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9. ABSTRACT	<p>The Chilalo Agricultural Development Unit in Ethiopia (CADU) is a research and demonstration organization developed by Sweden and jointly financed by Sweden and Ethiopia. The objective of CADU is to introduce advanced inputs so as to develop peasant agriculture. These include improved seed, fertilizer, credit, and marketing methods. CADU was created as an autonomous unit within the Ministry of Agriculture. The original plan included commitments for services to be rendered CADU by the Imperial Highway Authority, Ministries of Education, Public Health, Land Reform, Interior, the Development Bank of Ministry of Water Resources. Few of those commitments were fulfilled. Despite those problems, CADU research and development activities have enabled farmers in the project area to increase their crop yields by 70-100 percent, acquire cows that give ten times as much milk as local cows, acquire improved implements, and begin a reforestation program. The study provides an intensive look at bureaucratic and political problems encountered in a well-planned and financed agricultural development program.</p>
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**Integrated Development
in Rural Ethiopia:**

**An Evaluative Study of the
Chilalo Agricultural Development Unit**

by

Betru Gebregziabher

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Documentation and Analysis Center
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TO
The Oppressed Ethiopian Peasants
and
My Beloved Daughter
"Edget"

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Foreword

This Design Study has a several-sided significance. The subject-matter--Integrated rural development--is of global importance. The statement examines one particular project from a broad perspective.

The study is timely. Written from experience under the Imperial Government of Ethiopia, it illustrates some of the problems that led to the demise of that Government--problems that are properly among the major concerns of the new regime.

This study is informed by personal experience--four years of work on the CADU Project by a man who brought to that experience a commitment to its basic aims, an acute awareness of the practical realities of the situation, and a distinctive ability to learn. That learning continued during graduate study at Michigan State University where the author refined his hard-bought empirical knowledge with the tools of analysis, synthesis and generalization, and with ideas about what is involved in "institution-building." The result is an auspicious interplay of fact and analysis.

This study does not solve any problems or prove anything. It does document major problems confronted by CADU, and has implications for many other development projects. Quite properly, it raises more questions than it answers. The report does not profess to be exhaustive. It does present a broad but unpretentious "evaluation model"--a checklist of a sizable array of the factors involved in the appraisal of integrated rural development projects. The questions this study raises point to interesting and

significant "lessons," for those who would design and implement complex rural development programs.

Finally, there is something commendable about the tone of this work. It is pragmatic without being unsympathetic. It confronts ponderous problems without despair or apocalypticism. It displays a hardheaded hope, and that combination of candor, comprehension and commitment which is essential to perceiving the relation of good intentions and earnest efforts to desirable outcomes.

William J. Siffin, Director
Program of Advanced Studies
in Institution-Building
and Technology Assistance
Methodology

July 1975

Preface

The following study is based on four years personal association with the Ethiopian rural development effort known as CADU (the Chilalo Agricultural Development Unit) and is offered to advance the understanding of that project. Since the rural poor throughout the world share many of the same problems, I consider the lessons drawn from the experiences of CADU to be significant beyond rural Ethiopia. The study, therefore, examines integrated rural development strategies and efforts, explores a framework of concepts that must be considered in addressing the problems of rural development, and outlines a comprehensive perspective of evaluating the performance of rural development institutions.

I regret that the rapid pace of change and the lack of information has not allowed me to adequately reflect on the impact of recent political developments in Ethiopia on CADU.

Acknowledgments

Since this case study is a product of both personal experience and graduate work at Michigan State University, I am unable to acknowledge by name many colleagues who contributed to this study. I would particularly like to extend my gratitude to:

Professor Richard D. Niehoff for his critical review of the manuscript, his helpful comments, and his enthusiasm.

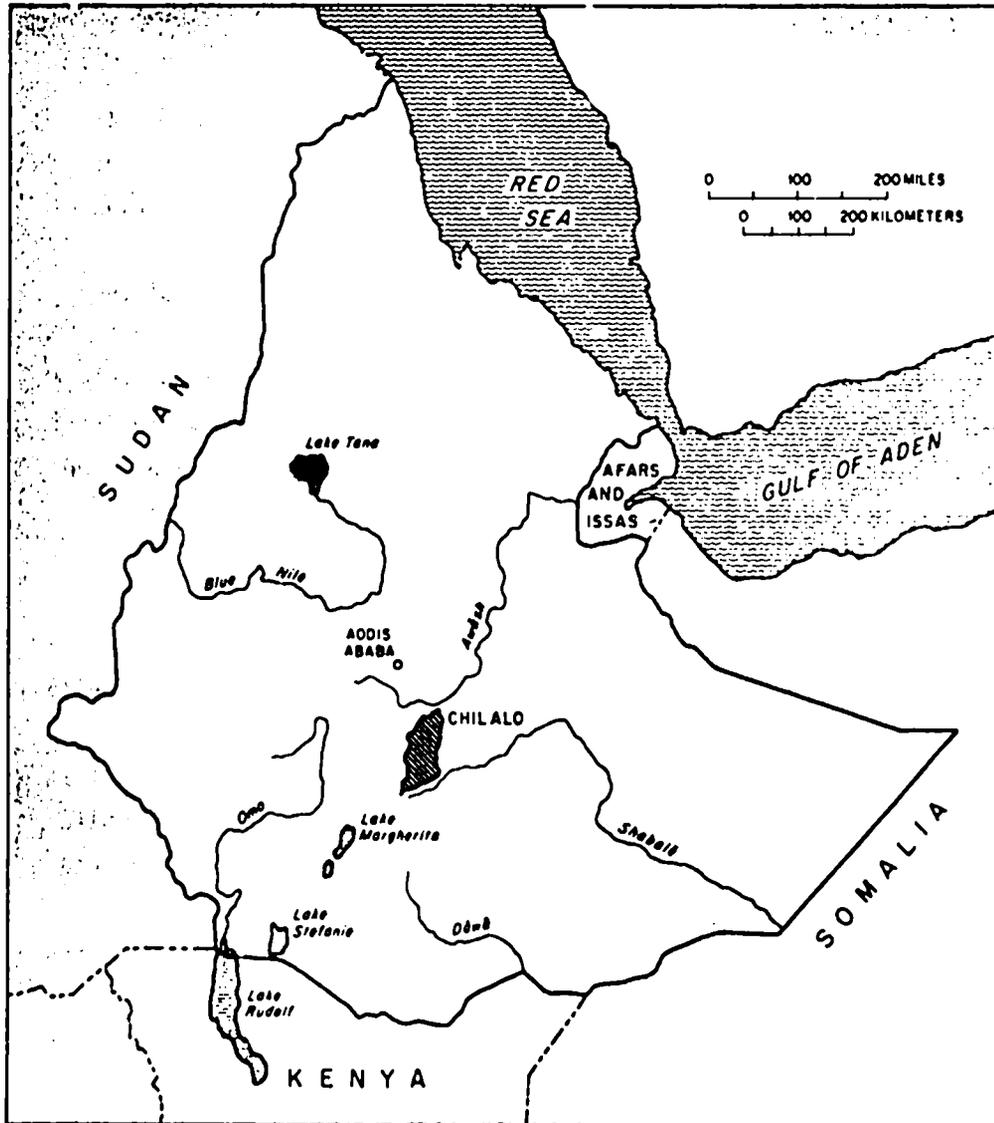
PASITAM for assistance in the editing and publishing of this manuscript; especially Dr. William J. Siffin and Mr. Grafton Trout for their encouragement and support; and Dr. George H. Axinn, who repeatedly broke the mold of my thinking during many fruitful conversations.

This study reflects contributions of the participants at the MUCIA/PASITAM "Institutional Aspects of Agricultural Development-- Design Workshop," held between 4 and 15 August 1974 at MSU's Kellogg Center for Continuing Education. The workshop provided the opportunity to organize and present my thoughts on this subject.

Finally, without the farsighted "personnel development" policy of the leadership of CADU, which made my study in the US possible, and the stimulating experience of working for that dynamic and commendable development project, this monograph would never have been written.

Those mentioned above have helped give this monograph whatever merit it may possess. For its defects, I alone am responsible.

Betru Gebregziabher
Michigan State University
June 1975



MAP OF ETHIOPIA

1

A Perspective on Integrated Rural Development

Two-thirds of the world's people live in "less-developed" countries, 50-80 percent of them in rural areas, mainly on small farms, engaged in traditional agriculture. These people are truly "the masses." In many places their well-being has deteriorated both absolutely and relatively in the recent past. Today, "the rural poor" constitute an abiding concern of most less-developed nations. "Integrated rural development" is one form of response to this concern. Such an approach to development has properly been described as:

the most complex and critical task of all. . . . It requires encouragement of and assistance to small freeholders in producing cash crops; it calls for tangible improvement in subsistence food production for many outside the money economy; in many countries it will necessitate sweeping land reform, as well as imaginative programs to motivate peasants numbed for decades by despair and stagnation.

. . . for massive rural development the skills are uncertain, the organizational structures not developed, the leadership . . . unidentified, and the techniques for motivating change . . . largely unexplored. Both with respect to theory and practice, organization for rural transformation is probably the most underdeveloped area of knowledge in the entire field of economic growth.¹

In an address to the Board of Governors of the World Bank, Robert McNamara graphically illustrated the magnitude of the

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problem encountered by the growing number of people who are concerned with rural development:

One-third to one-half of the two billion human beings in those [less developed] countries suffer from hunger or malnutrition. Twenty to 25 percent of their children die before their fifth birthdays. And millions of those who do not die lead impeded lives because their brains have been damaged, their bodies stunted, and their vitality sapped by nutritional deficiencies.

The life expectancy of the average person is 20 years less than in the affluent world. They are denied 30 percent of the lives those of us from the developed nations enjoy.

Eight hundred million of them are illiterate, and, despite the continuing expansion of education . . . even more of their children are likely to be so. . . . Nearly 800 million individuals--40 percent of the total of two billion--survive on incomes estimated (in U.S. purchasing power) at 30 cents per day in conditions of malnutrition, illiteracy, and squalor. They are suffering poverty in the absolute sense.²

The monumental problem suggested by this statement defies the capacity of even the best-intended humans to design effective strategies. Yet, without such strategies there is no real path to meaningful development. If economic problems themselves defy definition (let alone resolution), social and psychological problems are even greater. As Subhash C. Kashyap has observed,

Economic development itself loses all its legitimacy as a desirable end . . . if it does not lead to an increase in the sum total of human happiness. Mere freedom from basic economic needs is not enough if the spirit of man remains in bondage and if human beings are denied the right to freely express themselves and to freely choose their rulers and their form of government and social order.³

If one accepts these assertions, then gross national product is no sufficient index of the substance of development. For most of the poorest nations, development is, more than anything else, rural

development. As the Economic Commission for Africa has noted:

Rural development . . . is the outcome of a series of . . . changes occurring among a given rural population whose converging effects indicate, in time, a rise in the standard of living and favorable changes in the way of life of the people concerned. It does not mean isolated programmes of "Community Development," "rural animation," "mass education," "agricultural extension," "health and nutrition extension," or any of the other terms applied to sectoral programmes which are carried out in the rural area or within the rural community.⁴

Among the more specific definitional attempts at describing just what "rural development" is, F.H. Harbison has suggested that

rural development encompasses . . . an increase in agricultural and livestock output or productivity. It requires extensive village development as well, including extension of health and education services, expansion of rural trade and commerce, organization of cooperatives, the provision of credit, the creation of local industries for processing of agricultural products, the improvement of housing, water supplies, sanitation, roads, and other public works and services.⁵

In the final analysis, integrated rural development involves all the things that can most improve the living conditions of the rural masses.

Rural development evolves more as a result of improving crucial components of the rural social system than by introducing new ones. The following is a list of these crucial functional components that should be encompassed in the integrative milieu.

1. *Agricultural production*: Includes vital resources such as land, animals, labor, technology (tools, implements, methods), and input supplies from other components to make the production process

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possible. This component also includes increase in production, income generation, and equity of distribution.

2. *Nonfarm production*: includes agro-industries and other manufacturing processes that provide indigenous consumer goods and commodities, i.e., nonfarm food items (salt, sugar, bread), clothing, housing materials, energy, farm inputs, utensils, and equipment (for communication, security, cooking, etc.). This component is vital for generating alternative employment opportunities and substituting import commodities.

3. *Supplies*: includes all arrangements for providing required input supplies to the other components. Credit, lending, rental services (labor, maintenance of equipment, etc.) are salient elements of this component.

4. *Marketing*: includes the storage, transportation, and facilities and possibilities for exchange of agricultural and non-farm goods, thereby providing incentive for both components satisfying different demands in the system.

5. *Infrastructure*: includes all systematic use of water resources (irrigation, drainage, power, potable water, etc.), methods of communication (roads, railroads, airstrips, mass media, telecommunications, posts, etc.), and other surveying and engineering activities.

6. *Governance*: includes providing for law and order, security against natural and human disaster (famine, war), policy formulation, resource allocation, revenue collection and redistribution to other components for services and supplies. Equity, equality, freedom, and participation are important features here.

7. *Research*: includes the investigation of the needs and functions of other components and experiments aimed at providing alternative methods and information to improve efficient and effective

functioning of the system. (The development of new methods, high yielding seed varieties, improved breeds, and better seedlings are vital aspects of agricultural research.)

8. *Education*: Includes the socialization, orientation, and training of members for specialized tasks. It also provides the means for the flow of information among components in the system. Providing the general intellectual skills and the required technical knowledge are vital elements in this component.

9. *Health*: Includes the physical, mental, and social well-being of the human and animal resources in the system. Nutrition, sanitation, housing, and curative services (communicable disease control, recreation, immunization) are central aspects of the health component.

10. *Welfare*: includes providing social security for the unemployed, aged, handicapped, orphaned, or otherwise underprivileged members of the system. It also includes arrangements for friendship, partnership, volunteers, and spiritual beliefs with different patterns depending on the system (e.g., traditional association, marriage, religion, etc.).

In the most ambitious perspective, rural development involves simultaneous attention to these components. The problems of interdependency and coordination defy the capabilities of the most committed government. There is no theory which adequately portrays the means by which a series of related efforts in the service of rural development can be adequately integrated. The work of James Thompson on complex organizations, however, describing the various ways in which efforts can be coordinated, casts some light on the possibilities and the necessities.⁶

The need for effective, comprehensive approaches to rural development involves practical difficulties. The variety of

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institutions in the world today which are committed to the goal of rural development illustrates these difficulties. The compelling evidence suggests that integrated approaches cannot be eschewed. The intellectual foundations of such approaches lie in identifying the factors that matter--the potential sets of interrelated arrangements that compose "systems approaches" to rural development.

The design, implementation, and evaluation of systems of action are, in principle, inseparable. The significance of evaluation lies in its potential contribution to improved design and operation. As Jiri Nehnevajsa has observed,

. . . evaluation . . . is concerned with assessment of ongoing operations and their improvement, so that it blends into design problems when improvement is required and decided upon. . . . design . . . blends into the evaluation issue when a particular design is decided upon and implemented, so that a new institution is built to satisfy hitherto unmet social needs.⁷

The comprehensive perspective sketched here serves as a basis for considering the experience of the CADU project and for seeking lessons to inspire, if not directly guide, other efforts to deal with the profound fundamental problems of rural development.

Positive intervention in the conditions of rural existence must be rooted in an understanding of the basic characteristics of the situation to be changed. Yet, development designers and planners have seldom addressed the question of how rural systems actually work. Without such knowledge and understanding it is unlikely that effective arrangements of stimulations or acquisitions will be designed.⁸

In analyzing the environment in which development is to occur and in strategizing stimulations into that environment, it is necessary to take into account fundamental institutional factors.

Professor Milton Esman has noted that these institutional factors include:

Leadership: the group of persons who direct the institution's internal operations and manage its relations with the external environment.

Doctrine: the expression of the institution's major purposes, objectives, and principles of operations.

Internal Structure: the technical division of labor and distribution of authority, and the lines of communication within the institution through which decisions are taken and action is guided and controlled.⁹

Technology: a variable I have added because of its particular significance for rural development. Changes induced by rural development institutions predominantly involve the diffusion of innovation. Thus, the technology employed can have positive or negative impact on the performance and achievement of the institution.

The internal characteristics of an "institution" are meaningless--or even perverse--unless they are compatible with their context. To actually produce significant changes in the lives of rural people, organizations used as means of stimulation must be designed with an awareness of crucial external factors. These factors include:

1. *Social and cultural characteristics.* "Knowledge about value systems, institutions, organizations, procedures, and their effects on development" must be taken into account.¹⁰ Edelman and Morris have indicated in their studies that social and political forces explain from 50-80 percent of intercountry differences in development and, for the average of 74 less-developed countries, 67 percent of the relationships of relevant economic variables are with social, socio-economic, or political variables.¹¹

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Religion is among the important social and cultural factors that must be considered in the design, implementation, and evaluation of rural development efforts. Aghananda Bharati has observed: "Religious tradition by no means always poses hurdles to innovation; in many cases it can be of positive benefit to modernization. Once an innovation or administrative situation is shown to be beneficial, religious teachings often encourage cooperation."¹²

2. *Political and economic factors.* Comprehensive political and economic factors must be acknowledged and addressed. Only in the abstract and analytical views of scholars are economic and political factors completely differentiated. Tenancy and ownership arrangements are among the most fundamental of political-economic factors which must be addressed in the design and implementation of integrated rural development schemes.

3. *Psychological and socio-psychological factors.* These elements cannot be ignored, even though it may be extremely difficult to measure or state them objectively. One important psychological characteristic is the conventional idea of "achievement." Achievement may be defined as "what pays off in this society." If hard work and cleverness pay off, achievers will pursue it. If obedience and political orthodoxy pay off, achievers will behave accordingly. Any design which ignores the fundamental psychological and sociopsychological motivational factors in the system is doomed to failure.

This brief acknowledgment of the scope of factors involved in a comprehensive perspective on integrated approaches to rural development suggests the challenging complexity of the process. To deal with such complexity, it is important to adopt a commitment to satisfying rather than maximizing. It is also important at the outset to address the question: Whose judgment shall

determine what constitutes a desirable outcome of a rural development effort? It is essential to acknowledge that the elusive issues of causality can seldom be reduced to determinacy.

"The problem is not only that we do not know what to measure, but also that what we presently do measure, we measure incorrectly."¹³ The two confounding challenges to measurement are essentially the problems of measuring the "good"--outcomes that can be perceived as desirable--and the causal relationships that exist within a particular socio-cultural system. Unless the measurement problems are adequately addressed, however, it is impossible to design effective approaches to rural development. The beginnings of such approaches must lie in the identification of factors which cannot be ignored but which cannot be derived at this time from any comprehensive theory. We are faced with problems of identification and description rather than problems of quantification and correlational analysis. From my own experience, I have concluded that the following set of factors must be addressed in any broad approach to integrated rural development (see Table 1). They have guided my effort to describe and assess one particular attempt at integrated rural development within Ethiopia--the CADU Project.

TABLE 1 A Tentative "Check List" for a Comprehensive Evaluation of Integrated Rural Development

No.	System Components (Factors)	Indicators and Descriptors	Measurement of . .
1	Agricultural Production (economic)	a) yield of production	level, change, and efficiency of crop, animal and forestry production

TABLE 1--continued

		b) per capita income	level, changes, and distribution of agricultural income; consumption pattern
		c) savings and uses	level and change of investment level and pattern
		d) technology and responsiveness	rate of shift from traditional to improved; tools, methods, inputs, etc; rate of adaptation of innovation and pattern; response to economic opportunity
		e) resource conservation	level and change of land use; erosion; water-use; forest exploitation; etc.
		f) employment	level, change and trend in unemployment and underemployment
2	Education (social, cultural, and economic)	a) intellectual skills	rate of literacy; availability of skilled manpower; relevance of content; method and learning environment, to need.
		b) technical knowledge	level and change in participation; expenditure for education

TABLE 1--continued

		c) opportunity	equity and equality of educational opportunity distribution
		d) cultural dev't. and preservation	method and content of mass-education
		e) political awareness	(mass-media, etc.) for cultural and political education
		f) persuasion	pattern of persuasion
3	Governance (political and administrative)	a) equity of resource allocation	level and change in pattern of distribution of means of production
		b) freedom and justice	freedom of expression; access to justice
		c) participation and involvement	equal opportunity for popular participation in governance (electing leaders, etc.); decision-making process
		d) administration	pattern of public administration; its responsiveness; access to bureaucracy; local governance; autonomy; effectiveness
		e) special organizations	pattern and efficiency of private sector; availability

TABLE 1--continued

			of services; opportunity of collective bargaining for rural people (associations, cooperatives, etc.)
		f) linkages	coordination of services and activities of system components
		g) security	protection against natural disaster and human violence (law and order)
		h) financial source	system of revenue collection and allocation
4	Health (social)	a) longevity and mortality	level and change in: life expectancy at birth, infant mortality (birth and death rates)
		b) public health services	the quality and quantity of preventive and curative services (health worker-clientele ratios, content of available services); availability and access to services; expenditure on health
		c) nutrition	per capita caloric and protein consumption

TABLE 1--continued

		d) housing	sanitation (i.e., per capita space, ventilation, lighting); health education efforts; disposal facilities
		e) hygienic living	personal hygiene; extent and adequacy of safe water supply and food preparation
		f) responsiveness	attitude of population toward public health innovations (family planning, immunization, sanitation measures, hygienic practices)
5	infrastructure (social, political, and economic)	a) communication	extent and accuracy of: feeder roads, telecommunications, and others
		b) water supply	water for human and animal consumption; irrigation and other purposes
		c) expenditure	communications; infrastructure development and maintenance
		d) distribution	communication facilities

TABLE 1--continued

6	Marketing (economic)	a) Incentive	extent and accuracy of: provision of incentives, i.e., fair prices, demand, etc.
		b) storage	availability, appropriateness, and access to storage facilities
		c) Income distribution	patterns of marketing outlet; systems; equity of income distribution
		d) processing	processing facilities; relevance; efficiency
		e) organizations	farmer and consumer organizations for collective bargaining and protection
7	Nonfarm Production (economic & cultural)	a) employment	level and change in: rate of unemployment and underemployment
		b) production	availability; relevance and efficiency of nonfarm production activities; rate of savings in foreign exchange; access to goods
		c) demand	demand for commodities produced; consumption pattern

TABLE 1--*continued*

		d) income distribution	level and equity in distribution of employment opportunity; wage structure; means of production
8	Research (cultural, social, political & economic)	a) availability, orientation, and relevance	extent and adequacy in rural-orientation of research efforts; relevance to prevalent problems (relation to system components)
		b) distribution of services	equity of access to research services; ratio of research institute; quality and quantity of new developments
		c) expenditure	expenditure on rural-research activities
		d) dissemination and adoption	method of dissemination of research findings; rate of adoption; effectiveness in reaching right target (clientele)
9	Supplies (economic)	a) organization	extent and adequacy of distribution system; efficiency; accessibility
		b) credit	availability; access for small farmers; favorable terms; rate of participation; rate of return

TABLE 1--continued

		c) goods and services	availability of goods and services; rate of consumer satisfaction; uniformity and fair prices; equity of distribution
10	Welfare (social, cultural, religious, psychological)	a) social security	extent and adequacy of system of welfare benefit for disadvantaged (aged, disabled, orphaned, unemployed)
		b) recreation and leisure	availability and distribution of recreational facilities; access; quality; ratio; impact on dev't. components.
		c) community life (family ecology)	patterns of association; kinships; partnership; family living; self-help; spiritual and traditional beliefs; impact on dev't. components
		d) psychological	attitude toward life; value orientation (work, achievements, etc.); impact on dev't. components

2

The "Package Approach" in Rural Ethiopia: CADU

Pursant to the request of the Ethiopian Government in July 1965, the Swedish International Development Authority (SIDA) appointed a team of experts to investigate and outline the possibility of a regional agricultural development project in Ethiopia. After examining five alternative regions,¹ the working party recommended the establishment of a "package project" for agricultural development in the Chilalo awraja (district). A proposal was accepted by an Ethiopian Ministerial Committee in February 1967. On 8 September 1967, a bilateral aid agreement was signed by Ethiopia and Sweden. The project was extended for the five-year period 1970-75,² and the current phase covers the next five years, 1975-80.

The planning team focused, for the most part, on collecting baseline data related to the project and forwarding technical recommendations, thus overlooking many institutional factors. The commitment of the Ethiopian Government to "change" was grossly over-estimated by the planning team dominated by Swedish scholars. No Ethiopian directly participated in the actual field investigation or in the technical aspects of project design, although the plan was reviewed by government bureaucrats. The organizational structure of the plan clearly illustrates this point (see Fig.1).³

CADU's task environment can be classified into four system levels and components: (1) the international level enabling

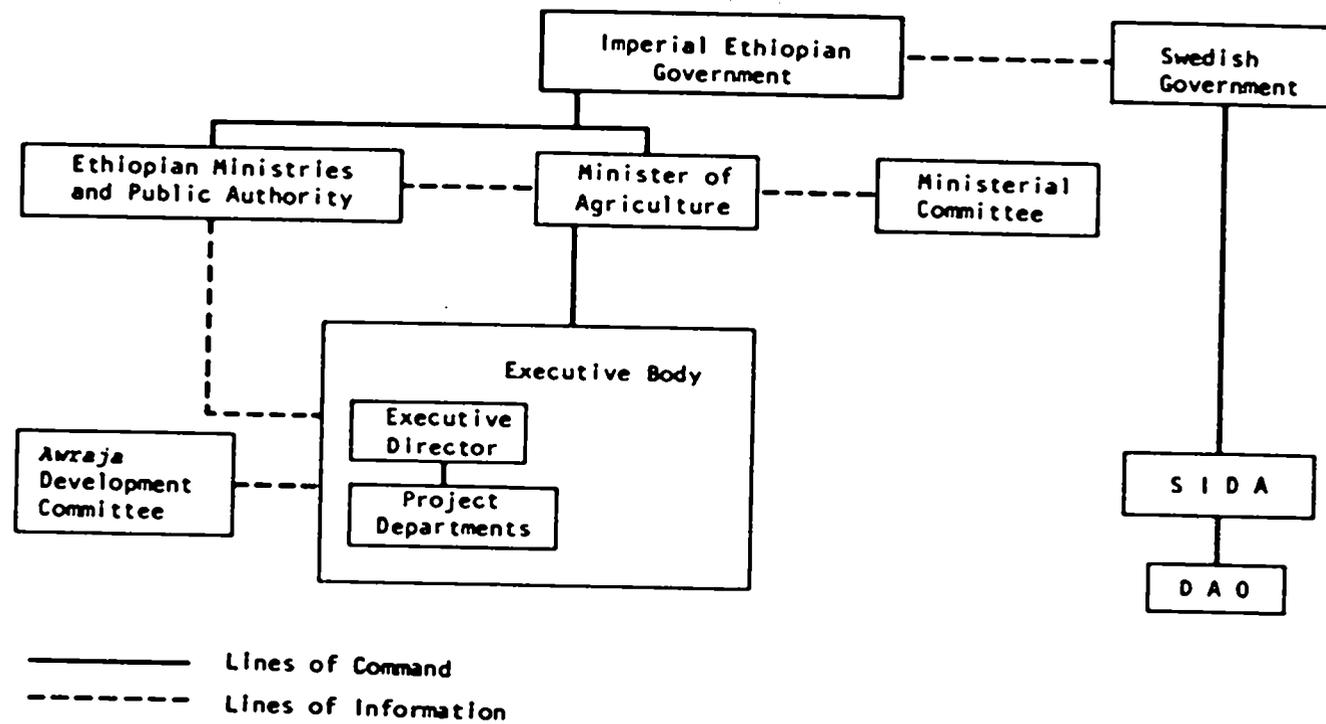


FIGURE 1 CADU's External Organization

linkages; (2) the national level enabling and functional linkages; (3) the local level organizational interface; and (4) the grass-roots level normative and diffuse linkages.

International Level – Enabling Linkage

The Royal Swedish Government made considerable contributions in kind and cash for the Project's planning and implementation: providing for high- and middle-level expatriate staff, training of Ethiopian personnel abroad, feasibility studies, drafting and survey costs, and 67 percent of the remaining investment and operational costs. The Swedish Government is represented in Ethiopia by a Development Assistance Office (DAO), a branch office of SIDA which coordinates and supervises all Swedish aid activities in Ethiopia. Besides reviewing and approving the annual work program and budget of the Project in collaboration with the Ethiopian Ministry of Agriculture, SIDA jointly appoints the Project's Executive Director and evaluation teams, receives annual and semi-annual reports, manages the recruitment of expatriate employees, and handles most purchasing for the Project outside Ethiopia.

Therefore, SIDA plays a vital part in the allocation of both authority and resources for CADU. The relationship between CADU and SIDA can be classified as an enabling linkage. This linkage was continually used for exerting pressure on the Ethiopian Government to make fundamental changes considered prerequisites for the success of CADU. Since the establishment of CADU, for instance, the Swedish Government has been at the center of the land reform controversy. Each time the CADU aid agreement expires, land reform becomes a substantial issue, and the disillusioned Swedish Government threatens to withdraw its aid,

an action which could cause a considerable roadblock for developmental change in the region.

National Level – Enabling and Functional Linkages

It is difficult to discuss the national environment in relation to CADU. The Project, (as part of the government's development program), is interrelated with many facets of both the public and private sector. This brief summary describes: 1) the country and its governmental structure; 2) the role of agriculture and its ministry; and 3) other national organizations having functional linkages with CADU.

*Ethiopia and its government.*⁴ With 471,116 square miles of land forming the horn of Africa on its central east coast and an estimated population of 27.1 million in 1973 (a density of 57 people per square mile and a 2.3 percent annual population growth), Ethiopia, the oldest independent state in the continent, has one of the lowest gross national products per capita in the world.⁵

Ethiopia is a country of great diversity in natural resources, physical environment, languages, and customs. Over 60 languages and 200 dialects are spoken.

The Central Statistics Office of Ethiopia estimated the illiteracy rate for persons ten years of age and older at the beginning of 1970 at 9-10 percent. A very small percentage of eligible children is enrolled in school. Health services are scarce, and life expectancy is estimated at 35-37 years.

Until recently, the Orthodox church, royal families, and the nobility owned a considerable portion of land. Smaller private ownerships existed, but landless tenants constituted over 50 percent of the farm population.

The governmental structure and political framework of Ethiopia represented one of the few monarchies remaining in twentieth century civilization. This tradition experienced only insignificant political metamorphosis over thousands of years; there was a gradual involvement from feudalism and absolute monarchy to constitutional monarchy, but most of the feudal characteristics were left unchanged.

The first written constitution of 1931, and its subsequent revision in 1955, asserted the limitless powers and prerogatives of the Emperor. It also provided for a puppet legislature (a senate and a chamber of deputies), a crown council, and a Council of Ministers all under the Emperor (see Fig. 2), implying a structured government subject to the control of a political organization. In practice, however, the Ethiopian government was a monarchy with a perfect pyramid structure. The Emperor, at the apex, had enormous formal authority at his discretion. More than a charismatic leader, he was chief of the legislative, executive, judicial, and religious branches. His dictum often became law. Like more "prismatic societies,"¹⁶ the actual operation of administrative and political organizations in Ethiopia was very different from documented description of governmental processes.

The day-to-day administration of the Empire was conducted by the Council of Ministers presided over by a Prime Minister. Individual ministers were, however, directly responsible to the Emperor. Certain functions usually performed by a Cabinet in formulating government policies were sometimes carried out by the Crown Council, a traditional institution composed of the Crown Prince, the Archbishop of the Ethiopian Orthodox Church, the President of the Senate, and other dignitaries designated by the Emperor. In the fourteen provinces, the power of the Emperor was

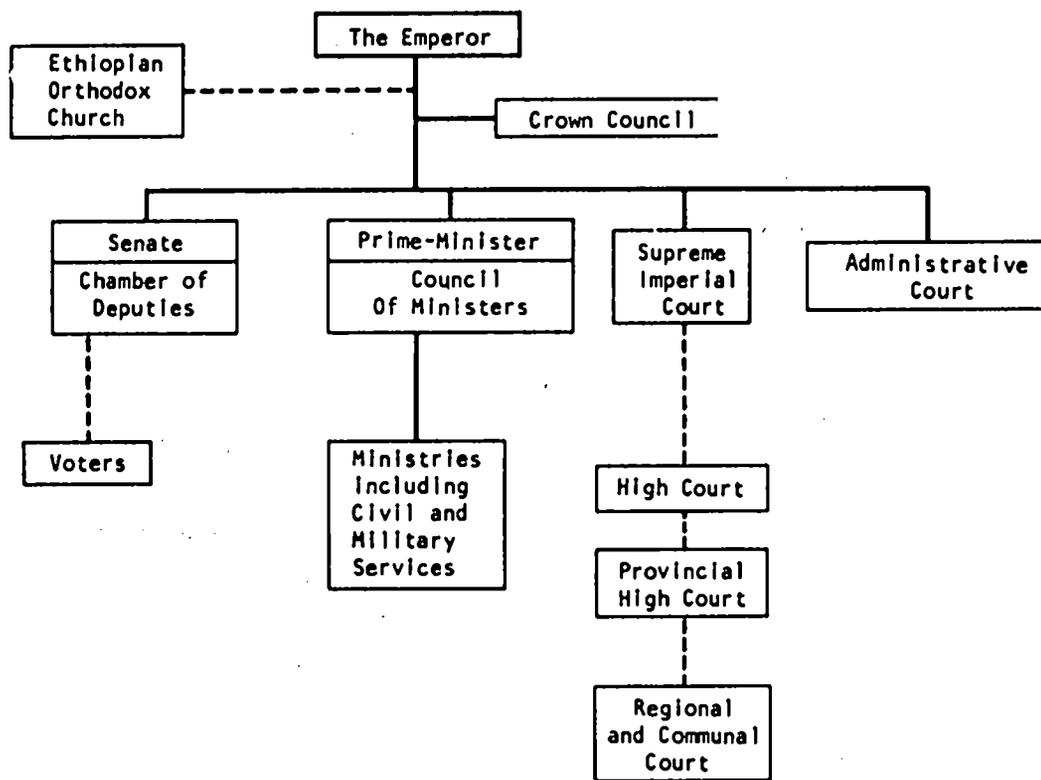


FIGURE 2 The Organizational Structure of the Imperial Government of Ethiopia

delegated to governor-generals who, in turn, acted as chiefs for all administrative and political activities in their respective provinces.

The organization of the Ministries was highly centralized. Each Ministry formed a hierarchy in which authority and responsibility were delegated downward through subordinate officials and sub-units with each individual ultimately answerable to the Minister. There was a representative for most Ministries in each political sub-division of the country (provinces and districts). The details of administrative organization were not embodied in legislation but left to administrative discretion.

Proponents argue that this centralization was meant to strengthen Ethiopia's unity, which most aristocrats perceived as fragile. However, the fear of divisive forces often stemmed from threats to the power of the elite, not to the basic unity of the country. Not surprisingly, the government of Ethiopia concentrated on strengthening this central authority. Much technical assistance went to support symbolic modernization and the fame and popularity of an Emperor who claimed the titles King of Kings, Elect of God, and Lion of Judah.

As a result of such a rigid, stagnant, and outdated form of government, Ethiopia now seeks outside help to feed a starving nation. The majority of its population is isolated in remote rural areas and suffers from starvation, malnutrition, chronic disease, and illiteracy, while Addis Ababa (the capital city) is sophisticated enough to house the headquarters for the Organization of African Unity, the UN's Economic Commission for Africa, and a host of other international organizations.

Recently, military reformers, encouraged by demonstrations and strikes by workers, teachers, and students, engineered a

strategic takeover which brought the downfall of the Emperor and his feudalistic government. The ruling aristocracy was arrested by the armed forces for crimes of corruption, abuse of power, maladministration and misappropriation of public funds, a cover-up of the disastrous drought afflicting the country, and the obstruction of badly needed reforms. Ethiopia is presently being governed by a provisional military administration which has adopted a national policy of "Socialism" (*Ethiopia Tikdem*) including the Nationalization of rural lands and urban industries. Hopefully, a democratic form of government will soon be established which will respond more realistically to the needs of the people.⁷

This is not to undermine what Ethiopia has achieved thus far. It is meant, rather, to emphasize that the haste with which we have flung ourselves into the tasks of "development" has given us little chance to think seriously about some crucial issues.

The role of agriculture and the ministry. Ethiopia is a rural, agrarian country. Approximately 88 percent of the population earns its livelihood from agriculture. The agricultural sector, composed primarily of subsistence peasants, generates about 65 percent of the GNP and 95 percent of the country's foreign exports. Of the estimated 4 million peasant households, over 50 percent cultivate less than one to one-and-a-half hectares and 90 percent less than five. Ethiopian agriculture has for many years been characterized by this preponderance of subsistence peasants, a traditional land-tenure system, primitive farming practices, inadequate transport, and the absence of a working credit program. Thus, if properly implemented, the recent land reform proclamation is of paramount importance.

My own experience in rural development work has taught me that the Ethiopian small farmer is responsive to innovations, rational in his thinking, and hard-working, but he has never received the proper recognition and incentives. The political system imposed on the Ethiopian peasant did not provide him with an effective organization, strong leadership, or political clout. He has always been mercilessly exploited and denied a fair share of the fruits of his labor by the nobility. Farming is a game that has never paid off, and Ethiopia's agriculture has remained static and primitive, unaware of the green revolution and its effects elsewhere in the world.⁸

The Ministry of Agriculture (MOA) was a traditional bureaucracy with developmental responsibilities. In conjunction with international organizations such as FAO, the MOA undertook research, extension, and other development and regulatory activities. The order defining the powers and duties of ministers enumerated MOA services as: "Animal improvement and disease control; crop improvement and integration of forest industries; conservation, processing, marketing and distribution of farm products; integrated rural development and adjustment projects; food management and home economics; compilation of food and agricultural statistics and rural community industries and services."⁹ But there is little evidence that these services were performed by the Ministry. In the past, Ministry policy was guided by a "disperse resource" approach whereby efforts were made to assign extension agents in every political unit of the country without the necessary research and adequate facilities to back them up.

Such isolated lines of attack proved ineffective. Agricultural research institutions without adequate seed multiplication and distribution facilities, improved seeds and fertilizers without

the provisions of credits, marketing facilities without improved means of production and feeder roads failed to produce any appreciable impact on the economy.

The first national development plan, covering 1958-62, remained secret until it was succeeded by the published second five-year plan (1963-68). Although the second plan was comparatively analytical and insightful, the means for attaining specific objectives were vaguely stated. High priorities were given to agriculture, and institutional reforms related to tenancy and land-ownership were emphasized. But the organizational and administrative capacity required for implementing the plan were nonexistent. The most remarkable achievement of the plan period was the establishment in 1966 of specialized ministries for planning and land reform.

The third plan (1968-73) was perhaps the best documentation of the policy direction and strategy of Ethiopia's agriculture. Produced by a well-organized Ministry, it promised encouragement, particularly for agricultural development. Laying out the prominent role agriculture should play in a balanced development framework, the plan set specific goals for the sector.

1. Agriculture will have to produce enough to satisfy the growing demand for food arising as a result of increased population (about 500,000 per year) and the rise in per capita income estimated at 3.7 percent per annum from current Eth \$151 per year (about US \$70). Agricultural output should increase at about 3 percent per year against 2 percent during the second plan period.

2. Agriculture is also expected to supply an increasing amount of inputs for raw material, processing agro-industries which will receive high priority in this plan since they are ideally suited to the agrarian economy.

3. The agricultural sector will continue to play a crucial role in generating foreign exchange earnings required to pay for imported inputs.

4. The agricultural sector shall create markets (demand) for the products of the domestic industrial sector.

5. The agricultural sector should create a broadened basis for domestic savings.¹⁰

The strategy for implementation, however, was neither so easily nor so clearly specified. Improving the outputs of subsistence food crops for the bulk of the population is an important contemporary need. Development of agricultural exports is vital to reverse current trends toward a deterioration in foreign exchange earnings.¹¹ There is general agreement that immediate gains in food and fiber supply and increased exports can be derived most effectively by encouraging the development of medium- and large-scale commercial farm enterprises.¹² In recognition of these facts, the Ethiopian government adopted, and the Third National Five-Year Development Plan stressed, two policy lines--fostering commercial agriculture and the simultaneous development of peasant farming through a "package approach."

CADU was created as an autonomous unit within the MOA as a pilot project for studying how best to promote the development of peasant agriculture, through an integrated package approach in a well-defined geographic area. A committee composed of the ministers of finance, planning, land reform and administration, community development and social affairs, a representative of the Prime Minister's office, and the Governor General of Arusi province advised the Minister of Agriculture (the chairman) on policy matters and on the coordination of related development activities at the national level. The CADU Project has enjoyed considerable autonomy, although appointments of the Executive Director and other top management staff, approval of work-program and budget, as well as the over-all supervision of its operations, were

exercised through a Vice-Minister charged with the coordination of the agricultural development activities in the country.

The financial burden has been shared by Ethiopia and Sweden. Ethiopia contributed high- and middle-level native personnel, the required land, and 33 percent of other Project operational and investment costs. As an off-shoot of CADU, the Ministry recently established the "Extension and Project Implementation Department" (EPID) to establish an integrated approach for "a minimum package program," including minimum essential elements to develop peasant agriculture--improved seed, fertilizer, credit, marketing, demonstration, etc. In addition, a few similar comprehensive package projects have been established with IBRD and US AID collaborations.

As the MOA has been directly responsible for the project, it will be beneficial for future studies to focus on it and investigate its structure, operation, internal communication, hierarchy, task environment, and its policy toward CADU. My experience indicates that, except for the office of the Vice-Minister in charge of development programs and the national research institute, the bulk of the MOA community has not perceived CADU as an important component of the Ministry.

Functional linkages with other national institutions. Besides the members of the Ministry Committee listed above, specific tasks related to CADU were required of the following in the first plan of operation.¹³

1. The Imperial Highway Authority was expected to take appropriate measures for the construction of major roads in the area.
2. The Ministry of Education and Fine Arts was to maintain the development of primary education with a 15 percent enrollment increase per year in grade one.

3. The Ministry of Public Health was to maintain the general health services in the region.

4. The Ministry of Land Reform and Administration had to submit nationwide legislative proposals to parliament regarding landlord-tenant relations, cadastral survey, and title registration. The Project area was to be given priority in the implementation of these reforms.

5. The Ministry of Interior promised to implement the Imperial proclamations on local government self-administration. The Project area would be given priority in this implementation.

6. The Development Bank of Ethiopia (now known as the Agro-Industrial Development Bank [AIDB]) was to provide working capital for the marketing activities of the Project.

7. The Ethiopian Electric Light and Power Authority was to undertake investigations of the problem and implementation of supplying electricity to the Project area in collaboration with CADU.

8. The Imperial Board of Telecommunications was to establish adequate telephone and/or radio connections in the area.

9. The Ministry of Water Resources was to reserve the river basin water in the area for development purposes.

Although not specifically mentioned in the plan, the Project had operational contacts with the Grain Board and Grain Corporation, the Ministry of Commerce and Industry, the Ministry of Community Development and Social Affairs, the Ministry of Information, the Ministry of Public Works, and the Planning Commission.

Since their activities supplemented the Project effort, these national institutions had functional linkages. Most, however, were unable to accomplish the services specified in the plan of operation. Project designers seemed to have over-estimated the

degree of commitment of the national government and the possibilities for land reform in Ethiopia.

Most of the Project problems, as identified by its leadership, seemed to emerge from its interdependencies with the task environment at the national level. Many landless tenants were evicted a few years after the Project got underway. This tragedy may have occurred when the Project introduced a new input-mix that maximized output. Consequently, the value of land skyrocketed and became less available to the small farmer. Absentee landlords left the business to managers (contractors) who stressed capital-intensive mechanized farming causing displacement of tenants.

The Ministry of Land Reform and Administration submitted a nominal bill to parliament on landlord-tenant relations which was voted down by the Chamber's "Community Development Committee." The reasons were complex. With the kind of political structure discussed earlier, could a landlord-dominated parliament possibly reject a bill proposed by the executive branch if the leadership of the country was truly behind it? The intricacies of the process can only be disclosed by a thorough investigation of how the governmental mechanism operated.

Erratic market behavior for agricultural products in recent years also discouraged the adoption of new innovations. These and similar constraints appeared beyond the Project's control. National regulations were required to reform the rather archaic form of land tenure and tenancy relations and to stabilize market prices. The Provisional Military Government is now attempting to ameliorate these chronic problems by abolishing the old order.

It is impossible to enumerate the tremendous effect the hostile national task environment had on the Project. Hopefully,

the above statements will show how crucial the linkages at this level are for the success of CADU.

Despite the fact that the national political set-up is undergoing an unprecedented change in Ethiopia, it may be quite some time before such reforms penetrate through the hierarchy to make the bureaucratic components responsive and progressive. The hostile national task environment for CADU, by and large, still exists.

Local Level -- Organizational Interface

Most linkages at the national level were transacted indirectly through the MOA. However, there were organizations at the provincial and district levels with which the Project dealt directly on a regular basis. A brief description of the Project area should help put these relationships in perspective.

The CADU Project area covers the Chilalo *Awraja*--one of three districts in the Arsi Province (see Fig.3). Chilalo has an area of about 10,000 square kilometers, of which about 20 percent is cultivated land. It has a population of 350,000 (approximately 70,000 families) and is centrally located 180 kilometers from Addis Ababa. Chilalo had a per capita income of US \$60 when the Project was initiated. Ninety-five percent of the inhabitants earn their livelihood from agriculture, the majority of them making up the target population of CADU.

The climate varies with altitude. On the plateau, rainfall is between 750 and 15,000 millimeters, decreasing to about 500 millimeters in the valley. The temperature ranges from 10-15° C to 20-28° C, with two rainy seasons. There is one gravel road running in a north-south direction, part of which is passable only in the dry seasons. Otherwise, mule-tracks are the best

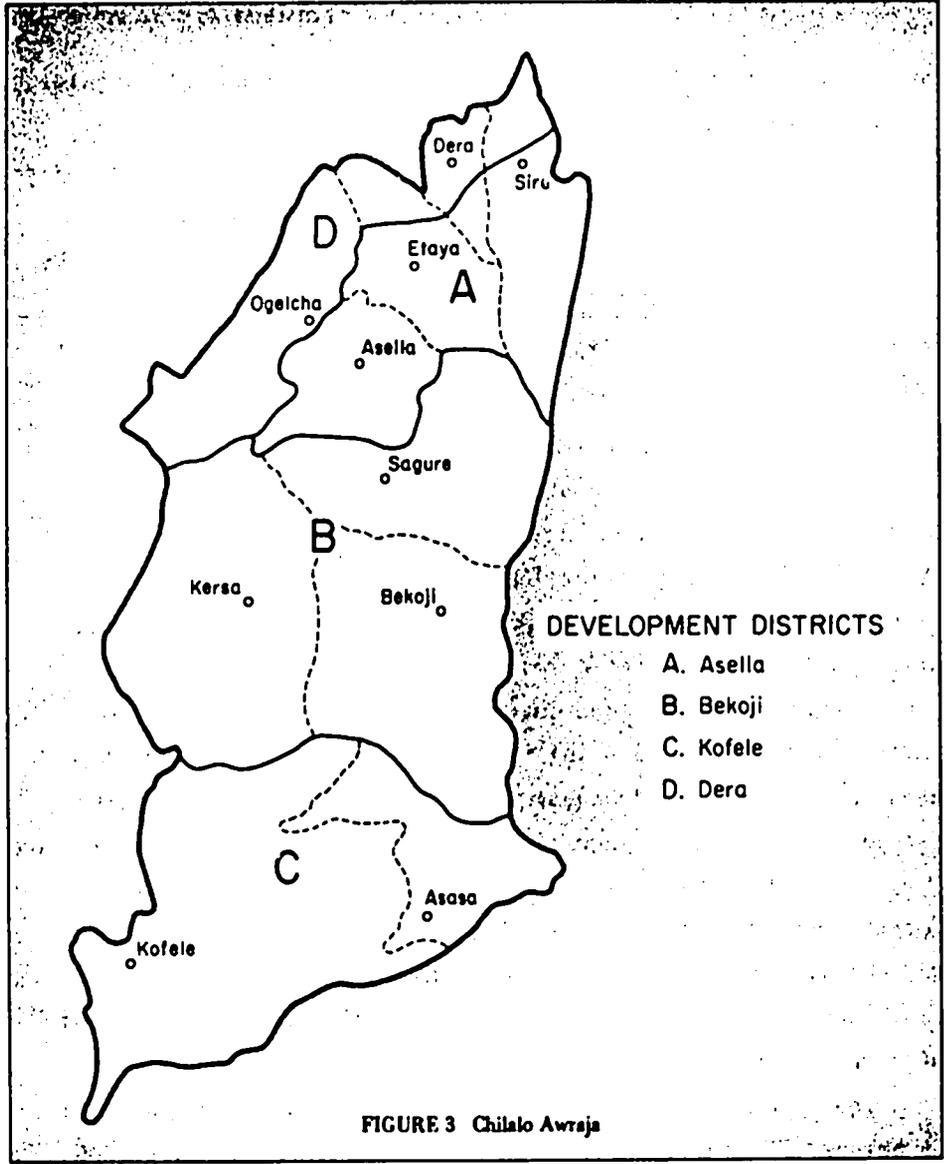


FIGURE 3 Chilalo Awraja

mode of travel. Water is taken mainly from streams. Besides being unsafe, water collection involves walking a considerable distance.

The provincial capital, the district seat, and CADU headquarters are located in the small town of Asella (about 14,000 inhabitants). Like most provincial Ethiopian towns, the standard of housing, nutrition, amenities, and other factors of living are very poor. There is a governor-general (now called Provincial Administrator) with provincial officers of the ministries of agriculture, land reform, finance, education, public health, communication and commerce. The *Awraja* governor, (*Awraja* Administrator) on the other hand, only had representatives for education and land reform at his level.

An "*Awraja* Development Committee," composed of farmers' representatives, the *awraja* governor, the ten *woreda* (sub-district) governors (administrators) and representatives of ministries in the province, with the CADU executive director as chairman, failed to function as desired. A fresh effort is now underway to establish such a committee within a hierarchical framework extending from the village to the regional level.

At the regional level, linkages and transactions were complicated. The Project usually dealt directly with each agency and sometimes through the governors, due mainly to the structure of provincial and district administration in the country. While provincial representatives were directly responsible to their respective ministries, the governor-general, as a representative of the Emperor, traditionally had power to supervise them all. The *awraja* governor did the same thing at his level. In actual operation, the provincial governor usually bypassed the *awraja* governor and maintained direct relations with *woreda*-governors. Hence, CADU's interaction with these public institutions was

bound to be mixed-up, depending on the nature and purpose of the transaction.

CADU has not been perceived as a regular component of the provincial and district public administration network. Nevertheless, because of its comprehensive package policy, CADU touched almost every agency's jurisdiction and often faced a hostile attitude. In addition, CADU's close contact with the peasants was often viewed, by some agencies, as a threat to their relations with the people.

This concern and dislike for the Project was demonstrated in many instances by a lack of cooperation and denial of support at the *woreda* level. The *woreda* governor, the lowest vital link between the Emperor and the people, enjoyed boundless respect and full authority in governing his area. When farmers spent time attending demonstrations and development meetings sponsored by CADU instead of crowding his office (often viewed as a sign of prestige), the *woreda* governor quickly reacted by discouraging attendance at such meetings through the village chiefs (*Balabats*). Project agents were forced to seek his support, thereby reinforcing his status.

The *woreda* governor, for the most part, was a part-time farmer who usually operated large plots through contributions of labor and other inputs from his subjects. CADU, besides inducing farmers through high-yield incentives to concentrate their resources on their own farms, excluded all part-time farmers from its credit provisions--a direct attack on the personal interests of the *woreda* governor.

After the Project had been in operation for almost seven years, this author presided over a symposium where governors expressed a clear dissatisfaction with and strong resistance to

some of the Project activities, despite CADU's continuous effort to establish a better linkage with them. John Cohen, a former faculty member at Haile-Selassie I University (now at Cornell University), after studying CADU in 1972, observed:

The quality of leadership in the local government officials is extremely low. The *awraja* governor, . . . is a rather dynamic man but his power to involve himself in leadership for change has been dramatically restricted by . . . the provincial governor and his supporters . . ., the central government has done nothing to improve the local government in the *awraja*. There have been no training programs or salary increases which would have promoted more efficient government.¹⁴

A comprehensive evaluation study penetrating the interface between the Project and public institutions at the provincial, *awraja*, and *woreda* levels may provide the Project with the best strategy for tackling its hostile environment and for successfully managing its transactions. Linkages at these levels could be both functional and normative because both formal and traditional institutions and leaders are involved.

Grass-Roots Level – Normative and Diffuse Linkages

The Orthodox Church, the Muslim mosques, cultural associations, and other traditional and religious elements have had their share to contribute to the success and failure of the Project. The new input technology introduced by CADU can hardly be managed by the small farmer if he must adhere strictly to traditional norms, such as the numerous holidays that must be observed by followers of the Ethiopian Coptic Orthodox faith.¹⁵

Local merchants, although not formally organized, viewed CADU's marketing operation as a threat to their survival and attempted several times to undermine these aspects of the

Project activities. This attitude occasionally resulted in violent attacks on Project employees.

Landlords, and the provincial elites in general, did not perceive the Project as a legitimate one, insofar as it related to their status quo. One often heard the more urban-oriented citizens in the provincial town expressing concern about the rising cost of housing and food which they thought was due to the high number of CADU employees creating more demand for goods and services in the locality. No means has been found so far to neutralize these and many other hostile attitudes surrounding CADU. The Project simply continues to face them all.

Needless to say, the normative and diffuse linkages which the Project had to maintain with these unorganized elements remain a crucial element in its task environment. Their negative impact is likely to be more significant, as time elapses, if strategic actions are not taken to neutralize or co-opt them.

One thing is evident. The small farmers in Chilalo have clearly expressed their interest in the Project by participating in its activities; their enthusiasm balances the cumulative effect of the negative external pressures. In the future, their enthusiasm could even undermine the negative elements of the hostile task environment, especially if the new socialist policy is successful.

3

The Evolution and Performance of CADU

The internal structure of CADU influenced its transactions with elements of its task environment. The "performance model" (see Fig. 4) will be used in discussing CADU's evolution and achievements through the years.

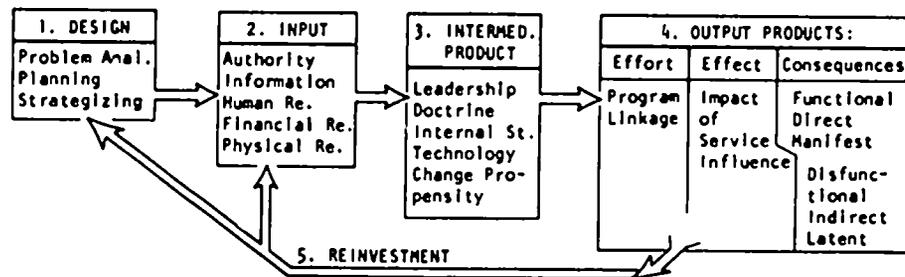


FIGURE 4 Performance Model of a Rural Development Institution

Design

The planning team, comprised of Swedish economic and agronomy experts, considered factors relevant to agricultural development but overlooked many social, cultural, and political elements. Although the plan was eventually reviewed by national authorities, no Ethiopian expert directly participated in the technical aspects of the field investigations. Experiences from other parts of the world (e.g., the Comilla Rural Development Academy) influenced the Project design. Salient institutional aspects of

such experiences, however, were not included. The training of local-public officials is a case in point. While Comilla successfully benefited from this program, the CADU design did not provide for such an undertaking, and, as a result, the Project faced hostility especially from public officials opposed to its innovations. It could be said that the inadequacy of *problem analysis* and *planning* was reflected in the Project's early activities.

Social development aims were left vague and ambiguous in the "plan of operation," and recent expansions to embrace social and human components were made possible largely through the dedicated effort and innovativeness of the Project leadership. Thus, the overall success of CADU depends largely on creative implementation and continuous redesign of the initial plan. The Project activities directly focused on four of the ten design components (agri-production, marketing, supplies, and infrastructure), somewhat touched on four (research, education, nonfarm production, and health), and depended on other institutions for the remaining two (governance and welfare).

The "strategy of implementation" was of significant importance in the success of CADU. SIDA was involved at the grass-roots level in the distribution of its technical assistance. By directly participating in this aspect of the program rather than leaving it to the government (as in most development projects), SIDA insisted that its aid be directed toward the poorest segment of society--the small farmers.

Furthermore, the conditions of the bilateral aid agreement, although never realized, aroused considerable concern in national circles regarding such important issues as land reform, local government, construction of feeder roads, and other aspects of development.

Inputs

The magnitude and quality of input available to the Project were important determinants of its success and effectiveness. Inputs can be classified as legal and political (authority), human (personnel), financial (funds), physical (resources), and informational.

Authority. The Project leadership was highly autonomous but lacked the power to solve a complex problem. For example, after the tenant displacement problems, CADU attempted to gain some control over government land in the area in order to relocate evicted tenants. Unfortunately, the Project leadership had no success with the government, and land continued to be granted to major landlords in the area or political favorites at the national capital. Thompson's proposition seems to hold true in this particular case.

When interdependence is so diffuse that the local job lacks command over the resources [authority in this case] needed to carry out a discretionary commitment, we would expect the individual to evade discretion. This situation is sometimes referred to as 'responsibility in excess of authority.'¹

CADU needs a clear legal mandate to accomplish its complex duties and adequately shoulder responsibility for consequences to follow.

Personnel. The Project leadership was fortunately of high quality, but there was a shortage of workers with the precise skills, knowledge, and commitments required for effective performance in such an innovative project. Ten years of schooling, the ability to speak the local language (*Galigna*), and some rural background are required to qualify for the training programs. In 1968, the training center was established to produce

field personnel in needed quantities and qualities to carry out the extensive development work of the Project at various levels.

Agricultural Extension and Marketing Agents were given six months of initial training which included about two months (30 percent) of practice on a twenty hectare demonstration farm followed by one year of supervised field experience in actual operational set-ups at various locations. A four-month "finish-up" seminar completed the training. The seminar provided opportunities to synthesize theories and field experiences and to clarify operational problems by exchanging views with instructors, Project authorities, and invited specialists. A seven-month training program for home economics agents has been temporarily discontinued since 1972 for a general appraisal and review of the program. Cooperative organizers and managers are also trained in cooperation with other institutions. All in all, 118 development workers were trained before May 1973.

The training facilities were recently expanded to meet the demand. Agents employed by other rural development institutions are given orientation and one to three months of on-the-job training.

Refresher courses, symposiums, and seminars are conducted to upgrade professional abilities and keep workers familiar with rapidly changing policies and procedures. CADU is the first institution in Ethiopia to provide intensive and extensive in-service training programs for personnel development and to attempt to offer courses on the theory and practice of social development. Study tours of development projects in other countries and scholarships and fellowships for advanced studies are available for selected employees. These opportunities enhance Ethiopianization

by insuring an adequate number of Ethiopians able to launch and man development endeavors elsewhere in the country.

It must be pointed out that the plan to Ethiopianize the Project was successfully realized in a fairly short period of time. By and large, CADU continues to have the potential to provide the training most relevant to rural development in Ethiopia. There is no other place in the country with adequate staff, facilities, and the right practical experience to provide inexpensive, meaningful, middle-level training so badly needed in Ethiopia today.

Funds. CADU has been perceived by many as a very expensive project because its results were not as tangible as the cost. During the first agreement (1967-70), the Project spent Eth. \$13,852,000 of which about Eth. \$5,000,000 went to investment costs (buildings, laboratories, health facilities, roads, water and sewage system, etc. at the Project headquarters). More than Eth. \$3,000,000 were paid to expatriate personnel, while salaries of the Ethiopian high- and middle-level staff amounted to Eth. \$668,000. Almost 25 percent of the total cost of the Project went to salaries for expatriate staff; they composed only 4 percent of the total staff but received 65 percent of the total payroll. The next agreement (1970-75) was estimated to have cost Eth. \$30,000,000. Although the Project had no difficulty getting funds within the annual budget approved by both sponsors, this picture, no doubt, dooms the replicability of CADU at its level of ambition and scale of intensity.

Some strategic measures could considerably reduce the total cost. Coordination of some activities at the national level (e.g., seed multiplication and certification, production of semen, marketing farm produce, credit provision, etc.), Ethiopianization of personnel, proper taxation, and delegating some responsibilities

to the Project's beneficiaries could be considered as means to ensure better distribution of development costs and minimizing the Project cost. Nevertheless, if CADU is perceived as a pilot project for the introduction of integrated rural development in Ethiopia, even its present cost-level is quite justifiable.

Information. Continual fact-finding and evaluative diagnosis of Project activities have provided invaluable feedback information. The planning and evaluation section of CADU conducted some surveys of this nature, and findings are documented in a series of "CADU publications" (now numbering over 100). In addition, some descriptive documents on the Project have been published by the information and public relations section. However, if CADU is to find a suitable method for the development of peasant agriculture in Ethiopia, there must be more collecting, analyzing, processing, storing, retrieving, and disseminating of valuable information to support the development endeavors. Adequate information on the social structure, group dynamics, and behavioral patterns of its environment in general and its target-group in particular has not been properly collected and documented by the Project thus far.

Except for a very broad and superficial overview--the survey conducted by the Project planning team prior to its establishment--little has been done in terms of a comprehensive systematic survey of ecosystem components, i.e., human, manmade, and natural resource characteristics of communities in the region. Some of the studies (e.g., soil analysis) and a few of the evaluations (e.g., consumption pattern study) now in process could contribute to understanding the organic and environmental systems of the communities. The Project must undertake more activities of this kind in order to form a clear picture of the communities and to design a comprehensive development plan for effective action.

CADU also needs to be keen in dealing with its hostile environment and it may be necessary, as Esman suggested, to

continuously scan its external environment for signs of changes which represent potential dangers or new opportunities to which it can adopt its programs before it is confronted with crises. Thus leadership must invest energy in establishing an information system and maintaining its informational resources at a high level of efficiency.²

Intermediate Products

Leadership. For an organization seeking enhancement of change and development rather than maintenance of the status quo in an environment which imposes obstacles, constraints, and contingencies, acquiring the guidance of technically and politically competent leadership committed to innovations is of paramount importance.

Like most complex organizations, CADU has divided various leadership roles among a management group. The top executive was jointly appointed by MOA and SIDA, and the leadership quality of CADU has been quite high. Although foreign leadership should not be a substitute for domestic leadership, in the case of CADU it provided the initial foundation of management efficiency. The top leadership of the Project was Ethiopianized within three years. When I joined the Project in 1970, I observed that the Project possessed a precious resource in the person of the Ethiopian executive Director, a man with a "dominant personality," organizational capability, and skills and a deep commitment to innovation. Unlike many leaders in the country, the director was able to persuade key staff members to identify their own interests with the welfare of the Project and the innovations it represented. John M. Cohen commented on the effect of the Project leadership on the quality of the staff as a whole:

The Ethiopians operating at other [than the director] levels are of a far higher quality than would normally be found in areas of government activity. Their working relations with the Swedish employees at the various levels of the operation have tended to reinforce their organization and managerial skills as well as their motivation. In fact, in comparison with most other government operations found in Ethiopia, CADU employees are highly motivated and interested in their jobs--a characteristic which is clearly the result of good project leadership.³

Activities were coordinated by departments and units in an administrative hierarchy. CADU relied to a great extent on committees and taskforces for many of its vital activities which required inter-departmental cooperation, thus providing a collective decision-making mechanism through "team work" and organized effort.

I would like to record one observation related to the leadership of the Project. Until very recently the programs and activities of the Project were oriented predominantly toward economic growth, despite the fact that the plan of operation indicated "social development" as one of the major primary goals. The unbalanced concentration could possibly be a result of the domination of the top Project management by professional economists. It might, however, be a deliberate policy, for although economics is not all of life, it is, in a poor society, most of it. However, if the ultimate goal is institutionalizing the Project and relegating some of the programs to the beneficiaries, the leadership must direct more energy to the promotion of social and human development.

By and large, except for external problems beyond Project control, the leadership has always coped with dynamic and unprecedented situations that are bound to occur in the development and

operation of a complex and innovative institution like CADU.

Doctrine. The doctrine of CADU is not clearly stated. However, the "purposes" stated in the plan of operation can be briefly summarized in two broad statements of objectives.

1. Bringing about economic and social development in the Project area. Activities toward this end shall be conducted so as to ensure the participation of *farmers in the low income bracket*, and their assuming increased responsibility for those activities and avoiding adverse employment effects.⁴

2. Finding suitable methods which can be applied in an integrated manner to bring about agricultural development and creating possibilities for the replication elsewhere in Ethiopia of the positive experiences gained. This includes training Ethiopian staff for such development undertakings.

The first objective, with perhaps the most direct impact on the small farmers in the area, is too generalized and sets no clear order of priorities. This has made the task of evaluation difficult, and neither internal nor external evaluators of the Project have yet investigated the social development issue. More specific program targets, however, have been outlined in the Project's annual work-program and budget on which most evaluations are based. Most employees seemed to view CADU as a special institution to serve the small farmers in Chilalo and raise their living standards, but many seldom worried about what is meant by "social and economic development."

I am not suggesting that goals be stated so specifically that the Project leadership loses the degree of flexibility and autonomy it now enjoys in determining the direction of emphasis. More clarification of what is meant by "social and economic development" will suffice. There also needs to be an investigation of how leaders in

other organizations having linkages with CADU and the community at large view its doctrine. (Many, for example, viewed the Project as a profit-making commercial venture.) The evaluation effort at this point must also assess the doctrine of CADU in terms of how it motivates personnel, establishes expectations about Project performance, provides standards for decision-making and evaluating results, and helps to prepare for and rationalize changes in the Project's emphasis, activities, and outputs. Another important question to be investigated is the extent to which the doctrine assists the leadership in guiding the internal development of the Project and its interactions with the external environment.

Internal structure. CADU is clearly a bureaucratic organization with specialization of roles, formal rules and regulations, and hierarchical authority structures. Although collegial decision-making seems to be manifested, some degree of centralization is apparent. As an autonomous Project within the MOA, CADU's leadership has been partly responsible to the minister and partly to SIDA.

Within the Project, the executive director, at the apex of the organizational hierarchy, planned, coordinated, directed, and controlled the activities, assisted by a group of department and division heads. Departments, divisions, and sections coordinated related activities (see Fig. 5). Departments and divisions occupied the same organizational level except that the latter have been, supposedly, self-financing autonomous units governed by boards. Sections were the lowest units in the hierarchy, although some might have units within them. The executive director chaired a permanent policy Advisory Committee composed of department and division heads which advised him on policy matters.

Although the Project can act on its own initiative without resorting to other authority, it can do this only within narrow

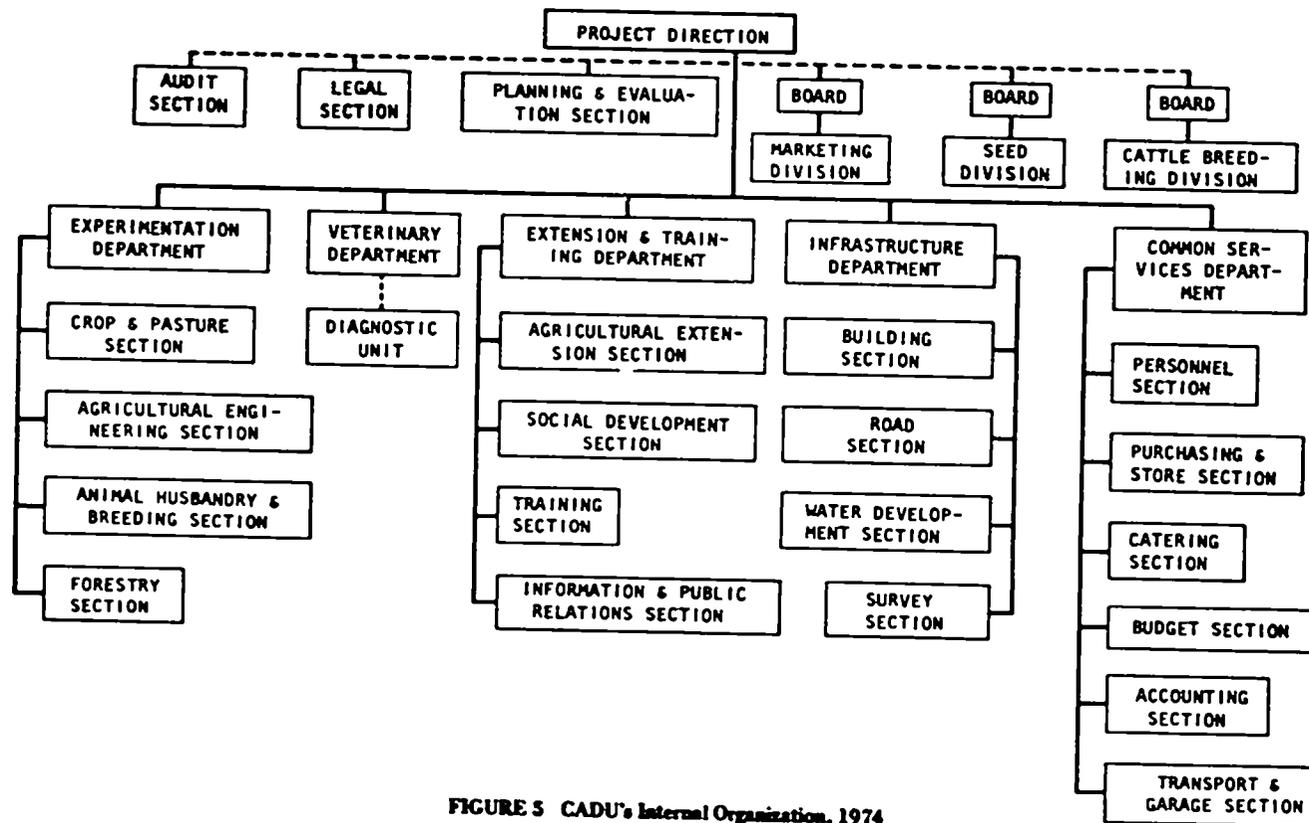


FIGURE 5 CADU's Internal Organization, 1974

parameters. Thus, in the case of CADU, autonomy does not imply pervasive problem-solving power. The ad hoc groups working on specific activities included committees and task-forces for the management of personnel, transport, credit, experimentation, intermediate technology, livestock, road building, and others. The continual revision and reformation of these groups through the years has clearly reflected the Project's dynamism.

The healthy relationships among employees at different levels within the Project organization presented a notable exception to the common "red tape" prevailing in the public administration of Ethiopia. Even the lowest employee had easy access to the executive director. Nevertheless, CADU could profitably attempt to improve its organization in order to attain the state Esman described.

One invests normatively in the organization so that its component units and individuals may be motivated by similar goals and expectations, bring the same value premises to bear on problems that arise, develop a high degree of interpersonal trust and thus put forth greater effort than their salaries alone could evoke, because they derive part of their rewards from the psychic satisfactions of serving an organization and set of purposes they believe in. Organization is more than an aggregation of individuals and equipment and both the technical performance and the commitments it evokes result from what has been invested in it.⁵

Future investigations of the internal structure of CADU should focus on formal and informal patterns of authority, division of labor among and channels of communication between various components and methods of mediating, and resolving the disputes that inevitably break out over policies, priorities, resource allocations, and personalities. The findings of such investigations can lead to a more progressive personnel management policy which could possibly

serve as a model for rural development administration in Ethiopia and elsewhere.

Output Products

Efforts. The efforts of CADU can be analyzed best by examining its programs or activities. Since it would be difficult in this study to give an exhaustive account of the Project's numerous programs, a brief summary will be given and the outcomes of each program briefly discussed.

Programs: By analyzing the "operational patterns" within the Project and consolidating them into "roles" and "functions" which are meant to play in the total system, I have reduced the number of components needed to examine the Project's tasks (see Fig. 6). This is particularly helpful for building a shortcut and inexpensive evaluative model aimed at analyzing Project programs. Following are the activities and achievements of the Project, as I view them.

Research and experimentation. CADU has conducted applied research and experimentation concerning crops, pastures, animal husbandry, agricultural implements, and forestry. Results of this work have enabled the farmers in the Project area to increase their crop-yields by 70-100 percent and to acquire cows that give ten times as much milk as local cows. Similarly, the acquisition of improved agricultural implements (ploughs, harrows, threshers, etc.) has led to improved cultivating techniques for the average farmer. The identification of new tree species will hopefully lead to a large reforestation program. As indicated above, there have been no significant research activities aimed at "social and human development."

The non-formal Education Strategy (Diffusion of Innovations). This program focuses on four important grassroots educational activities.

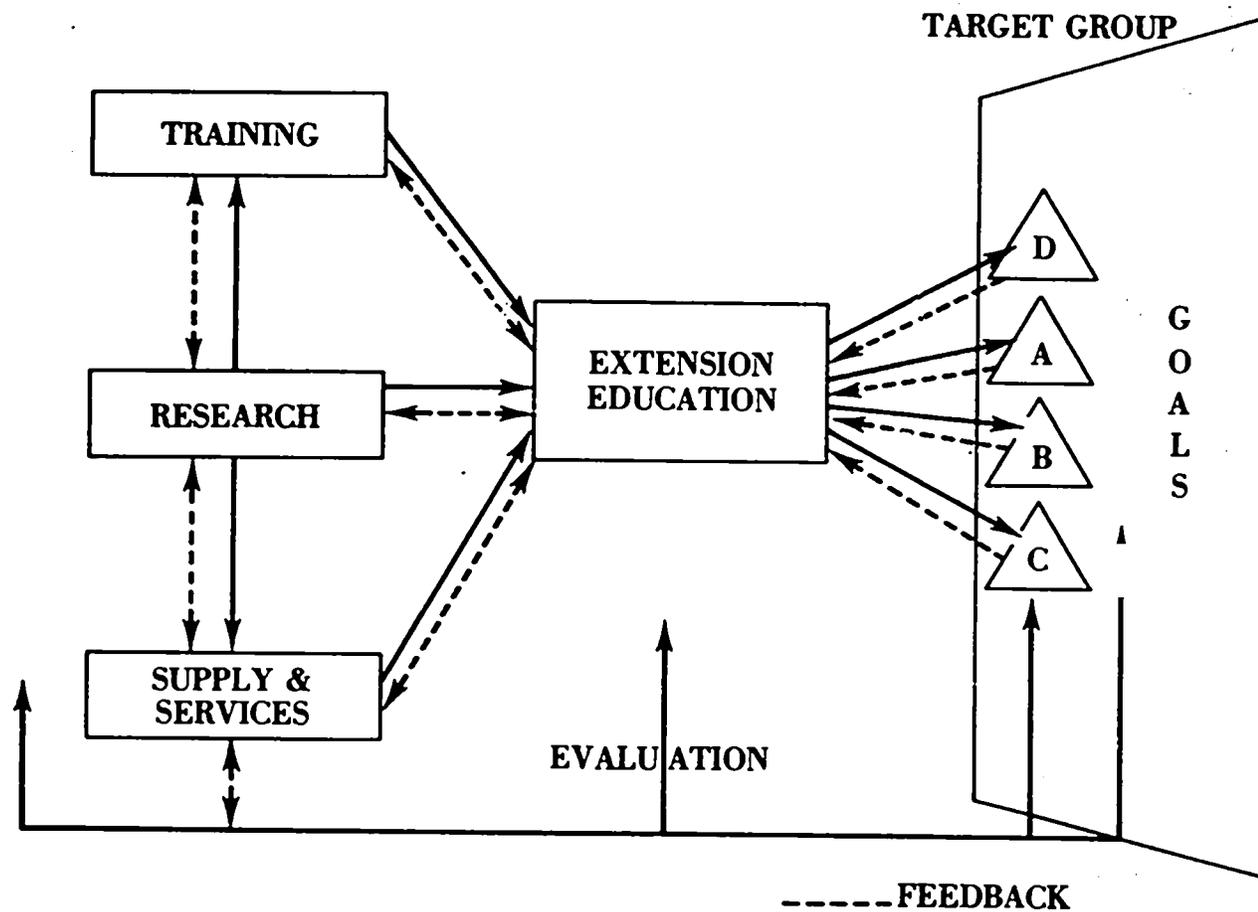


FIGURE 6 CADU's Model of Operation

Agricultural Extension: CADU formulated practical recommendations based on its research findings and disseminated them to farmers through well-organized extension network. The Chilalo Awzaja, for example, has been subdivided into four development districts (see Fig. 3). The varied activities of the Project now extend into all four districts. There are at present thirty-one extension areas with two agricultural extension agents in each area. Further geographical expansion is not foreseen in Chilalo. Key elements of the non-formal education strategies are: 1) the extension agent, 2) the model-farmer system, and 3) demonstration plots (see Fig. 7).

The aim of most innovations is increasing "agricultural" productivity (crop production, livestock breeding, forestry, and erosion control, etc.). Specific innovations introduced include: improved cultivating practices (farm tools and implements); upgraded cattle (cross-breed); new seed varieties; and the application of fertilizers, herbicides, and insecticides. Individual farm plans were drawn for each farmer before he could acquire new inputs on credit.

Home Economics: A home economics program was instituted in 1968 as an integral part of the attempt to improve economic and social conditions in Chilalo. Two home economics agents were assigned (in each extension zone) to form four groups of 15-20 farm housewives each. The participation of model farmers legitimized the program. Each agent conducted two weekly lessons and demonstrations for every group. The lessons concerned child care, food preparation, poultry, housing, gardening, personal hygiene, latrine and garbage-pit construction, marketing, and literacy. Enrollment in the program dropped from 3,022 in June 1972 to 2,512 in June 1973. The Project recently evaluated this Program to

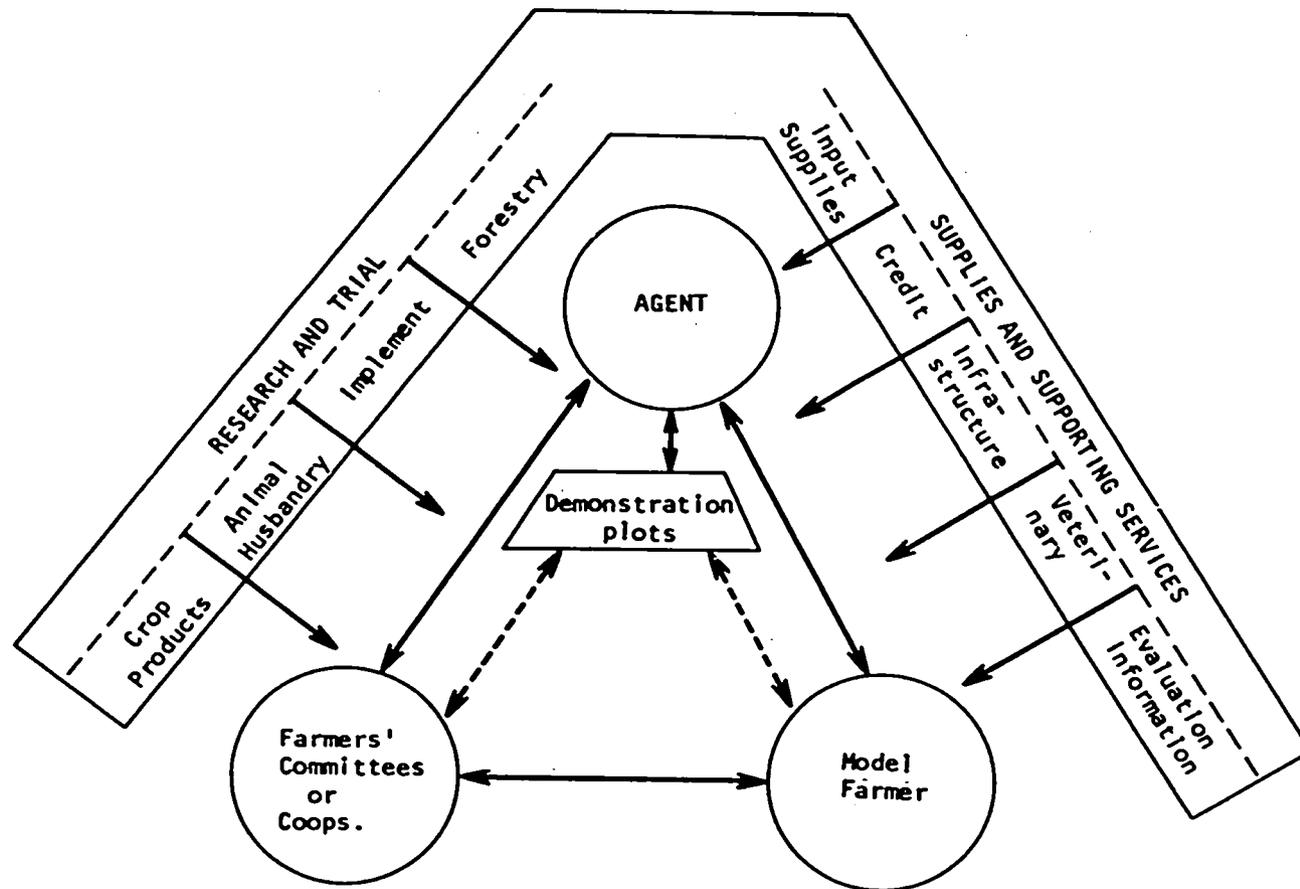


FIGURE 7 CADU's Non-formal Education Strategy

determine the reasons for the decline in enrollment and to ameliorate the situation.

Youth Extension:⁶ To maximize the impact of CADU on the living conditions of participating families, since 1973 the extension network has included a program aimed at encouraging young people between ten and twenty-five years of age to participate in the development effort. The program is a voluntary educational enterprise for rural youth and school children in the Project area. (It is appropriate to note that schools are very scarce in this area, as in all rural regions of Ethiopia, and the vast majority of young people do not have the opportunity to receive systematic education).

The general framework of the program was designed to be flexible and provide for self-directed discovery. The program's theme, "Learning by Doing," strongly emphasized involvement and participation. Youth were encouraged to form groups, elect parents and teachers as volunteer counselors, and choose leaders among themselves. The Project organized special orientation workshops for elected volunteer counselors and provided extension workers to help with group endeavors.

Recreational activities were attached to attract interest; exhibits and achievement days for recognition and awards served as incentives; team work was encouraged to promote cooperative spirit and organized effort; leadership was promoted to encourage learning to assume responsibility, dependability and trustworthiness; and, above all, these activities hopefully will help them to learn the dignity of labor. A recent monthly bulletin of CADU, "Limat," reported that over 2,000 youth are now participating in the program. Nevertheless, it is still too early to assess its impact.

Self-Help: In addition to the educational programs described above, plans are underway to introduce a self-help program aimed

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at mobilizing community efforts for such activities as improving water supplies, road construction, and expanding health, education, and housing facilities. The youth and self-help activities were instituted with little, if any, research backing. Their outcome remains to be seen.

Production of input supplies. In order for the small farmers to acquire the recommended agricultural inputs at reasonable prices, CADU has produced and certified some of these supplies-- seeds of high-yielding varieties of crops, upgraded cattle, semen from selected bulls, seedlings of various tree species, and a number of different agricultural tools and implements. It must be kept in mind that no other institution produces and certifies crop seeds in the country.

In replicating the development model of CADU, centralization of this program should perhaps be considered as a way of reducing investment and operational costs. An organization working closely with the national research institutes to undertake the production, certification, and distribution of crops on a homogeneous regional basis might be desirable.

Provision of supplies and services. The agricultural inputs produced by CADU and inputs imported from abroad (fertilizers, insecticides, etc.) were sold to farmers through a network of thirty-three "marketing centres" located in all parts of Chilalo. An artificial insemination service and preventative and curative veterinary services for the cattle in the Awraja were also provided. Table 2 shows the amount of supplies provided to small farmers.

Credit provision. The income of the small farmers in Chilalo has prohibited them from purchasing agricultural inputs for cash. Therefore, a credit scheme, one of the most important components of the CADU package, has been in operation since the beginning of

TABLE 2 The Amount of Inputs Purchased by Small Farmers
(in quintals - 100 kgs)

Input	Years					
	1968	1969	1970	1971	1972	1973
Seed	970	4,500	7,900	12,800	3,000*	3,100
Fertilizer	42	2,500	15,300	41,900	35,000	74,687

*This decline could be due to the fact that farmers acquire their preference varieties through their own seed multiplication effort.

the Project. The credit program has been limited to landowners who cultivate less than twenty hectares and to tenants who cultivate less than thirty hectares. The number of farmers participating in the credit program increased during the early years of the Project (see Table 3).

TABLE 3 Credit Granted by CADU to Tenants and Owner-Cultivators

Category	Years						
	1968	1969	1970	1971	1972	1973	1974
Tenants	15	135	1,500	5,500	3,800†	*	*
Landowners	175	615	3,300	8,600	8,800	*	*
Total	190	850	4,800	14,100	12,600	13,119	25,702

*Figures unavailable

†This decline could be a positive indication that some tenants acquired inputs in cash; or a negative sign that unsuccessful ones were excluded for failure to repay their previous debt or were evicted--due to displacement by mechanization.

CADU has been able to reach both the small scale owner-cultivators and the tenants. Tenants constituted about one-third of all participants, and landowners cultivating less than ten hectares constituted over 55 percent of all participants until 1972. This

activity becomes especially significant when compared with the credit system that prevailed in the area before CADU. The peasants were always in debt, and high interest rates caused many of the small-scale owners to sell their land and become landless tenants. The credit program has done more than facilitate the distribution of new inputs.

Incentive promotion. To ensure that farmers obtain a market outlet and favorable prices for their produce, and to facilitate the credit repayment process, CADU has engaged in the purchase and sale of grain and milk. This program has expanded rapidly, and CADU now purchases between five and ten thousand tons of grain and over 200,000 litres of milk annually. This activity becomes enormously significant in view of the small traders and middle-men in the area who formerly exploited the small farmers with uncontrolled prices. Furthermore, this activity can gradually be transferred to the farmers when they become better organized.

Development of infrastructure. This program has consisted mainly of constructing roads and developing Chilalo's water resources. The construction of feeder roads (about 200 km.) in six different directions within Chilalo is planned. Work is now nearing completion on most of these roads.

A five-year investigation of the water potentials of Chilalo Awraja produced a "master plan"; the implementation phase began in 1973. The plan recommended sinking bore-holes and constructing ponds and dams for communities and wells for individual families. Besides its possible impact on health in terms of reducing communicable diseases, the water program will save considerable amounts of labor and time now expended in carrying water.

Promotion of local participation. To enable the small farmers to participate in the decision-making process and to assume greater

responsibility for activities presently undertaken by CADU, the Project has developed two strategies: (1) the formation of various committees at the model-farmer, extension area, development district, and *Awraja* level; (2) the promotion of primary cooperative societies around the marketing centers. The first layer of committees was begun in 1971 and has proceeded satisfactorily; the development of cooperatives has lagged behind. Currently, however, over 9,000 farmers have organized under a few primary cooperative societies. More active participation will probably result when the self-help programs aimed at promoting social development are fully implemented. The recent demonstration by small farmers in the area demanding land reform and improved local administration is indicative of the growing political consciousness which, justifiably, can be attributed to CADU's efforts to promote local participation. The new Land Reform Proclamation provides for the establishment of "farmers' associations" in each village. This may provide a framework for a systematic mobilization of the rural poor for active involvement and participation in determining the fate of change in their locale.

Increasing employment opportunities. To diversify the Chilalo economy and create employment opportunities other than farming, attempts are underway to identify feasible small-scale industrial ventures. A few have been identified (e.g., hand-weaving, slaughter house, wood industry), and some are in the process of being established. Furthermore, CADU activities, such as the road building program and the Munessa State Forest re-forestation scheme, were deliberately made labor intensive and now employ about 1,000 workers annually. Much remains to be done in terms of diversifying the Chilalo economy and providing more employment alternatives.

Training of staff (Reinvestment). This program has been discussed in relation to the preceding analysis of inputs. The training clearly indicates the intention and conscious effort to develop native personnel and the underlying reinvestment policy. The documentation activities, including the "CADU Publication" series, represent another commendable reinvestment effort (see Appendix for a list of CADU publications). These reinvestment strategies were partly responsible for the replication of the CADU package model on a national scale--the minimum package program.

CADU's potential for providing an alternative approach to the basic problems of the underdeveloped world must not be underestimated. The growing number of visitors to the Project (e.g., 557 in June and July 1974) from other parts of Ethiopia, and the world at large, reflects this potential.

Effects

One way of testing an institution's ability to effectively implement a small farm program is to measure its impact at the farm level. CADU's evaluation so far has focused primarily on the amounts of seed and fertilizer distributed, the production increase, and the like. No attempt has been made to measure the cumulative effect of these innovations on individual behavior, on family living, or on community innovativeness.

Although it is clear that the production and, consequently, the income of farmers participating in the CADU program has increased substantially, it is not clear what impact this has had on factors such as distribution of net-income, changes in outlook and economic horizons, and improvement in living standards.⁷ The two external evaluations of the Project conducted to date have not investigated the Project in these terms. Such an evaluation may

require an extensive field investigation, but it must be acknowledged that, in the final analysis, this is what actually matters to the small farmers. In order to ensure whether or not the desired goals are being attained, the Project needs to place emphasis on the assessment of its impact on the clientele.

Influences

No systematic attempt has been made to determine the influence of CADU, but experience and observation allow some general conclusions. CADU has influenced the direction of policies for agricultural development in Ethiopia. The package approach and the focus on the small farmer are both new phenomena that survived the skeptical scrutiny of the bureaucratic national hierarchy and now appear in national policies and plans. The minimum package program, now gaining momentum in most parts of rural Ethiopia, is a case in point.

Somewhat related to the above, but significant in its own right, is the change in attitudes toward the small farmer. The Ethiopian peasants were generally perceived as lazy, conservative, and ignorant. CADU has clearly proved that the Ethiopian small farmer is intelligent, innovative, and rational in his decisions. Furthermore, the Project has convincingly indicated that the small farm in Ethiopia is a viable economic unit that can benefit from improved technology without necessarily involving the importation of sophisticated machines and the commercialization of agriculture. These influences are of paramount importance for the nation-building effort Ethiopia is undertaking.

At the global level, many international development agencies are following CADU's development with keen interest. The World Bank "education sector review" in Ethiopia and recent US AID initiated development projects have drawn many ideas from the experiences of

CADU. It is generally accepted that Swedish development aid projects in other countries are being influenced by CADU. Finally, CADU is one of the very few pioneering integrated rural development efforts that scholars in the field can turn to for pragmatic information vital to theoretical formulation and conceptualization.

Consequences

The consequences of CADU are, obviously, numerous and complex. The most worrisome, indirect, and latent consequence was the eviction of tenants in the area. This tragedy, contrary to widely held views, should be perceived as a result of the archaic feudalistic land-tenure system rather than an outcome of the Project. CADU has neither the authority nor the means to avoid this consequence. It has advocated reforms in the tenure system since its establishment. CADU has undertaken a small resettlement scheme to experiment and demonstrate what needs to and could be done to ameliorate the situation.

The Project wasted no time in taking advantage of recent political development in the country. CADU submitted a proposal for "agrarian reform" to the "coordinating committee of the armed forces, police and traditional army" which was leading the reform efforts currently in progress. CADU's proposal rightly emphasized the need to concentrate policy and resources on the development of peasant agriculture. It did not overlook, however, the profitability of large-scale agri-business which, it recommended, should come under the domain of public enterprise. In the future, the positive consequences of CADU (direct or indirect) are likely to be far-reaching, including changes in policies related to taxation, import of agricultural technology, technical assistance methodology, national planning and resource allocations, as well as the general way of life in rural Ethiopia.

4

Lessons of Experience and the Future

To enumerate all the factors affecting the development of a rural area is difficult, if not impossible. Nonetheless, it is both possible and desirable to identify the most crucial elements, in order to conceptualize rural development and enhance our understanding of this phenomenon. Ten critical components of a rural development system have been identified in this monograph (see Chap. 1). Their interrelationships, interdependencies, and linkages have been discussed briefly, and coordination and integration strategies have been outlined.

The research needed to crystalize these relationships and reveal the impact of a particular coordination or integration strategy challenges all people interested in rural development. There can be no mutual understanding of the subject until a uniform concept of reference is developed. As a matter affecting the lives of millions of people, rural development deserves the attention of interdisciplinary scholars.

The need is for more and better knowledge as a base for design, planning, and operation of rural development institutions. Goals and underlying assumptions must be considered, along with institutional design, content and adequacy

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of inputs, intermediate products and outputs, and the institutional effects (including consequences). A conventional input-output comparison (cost-benefit ratio) is not enough.

In the final analysis, we must focus on the benefits to farmers generated by the institution in question. The concept of integrated rural development encompasses many components. Attainments in each category must be examined and evaluated. Tools to complement the conventional efficiency tests are needed. Indicators must be established. Pending the development of a comprehensive set of indicators, I have settled for "check lists" and "guidelines." A few such indicators and descriptors are identified, and some measurement tools are listed in this study (see Table 1).

Research to validate and refine such tools is needed. The value of an interdisciplinary approach is demonstrated by the use in this monograph of many theoretical constructs from institution building, organization theory, systems approach, evaluative research, diffusion theory, and other fields.

The Case Analysis of CADU

This analysis clearly indicates the need for and feasibility of a comprehensive appraisal of the Project. It sketches an evaluation (performance) model that can be quite helpful in describing and analyzing projects and environmental factors. More systematic research concerning major components of the system is called for. Further study of CADU might investigate the task environment at different levels, as well as the internal structure of the Project. Such a study could help stimulate hypotheses contributing to a clear concept of institution building for rural development. The following typical kinds of hypotheses seem to be supported by the experiences of CADU.

Leadership and enabling linkages. High frequency of interaction between host institution leadership and government leadership can strengthen the enabling linkages of host institutions.

Doctrine and functional linkages. Host institution leadership has less freedom to effect major policy changes when doctrine is highly specific; such specificity, however, defines the host institution to competing organizations in the environment.

Resources and diffuse linkages. Efforts to give the host institution high visibility through the mass media will serve to create a favorable climate for increased support in terms of human, physical, and technological resources.¹

Participation and involvement. "Farmers respond positively to a project to the extent of their involvement in its formulation and implementation."² One of the ultimate goals of CADU is the gradual phasing-out of its own discrete development activities and responsibilities. The question of participation and involvement is therefore of particular importance. Getting a program accepted in a community and having it locally managed and sustained requires the involvement of key elements of the community from the initiation stage all the way through operation and maintenance, after the implementation of each program.

Institutionalization

CADU's efforts to organize farmers' committees and cooperatives have promoted the institutionalization of its innovations. Cooperative societies could play an important role in institutionalizing some of the Project activities, but their own organization and management should be based on this same fundamental principle from the start. An understanding of the small

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farmer clientele and maintenance of effective "two-way" communication is indispensable for the ultimate success of CADU.

Local government administration affects the institutionalizing process. The prevailing preoccupation with law enforcement, an unsystematic tax collection mechanism, apathy, and hostile attitudes of local officials toward Project activities have been significant in obstructing institutionalization. This chronic problem must be the next target of political reformers in Ethiopia.

CADU seems to have succeeded in building a technically viable organization which can be a vehicle for innovation. It has proved its competence in acquiring, combining, developing, and activating the range of skills required for the technical phases of the program. The commitment to specific innovations is profound. Considerable difficulties arise, however, in promoting and protecting innovations which symbolize CADU to its clientele and to the society at large. Linkages with institutions and groups on whom it depends for support and whose behavior it has attempted to influence can hardly be characterized as successful. These difficulties stem primarily from an unfriendly task environment. To achieve institutionalization, CADU needs increased political ability to guide the change process and shape a more compatible and supportive environment. We can talk of an institutionalized CADU only when it overcomes these environmental obstacles and the entire social system embraces its goals. John Cohen remarked in 1972 that

the basic problems of rural change in Chilalo are so enormous that they cannot be solved without the active commitment of the central government. The basic fact about the role of government in stimulating change is that it is committed to growth and not to order, more sweeping changes such as transformation or social mobilization.³

The government is now undergoing an unprecedented change which seems favorable for CADU. At the risk of being too optimistic, I predict that, with this major bottleneck cleared, CADU now possesses a promising possibility for institutionalization.

CADU's leadership must realize, however, that no matter how thorough and skillful the initial design and planning may be, building a development project is never a self-executing or self-fulfilling process. It is a continuous game of coping with uncertainties and contingencies, with human and technological shortfalls, and with competitive interest.⁴ CADU must remain flexible, not only in correcting variances from an original plan, but in making major changes in tactics, timing, programming, resource allocation, and even in redefining institutional goals. It must be prepared to adjust to what it learns from experience and to newly discovered needs, at some sacrifice of its preferences perhaps, but at little cost to its major innovative purpose.

Pending a comprehensive evaluation of CADU's effects on the life of its clientele which I hope to undertake in the near future, I can only assess its success in terms of its efforts and instrumentality. In rating CADU, I use Esman's criteria, briefly described as follows:

1. *Technical capacity*, the ability to deliver technical services which are innovations to the society at an increasing level of competence, whether they be teaching agricultural sciences, enforcing income taxes or providing family planning services.

2. *Normative commitment*, the extent to which the innovative ideas, relationships and practices for which the organization stands have been internalized by its staff--for example, the merit system for personnel selection.

3. *Innovative thrust*, the ability of the institution to continue to innovate so that the new technologies and behavior

patterns which it introduces may not be frozen in their original form, but the institution can continually learn and adapt to new technological and political opportunities.

4. *Environmental image*, the extent to which the institution is valued or favorably regarded in the society. This can be demonstrated by its ability: a) to acquire objectives, b) to operate in ways that deviate from traditional patterns, c) to defend itself against attack and criticism, d) to influence decisions in its functional area, and e) to enlarge and expand its sphere of action.

5. *Spread effect*, the degree to which the innovative technologies, norms or behavior patterns for which the institution stands have been taken up and integrated into the on-going activities of other organizations.⁵

My observations and conclusions are based primarily on personal experience. In terms of the Esman criteria, I rate CADU's performance outstanding in technical capacity, fairly successful in normative commitment, innovative thrust, and spread effect. Its environmental image has been excellent as far as the small farmers are concerned, but this aspect cannot be considered a success until larger elements of the environment become more compatible.

The problems encountered by CADU are shared by less-developed countries which attempt similar experiments. By and large, the success of such projects depends on finding solutions to the complex institutional, organizational, social, and political problems associated with rural development. In the future, three research objectives should guide the systematic, valid, and penetrating inquiries required in rural development.

1. The conceptualization of rural development by defining and specifying system components, including the postulation and empirical demonstration of the interrelationships and interdependencies among components in the system.

2. The formulation of means to adequately measure the efforts and effects of integrated ventures for rural development. This should incorporate both economic and socio-political indicators, in order to comprehend the complex factors involved in the processes of the entire system.

3. Systematic and comparative analysis of actual cases to determine the critical problems in the field. Such analyses should isolate beneficial experiences of rural development practitioners in real life situations.

To be fruitful, future research requires the collaborative efforts of scholars from diversified fields of specialization. The driving force for such inquiries should be an interdisciplinary team-approach based on a genuine cooperative spirit. The improvement of the way of life of the small-farmer must be the concern of every profession that claims to work for the betterment of human life and the happiness of mankind.

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Notes

CHAPTER I

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12. Agehananda Bharati, "Cultural Hurdles In Development Administration," in *Development Administration, Concepts and Problems*, ed. Irving Swerdlow (Syracuse, N.Y.: Syracuse University Press, 1963), pp. 68-84.

13. See O. Dudley Duncan, "Social Stratification and Mobilities: Problems in the Measurement of Trend," in *Indicators of Social Change: Concepts and Measurements*, ed. Eleanor B. Sheldon and Wilbur E. Moore (New York: Russell Sage Foundation, 1968), pp. 675-719.

CHAPTER 2

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1. Bengt Nekby, *CADU: An Ethiopian Experiment in Developing Peasant Farming* (Stockholm: Prisma Publishers, 1971), p. 16.
2. See CADU, *Plan of Operation, Annex to the Agreement on CADU* (Appendix II, 1968).
3. *Ibid.*, p. 10.
4. For a better understanding of the country (Ethiopia) and its social, economic, political and cultural conditions see Irving Kaplan et al., *Area Handbook for Ethiopia*, DA Pam 55-28 (Washington, D.C.: Government Printing Office, 1971); David C. Korten, *Planned Change in Traditional Society: Ethiopia* (New York: Praeger, 1972); Donald Levine, *Wax and Gold* (Chicago: The University of Chicago Press, 1965); Christopher Clapham, *Haile-Selassie's Government* (New York: Praeger, 1970); Kenneth R. Ridden, ed., *The Legal System of Ethiopia* (Charlottesville, Va.: The Michie Company, 1968); Mesfen Wolde-Marian, *An Introductory Geography of Ethiopia* (Addis Ababa: Haile-Selassie I University [Department of Geography], 1972), Margery Perham, *The Government of Ethiopia* (Evanston, Ill.: Northwestern University Press, 1969); W.E.H. Howard, *Public Administration in Ethiopia* (New York: J.B. Wolters-Gronningen, 1956).
5. World Bank estimated US \$60 for 1968, and Bengt Nekby, Eth. \$150.
6. Fred W. Riggs provides a full description of this concept which implies "the mixture of old and new practices, of modern ideas superimposed upon traditional ones, and hence a system between diffraction and diffusion," in *Administration in Developing Countries* (Boston: Houghton Mifflin Company, 1964), p. 12.

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7. For changes in the longstanding major national policies see Provisional Military Government of Ethiopia, "Declaration of the Provisional Military Government of Ethiopia," 30 December 1974; *ibid.*, "Declaration on Economic Policy of Socialist Ethiopia," 7 February 1975; *ibid.*, "A Proclamation to Provide for the Nationalization of Rural Lands," 4 March 1975.
8. Cf. Wolde-Mariam, *An Introductory Geography*.
9. Imperial Ethiopian Government, *Ministries: Definition of Power*, Order of 1943 (Addis Ababa, 1943).
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11. William G. Eichberger, "Food Production and Consumption in Ethiopia," mimeographed (Addis Ababa: USAID/Ethiopia, 1968), p. 34.
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13. CADU, *Plan of Operation*.
14. John M. Cohen, "The Chilalo Agricultural Development Unit as a Program Intermediary for Foreign Assistance in Ethiopia," mimeographed (Addis Ababa: Haile-Selassie I University [Department of Political Science], 1972), pp. 42-3.
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CHAPTER III

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1. James D. Thompson, *Organizations in Action* (New York: McGraw-Hill, 1967), p. 119.
2. Milton J. Esman, "The Elements of Institution Building," in *Institution Building and Development From Concept to Application*, ed. Joseph W. Eaton (Beverly Hills, Calif.: Sage Publications, 1972), p. 18.

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3. John M. Cohen, "The Chilalo Agricultural Development Unit as a Program Intermediary for Foreign Assistance in Ethiopia," mimeographed (Addis Ababa: Haile-Selassie I University [Department of Political Science], 1972), p. 42.
4. The project later defined this bracket to include landless tenants cultivating *not more than thirty hectares* and owner-operators working on *not more than twenty hectares*, (mainly for its credit provision).
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6. See also CADU, "Youth Extension Handbook," mimeographed, (Extension and Training Department, 1973); Retru Gebregziabher, "Andragogy in a Prismatic Society," mimeographed (East Lansing, Mich.: Michigan State University [Department of Higher Education and Administration], 1974);
7. Cf. Tesfi Teclé, "An Economic Evaluation of Agricultural Package Programs in Ethiopia" (PhD diss., Cornell University, 1973).

CHAPTER IV

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1. David R. Derge et al., "Institution Building and Rural Development: A Study of US Technical Assistance Projects," mimeographed (Bloomington: Indiana University, 1968).
2. Garland P. Wood, "Studying Agricultural Institutions: A Modular Approach," A Summary Report on the Agricultural management and Research and Training Project (East Lansing, Mich.: MSU/AID, CSD 3132, 8 January 1974), p. 35.
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4. James D. Thompson, *Organizations in Action* (New York: McGraw-Hill, 1967), pp. 39-50.
5. Milton J. Esman, "The Elements of Institution Building," in *Institution Building and Development: From Concept to Application*, ed. Joseph W. Eaton (Beverly Hills, Calif.: Sage Publications, 1972), pp. 27-8.

About the Author

Betru Gebregziabher was born in Ghedo, Ethiopia in 1946. He received a diploma from the Public Health College of Haile-Selassie I University in 1967, with a major in Sanitary Science and a minor in Health Education. He then served as Instructor and Internship Supervisor at the Public Health College (1967-68) and as Acting Head, Health Education and Public Relations (1968-70) there. From 1970 through 1973 Gebregziabher worked with CADU and the Ministry of Agriculture as Head, Information and Public Relations (1970-72) and Assistant Head, Extension and Training (1972-73). He has received the degrees of Master of Science (1974) and Education Specialist (1975) from Michigan State University and is currently a candidate for the PhD degree there, majoring in Continuing Education with a minor in Rural Sociology.