, examination of documents, and observation of one course being conducted in the scheme.

The primary document was a 1977 publication entitled "Extension Strategies in Agricultural Development--MADA's Approach." This document highlighted the five extension strategies practiced by MADA. One kursus conducted in March 1979 in FIDA 3, Kodiang (Locality IIA) was also observed.

#### NATURE AND SCOPE OF KURSUS TEMPATAN: A BRIEF DESCRIPTION

The Farmers' Training and Extension Section was set up within the Division of Agriculture in 1972. Five courses were developed to meet the objectives of the organization to train and orient the farmers of the region: the Rice Technology Course, the Farm Mechanization Training Course, the Leadership Training Course, the Farm Women Training Course, and the kursus tempatan.

The Rice Technology Course aims at teaching young farmers (especially farmers' dependents) modern methods of rice farming. In conjunction with the Federal Farm Mechanization Center (of the Ministry of Agriculture), the Farm Mechanization Course trains the youth population of the irrigation scheme in the mechanics and operations of farm machinery. The Leadership Training Course encourages farm leaders to participate in a course to broaden their knowledge in various aspects of farm leadership. The Farm Women Training Course reaches females, including farmers' wives and daughters.

These courses are targeted to train various components of the population. However, to reach farmers as a group, the organization evolved the kursus tempatan, which is designed differently from the other courses. In the other four courses, participants are required to enroll and attend training sessions at the Farmers' Training Center, but kursus tempatan trains the farmers within their own social and physical environment. This course intends to "bring technologies down to the farm gate rather than expecting the farmers to collect information from the government offices. . . ." (Ho 1977:17).

## THE PROBLEM

As mentioned earlier, MADA is responsible for administering the irrigation scheme for the government. The main objectives of this scheme are to facilitate double cropping and to improve the socioeconomic well-being of the area population. To achieve these objectives, MADA introduced an integrated farming approach.

As the organization discovered in the beginning, the tasks were not that simple. This became more obvious when the organization realized that to introduce this integrated approach and a new economic order of farming into the scheme, it had to deal with traditional planting methods as well as social customs of the people. In some cases, these methods and customs are inconsistent with modern agricultural practices.

As stated in the document (Ho 1977), the organization anticipated that to meet the objectives of the scheme, three activities had to be accomplished: a change in the general attitude of the farmers toward progressive agricultural practices; establishment of the required infrastructure; and the introduction of technology. The kursus is aimed at accomplishing the first while facilitating the other two activities.

## THE PLAN

The objective of the kursus is to strengthen the relationship between the change agent and the farmers and at the same time "bring technologies to the farm gate." The hope is that this course will change the general farming attitudes to facilitate the introduction of improved farm practices. At the same time, the course has been seen by the organization as a way to break the traditional bureaucratic barrier between government servants (MADA) and farmers. Furthermore, the organizers hope that the interaction between the agents and farmers will create a favorable atmosphere for the mutual exchange of ideas and the development of empathy between extension workers and the farmers.

MADA targeted about 100 kursus to be conducted in 1979. This reflects the priority and emphasis that MADA has given to this course as one of its extension strategies. Table 1 also reflects an increase in frequency as compared to that of previous years.

Table 1. *Kursus tempatan*: Frequency and Participation

Year	Frequency	Number of Participants
1973	13	698
1974	26	2,160
1975	27	2,115
1976	40	2,604
1977	49	4,573
1978 <sup>a</sup>	80	4,800
1979 <sup>a</sup>	100	6,000

Source: MADA, 1979 Annual Budget.

a. These are estimated figures and have been added to the number of *kursus tempatan* of the Muda 2 project.

Near the end of 1977, the number of participants that the kursus reached was 12,150. This figure represents about 20.3 percent of the farmers in the region. In 1978 and 1979, the extension activities for the Muda 2 project began, and since these activities have been designed with the kursus tempatan concept in mind, the frequency has increased twofold. This supports the priority and importance of this course to the planners. With the increase, planners have also asked the government for additional staff for the Training and Extension Section.

Several reasons have been given to justify training farmers within their own social and physical environment. First, the planners knew that the farmers were unfamiliar with the classroom style of training. They felt that the formal classroom was foreign to these people and the comparatively uneasy and unrelaxed atmosphere could inhibit the desired rapport that the organization hopes to build between the trainers and the farmers. Furthermore, a formal training environment may alienate the farmers from the trainers, a problem that is prevalent in other government development agencies. As stated in the document, "In the first place, the farmers are not used to sitting in chairs with desks before them for a long period, just listening to a lecture. On the other hand, they are unable to leave their fields for any length of time" (Ho 1977: 18). Therefore, the planners felt that to remove the farmers from their normal atmosphere for any length of time for formal classroom training sessions could undermine the effectiveness of the course.

Second, training farmers within their own environment will encourage a relaxed and easy atmosphere, leading to

better rapport between the trainers and the trainees. Since one objective of this course is to train farmers in using recommended methods of farming, this rapport could ease the acceptance of the message.

Third, having participants who come from similar environments could further help the effectiveness of the course. Acquaintance among colleagues or peers attending the same course could lead to the achievement of functional and situational relevance. However, if participants are from different areas with different problems, it was felt that the trainers would have difficulties keeping the instructional material relevant and might encounter problems that may not be immediately solved.

Kursus tempatan is a one-day course, normally confined to one village at a time. This course can be held in the homes of farmers, in mosques, suraus, and community halls, or in schools. Selection of a site would depend on availability and convenience.

A day-long kursus normally begins at about nine or ten in the morning and ends at four or five in the evening. The exact time will depend on the accessibility of the locality as well as convenience for the participants. Detailed arrangements are made by the village leaders and the FAs. On the average, about 50 to 100 farmers attend. The organization prefers groups to be as small as possible. Among the general topics presented in a course are:

1. Reorientation of farmers' thinking toward attitudinal change.
2. Importance of mental and physical change as a basis for development.
3. Padi technology--yield maximization and costs minimization.
4. The irrigation system of Muda and MADA as an organization.
5. Pest surveillance and control and padi diseases.

As a final note, the following abstract may illustrate the degree of concentration MADA gave to this course:

As the implementation of the Third Malaysia Plan is gaining momentum, the training program has to be stepped up to keep pace with the tempo of development. The extension workers will have to be updated with the latest technology (knowledge) from time to time. The number of training courses will also have to be increased to cover a wider spectrum of topics with the aim to acquaint farmers with up-to-date technologies in farming and new concepts in development. MADA has taken steps to form more travelling discussion groups to conduct kursus tempatan. It is hoped that eventually every district will have their own personnel and schedules of kursus tempatan where the trainers include not only extension staff but also innovative farm leaders from (among the farmers). (Ho 1977:19)

#### THE IMPLEMENTATION PROCESS

The kursus tempatan is scheduled in two ways: either by the organization or as requested by the farmers. Normally, if the kursus is scheduled by MADA in a village, that decision would probably be based on the village's needs. For example, if farms in a village have recently been attacked by a disease, the organization would bring its kursus tempatan to that village. Or, if another village is found to have fewer members in the FA, the extension activities would probably be conducted there.

There are times when farmers request that such a course be conducted in their village after hearing that the extension workers had visited a neighboring village. Also, a SAU leader who feels his group needs to participate could initiate a request.

In both cases, kursus tempatan would be arranged by the FAs. Both parties (i.e., the extension workers and the farmers) rely on the FA manager to act as the contact. In most cases, the manager will be present during the course and will at times make the opening speech.

In most cases, a kursus extension team would comprise three extension workers assisted by the agriculture assistant in charge of training. The selection of who is going to discuss what will be made before the day of the kursus. Nevertheless, at times the general extension training makes it difficult to see the differences in specialization these workers have.

Farmers are introduced to three general areas: MADA--its goals and objectives; farmers as a factor of production and the economics of padi farming; and pest detection, surveillance, and control.

The general approach of kursus tempatan as designed by MADA was considered well-defined, though flexible. The implementation of this course had frequently been based on format and content as well as on the specific needs of the area and the specific roles of the extension workers.

#### THE PLANNERS

The Training and Extension Section is one of six established under the Division of Agriculture. It is headed by Ho Nai-Kin, an agronomist and former head of the Northern District PA. This section had been guided by Rahim Salleh, who at that time headed the Input/Development Section. Ho's appointment as head of this section meant that for the first time it has a full-time officer solely responsible for training and extension.

The Training and Extension Section is responsible for the running of the Farmers' Training Center of MADA through which the five training courses are conducted. In addition to these five, the center is also responsible for every aspect of staff in-service training for MADA.

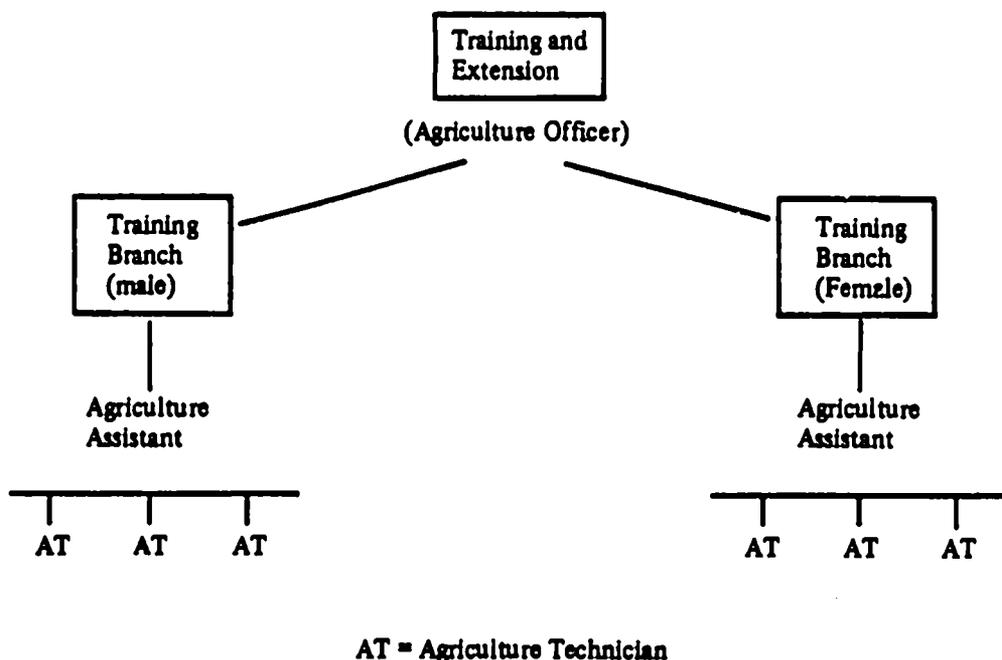
Two agriculture assistants assist Ho in this section. Each is responsible for the two components of the Training Center: Training Branch (Male), responsible for kursus tempatan, and Training Branch (Female). Three agriculture technicians run the former course. These officers are trainers who provide the major component of extension knowledge for the training curriculum of kursus. The general structure of this section is shown in Figure 7.

The agriculture assistant for the Training Branch (Female), Faridatol Zaharah, graduated with a Diploma of Agriculture from the University of Malaya and has been with the organization for several years. Her counterpart in the Training Branch (Male), Haji Abdul Halim, is an acting agriculture assistant and a graduate of the Agricultural Institute. He has been in his present position since 1978 and with the organization for several years.

Both Faridatol and Haji Abdul Halim have broad educations in agriculture but little formal experience in farmers' train-

ing. Both are assisted by agriculture technicians who have minimal formal training in agriculture. They have been assigned to this section because of their experience, in-service training, and length of service.

**DIVISION OF AGRICULTURE**



**Figure 7. Organization of Training and Extension Section**

**THE RESOURCES**

Financial allocations for Training and Extension have increased over the years. In 1977, the allocation was M\$148,095.15, in 1978, M\$215,420, and in 1979, M\$280,600. However, the M\$65,180 increase from 1978 to 1979 (26.9 per-

cent) stemmed from the kursus activities for the Muda 2 project as well as other training activities. In the 1979 budget report, the organization requested an increase of section staff members: one agriculture assistant and two agriculture technicians. However, it is difficult to determine the actual expenditure for the kursus from the organization's financial report. The allocation for this activity could have doubled because the organization hopes to conduct about 100 courses to reach about 6,000 farmers.

Since agriculture technicians are mainly responsible for the kursus, the content is designed to stimulate the interpersonal contact between the organization and the farmers. These technicians are considered important project resources.

In 1978, two technicians from the Training Branch (Male) retired. They were Haji Shafie and Rahim Ahmad, who were later rehired by the organization to be responsible for the extension activities of the Muda 2 project. Rahim was the acting agriculture assistant of the Training Branch (Male) before he retired.

The present agriculture assistant for the Training Branch (Male) is Haji Abdul Halim, who is assisted by two new officers, Yusof Bakar and Osman Abu Bakar. The latter was also rehired by the organization after his retirement as an irrigation inspector. Before the retirement of Haji Shafie and Rahim, the branch drew upon the experience of senior officers whom the organization depended upon to communicate with the farmers.

However, since the retirement of the two experienced personnel, this branch must rely on the expertise of its middle-aged and younger workers. Both Abdul Halim and Yusof (in their early 40s and late 20s, respectively) interned under the guidance of their retired counterparts. Both say they gained much experience from their teachers, which was evident in the styles displayed by these two young officers and the two elder officers in separate activities.

Both pairs come from the Muda region. All except Yusof were with the Department of Agriculture before opting to join MADA in 1970. They speak the local dialect (twang) and have no difficulties in communicating with the farmers.

Haji Shafie and Haji Abdul Halim have strong religious backgrounds. The planners felt that this was an asset to the training activities of the organization. As a result, the

extension staff members built their presentations upon religious teachings. Yusof tends to adopt this approach remarkably well.

With the retirement of Haji Shafie and Rahim, the organization faced staff shortages. As a result, the organization rehired Osman after his retirement and assigned technicians from other sections to the training branch. For example, pest surveillance and control inputs to the kursus are now handled by Rahman Tahir, who is attached to the Input/Development Section. Rahman also had been with the organization since its formation in the mid-1960s.

In several interviews with these staff members, the first impression is that they are humble people who believe that they have important jobs to do for the organization. This is based on their belief that the achievement of MADA's goals depends entirely on the farmers' acceptance of the concepts and the organization of MADA and of the ideas and information it extends.

Most of them are aware that their tasks are more complex than people may think. They feel that their audiences are already predisposed to certain concepts of padi planting. Nevertheless, these staff members feel a great need for additional training for the farmers. They would prefer it to be known that they are "working with" rather than "working for" the farmers.

The officers see their role more as agents of canalization and supplementation than as agents of change. As a scheme progresses, these roles are becoming more and more pronounced as the farmers begin to use modern approaches to farming. For example, they now think that the question of teaching the farmers to use fertilizers is no longer relevant since all of them are using fertilizers. But these farmers are still uncertain as to the amount and time when fertilizers should be used. The officers see their role in the canalization of present beliefs as well as increasing knowledge of improved farm practices.

They sometimes feel they are reinforcing existing predispositions, especially in farmers who have no previous contact with the organization. Normally, these farmers rely on information from their peers. Those who have no kursus experience could use this course to ascertain whether their peers are using the right input or following the recommended approach. The course could also be used as a supplement.

To give a course greater impact, the staff believes that it is important at the beginning to fill the psychological gaps that exist between the farmers and the organization as a government agency. If this gap persists through the duration of the course, their goals may never be realized.

One way of handling this, as indicated by Haji Shafie, is to use the existing conditions and predispositions of the audience. This is why, he said, the organization uses religion as a tool to disseminate agricultural messages to the people. Furthermore, he added, the idea of human development is nothing new in Islam and the religion propagates the idea of progress.

#### THE ENVIRONMENT

The planners named the physical and social environments of the farmers as major factors for the establishment of the kursus tempatan. This is particularly so when the organization realized that it could be more effective if the training could be taken to the farmers rather than bringing them to the training center. Furthermore, a long absence from the field would be impossible for the farmers, so the concept of "bringing the trainers to the farm gate" has been more desirable.

Most of the farmers did not spend more than five years in school, and if the training center is used for this purpose it will be alien to some of them. The kursus tempatan tried to deemphasize the structured methods of training the farmers by having the training situation resemble the farmers' environment as closely as possible. Judging by the number of participants this course managed to reach, this method of training has achieved remarkable success.

The social and religious environments have greatly influenced the characteristics and orientation of the trainers. In a Malay community, the concept of the young learning from the old is still persistent. Therefore, the organization must rely on elder officers. In addition, the religious knowledge of these trainers is an asset to MADA as a whole and to the training activities in particular.

DISCUSSION AND CONCLUSIONS

INTRODUCTION

Based on the foregoing description, further analysis of the communication planning processes of the Muda Development Authority can be generated at this stage. This section begins with cross-case summary and analysis of the three subcases presented using the six conceptual areas of analytical aids. It is hoped that the analysis will aid in developing general typologies to help in the understanding of the general planning proposal. These proposals will be presented at the end of this discussion.

COMMUNICATION PLANNING FRAMEWORK

The study's objective is to conceptualize, describe, and analyze the communication planning processes of MADA. To this end, communication planning has been defined as: "the process of allocating communication resources to achieve organizational goals, where communication resources not only include the media and interpersonal forms of communication but also forms of organizational action designed to change levels of information or skill among individuals or groups within the organization's task environment. This process involves the creation of action by the application of theory (or images) to date" (Middleton 1978:4).

In describing these phenomena, the study is guided by six areas of inquiry, which act as conceptual guides in the examination of projects and communication planning parameters. These variables are: the planners, the problems, the process, the resources, the environment, and the plans. Although analytical discussion will be generated through the use of these planning variables, the data collected may not be sufficient for a comprehensive understanding of all six variables. Moreover, the three cases chosen (the Muda 2 project, the drought relief program, and the kursus tempatan) were purposely selected and may not be representative of the full range of planning activities of the organization.

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### The Planners

In discussing the organization's planners, several features can be highlighted. First, MADA is an extension agency of the government and a development institution charged to design, plan, and implement agricultural development in the Muda irrigation scheme. As a result, staff composition reflects recruitment of specialists in the required areas of development such as agriculture and engineering.

Second, staff composition reflects a dynamic group of people with diversified training and experience. The Division of Engineering employs the largest number of people—1,042. This division is headed by a senior engineer, assisted by other engineers, technical assistants, and technicians.

The Division of Agriculture employs 265 people, including two senior agriculture officers, five agriculture officers, 40 agriculture assistants, and 154 agriculture technicians.

Several MADA economists are assigned to the Planning and Evaluation Unit, in addition to a sociologist, a systems analyst, and an assistant librarian. Other personnel include an administrative officer and assistants, a public relations officer, an agriculture information officer, accountants, and other support staff.

Since the underlying strength of the organization is based on coordination between the two main divisions (i.e., Agriculture and Engineering), staff compartmentalization can be a constraint, especially when programs call for an integrated approach to planning. Furthermore, the physical set-up of the central office\* provides a greater basis for compartmentalization due to the absence of personal contact between officers of the central office and those in the Division of Engineering.

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\*The Office of the Division of Engineering is about 7 miles from the central office. By the end of 1979, the Division of Agriculture was also to be moved to another temporary site to make room for expansion. These moves were made due to the limited space MADA had at its temporary site in Teluk Cengal. A new permanent site has been approved by the state government and should be completed in about four years. Once completed, MADA hopes that all its divisions and units will be located under one roof and thus physical distance would be eliminated.

The data indicate that this compartmentalization leads to a form of division autonomy, and this autonomy seriously affects the opportunity of communication units to serve the available compartments such as the Division of Engineering and the Division of Agriculture. Compartmentalization and the type of training that the staff receives in the educational system indicate that efforts to integrate would be difficult. As stated earlier, the Malaysian educational system closely follows the British tradition. Under this tradition, a strong faculty system was emphasized, and multidisciplinary education is still uncommon. Under the faculty system, a student who undergoes training in a discipline will be bound to that discipline alone. If it is required, crossing of disciplines can only be done with strict adherence to formally prescribed guidelines. These do not usually include any courses in or directly related to communication or communication planning.

This educational system is strongly entrenched in physical and applied sciences such as engineering and agriculture. In an engineering faculty, it is rare for social science courses to be offered. The ability of students to receive adequate understanding in this area is seriously impeded by the number of core requirements and the lack of specific communication content in the courses. Furthermore, agricultural extension is regarded as a service discipline rather than a major. In both agricultural and engineering training, the opportunity for students to master communication skills is seriously limited. Formal training of most MADA professionals does not include communication content, and concepts and images are not prevalent in their planning and other activities. In the Muda 2 project, the problem of compartmentalization was explicitly stated in the Feasibility Study Report.

The structural framework of the organization makes it apparent that staff composition can be divided into three distinct, but not necessarily exclusive, categories based on the decision-making power for planning as well as on status, role, and function. These are the high-level, mid-level, and low-level planners.

The high-level planners are the senior officers. At this level the composition could be considered totally mixed, since it incorporates different types of personnel in the organization according to training and experience. The staff have university degrees or professional qualifications. Table 2 shows the staff in this category.

**Table 2. Planning and Coordination of the Muda Agriculture Development Authority**

High-level Planning	Mid-level Planning	Low-level Planning <sup>a</sup>
Senior officers' meeting Administrators Engineers Agriculturists Economists Sociologists Public relations officer Agriculture information officer	Divisional meetings <sup>b</sup> These meetings comprise only part of the staff. For example, in the Division of Agriculture, meetings are confined to agriculture officers and in the Division of Engineering, to engineers	FA directors' meeting Farmers Agriculture technicians Economics, extension, credit, etc. Technical assistants Irrigation inspectors, irrigation overseers, etc. FA manager and FDC management

a. These planning levels are not necessarily mutually exclusive. There are several links between high- and mid-level planning and between mid- and low-level planning.

b. Applicable only to the Agriculture and Engineering Divisions; no meetings are scheduled in other divisions or units.

Mid-level planners are represented in division meetings (in this case, the Division of Engineering and the Division of Agriculture). Most staff members have diplomas or certificate qualifications, and some have university degrees.

In the Division of Agriculture, senior agriculture officers, agriculture officers, and agriculture technicians are considered members. Senior engineers, engineers, technical assistants, and technicians attend Division of Engineering meetings as members.

The low-level planners are at the locality level and are represented by the farmers' associations and Farmers' Development Centers (FA/FDC). Here the farm leaders, through the Board of Directors, meet with MADA field staff (FDC management). Most of them have only general and miscellaneous training, and some have none. However, discussion of implementation is more dominant than abstract planning at this level, and what planning takes place is more interpersonal, informal, and rudimentary.

Different types of planning done at these three levels are well illustrated by the three case studies discussed earlier. At the highest level, fundamental planning is called strategic planning. This is a process of deciding the general content area or activity and the outcomes or goals of an acti-

vity without looking into the means, methods, and mechanics of how these outcomes and goals can be achieved.

The Muda 2 Project Feasibility Study Report is an illustration of strategic planning. In this report, the actual plan was based on six pilot projects. Detailed work that needed to be done before implementation of the project was not specified.

In the case of the drought relief programs, similar strategic planning was done at the senior officers meetings. In these meetings, decisions were made primarily on the types of projects to be conducted to alleviate the drought situation. For example, it was decided that the organization would undertake the temporary employment, poultry, and cash-crop projects; however, it was not determined how the programs would be carried out.

The operationalization of these plans was apparent in the mid-level planning, the divisional meetings. This middle level is primarily involved in operational planning, the process of itemizing and detailing a plan so that it is ready for implementation.

When the Feasibility Study Report had been approved for funding by the government, the Division of Engineering was given the task of laying out the 37 areas earmarked for the first phase of the project. These layouts contained graphic representations of irrigation systems to be constructed, farm roads to be built, and drains to be positioned. These were absent in the Feasibility Report.

In the drought relief program, itemization and planning details were also worked out in mid-level planning. Operationalization of the decision to distribute 40,000 chickens included specifying distribution points, deciding which FA would get how many, and determining manpower needs for temporary employment. An ad hoc committee was formed to register the eligible farmers in each locality. Although not explicitly stated, managers' attendance at the Division of Agriculture meeting (mid-level planning) could indicate that the various FA Boards of Directors would eventually be informed of the organization's decisions.

At the locality level (low-level planning), the process is more one of implementation than of planning. Here the concern is to implement those projects that have been operationalized by the mid-level planners. Decisions might involve how

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chicken barns will be constructed, who will be responsible for the construction, in which areas of the locality temporary employees will be working, and who will supervise.

The implication of these three levels of planning is more pertinent if we differentiate program (or project) planning from communication planning. The analysis of MADA's planning style can be seen as more valuable for program than communication planning. Communication planning did not actually progress through these three levels, and it is uncommon for the mid-level and the low-level planners to plan for communication activities. One reason is the absence of communication specialists at these levels. At senior officers meetings, the presence of individuals such as the agriculture information officer and the public relations officer assures the availability of staff trained in communication to help make communication decisions at this level.

Since there is an absence of mid-level communication planning, we can see that communication planning in MADA most often remains at the level of strategy statements. Translating this into operation becomes a predominantly decentralized activity and is stated and carried out largely in terms of physical implementation. This is contrary to program planning, in that operational planning is central at all levels. This proposition can involve the identification of communication problems.

Because of the educational system, only a few staff members have cross-discipline training. The majority are trained in the strict traditions of agriculture (agronomy, entomology, economics, etc.), engineering (mechanical, civil, electrical, etc.), and economics (principally rural). Generally, about 80 percent are trained in those disciplines, with 95 percent of the staff responsible for planning decision making in the Division of Agriculture and the Division of Engineering being trained in those areas. Thus, in most cases, no formal courses were taken in communication or in such disciplines as sociology, psychology, or anthropology that entail some concepts, aspects, or background relating to communication.

This is significant for the program planning processes of the organization. Since most of these individuals are trained and experienced in physical disciplines (agriculture, engineering, and economics), program planning tends to follow this direction. That is to say, most of the problems and plans that MADA undertakes are stated mainly in physical rather than social or communication terms. This will be further substantiated later in a discussion of the organization's plans.

One exception to the traditional educational system is Dr. Afifuddin Haji-Omar, who had cross-disciplinary training and education. In his early forties, Dr. Afifuddin is well-rounded academically: a B.Sc. from the University of Malaya (agronomy), an M.S. from the University of Kentucky (rural sociology), and a Ph.D. from Cornell University (political economics). He joined the organization during the 1967 pilot stage and has had considerable contact with farmers. He first joined as an agriculture officer, later became a sociologist, and is now the head of the Division of Agriculture.

Through his training and experience, Afifuddin has been instrumental in introducing modern farming concepts into the scheme and farm management into the organization. He introduced the concept of "participatory economy" to MADA when he realized that farmers should not only be padi merchants but also should be involved in other aspects of padi production, providing agricultural inputs as well as outputs. He realized this while redefining the roles of the farmers' associations. FAs in the scheme are not only providing farm credit but are also actively involved in the furniture industry, footwear production, and other nonagricultural activities.

Dr. Afifuddin encouraged the FAs to form a conglomerate that would compete with other enterprises serving the Muda scheme. This led to the formation of the Syarikat Perniagaan Pertanian MADA (MADA Peasant Trading Company Limited), which has capital of M\$600,000 and approved capital of \$M2 million. Its main objective is to meet the fertilizer and insecticide needs of the FAs and to be involved in the tractor industry. Since its establishment, this company has supplied over 40 percent of the scheme's input, once a monopoly of private business organizations.

In agricultural extension activities, . Afifuddin made his presence felt by conceiving the idea . kursus tempatan. As a native of the Muda scheme, he felt that farmers do not need to be taught how to farm, something they have been doing all their lives. What they need is guidance toward improving farm practices, a need that kursus tempatan can meet. He felt such a course can also be used to sensitize the population to the organization's activities.

Dr. Afifuddin's leadership also permeates the attitude of his staff, from agriculture officers to agriculture technicians. Concepts such as "participatory economy," "working with the farmers rather than working for them," diffusion of innovation, and two-step flow theory are often voiced.

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Like Dr. Afifuddin, most MADA staff come from within the Muda region and many have agricultural backgrounds. The organization commonly employs people from the region with at least some agricultural experience. This practice has three advantages: first, it reduces the rate of staff turnover (a major problem in the beginning); second, individuals know what needs to be done for the scheme since they understand the problems of the area; and third, it helps to minimize the psychological alienation that may exist between farmers and staff members (as government officials) and maximize identification and empathy.

Most staff members interviewed feel that they play an important role. They see themselves as "prime movers" of development efforts in the scheme. They know that MADA's responsibility is to provide facilities to improve farm practices but also realize that these facilities should match the desires and needs of the people and the environment—socially, economically, and physically.

They view planning as a discipline and hope it will be more fully integrated in the future. Furthermore, they realize that they are working in a small but difficult environment which makes the achievement of some visible successes all the more important. A lack in this area could lead to erosion of the credibility MADA has carefully built, so they want to avoid haphazard planning.

From several interviews with the planners, it is apparent that they have certain prevailing images about planning. For example, Dr. Afifuddin defined planning as a systematic process of looking at situations. These situations include the problems, solutions, alternatives, resources, and implementations that should be examined considering the environment. All these should not and could not be done at a random and hypothetical level. In Malaysia, planning had previously been done without any theoretical framework. Problems had been handled haphazardly and tended to be pigeonholed, with decisions made inconsistently on an ad hoc basis. This is especially true for rural development planning.

The organization's commitment to planning can be illustrated by a document published by MADA in 1972 entitled, "The Cornerstone of Agriculture Development: Conscious Planning and Systematic Implementation." This publication contained four articles, all written by staff members. These articles not only reflect staff awareness of some important elements of planning but also show the desire to incorporate these ele-

ments in their daily activities. For example, the following abstract is pertinent to the discussion:

Careful planning is essential to orderly and effective implementation of a development program. The formulation of development plans is a two-step process. First, the planner must determine the objectives of agricultural development. Second, specific methods or programs must be determined. It is essential that the determination of objectives precede the selection of method. Unless the objectives have been articulated, methods cannot be evaluated in respect to objectives. The importance of such evaluation cannot be overstated. . . . A development plan should never be implemented until its originators have established that the plan is physically sound, economically feasible and socially acceptable. The counsel of scientists, economists, and sociologists is necessary at every stage of the planning process. (MADA 1972b:3-5)

However, when asked what their image or understanding of communication planning is, the planners tended to narrate activities without really answering questions. The researcher believes this is so because explicit communication planning is not common within the organization or at least within the everyday practice of MADA, a task- and activity-oriented organization. However, this does not necessarily mean that MADA ignores communication planning entirely. On the contrary, in the drought relief programs this researcher witnessed many communication planning decisions made in meetings such as those of the senior officers. This is seen as program planning--communication is not explicitly recognized.

### The Problems

It was suggested earlier that most of the program planning done by MADA has been in terms of physical outputs rather than social outcomes, which the Muda 2 project and the drought relief programs reflected.

In the Muda 2 project, the planning of means overwhelmed the planning of outcomes, with most attention given to the process of studying the potential of the alternative means. In the Feasibility Study Report, greater attention was given to decisions made on the choice of the irrigation systems. From the document, one sees that the systems were selected on the basis of their economic viability, longevity, and maintenance requirements.

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Similarly, in the case of the drought relief programs, temporary employment, poultry, and cash cropping are seen as some of the projects selected to cushion the farmers against hardships brought on by the drought.

These examples strengthen the generalization that in most cases, MADA planning concentrates predominantly on physical development of the programs. This assumes that these physical buildups will positively affect the goal, that is, to improve the welfare and quality of life of the population. One explanation lies in the nature of the planners. Because of their training in the physical and applied disciplines, their planning activities tend to go in that direction. The lack of attention to social benefits in program planning leads to neglect of communication planning (or communication input into the program planning decisions).

In the Muda 2 project, there are several communication problems that may be considered in the problem definition of the project. What appears in the Report are some of the physical problems that the irrigation scheme is facing.

Nevertheless, in implementing this project, several communication activities have been carried out (for example, the kursus tempatan designed especially for this project).

As a result of neglect at the higher level, many of the communication decisions made in MADA were decentralized, giving operational planners ultimate responsibility for determining communication activities. In addition, the problems encountered by MADA are usually seen in physical rather than social terms, and communication is normally not recognized as a part of the problem. This is especially true in the case of kursus tempatan. High-level planners gave suggestions only as far as how many courses would be offered annually rather than what their nature and content would be. The extension workers were given wide latitude to select course issues and content. As a result of this decentralization, the application of communication theories or images depends on the capabilities of the staff undertaking communication responsibilities.

There are two reasons for failure to identify communication problems in organizational planning decisions. First, the emphasis on the physical problems and outcome of the project overshadowed attention to the project's social goals directly involving people. As a result, communication was not required at the problem definition and planning stages but only needed during the implementation phases, if at all.

Second, the specialized training of the planners rarely includes communication considerations, which further explains why communication problems failed to be identified in the planning and implementation activities of MADA.

### The Process

In 1977, the organization published an article outlining the strategies that it hoped to implement for further extension activities. Entitled, "Extension Strategies in Agricultural Development—MADA's Approach," it was written by the head of the Training and Extension Section and listed the following strategies (Ho 1977:20):

To achieve the aforementioned objectives, the major extension strategies are as follows:

- (a) Formation of field work groups to strengthen organization at the field neighborhood level.
- (b) Establishment of a functional linkage between change agents and change recipients.
- (c) Organization of large-scale pilot demonstration projects to verify new farm management practices.
- (d) Stepping up the training program to cater to the felt needs of farmers and their families.
- (e) Introduction of farm budgeting methods as a management tool for small farmers.

Although some of these may not necessarily be extension strategies per se, it can be assumed that they explicitly state the general extension philosophy of the organization.

The following abstract represents the conceptualization of strategy (d) (Ho 1977:13):

In the rural community, the vicious cycle of low productivity with the consequent poverty, malnutrition, ill health, illiteracy, lack of skills, population explosion, and unemployment is prevailing. At its early stage of formation, MADA was fully aware that to alleviate these pervasive problems and construct a dynamic rural society, three major processes are necessary, namely:

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- (a) changing attitudes,
- (b) establishment of infrastructure, and
- (c) introduction of new technology.

The above processes must be carried out in stages and in close coordination. The success or failure of these processes depends mainly on the effectiveness of extension work.

The main function of MADA's extension workers is to assume the traditional role of an informal out-of-school educational service to train and influence farmers and their families to adopt new farming practices and concepts of life.

In the programming of training activities for farmers, MADA adopted a communication technique that emphasizes the following considerations:

1. understand the social structure of farmers,
2. discover where group interest lies,
3. find out the level of knowledge of farmers,
4. find out the prevailing sentiment of the group,
5. keep training programs flexible,
6. use local leaders,
7. use existing agencies where trained specialists are available,
8. work with all family members,
9. help farmers identify and recognize their needs,
10. make programs cover as broadly as possible all the major needs of the farmers,
11. continue evaluation and analysis to discover shortcomings and pitfalls in the training program, and
12. keep in line with national policies.

Some of these programs have been put into practice through the five courses developed by the organization to train farmers. For example, its training program for farm housewives and farmers' daughters is consistent with the general strategy of working with all members of the family, as is the strategy of using local leaders in meetings about the Muda 2 project.

In implementing the kursus tempatan, some of these strategies have been articulated by the staff. Interviews with some of the extension workers show that they are conscious of their audience in terms of their social structure, interest, knowledge, and sentiment. This is especially true for those workers who come from the same background as the audience.

However, the general communication activities of the organization, as stated earlier, are decentralized. These processes seem to have been adopted by lower-level staff in all divisions and units in MADA. One reason for this may be the absence of mid-level planners for communication.

It is apparent that this centralized planning structure is consistent with planning for MADA projects but not for communication planning. Communication planning generally is not used at the mid-level structure because there is no mechanism in MADA for such a purpose. What appeared at mid-level planning (that is, in the divisional meetings of the divisions of Agriculture and Engineering) are considerations of the physical products of the project, with minimal discussions on communication activities. Thus, as a generalization, the absence of mid-level planners for communication planning in MADA, leads to the inability of the organization to put communication planning decisions into operation at the middle level. Should these decisions be made at the highest level, the burden of operationalization is on the mid- or low-level staff who implement the projects.

The MADA communication process can be divided into two parts. One deals specifically with routine activities and the other with nonroutine, or crisis, situations (see Table 3).

A routine activity is one that is repeated regularly either once a year or during a planting season. Such activities could include the distribution of agriculture inputs and related information, the announcement of a planting schedule, pest surveillance and control, and so on.

Table 3. Communication Process and Resource Options in the Muda Agricultural Development Authority

Activities	Channels
<b>Routine</b>	
Distribution of agricultural inputs (fertilizers, insecticides, seeds, machinery, etc.) and announcements concerning them	Farmers' associations
Pest surveillance and control operations	<i>Kursus tempatan</i> — routine
Drought relief inputs	Planting-schedule billboards and posters
Planting schedule announcements	
<b>Nonroutine/Crisis</b>	
Muda 2 project	Briefing for leaders
Quelling rumors	<i>Kursus tempatan</i> — special
Drought: Planting season cancellation announcements	Mass media (radio, newspapers, leaflets, handouts, mobile vans)

A nonroutine or crisis activity is one that may or may not be planned and may not necessarily be repeated. Included in these activities are the Muda 2 project, the cancellation of a planting season due to drought or other circumstances, and efforts to quell a rumor.\*

To accompany these activities, the organization used several communication processes or channels through which relevant information could be disseminated. The previous discussion seems to imply that in routine activities where actions are repeated, the following channels could be used: the farmers' associations (the FDCs), the kursus tempatan, the planting schedule billboards, and, to a certain extent, posters.

\*Throughout the cancelled season of 1978, the organization was bothered by a rumor that the coming season would also be cancelled due to the inability of MADA to furnish adequate water. To stop the rumor, the organization conducted a campaign to dispel fear and assure the people that the season would go on as usual. The organization briefed a group of farm leaders and brought them to the dams to show that water would be adequate. At the end of the campaign, the organization had reached about 560 farm leaders, most of whom were religious leaders from the 185 mosques within the scheme.

The selection of channels would depend on the nature of the activity. If the planting schedule is to be announced, the planting schedule billboards, posters, and, to a certain extent, the FAs would be used. If information about agricultural inputs is being distributed, the predominant channel is the FAs.

In nonroutine or crisis activities, the process would use different approaches. In quelling rumors concerning the Muda 2 project, the organization turned to the leaders and the kursus tempatan. In the drought relief programs, the mass media were widely used. Most of these channels could also be used in nonroutine activities.

This discussion can be extended to explain why little emphasis has been placed on communication in the planning decision. Through the availability of these resource options (that is, which channel to use for what communication problem), MADA tends to assume that it has communication mechanisms at its disposal. The researcher uses this as an explanation of why formal communication decisions are the least emphasized of all planning activities.

Two facets of the drought relief programs can be highlighted: announcement of planting season cancellation and distribution of drought relief inputs to farmers. For the first task, the organization used nonroutine channels such as the mass media and the leaders. For the second, the FAs were used, to no one's surprise. In the past, the organization had used these associations as its center for the distribution of farm inputs. Since the drought relief incentives had to reach most of the widely scattered farmers, MADA concluded that the most efficient and systematic way to achieve this was to use the same means used to distribute agricultural inputs. This is an exception to the rule of nonroutine activities.

Further comment should be made on the kursus tempatan. Table 3 implies that this course is used in both types of activities, which may not necessarily be so. In an ordinary kursus tempatan, the objectives are to train farmers to gain maximum yield per acre, to identify pests and diseases, and to control them. The objective is to share technical knowledge, but the kursus tempatan for the Muda 2 project differs slightly. Its objective is to inform the farmers of the nature and objectives of the projects and to explain the effects on their farming land. The real intention is not to teach or train but to inform. Furthermore, this kursus tempatan has been designed in two stages. First, the leaders of the community were

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contacted and briefed, then a briefing was given to other farmers. In ordinary kursus tempatan, only the second stage—general training for all the farmers in the community or village—takes place.

Another difference between the processes of routine and nonroutine activities is the articulation of the channels. It is rare for the organization to plan communication activities for routine activities. Most of these processes do not appear at all in any of the documents examined. Nonroutine activities would normally be accompanied by some indications of some of the channels to be used for message dissemination. However, this difference is not very pronounced if we look at these activities across the board.

One interesting feature is the organization's heavy reliance on interpersonal communication rather than mass-dissemination channels (see Table 3). The impression is that the organization prefers to rely on channels that it controls and prefers that the farmers be informed by the organization itself. This is related to the concept that Lazarsfeld and Merton called monopolization (the effectiveness of the message is enhanced if there is little opposition from other sources to diffuse the values, policies, or images) (Lazarsfeld and Merton 1971:554). This is especially true when most of the planners feel that the mass media do not serve the interests of the people. Furthermore, there is widespread skepticism among MADA officials about the ability of the mass media, especially newspapers, to inform the population correctly.

The evidence that communication activities in MADA are decentralized becomes more glaring if we examine some of the documents that have been distributed to the farmers. The following is a list of some documents and publications.

1. 1978: "Adakah meneukupi air tahun depan" [Will water be sufficient for the next year] by the general manager. A one-page handout.
2. (Date not available): "Cara-cara mencapai kejayaan dalam penanaman padi dua kali setahun" [Methods of double-cropping] by the general manager and the head of the Agriculture Division. A six-page brochure.
3. 1975: "Mari kita menanam mempelam" [Let's plant mangoes] by the agriculture information officer. A three-page brochure.

4. 1975: "Membebankan diri mengakibatkan kerosakan keharmonian hidup" [To overload oneself will uproot life harmony] by Haji Shafie Salleh (agriculture technician). A three-page brochure.
5. 1978: "Kemarau: Apa yang kita buat" [Drought: What we should do] by three agriculture technicians.
6. 1977: "Bena perang" [Brown hopper] by Noris Ahmad (from the Crop Protection Branch of the Department of Agriculture). A six-page brochure.
7. (Date not available): "Benih terpilih" [Selected seeds] by the head of the Input/Development Section. A three-page brochure.

This list indicates that messages for dissemination originate from many places and levels in the organization. They could also, as indicated by item 6, originate from other government departments, even though MALA publishes and distributes them. The general manager helps to compose the messages, although the brochures and handouts do not carry by-lines.

Other communication activities reflect a similar phenomenon. Initiation of communication messages is a decentralized activity, and officers responsible for project activities are most often responsible also for communication efforts. For example, item 7 shows that the head of the Input/Development Section, responsible for the distribution of seeds to farmers at the beginning of every planting season, also is responsible for designing the message and producing the brochures.

Interviews with technical assistants, particularly those responsible for extension activities, revealed that these individuals have wide latitude in communication decision making. Some of these decisions have been illustrated in the case studies, such as the kursus tempatan. They are sometimes given the freedom to decide the content, method, time, and place of information dissemination. Despite this freedom, they must keep their superiors apprised of their activities, although most of the time this is a formality.

During field activities, three farmers from a village approached Haji Shafie and Rahim Ahmad to request that they talk to a group of farm housewives. The place and time were

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agreed upon, but there was no discussion about the content of the talk. The two technicians determined the topic. This implied that not only were the technicians given wide latitude to put the organization's communication methods into motion, they also have credibility to speak on any issue as they see fit.

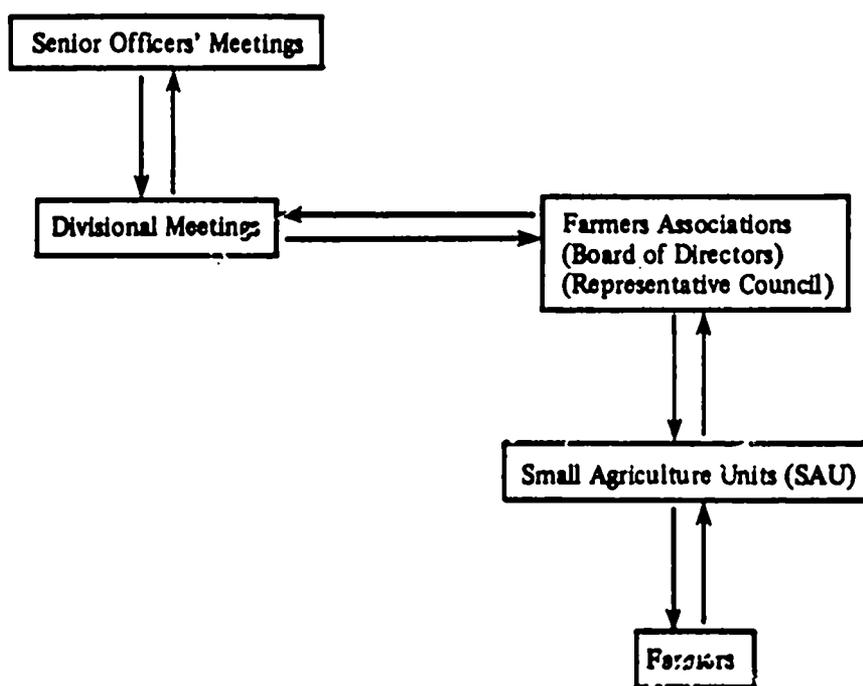
As a result, applications of communication theories and images by the organization greatly depend on the competence of its officers, who may not be trained in communication per se.

### The Resources

We should discuss communication resources cautiously. As we have seen, the organization does not rely heavily on the mass media but instead makes substantial use of the FAs and the organization's technician staff. Therefore, communication resources should include the various interpersonal and organizational means used by MADA to relay its message to the population. These should include the physical, human, organizational, and material resources at MADA's disposal.

Perhaps a second caution should be noted here pertaining to the use of FAs as a channel for communication. The underlying objective of the establishment of FAs was not so much to create a message channel as to develop a "participatory economy" image. These associations would be used as a forum to unite farmers and to use this strength to support the programs designed by the organization. As mentioned by Dr. Afifuddin, the idea behind farmers' collective movements is to pool resources before undertaking activities other than taking care of individual padi cultivation needs. One illustration is the ability of the SPPM to supply 40 percent of the agriculture inputs in the area. FAs are also active in the furniture industry, carpentry, and the marketing of nonagricultural products. Since the format of these associations is conducive to disseminating messages, they have been used as one of the many channels of communication, but they are organs for economic participation first and for communication second.

The role of FAs as channels of message dissemination should not be underestimated. MADA considers these associations important in sensitizing farmers to its activities and as a means through which it can measure farmers' sentiments. Figure 8 illustrates the link between MADA and these associations. Table 4 lists the issues that have dominated the meetings of the Farmers' Representative Council (FRC) for years. Three dominant issues (irrigation, agricultural, and nonfarm



Note: This linkage does not necessarily operate for all conditions. There are times when some parts are bypassed. This would depend on the objectives and individuals involved.

**Figure 8. Formal and Structural Communication Linkage between MADA Headquarters and the Farmers**

problems) have surfaced in key resolutions sent forward by the majority of the FAs through the FRC. As the irrigation system became more efficient and effective, other issues gained importance.

Most of the planners believed these resolutions influenced the decision making of the organization. A frequently cited illustration is the Muda 2 project. Since resolutions regarding irrigation services dominated the FAs' discussions, MADA decided to take measures to eliminate this problem, which resulted in the development of the Muda 2 project. These resolutions enabled the organization to assess the farmers' needs and requirements in the 27 localities in the scheme. It can be said that although they were created for economic purposes,

**Table 4. Resolutions of 27 MADA Farmers' Association Annual Representative Council Meetings**

Year	Resolutions	Percentage of the Resolutions	Number of Resolutions
1970	Irrigation problems	61	116
	Agricultural problems	39	74
	Nonfarm problems <sup>a</sup>	1	1
			<u>191</u>
1971	Irrigation problems	67	164
	Agricultural problems	27	66
	Nonfarm problems	6	15
			<u>245</u>
1972	Irrigation problems	62	154
	Agricultural problems	27	67
	Nonfarm problems	11	28
			<u>249</u>
1973	Irrigation problems	60	181
	Agricultural problems	25	76
	Nonfarm problems	15	45
			<u>302</u>
1974	Irrigation problems	30	105
	Agricultural problems	23	79
	Nonfarm problems	47	165
			<u>349</u>
1975	Irrigation problems	37	188
	Agricultural problems	22	109
	Nonfarm problems	41	208
			<u>505</u>

Source: Afifuddin (1978).

a. Nonfarm problems include issues of better health standards, educational facilities, urban services in small towns, communication facilities, and farmers' representation in the Senate.

the FAs encourage two-way communication, and the feedback generated from FA meetings affects problem definition and major planning activities of MADA.

When the Muda scheme began, there were attempts to disseminate agricultural messages through the mass media, parti-

cularly radio. At this time, in the late '60s and early '70s, there was an arrangement between MADA and Radio Television Malaysia (RTM) to produce programs specifically designed for the population in the scheme. As a result, several weekly radio semidocumentary dramas were aired.

A committee, known as the Publicity Committee, was set up to look into program content. The committee encompassed representatives of both MADA and RTM and was responsible for general publicity to increase the participation and awareness of the farmers.

However, at this point most agree that the committee met a natural death. With its termination, formal linkage ended. One reason for this may be the diminishing reliance of MADA on the media. The present arrangement is that MADA seeks the cooperation of RTM when it requires publicity assistance, with RTM in turn seeking program material from MADA as required.

Negative experience with the newspapers has convinced most of the planners interviewed that this medium has little value in communicating with farmers in the area. They prefer to avoid using newspapers as much as possible, one reason being that journalists in Malaysia tend to distort and exaggerate. Second, they feel that the newspaper is not one of the most popular media among the population in the scheme and that it would be a waste of time to use it. However, the organization does use newspapers to publicize its activities. One such instance involved the wide newspaper coverage of the organization's drought relief programs.

The most important communication resource to the organization seems to be the kursus tempatan and its mobile extension workers, the agriculture technicians. This emphasis reflects the planners' desire to control organizational communication--both source and message. This is coupled with the fact that MADA relies substantially more on interpersonal dissemination than on mass media.

However, such reliance and emphasis appear to have good justification in light of the success of the experienced extension workers. Since its policy is to employ personnel who come from within the region and who have some agricultural knowledge or experience, the organization concluded that communication activities would be more effective if these personnel conducted them in the field. As a result, this strategy of using its own communication resources not only draws better reception from the audience but also makes the communication context more functional and relevant.

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Familiarity with the environment, the social conditions, and needs of the area encourages the extension personnel to work hard. Although they are working among their own people, they still feel that their tasks are not simple ones. They are aware of what is expected of them and feel that their role is as important as that of other officers in the organization.

As stated earlier, most of these workers have little formal training in communication, although they have much practical experience. Their thinking and actions are based on the knowledge obtained after being with the organization for several years. Their credibility comes not only from their knowledge but also from such factors as religious background, age, past performance, and status. The younger workers base their approach on what they learn from their senior counterparts. The organization showed its trust in its extension workers by rehiring both retiring agriculture technicians to work in Muda 2 project communication activities.

It is sufficient to say that these people have been readily befriended and accepted by the farmers. Their informal attitude helps get their messages across. However, these conclusions are based on limited observations, and no formal assessment has ever been made by the researcher or the organization of the effectiveness and impact of these activities. Perhaps one generalization that can be offered is that the effectiveness of MADA's message-dissemination activities is strengthened not only by its interpersonal channels but also by its use of staff who share the same background as the audience. In the case of the latter, the concepts of empathy and felt needs are thus better realized in those activities.

MADA has two other units that one might assume would be engaged mainly in communication activities, the Agriculture Information Unit and the Public Relations Office. Although these two units could logically be active in communication planning and implementation, in reality they are not. There are several reasons for this. First, these units are relatively small compared to the two main divisions of Agriculture and Engineering. They are staffed by one or two officers at most. The public relations officer is a one-person unit, so his ability to contribute to the communication activities of the organization is limited. Although the agriculture information officer (AIO) has an assistant, his many responsibilities do not permit him to play a major role in communication decision making.

Second, and most important, is that neither Abdul Razak (PRO) nor Abdul Aziz (AIO) has any training specifically in communication. As mentioned earlier, Abdul Razak had been a teacher for a number of years. His teaching experience and local status led to his being hired. Abdul Aziz has had little training in either agriculture or extension services. He was hired because of his long service: first in the Department of Agriculture and later in MADA. He was brought into the organization by the previous general manager because of his talent with graphic material and his flair for photography. He holds the rank of acting agriculture officer.

Third, both Abdul Aziz and Abdul Razak are ranked slightly lower than the program planners. This imbalance puts enormous constraints on these facilitators in making their voices heard in the decision-making processes of the organization. As the minutes of the senior officers meetings show, these officers were usually instructed as to what communication efforts they should make rather than encouraged to make suggestions of their own.

These people are also aware of the mismatch between their titles and their responsibilities, or between their status and their activities. Abdul Razak's role is not that of the typical public relations officer, but as he sees it, in a small organization such as MADA, the public relations officer should also play a part in the overall objectives of the organization. He believes his role is to provide support services in agricultural development for the organization as well as for the scheme.

Abdul Razak organized visits and briefings to the farmers as well as to people from outside the Muda scheme. His office organized the campaign against rumors mentioned earlier. He organized 14 group visits (40 farmers per visit) during which the farmers heard talks delivered by some of his colleagues. During each visit, four topics were discussed: What MADA is all about, what infrastructures are available, weaknesses of the Muda project, and future programs of the organization. Organization extension workers spoke at these briefings, which made it more acceptable to the farmers. These workers were chosen because they could bridge the psychological gap that might have opened between the farmers and the officers, were familiar with the local problems, and could speak the local dialects. At the same time, Abdul Razak acts as the liaison to the mass media as well as to individuals and organizations outside MADA.

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The production of organizational brochures, leaflets, handouts, etc., has been the responsibility of the Agriculture Information Unit. It is also responsible for the production of charts, graphics, and posters for display in the operation room of MADA's central office. The unit handles production of planting schedule posters and other related publications. However, the decision to use these channels and the designing of the content and messages for these publications will probably not come from this unit. It functions as a liaison to the publishing company that produces these materials.

The study also examined the financial allocations and spending for communication activities. It is difficult to determine exactly what allocations for each of the communication activities have been made so far. Expenditures for the various training activities have not been itemized. Nor have the expenditures for the Public Relations Office and the Agriculture Information Unit been made clear. For example, in the 1979 financial report, the allocation for the publication of brochures, leaflets, handouts, and other materials was incorporated in the expenditure for other printing services of the organization (i.e., the annual report, charts, letterheads, etc.), and there is no specific mention of expenses for the Public Relations Office. We can assume that this could come from the allocation for administrative services.

### The Environment

The characteristics of the audience in this region play a major role in determining and regulating the organization's communication activities. For example, the low level of education among the population, coupled with general prevailing attitudes, greatly shape MADA's communication strategy. The time limitations imposed by geography and farming activities constrained the planners' communication decisions.

The development of the kursus tempatan, the reliance on interpersonal channels, and the avoidance of mass media are some of the results imposed by those characteristics. This is coupled with the planners' attitude toward communication, as well as the lack of training in this discipline, all of which help explain the current state of communication planning and processes in MADA.

The organization is operating in a largely receptive situation where other factors have been either kept constant or advantageously exploited by the organization. The organization manages to prevent the introduction of politics into

its work. When the organization began in 1970, the former general manager avoided politicizing the organization despite the presence of three politicians on its Board of Directors, one of whom was its chairman. Afifuddin Haji-Omar (1978), in his doctoral dissertation entitled, "Peasants, Institutions and Development in Malaysia: The Political Economy of Development in the Muda Region," said that:

Realizing the impotency of (this) set-up, the Prime Minister in 1969 appointed the State Agriculture Director of Kedah, Mohammad Tamin Yeop, as the new coordinator. Already stationed in Kedah, he retained his old post as the Kedah's State Agricultural Director in addition to the new assignment. Thus, partial internal integration was achieved in that the Kedah State Agricultural Department was one of the two major line agencies in the planning and implementation of the scheme. A temporary "political umbrella" was assured by the Prime Minister in the form of embargo against interference by politicians pursuing vested interests through policy manipulation of the project. Although the coordinator's office was formally under the Ministry of Agriculture, the Prime Minister in no uncertain terms made it clear that the coordinator should report directly to him. . . .

The prime minister's directive enabled the organization to operate with minimal political interference. The organization, on the other hand, has had to play down political influence and affiliation in choosing farm leaders in the scheme.

One environmental factor the organization has been using to its advantage is religion. The Muda region is characterized by a population with strong leanings toward religious guidance in their everyday lives. Farmers, for example, offer feasts and prayers in hopes of receiving bumper yields and incantations if their fields face difficulties.

MADA hires people with religious backgrounds and works closely with the state religious department. One of these employees is Haji Shafie Salleh. With the cooperation of the religious department, the 185 mosques in the scheme have been supplied with Friday Congregation texts written by Haji Shafie. One of the texts examined is on the importance of water. Part of the text is translated as follows:

Dear fellow Muslims:

According to scientific studies, the padi that we plant in the field requires a lot of water. For an acre, it requires three feet or 8.1 mil pound in order to produce a good yield crop. This means that water is an important requirement for all stages while padi is growing. So are other plants. They too require water. As stated by Him (part of the Koran reads), He is the one responsible for the water that drops from the sky. Then He creates other growth through the use of water. . . .

At the time this text was prepared, there was concern over the waste of irrigation water by the farmers, who were delaying their planting even though water had been supplied to their fields.

There are numerous other instances in which the organization used religion to facilitate its extension activities. Before starting a pilot project, religious gatherings for prayer were organized to disseminate its messages. The Muslim MADA staff members have frequently given speeches in the mosques, suraus, and madrasah (small prayer houses).

#### The Plans

MADA is a task-oriented organization committed not only to administering and implementing double cropping in the region but also to designing programs that could improve the lives of those within the scheme. To meet these commitments, the organization has spent nine years actively providing incentives to the farmers for the establishment of agro- and nonagro-based activities.

The planning and implementation of the Muda 2 project, the drought relief programs, and the kursus tempatan are some of the organization's efforts to meet its commitments. Numerous other programs have been implemented and will be designed and implemented in the future to meet the goals of the Muda irrigation scheme.

Underlying all these activities is a concern with the physical development of the area to ensure that the infrastructures can provide enough incentives to the farmers to improve their padi yield and their standard of living. The results achieved so far are modest though important.

We must examine the activities of MADA against this backdrop. Most importantly, it was created because of the irrigation infrastructures and to look after the well-being of the population. Because of these responsibilities, MADA must have a staff trained primarily in two areas, agriculture and engineering.

Most of the time, ideas, intentions, and directions of the organization are expressed in terms of physical objectives rather than social goals or outcomes. For example, the plan for the Muda 2 project indicates some social benefits, but the overwhelming objectives and goals of the project took the form of physical outcomes such as shorter distances between irrigation canals and drains, more farm roads, improved access facilities, and so forth. It was assumed that these physical outcomes provide the social benefits.

As a result, there is little consideration for other development support services such as communication. In most cases, planning for communication is absent or ignored.

A further look into the planning documents reveals that MADA prefers to concentrate extensively on the strategy of the plans rather than on implementing those plans. Strategic planning tends to overshadow operational planning in the institution. The Feasibility Study Report, the minutes of the meetings, and other documents confirm this phenomenon, which may be partly attributed to the informal structure of the organization. As with the drought relief program, we have seen that important decisions are made not only in the formal meetings but also through informal contacts between officers. For example, the major decision to cancel a cropping season did not appear at all in the documents examined by the researcher. This suggests that informal meetings between individual planners contributed heavily to the decision-making process. It can be assumed that operational planning, if not formalized in the divisional meetings, is also done through these informal contacts between planners. This explains why operationalizations of plans are not normally articulated in the documents.

Communication planning would only appear at the strategic level. Since communication operations are more decentralized in this organization, there is little information to substantiate the idea that such operations have been extensively considered by the planners of this institution.

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### SOME CONCLUSIONS

From the general discussions of the six enquiry areas, the following describes the communication planning processes of the Muda Agriculture Development Authority (MADA).

1. In a task-oriented institution such as MADA, communication planning processes are submerged within the general planning tasks.

The limited input of communication planning decisions in the general planning processes of MADA tends to indicate that communication has received little attention in the organization's planning activities.

2. When an organization is assigned a task, staff recruitment is based on the training and experience directly relevant to the accomplishment of the task. Since MADA's tasks are to administer the irrigation facilities and develop agricultural programs, staff trained in engineering and agriculture dominate the manpower recruitment.

The implications of this finding can be extended to other findings of this study. For instance, due to its recruitment criteria and to a lack of communication planning knowledge, planning decisions are made devoid of communication considerations, and communication planning appeared most of the time in the form of incremental and not planning decisions.

3. In MADA, as well as in other Malaysian government agencies, many development projects are administered by staff trained in the physical and applied disciplines (agriculture, engineering, and economics) who have little or no training in planning, especially communication planning.

The ability of the organization's staff to translate development goals is seriously impeded by the nature of the training these officers receive. Malaysian education is deeply entrenched in a faculty system, which retards multidisciplinary and broad-approach understanding.

4. The greatest challenge of all for an organization such as MADA is to coordinate the staff into one coherent unit when integrated planning is required.

This generalization is based on the assumption that staff trained in a monodisciplinary educational system could

only perceive problems in the context of their own training. The ability to understand and appreciate the tasks of others from different disciplines may prove difficult to acquire. It is common to hear an officer of one division complain about the difficulty of getting the cooperation and understanding of an officer in another division.

5. Compartmentalization of divisions (Engineering and Agriculture) within an organization seriously affects the ability of communication units to serve these "autonomous" compartments.

Division autonomy makes programs appear to be diverse, with each division trying to plan and implement programs by itself. Smaller units such as those dealing in support services (e.g., communication and economics) have difficulty serving these divisions individually or in combination.

6. In an organization in which staff are trained in the physical and applied disciplines, the strategies, operations, and outcomes of programs are frequently expressed in physical terms.

This supports the argument that having staff trained in the physical and applied disciplines would eventually lead to the dictation of actions in those terms. The study data indicate that this contention applies to MADA.

7. In general, the degree status, role, and function of MADA staff dictate the types of planning in which they engage, but this does not apply to staff members with apparent communication roles.

The degrees, diplomas, and certificates MADA staff members receive from various educational institutions will determine their position (and thus role, rank, and status) within the organization. Degree holders (graduates of universities) already employed would automatically be incorporated into the senior officers level, which has major decision-making and planning power. Diploma holders (graduates of colleges) and certificate holders (graduates of vocational schools) will hold positions in accordance with their qualifications. However, it appears that those who have designated communication roles and hold university degrees are not involved in major decisions and development of plans.

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8. Three types of planning in MADA (strategy, operation, and implementation) can be identified with the three levels of planners (high, middle, and low). However, this identification is again applicable for program planning only and not for communication planning.

Generalization 7 can be extended to support this argument. As a result of their positions and decision-making powers, the planners can be divided into three categories that are tied closely to the three types of planning undertaken by the organization.

9. In the absence of a central unit to operationalize communication strategies in MADA, implementation of communication planning becomes highly decentralized and action oriented.

This is unlike agriculture and engineering program planning, where the availability of planners in those areas at all levels determines centralization of planning activities. Since there is a lack of communication specialists in MADA, especially at the middle and lower levels, communication tasks have been assigned to various people in the organization who may or may not be specifically responsible for communication tasks.

10. When implementation of communication activities becomes decentralized, these tasks are usually undertaken by engineers, agriculturists, economists, and administrators who are also responsible for the implementation of physical projects.

This is an extension of generalization 9, which emphasized that the decentralization of communication activities (planning and implementation) could seriously overburden the program planners and implementors. Examination of the brochures, leaflets, and handouts produced by MADA tends to support this argument.

11. When implementation of communication planning is decentralized, the application of communication theories and images depends entirely on the training and experience of the staff who undertake these activities--even though there is little information or informal training in communication.

This argument is based on the fact that MADA gives considerable freedom to its communication and extension

staff to undertake their responsibilities. As a result, these staff members often must apply whatever knowledge they have (through experience). Actions initiated by these staff members have little grounding in formal education or research in communication theories and images.

12. When physical outcomes overwhelm social outcomes, communication problems and processes remained unidentified in planning and decision making.

The Muda 2 project typified this discussion. In this project, physical considerations overshadowed social considerations and resulted in minimal attention to communication tasks.

13. When communication problems and processes remained unidentified in planning, the use of communication resources appeared routine.

Though the use of kursus tempatan in the Muda 2 project was not specifically planned in the feasibility stages, this method of message dissemination was eventually incorporated into the project. This illustrates the assumption of the organization that it has its own communication options and resources that need not be discussed at length in any planning decisions. These resources and options tend to appear in most of the programs undertaken by MADA.

14. In a planning process in which physical outcomes become central (dominant), communication planning decisions will emerge only after the initiation (needs assessment) and production (design) stages of the total planning process have been completed.

The absence of viable communication planning during the feasibility study stage of the Muda 2 project supports the idea that communication planning is mainly done after the physical problems of the organization are faced. Only when MADA studied the problem and devised a solution were communication planning decisions made.

15. Planners' mistrust of the mass media's ability to serve the needs of the organization led to communication alternatives in which channels and messages flowing from the organization to the farmers could be controlled.

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The analysis of communication resources used by MADA shows that interpersonal channels of communication outweigh mass-dissemination channels. Planners also look upon the mass media as inferior for serving their needs.

16. Planners believe that the effectiveness of a message is strengthened if it is disseminated not only through interpersonal channels but also by staff with backgrounds similar to those of their audience.

The rehiring of three of the organization's retired staff members indicates that MADA relies heavily on experienced staff members who come from the states of Kedah and Perlis. In addition, the majority of its staff members in the training and extension sections, Agriculture Information Unit, and Public Relations Office is made up of people who were born or reared in these two states.

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