

AGENCY FOR INTERNATIONAL DEVELOPMENT
 WASHINGTON, D. C. 20523
BIBLIOGRAPHIC INPUT SHEET

FOR AID USE ONLY

1. SUBJECT
 CLASSI-
 FICATION

A. PRIMARY

Social Science

B. SECONDARY

Development Planning

2. TITLE AND SUBTITLE

Designing rural development programs: lessons from past experience in Africa

3. AUTHOR(S)

Lele, U.J.

4. DOCUMENT DATE

1975

5. NUMBER OF PAGES

54 p.

6. ARC NUMBER

ARC

7. REFERENCE ORGANIZATION NAME AND ADDRESS

Rural Development Committee, Center for International Studies.
 Cornell University, Ithaca, New York 14850

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)

(In Rural Development occasional paper no.5) Copies available @ \$2.00 from
 address above.

9. ABSTRACT

Methods of designing rural development projects which effectively will reach large numbers of low-income rural people, with the limited financial resources and in particular, the scarce trained manpower available in Africa for rural development. The study had two components. The first consisted of a review of past projects in sub-Saharan Africa. The second involved rural sector surveys in Kenya and Tanzania. For the comparative evaluations on which the major findings presented here are based, thirteen sets of rural development projects and programs, involving participation of a number of multilateral, bilateral, and national agencies were selected from various parts of sub-Saharan Africa to represent diversity in design and implementation as well as in the environment in which they are situated. The reviews were carried out to raise a consistent set of questions about these programs and projects, particularly in regard to their design and implementation so as to derive lessons for designing future rural development projects in Africa.

10. CONTROL NUMBER

PN-AAC-186

11. PRICE OF DOCUMENT

12. DESCRIPTORS

13. PROJECT NUMBER

14. CONTRACT NUMBER
 AID/asia-C-1102

15. TYPE OF DOCUMENT

DESIGNING RURAL DEVELOPMENT PROGRAMS:
LESSONS FROM PAST EXPERIENCE IN AFRICA

Uma Lele

International Bank for
Reconstruction and Development

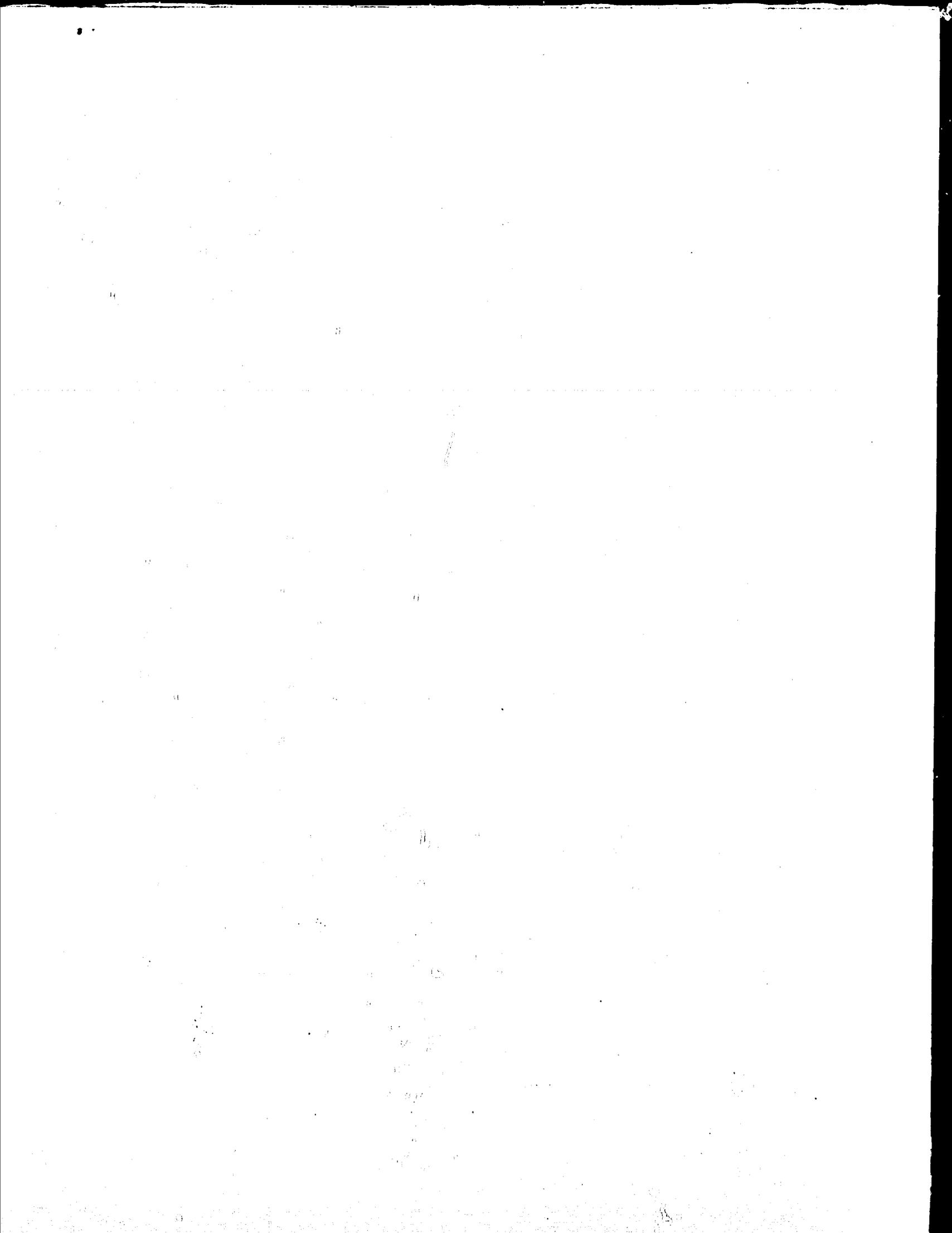
RURAL DEVELOPMENT OCCASIONAL PAPER NO. 5

Published by the Rural Development Committee
Center for International Studies
Cornell University, 1975

Copyright 1975, Cornell University, Center for International
Studies, Rural Development Committee
\$2.00

TABLE OF CONTENTS

I.	THE AFRICAN RURAL DEVELOPMENT STUDY.....	1
II.	THE NEW CONCEPT OF RURAL DEVELOPMENT.....	4
III.	THE EFFECT OF NATIONAL POLICY AND PLANNING DECISIONS ON PAST PROGRAMS.....	14
	A. Land Policies.....	14
	B. Technology.....	17
	C. Pricing and Marketing Policies.....	20
	D. Manpower Policies and Participation.....	24
	E. Credit Policies.....	29
	F. Interregional Allocation of Resources and Participation.....	31
IV.	INSTITUTIONAL DEVELOPMENT IN THE PAST PROGRAMS....	35
	A. Decentralization of Administration.....	36
	B. Development Administration and the Role of Elective Bodies.....	37
	C. The Role of Semi-Autonomous Administrative Structures.....	39
V.	IMPLICATIONS OF THE FINDINGS OF THE ARDS FOR DESIGNING RURAL DEVELOPMENT PROGRAMS.....	41



DESIGNING RURAL DEVELOPMENT PROGRAMS:
LESSONS FROM PAST EXPERIENCE IN AFRICA*

I. The African Rural Development Study

The observations presented in this paper are based on the African Rural Development Study (ARDS) carried out in the IBRD during 1972-74. The study was prompted by the very substantial interest in the East and West Africa Regions of the IBRD in finding ways of designing rural development projects which will effectively "reach" large numbers of the low income rural people, with the limited financial resources, and in particular, the scarce trained manpower available for rural development in Africa. The study had two components. The first consisted of a review of past projects in sub-Saharan Africa. The second involved rural sector surveys in Kenya and Tanzania.

*This paper was initially prepared for presentation at the Second International Seminar on Change in Agriculture, organized by the University of Reading and the Overseas Development Institute, Reading, England, September 9-19, 1974. It was written while the author was on leave from the International Bank for Reconstruction and Development and was a Visiting Associate Professor of Agricultural Economics and a Senior Research Associate with the Rural Development Committee in the Center for International Studies at Cornell. The views expressed in this paper are those of the author and do not necessarily represent the views of the IBRD. An extended presentation and analysis of this subject is made in the author's forthcoming book, The Design of Rural Development: Analysis of Programs and Projects in Africa (Johns Hopkins Press, 1975).

For the comparative evaluations on which the major findings presented here are based, thirteen sets of rural development projects and programs, involving participation of a number of multilateral, bilateral and national agencies, were carefully selected from various parts of sub-Saharan Africa to represent diversity in design and implementation as well as in the environment in which they are situated.¹ The reviews were carried out with a view to raising a consistent set of questions about these programs and projects, particularly in regard to their design and implementation so as to derive lessons for designing future rural development projects in Africa.

The terms projects and programs are used here interchangeably. However, since the analysis has been carried out with the objective of providing guidelines for designing 'projects,' the distinction between the two is worth noting at this stage. A project is generally understood to mean a well-defined range of activities which lend themselves to rather precise specification of objectives, to planning, financing and implementing within an organized unit and which have a clear beginning, a set of 'targets' by which to judge their performance and an orderly specified "end."

¹See Table 1 for the list of the programs reviewed. See Uma Lele, The Design of Rural Development, op.cit., for classification, detailed description and analyses of the programs.

TABLE 1: Rural Development Programs Reviewed Under the ARDS

<u>Country</u>	<u>Project</u>	<u>Project Financed by</u>	<u>Project Reviewed by</u>
1. Cameroon	French Technical Assistance (ZAPI and SODENKAM)	Government of Cameroon; French Technical Assistance	G. Belloncle D. Gentil
2. Ethiopia	Rural Development Package Programs	CADU: Ethiopian Government and SIDA WADU: Ethiopian Government; British Government; World Food Program and IDA MPP: Ethiopian Government; SIDA; FAO and IDA	T. Teclé
3. Kenya	Range Development	Government of Kenya; SIDA and IDA	H. Jahnke
4. Kenya	Small Farmer Credit	Government of Kenya; British Government (ODA); Government of Federal Republic of Germany; SIDA; USAID; and IDA	J. D. von Fischke
5. Kenya	Smallholder Tea Development (KTDA)	Government of Kenya; CDC; Government of Federal Republic of Germany; Commercial Tea Companies; and IDA	D. Sullivan
6. Kenya	Special Rural Development Program	Government of Kenya; Dutch Government; British Government, NORAID; USAID; and FAO/SIDA	N. Bedi
7. Kenya	Spontaneous Land Settlement	Government of Kenya	P. Mbithi C. Barnes
8. Malawi	Lilongwe Land Development Program	Government of Malawi; British Government, and IDA	B. H. Kinsey
9. Mali	French Technical Assistance (CFDT and BDPA)	Government of Mali; and French Technical Assistance	W. Anderson
10. Nigeria	Small Scale Rural Industries	Government of Nigeria; and USAID	H. Turner M. Shah
11. Tanzania	Smallholder Tobacco Development	Government of Tanzania; BAT, TAC and IDA	A. Agarwal D. Linsenmeyer
12. Tanzania	Sukamaland Cotton Development	Government of Tanzania; and IDA	M. Collinson
13. Tanzania	Ujamaa Villages	Government of Tanzania	R. Robinson P. Abraham

A number of activities financed by donor agencies in the rural sector have usually been designed, appraised, implemented and evaluated in this context of a 'project' concept. On the other hand, the Ujamaa and the cotton development in Sukumaland, in Tanzania or the spontaneous squatter settlements in Kenya are not projects in this sense. They have been prompted by broader socio-political or administrative considerations which do not lend themselves to precise specification of objectives or to a precise set of targets by which to judge their performance.

Therefore, although many of the issues are presented in terms of their implications for 'project' design and implementation, the analysis deals with broader questions related to the development of the low income, subsistence sector. As will be apparent from this paper, these broader questions have substantial implications for what constitutes a 'project.' It should also be noted that, for the sake of brevity, despite their limitations, the terms 'low income' and 'subsistence' are used interchangeably to describe the target populations.

II. The New Concept of Rural Development

In this paper rural development is defined as improving living standards of the mass of the low income population residing in rural areas and making the process of their development self-sustaining. This apparently simple

definition has three important features which have very considerable implications for how rural development programs are designed and implemented.

(i) Improving living standards of the subsistence population involves setting priorities in the mobilization and allocation of resources, in order to reach a desirable balance over time between welfare and productive services available to the subsistence rural sector.

(ii) Mass participation requires assuring that resources are allocated to low income regions and classes, and through the choice of institutions, that the productive and social services actually reach the mass of the subsistence population.

(iii) Making the process self-sustaining requires development of appropriate skills, and implementing capacity and the presence of institutions at the local, regional and national level to ensure effective use of existing resources and to foster mobilization of additional financial and human resources for continued development of the subsistence sector. Self-sustenance thus means 'involving,' as distinct from simply 'reaching,' the subsistence populations through development programs.

The achievement of these aims requires consideration of interactions among three sets of factors and of these factors with the choice and performance of individual programs. These factors may be classified under:

- A. National policies, e.g., land tenure systems, pricing and marketing systems, wage structures, technology policies, etc.
- B. Administrative systems, in particular the degree of centralization-decentralization in the governmental structure.
- C. Overall institutional development, including distribution of developmental responsibility among the regular governmental structures, the semiautonomous structures, private commercial and traditional institutions and elective bodies.

The interactions among these various factors are complex and immensely diverse. The tools available for the analysis of achievement of these aims are, however, poor. They do not provide a single 'package' that is universally applicable, not do they offer a systematic framework that can realistically be applied for planning rural development programs on a mass scale, given the paucity of information and, in particular, the lack of trained manpower and institutional capability that are frequently encountered for planning rural development in Africa. For now there can be only a catalogue of

insights based on analyses of the constraints and potentials encountered in designing and implementing the programs reviewed, of the mechanisms that have evolved to deal with them, and of the effectiveness of these mechanisms in improving the performance of the projects.

In summarizing the performance of the rural development programs reviewed under the ARDS and in drawing lessons for design and implementation of future programs, the discussion in this paper is focused on five sets of interrelated questions, arising from these various interactions.

1. Were the programs reviewed directed towards low income populations?
2. To what extent have the programs been actually effective, or shown a potential to be effective, in improving living standards of the mass of the low income rural population?
3. What constraints have they faced in realizing this objective?
4. How have these constraints been ameliorated?
5. What are the implications of the performance of the past programs for choice of target groups, types of targets and for policies and institutions, if the objectives of rural development are to be realized?

With the exception of the spontaneous rural squatter settlements in Kenya, the programs selected for analysis were at least partially directed to improvement of the living standards of the low income rural populations. For example, although the Agricultural Finance Corporation (AFC) and the Livestock schemes in Kenya have aimed at development of both the existing commercial and the traditional subsistence sector, a certain portion of their resources have been allocated specifically to the development of the low income subsistence sector. Even the earlier export crop schemes such as the Kenya Tea Development Authority (KTDA) in Kenya and the British American Tobacco Company (BAT) in Tanzania were involved in the development of low income small holders. Although these programs represent a considerable step towards realizing the objectives of rural development, on the whole they have been less than fully effective in making the process of development of the low income sector self-sustaining.

Their limited effectiveness cannot be attributed to inadequate or inappropriate specification of target groups, but rather to a combination of factors. First, the objectives of rural development have changed considerably over time. Many of the projects reviewed were designed with what now appear to be "limited" objectives, as for example, increasing only export crop production among

smallholders. The projects were based on even more limited knowledge than is now available of the various interactions and in particular of the ways of bringing about changes to improve performance. For example, there are broad sector and policy questions and questions about their possible impact on the performance of the individual programs. Frequently, despite the fact that the likely impact of domestic policies and institutions was anticipated, national policies could not be changed to improve project performance.

The programs were often also based on inadequate knowledge of technological possibilities and their suitability to small farm conditions. Experience with regard to the appropriate forms of administrative institutions and their transferability was limited when many of these programs were planned. They also suffered from poor knowledge of the socio-cultural and institutional environment in which they were to be implemented. Consequently, the programs were usually not designed either with a view to anticipate the effect of such factors on the popular response to interventions or with an intention to introduce modifications in plans in the course of implementation to achieve maximum effectiveness. Finally, and most importantly, the programs often experienced extreme scarcity of trained local manpower.

These various factors largely explain the limitations of the past programs and have important implications for future sectoral policies and for the planning and implementation of future rural development programs. The solutions are, however, by no means always clear; but even where necessary changes in policies and institutions are apparent, frequently they have significant political and administrative implications, and therefore may be by no means easy to implement. The past experience suggests that first, if the objective of participation of the lowest income groups is to be ensured, examination of the particular country's existing sectoral policies and plans, as well as the indigenous institutions available for rural development, has to be oriented explicitly to assessing the extent to which these effectively "reach" the lowest income groups in the rural areas.

Such examination will allow explicit recognition of the existing government policies which are inconsistent with the goals of rural development. For example, if the land tenure situation precludes participation of the lowest income groups in rural development programs, land reform may be essential for realizing the full potential of a particular project. If the marketing boards have a vested interest in certain pricing policies which affect the distribution of benefits to the lowest income groups, perhaps a change in price

policies is necessary for improving the benefits of a specific rural development program. Because such questions were not resolved prior to implementation, many of the programs reviewed under the study have had only a limited impact on low income groups. It must also be recognized, however, that in cases where the necessary changes in national policies are not easy to bring about, the choice may have to be between opting for only a limited impact and choosing not to undertake programs.

Second, the past programs indicate that substantially greater project preparation is necessary than was possible in most of the programs reviewed, if effectiveness is to be maximized. To this end a number of pertinent questions must be resolved. For example, are technologies actually profitable at the farm level? Do existing marketing systems serve low income farmers effectively? Given the social ties that often exist between peasants and traders and given the extreme scarcity of trained manpower available to implement market interventions, will a new marketing system-- which may seem desirable in principle--actually benefit the lowest income groups? Or will it only aggravate the tensions between the cultivators and the merchants, with adverse effects on the cultivators as has been the case in the Zones d'Action Prioritaires Integrees (ZAPI) in Cameroon?

In sum, what really are the critical constraints to development in a specific situation? How feasible is it to remove these constraints given the existing manpower and institutional development? What steps are necessary to develop the necessary capability? And what is the time horizon implicit in the results to be expected from the program? To answer such questions project preparation will of course require considerably greater time and expenditure. Given the extreme scarcity of trained manpower to plan and implement rural development programs, one or a combination of the following alternatives usually has to be accepted.

(1) To use the existing scarce trained manpower to acquire all the necessary information to perfect the design of only a few rural development programs in the hope of maximizing their effectiveness. This may also mean a substantial time lag between planning and implementation.

(2) Alternatively, to adopt an approach of learning by doing, i.e., undertaking programs with an explicit recognition that, if they are based on limited knowledge, performance may fall far short of expectations. Monitoring program performance and remaining flexible in program implementation will have to receive substantially greater attention than generally given in the programs reviewed, so that programs may be modified during implementation

to improve their effectiveness. Although the importance of such flexibility is recognized in principle, the ARDS analysis indicates that in practice numerous obstacles emerge which frustrate the capability of the programs to adapt to changing circumstances.

(3) The third alternative, and the one recommended here, is to attempt to reconcile the desirable features of the first two approaches, namely planning based on the systematic acquisition of knowledge and flexibility in the course of implementation. However, this third approach differs from the first two in two important regards. It can allow a broader geographical coverage than is implicit in the first two approaches. It places substantially greater emphasis on development of indigenous institutional capacity. It involves beginning programs with only the few simplest interventions to remove the most critical constraints, and allowing the programs to evolve in scope through time phasing of activities based on the specific knowledge which is acquired, the constraints which are identified, and the indigenous human, institutional and financial capability which is developed during the course of the earlier stages of program implementation.² These various implications for

²A related analysis of the emerging new concept of--and approach to--rural development is presented by a working group of the Rural Development Committee in Training and Research for Extended Rural Development in Asia, Occasional Paper No. 4 (Ithaca: Cornell University, Center for International Studies, 1974), Chapter I.

design of future programs are best illustrated by summarizing the effect of the various factors listed earlier on the performance of past programs.

III. The Effect of National Policy and Planning Decisions on Past Programs

A. Land Policies

The Ethiopian and the Kenyan experiences indicate that where acute inequity in the distribution of land rights exists, the full potential of the programs in improving benefits to the lowest income groups is not realized by simply targeting programs towards low income groups and devising temporary tenurial arrangements, as has been done in the Ethiopian programs reviewed. In such circumstances more permanent change in the distribution of land rights should probably be an integral part of the rural development strategy.

In Ethiopia, exclusion of large farmers from the program's services both in the Chilalo Agricultural Development Unit (CADU) and in the Minimum Package Program (MPP) has had several positive effects on the lowest income groups.³ This policy has arrested the widespread eviction

³In 1970, partially as a result of eviction of over 500 farmers in the program area, CADU excluded landowners cultivating over 25 hectares and tenants with more than 40 hectares from its credit program. In 1972 the limits were further lowered to 20 and 30 hectares respectively. A similar ceiling has been established in the Minimum Package Program.

of tenants that commenced with the introduction of new technologies in the CADU area. It has also facilitated the distribution of credit to small farmers and thus tilted the programs' benefits in favor of the low income rural populations. However, these steps have not ensured full participation on program activities by the lowest income groups, in particular the tenant farmers.⁴ Recent figures indicate that in 1973 only five percent of the credit recipients in the MPP areas were tenants. Yet a land tenure survey conducted by the Ethiopian Government in 1969 found that tenants constituted between one and two thirds of the population in the various target areas.⁵ The low participation of the tenants results from insecurity of tenure and high and uncontrolled rents.⁶ According to the ARDS background

⁴ According to the background paper that Tecle prepared for the ARDS, in 1969/70, the last season before CADU established a ceiling on credit, landowners with less than ten hectares received only 29 percent of the program's credit, while tenants obtained less than 28 percent. During the next season, i.e., subsequent to imposition of the ceiling, the proportions increased to 53 percent and 40 percent.

⁵ The proportion of tenant participation was 40 percent in CADU. However, this is because CADU's Swedish management introduced a policy of denying credit to landowners who would not sign the lease for the tenant. (See footnote 7, p. 16). The MPP has not had such 'muscle' to bring to bear. Still, the tenancy problem has created much tension in CADU, showing rather effectively the limits of rural development when overall policies cannot be changed.

⁶ Rents in the program areas in Ethiopia range from 1/3 to 1/2 of the tenant's produce. Landlords may, however, refuse to share the costs of innovations, and may evict the tenant without notice or compensation.

paper, for the tenants an innovation has to increase net yields by at least 30 percent to be profitable. Most tenants also encounter considerable difficulty in obtaining the yearly lease that is necessary to qualify for the program's credit.⁷

Are the incentive problems being dealt with more effectively through collectivization of cultivation? The Tanzanian experience indicates that if collectivization is to have a notable impact on the productivity and incomes of subsistence farmers and is to receive broad popular support, the critical organizational questions of who will do what, when, how and at what wage rate, faced in managing collective farms, need substantially greater attention than they have received so far. Also, if continued uncertainty of land rights is not to have a disincentive effect on production, decisions as to whether to introduce collectivization across the board and whether collectivization is possible only through persuasion cannot be postponed indefinitely.

In the absence of the resolution of these policy questions, the agricultural services provided to the collective farms and the managerial standards on the farms are generally poor.

⁷In the absence of a land reform the programs have introduced temporary lease clauses to prevent eviction of tenants by landowners, at least during the period when tenants have received credit from the program.

The incentive for the cultivator to allocate his scarce labor to collective cultivation seems to be low, and consequently the yields on collective plots are noted to have been generally lower than those on private plots. In addition there is some evidence that uncertainty regarding collectivization is affecting yields on private plots. The resistance to collectivization has been substantial in Tanzania, particularly in the predominantly export crop growing regions, such as Tabora and Sukumaland, where the potential losses to commercial smallholders from joining Ujamaa villages⁸ are considerably greater than in the case of subsistence farmers. In summary, despite the substantial donor assistance available for development of the low income agricultural population in Tanzania, effectiveness of the agricultural programs seems to be greatly limited by haphazard policies towards collectivization and by the neglect of critical organizational questions.

B. Technology

Where considerable effort has been made to adapt technology to suit small farm conditions, as in the KTDA

⁸Ujamaa, literally "familyhood," is the basic ideology which underpins Tanzania's rural development policy. Implicit in this ideology is the preservation and extension of the communal and egalitarian practices traditional in Tanzania's extended families. To acquire a more complete understanding of Ujamaa it is necessary to examine political statements emanating from Tanzania, e.g., Julius K. Nyerere, Freedom and Unity (Dar es Salaam: Oxford University Press, 1966) and Socialism and Rural Development (Dar es Salaam: Government Printer, 1967).

in Kenya or CADU in Ethiopia, the response of small farmers to innovations has been truly dramatic. Even without such effort, where transplanted technologies have been responsive to local agronomic and climatic conditions, adoption of innovations has been rapid and has often surpassed projections, as in WADU, Ethiopia's Wolamo Agricultural Development Unit. However, in many other programs, such as the Ujamaa villages in Tanzania, ZAPI and the Societe pour le Developpement du Nkam (SODENKAM) in Cameroon, the Special Rural Development Program (SRDP) and the small farmer credit programs in Kenya, and to some extent the Lilongwe Land Development Program (LLDP) in Malawi, inadequate adaptive research appears to have been a major constraint to increasing productivity and incomes of low income farmers.

The research gap has been particularly severe in the case of food crops. This is one of the reasons why in many earlier export crop schemes there existed considerable reluctance to introduce services for food crops. In these schemes promotion of the relatively more profitable export crops has led to a more rapid substitution of acreage from food to export crops. Such substitution has considerably increased cash incomes of the farmers who have taken to export crops. However, it has also reduced the overall off-seasonal food supplies available for domestic consumption in the predominantly export crop areas, as for instance

in Sukumaland in Tanzania or in the groundnut operation in Mali. These shortages have not been corrected by marketing systems, which are of a fragmented nature. Excessive specialization in export crop production in early stages of development thus appears to have adversely affected rural welfare, particularly of the low income farmers, who are deficit in food but too poor to purchase food at high off-seasonal prices.

The neglect of technology for food crops has not only affected rural welfare, it has also arrested rural growth. For the need to grow the minimum supply of low productivity food crops for domestic consumption has restricted the supply of scarce labor for production of high value export crops.

The experience of the export crop schemes indicates that even if export crop development is highly justified, in most cases a mixed cash and food crop development may be essential if the objective is to increase cash incomes of participants as well as to improve general welfare in the program areas. Although this approach has been adopted in many recent programs, all too frequently its effectiveness seems to have been limited by the inadequate adaptive agricultural research. To be effective such research has to be oriented to developing technological packages that are

profitable not only on research stations and demonstration plots, but also on the small farmers' fields. The importance of such adaptive research and the present technological gap cannot be overstated.

If effective national research systems are to be developed along with national commitment to their continuation, substantial resources may have to be allocated specifically for this purpose.

C. Pricing and Marketing Policies

Pricing and marketing policies, particularly towards food crops, have had a substantial adverse effect on the performance of rural development programs. They have often led to considerable income disparities among food and non-food crop producers even within program areas. In the LLDP gross return from an acre of tobacco is three times that from maize, despite the fact that new technologies exist for maize. Where no new technologies exist for food crops the incomes of food crop producers are even lower.

Low food crop prices have discouraged expansion of food crop production for the market. Often even when grain has had to be imported to meet national food deficits, as in Mali or Ethiopia, program managers have encountered considerable difficulty in convincing

indigenous policy makers to establish prices high enough to provide an incentive for increasing domestic food production. When the programs have attempted to generate substantial marketed surpluses in the absence of coherent national price policies, their individual pricing and marketing efforts have become successive reactions to a series of unanticipated crises, arising from inconsistencies between program and national objectives. Such ad hoc price policies have not only arrested the rate of adoption of new technologies in the program areas, as for instance in the case of wheat in Chilalo in 1972,⁹ but have also required substantial subsidization of marketing operations in programs, as has occurred in WADU, CADU, the LLDP and ZAPI. But even more important, these price policies have resulted in the diversion of scarce administrative talent away from the problems of long-term development to the solution of the short-term crises that are caused by the problem of disposal of marketable surpluses.

The pricing and marketing problems seem to have been frequently aggravated by the excessive dependence of the programs on unwilling marketing boards and inadequate

⁹Numbers of farmers borrowing credit in Chilalo declined from 14,000 in 1971 to 12,500 in 1972. This decline in the demand for credit was largely attributed to the declining wheat prices and the marketing problems encountered in CADU in the previous year.

farmers organizations to handle the increased marketable surpluses. In many program areas, as for instance ZAPI, the LLDP, CADU and WADU, much of the marketed surplus is already handled by private trading channels. However, often due to the view of the private trading channels as being exploitative and anti-social, their development has received relatively little attention. The surpluses generated have therefore tended to outstrip the capacity of the 'organized' marketing channels.

Despite the considerable efforts devoted to correcting marketing problems much of the marketed surplus procured in integrated program areas has found its way to the capital city or has been exported. Due to the poor market development in the rural areas there has not been much increase in food availability in the non-program rural areas, except that which has frequently trickled through the traditional marketing channels.

But then why cannot the surpluses sold in the cities or exported abroad provide resources for development of other regions? To answer this question it is not enough merely to estimate the magnitude of the surplus; it is also necessary to examine who is likely to have control of the resources generated by these surpluses. In Malawi, the Agricultural Marketing and Development Corporation (ADMARC) has earned substantial profits from the high market margins

in the export of the increased maize surpluses in the LLDP.¹⁰ So far these profits have helped reduce the past deficits of ADMARC, which are said to have arisen from handling marketing operations of traditional export crop producers on low margins. These profits also seem to have led to substantial investments in large scale commercial enterprises. The maize surpluses in Lilongwe thus appear to have resulted in a substantial redistribution of income from small scale maize producers to traditionally commercial farmers. However, this phenomenon by no means is confined to Malawi. In Tanzania it is not rare to find that the resources generated by smallholders are lost to a few members or officials of the inefficient cooperative societies.

The experience of the past programs indicates that if the objective of rural development programs is not only to generate substantial marketed surpluses but also to ensure minimum availability of food and incomes to low income populations in rural areas, three steps are necessary in rural development programs: (1) broad geographical coverage of services in bringing about production increases;

¹⁰ ADMARC earned as high as K. 6.6 per bag for the maize it exported in 1972, whereas the maize producers received only K. 2.5; this is a major source of contention between the program management and ADMARC.

(2) a commensurate, simultaneous improvement of the marketing systems, including traditional trade channels where these already play an important role; and (3) development of the rural infrastructure, in particular of roads and storage facilities.

D. Manpower Policies and Participation

Trained manpower poses a particularly severe constraint to expansion of the rural services in the African countries. Substantial investment in manpower training of field level and administrative staff is therefore necessary if rural development programs are to reach a mass of the low income rural population.

In the programs reviewed several interrelated factors have affected supply of trained manpower and thus limited the expansion of services to the target populations. The countries entered the post-independence period with a low base of trained manpower. Because of the considerable demand generated by a combination of increased development expenditure and indigenization of the existing positions, there has been a severe shortage of trained manpower in the early years of development. Investment in training of manpower also does not seem to have been commensurate with the substantial investment in rural development programs. Therefore, frequently employment of the trained indigenous manpower by the programs has meant depriving

other regions and departments of their existing manpower, with adverse effects on their development. However, in other cases where the programs have been bound by the domestic public service commission rules regarding salaries, promotions, and benefits, both the programs and the normal administrative structures have lost manpower to private enterprises and parastatals.

Although establishment of project authorities has temporarily bypassed several inefficiencies of the existing administrative structure, it has not resolved the difficult basic problem of wage disparities and administrative incentive systems that continue to deter manpower from serving the rural sector. This problem is, however, by no means easy to resolve. Frequently it is argued that higher salaries are necessary to attract trained manpower to the rural sector. However, attempting to maintain parity with rising urban salaries, rather than controlling the latter, further increases the disparities between the educated and the uneducated. The constraints posed by these structural problems, however, usually receive little attention in policy making. Often ad hoc measures are adopted in programs, making the manpower problem more complex over time.

The administrative and technical quality of the available staff has also been poor, restricting the scope

for expansion of services. The only Malawian who took over an administrative position from an expatriate in the LLDP in 1973 was ill-equipped to handle even the existing credit operations of the program. Quality of the indigenous manpower can, of course, be increased relatively quickly provided there are effective programs for their training.

Performance of the programs on this score has varied considerably. CADU, the KTDA, BAT, and ZAPI have played a very effective role in training of administrative staff. However most other programs reviewed have been deficient in this respect. While the LLDP, CADU, and the KTDA have carried out extensive programs for the field level staff, training offered by the remaining programs has been modest in scope and generally poor in quality. In Ethiopia even the substantial training of field staff being carried out by programs such as CADU and the additional nationally run training centers has not been adequate relative to the need. The supply of trained extension staff remains one of the major constraints to expansion of even the very modest level of services that the MPP aims to provide. Low levels of technical competence among the field staff and poor incentive systems remain an equally severe constraint to improved performance in Kenya and Tanzania, although in comparison with Ethiopia the latter two

countries have been better endowed in terms of numbers of extension workers.¹¹

This raises a question as to whether programs directed at low income target populations can indeed carry out training on the scale and of the quality which are essential for providing a guaranteed minimum level of services to all the low income rural populations in the foreseeable future. Substantial investment seems to be necessary in training programs to release this major constraint. To improve the content of training and to make it practically oriented, training programs can, of course, be linked to specific rural development programs.

Obviously the need for formally trained manpower is largely determined by how delivery of agricultural service is organized. Many programs follow conventional forms of credit administration, based on complex criteria of creditworthiness of the applicant which involve processing of a number of complicated forms. These administrative procedures are highly demanding of scarce trained manpower, a constraint which limits the number of small farmers that can be reached through credit. Similarly, the use of personal visits in the introduction of innovations, an approach employed in many programs, restricts the number

¹¹It has been frequently observed that development of an effective network of field staff may be easier in Ethiopia, where the slate is clean, than in Kenya and Tanzania where administrative reform poses a major constraint, but is far more difficult to bring about.

of farmers that can be reached through extension services. All too often, the administrative systems used in the delivery of services and the manpower they require seem to be a far greater constraint to the expansion of coverage than are finances.

The manpower constraint also creates a conflict between realizing growth and achieving distribution, since reaching fewer, more responsive farmers within the target populations is the easier way to realize growth in the short run. This tendency to concentrate on "progressive" or "innovative" farmers was frequently noted in the programs reviewed.

To alleviate this problem some of the programs, including the KTDA, ZAPI, CADU and WADU, have introduced a modest element of responsibility to the program participants in the provision of extension services, in the delivery of credit, and in the marketing of inputs and output. The experiences of these programs indicate that, if properly developed, there may be substantial potential for local participation in the delivery of services. However this potential has so far not been exploited sufficiently, primarily because the knowledge as to how to organize such services is limited.

Whether the planners of the programs are expatriates or indigenous administrators, their understanding of the traditional rural people and of the local leadership

patterns often seems poor. There also seems to have been little tendency to innovate in organizing services and little willingness to delegate responsibility to the rural people. Reviewers of the programs emphasize that the paternalism of program administrators is one of the severe constraints to development of strong viable local organizations. This attitude often tends to lead to excessive protection and subsidization of local organizations at the outset, resulting in the inefficiencies and lack of willingness on the part of the rural people to share responsibility along with the benefits.

E. Credit Policies

In the programs reviewed target populations have been eligible for short term institutional credit at an annual interest rate of 7 to 12 percent, provided they meet the criteria of creditworthiness. Although these criteria vary substantially between programs, they are generally cumbersome. In some cases the requirement of a downpayment--which the poorest farmers often cannot afford--excludes many farmers from credit services. Despite this fact, the credit policies in the particular programs reviewed have generally not been discriminatory towards the low income groups. Nor has the amount of credit distributed in these particular programs been restricted by the supply of credit. Rather in most cases the availability of manpower to administer credit and the profitability of the innovations affecting the demand

for credit seem to have been the critical limiting factors in reaching small farmers. Often during implementation, in the quest for measuring success of the programs by the number of farmers reached through credit, these constraints appear to be overlooked and emphasis placed only on credit expansion. When innovations are profitable, however, the repayment rate of even the lowest income farmers can be as high as, if not higher than, that of the large farmers, as illustrated by the rural development programs in Ethiopia.

Since priorities must be established in the use of scarce administrative manpower, in the initial stages in many of the programs reviewed the development and extension of technology and the improvement of the marketing systems seem to have been far more critical before credit could become the central focus of the programs. When profitable innovations and markets for output exist, even small farmers are frequently noted to purchase inputs for cash or to organize themselves spontaneously to take advantage of group sales, as illustrated by the Modified Input Areas in Lilongwe. Where feasible, it therefore seems desirable to encourage such spontaneous group or cash sales of inputs. This approach has the advantage of minimizing complex credit administrations, of mobilizing rural savings and of developing viable farmer organizations. Alternative approaches to credit distribution, such as an input subsidy, also need to be explored more systematically. The programs reviewed have, however, rarely departed from the credit focus.

F. Interregional Allocation of Resources and Participation

There are several special features of the African countries which seem to require participation of the lowest income groups is to be realized in the foreseeable future. A majority of the rural population in Africa earns low incomes. Although relative income disparities are substantial, with a few obvious exceptions, incomes of even the prosperous rural classes are generally low.¹² The low income population is not concentrated in a few regions, as is the case in some Latin American countries but encompasses the entire rural sector. The widespread incidence of low productivity and incomes means that in Africa potential target groups are large relative to the finances and in particular, to the trained manpower and

¹² Although a tea farmer in Kenya earns an annual cash income of \$40.00 compared to \$7.00 earned by a subsistence farmer, he can hardly be placed in the class of the Latin American latifundia. The relatively equal distribution of income in Africa is underlined by a comparison of the proportion of national income going to the lowest income groups in Africa and Latin America. For example, in Kenya and Tanzania the poorest twenty percent of the population earn 7.0 and 9.5 percent of the income respectively, while in Brazil and Columbia the poorest twenty percent earn 3.5 and 2.2 percent of the income. (See Irma Adelman and Cynthia Taft Morris, "Who Benefits from Economic Development?," International Meeting of Directors of Research and Training, Belgrade: August 28-30, 1973 Appendix). The problem in Africa is, therefore, frequently one of fostering participation of the poor, rather than attempting an exclusion of the 'rich.'

institutional capability available for planning and implementing rural development programs. Therefore, if masses are to be 'reached' and if their development is to be viable in the long run, the primary emphasis in rural development programs has to be on establishing a few clear priorities such as increasing productivity, generating additional resources and equally important, augmenting indigenous institutional capability to undertake the more complex tasks of development over time. Consequently, the intensive development of certain high value export crops or of high potential regions is often justified, not only because of its direct impact on the selected target populations, but also because of its potential to generate substantial additional resources for development elsewhere.

However, as has been pointed out earlier, emphasis on intensity of services in an early stage of development may also divert scarce manpower and financial resources away from other regions or activities. Further, even if it generates additional resources, the form in which the resources are generated or the institutions that control the resources may not in practice ensure the mobilization and allocation of these resources to other low income regions. This is only one of the many dilemmas faced in rural development. It would seem however, that in many

cases the objective of mass participation of low income groups may be better served by a more equitable allocation of resources at the outset, to ensure a minimum level of institutional development for the removal of constraints, before a few regions benefit from substantially greater allocation. There are, of course, exceptions when unusually profitable opportunities may justify intensive development.

In several programs the argument against initial intensity can be made particularly strongly in the case of investments in social services. Social services are strongly in demand in most program areas, and can be frequently justified on the basis of 'need.' Consequently, both in 'top down' integrated programs such as the LLDP and SODENKAM and in 'bottom up' programs such as Ujamaa, many social services are provided often without instituting mechanisms for generating additional fiscal resources in the program areas, without examining economic ways of providing the services, without training additional manpower, and without developing the necessary institutions to ensure their long term viability. These oversights may occur despite the fact that the intensive provision of productive services has led to considerable increases in incomes in some of the program areas, such as the LLDP or SODENKAM.

Particularly because many social services such as health facilities involve substantial recurrent budgetary

resources, ensuring their continuity without additional resource mobilization means either continued reliance on foreign assistance or the diversion of resources from productive investments elsewhere. This diversion of resources may frequently affect long term growth as well as distribution, as is feared may be the case in Tanzania. The knowledge of the effect of social services on increasing productive capacity as distinct from improving welfare must, of course, be highly region--specific. Such knowledge is generally very poor. Where social services cannot be justified on the basis of extreme need on either productive or welfare grounds the question of their initial efficacy focuses on the interrelated considerations of long term feasibility and regional equity; e.g., why should people in Lilongwe benefit from substantial productive services, intensive land use planning, roads, soil conservation measures, water supply and health clinics, while several other regions in Malawi do not receive even the minimum level of agricultural services?

Through their visibility and their demonstration effect, integrated programs have undoubtedly helped to focus attention on problems of rural development, as is evident from the role of CADU in energizing the Ethiopian Ministry of Agriculture and in getting a massive rural development effort under way.

However, where the peasantry is politically conscious, as in Kenya, a few regional programs can also generate substantial political tensions. This partly explains the rather lukewarm enthusiasm of the Kenyan government towards 'regional' programs, so labeled, since the SRDP got under way.

IV. Institutional Development in the Past Programs

Constraints are also imposed by inadequate development of administrative, commercial and elective institutions which have had a profound effect on the scope for development of the subsistence sector. Institutional development takes time even if the commitment to its realization exists and the necessary decisions for their development are made. Frequently, however, the time required for institutional development and the changes in the distribution of political and administrative power that such development implies deter policy makers from taking the necessary steps, despite the attention that institutional reform may receive in policy pronouncements.

Besides, for political, administrative, psychological, and other conventional economic reasons success is easier to "measure" when it is in the form of an immediate increase in the amount of fertilizer distributed, number of health clinics established or the number of Ujamaa villages settled.

For the same reasons it is much more difficult to gauge success when programs aim at bringing about participation more slowly and indirectly, as for instance by simultaneously increasing the administrative capacity of ADMARC to ensure that the fertilizer will be distributed in the program areas after the program phases out, or by developing viable local organizations in ZAPI that can plan and implement health clinics, or by improving the technical and administrative competence of the local leaders to organize and implement Ujamaa villages.

This is why it is important to examine the performance of the SRDP in Kenya and the decentralization of administration in Tanzania. For unlike the integrated programs, these two efforts have been undertaken with the objective of improving institutional capability and self reliance.

A. Decentralization of Administration

For several reasons the SRDP has had a rather limited success. It seems to have lacked the commitment of high level Kenyans necessary to bring prestige to the concept and to push the program through the many difficult domestic administrative obstacles, including obtaining funding from the influential but conservative Treasury. Such tasks could probably not be carried out by expatriate technical advisors, even with the greatest of will and commitment to the SRDP concept.

For short term political reasons far too many quick results seem to also have been expected of the SRDP, even though local administrators responsible for planning were inexperienced and lacked technical ability. In practice, the SRDP has therefore suffered from conflicting expectations on the one hand it has been expected to serve a pilot function and thus be innovative in bringing about administrative innovations, while on the other hand it has been expected to show immediate visible results. There has also been considerable reluctance among the administrators in Nairobi to delegate authority to the provinces and districts and unwillingness in the individual ministries to coordinate their activities.

The SRDP has, nevertheless, made a modest beginning in improving district planning and implementing capacity and in institutionalizing an administrative system to improve interdepartmental coordination. The disappointment with the program is not a result of the limitations of the SRDP as much as the fact that, in planning the overall district decentralization exercise in Kenya, many of the same mistakes seem to be repeated. Little appears to have been learned from experience.

B. Development Administration and the Role of Elective Bodies

The Tanzanian effort has benefitted from an immense national commitment to the idea of decentralized and

participatory administration. This is already reflected in the greater delegation of authority to the regional administrations and the more explicit role given to the political party in rural development planning. The Tanzanian experience is too new to be able to assess its performance. Nevertheless its potential for accomplishments and its possible limitations are beginning to be apparent.

The Tanzanian emphasis on regional equity in the allocation of resources is worthy of emulation in other African countries. However, the increased role of the elective bodies in planning seems to have led to the allocation of far too high a proportion of the development expenditure to provision of social services, without a commensurate effort at resource mobilization. Paradoxically, welfare expenditures on such a scale appears to have been possible mainly because the emphasis on self-reliance has attracted donors to Tanzania, leading to a considerable increase over the short run in the availability of resources.

In the long run, increased competence of the regional administrators can exercise an important influence in bringing about a more rational allocation of resources and a more effective use of the resources allocated. This is why considerably greater attention needs to be devoted in donor assisted programs to improving the indigenous

planning and implementing capacity. In the programs reviewed, including those in Kenya and Tanzania, donors have frequently taken a short term view of aid. They have tended largely to design their own programs and to implement them mainly so as to avoid the risk of 'failure.' This attitude has of course been reinforced by the frequent lack of national will to make policy decisions that touch upon the existing distribution of political and administrative power. The role of technical assistance in improving the indigenous planning and implementing capacity has, therefore, been far short of its potential.¹³

C. The Role of Semi-Autonomous Administrative Structures

As the time approaches for transferring administrative responsibility for some of the autonomous integrated rural development programs, such as the LLDP and WADU, from the project authorities to the indigenous administrations, the gap between the capability of the two administrative systems has become a subject of particular concern to persons involved in designing rural development programs.

¹³The Rural Development Committee at Cornell has undertaken a 16-country comparative analysis, based on Asian and Near East case studies, of the role of local government and associational organizations in rural development. Its findings support the conclusions drawn here about decentralization and participation through local political and administrative organization. See Norman Uphoff and Milton Esman, Local Organization for Rural Development: Analysis of Asian Experience (Ithaca: Center for International Studies, 1974).

Paradoxically, the institutional gap seems to have arisen because the integrated programs have accomplished far too many visible results in too short a time period and therefore have been able to allocate only a limited time and effort to development of institutional capability. The gap exists at three levels. First, the indigenous regional administrations do not have the capability to carry out the policy and coordinating functions at the regional headquarters. These are now being carried out by autonomous administrations. This capability is critical for administering complex integrated programs since they involve activities of a number of departments and local governmental agencies, as for instance agriculture, transportation and health. Second, the institutions to handle the commercial aspects of the programs, such as the agricultural credit and input and output marketing, either do not exist--since the programs have handled these functions--or do not yet have the administrative capability to manage the activities on a scale on which the programs have carried them out. Third, the local organizations and local administrative units being developed by programs do not correspond to the existing local governmental institutions, raising difficult questions related to the maintenance and expansion of the various local services.

The LLDP is now faced with these complex problems. Although CADU and ZAPI have been more effective than the LLDP in training indigenous administrators, their progress in establishing liaison with the regional administrations, in developing commercial institutions, and in fostering vigorous local organizations seems to have been as limited.

The experience of the integrated programs indicates that if there is not to be a considerable "sag" in the program activities after expatriate managers have departed and project authorities have dissolved, programs may have to undertake only those activities on such scale which, in the foreseeable future, can realistically be taken over and managed by indigenous manpower and institutions, even with ambitious assumptions about manpower training and institutional development.

V. Implications of the Findings of the ARDS for Designing Rural Development Programs

The past experience reiterates several special features of the African countries which need to be taken into account in designing future programs, if the objectives of rural development are to be realized.

Because the bulk of the rural population is poor and because this poverty is spread over the entire rural sector, "target groups" in Africa are large relative to the financial resources and in particular the trained manpower and the

institutional capability frequently available for development. Therefore, if the emphasis in rural development is to be on mass participation and on the viability of the process of rural development, it would seem necessary that rural development programs be viewed as part of a continuous, dynamic process, rather than as an 'extensive' vs. an 'intensive,' or a 'maximum' vs. a 'minimum' effort. The emphasis on mass participation also means that a sequential approach may frequently be necessary in planning and implementing a rural development strategy, involving establishment of clear priorities and time phasing of activities.

Given the low productivity of the subsistence rural sector, for a variety of reasons discussed earlier, in many cases an initial emphasis on broadbased increase in productivity through a certain minimum level of institutional development, may well be a more effective way of ensuring viability of mass participation than the substantial initial concentration of resources in a few regions.

Some constraints to improvement of productivity, such as lack of a profitable technology, ineffective extension and inadequate fertilizer, may be common to all of the subsistence agriculture; whereas others, such as ill-health caused by malaria (in the squatter settlements in Kenya) or the inadequate incentive system and organization (in Ujamaa

villages) may well be location specific. A single package is, therefore, not universally applicable. The establishment of priorities needs a combination of a few critical general interventions applicable to several regions along with emphasis on development of capability of the regional administrations to identify and ameliorate additional constraints specific to individual regions. However, in all cases, including the case of priorities that may be established at the national level, the effectiveness of implementation depends on the efficiency and the coordinating ability of the regional administrations and on the general institutional development at the regional and local level. This is why a regional focus in institutional development is necessary from the outset even when a broad coverage of services is being aimed at. This is particularly so if more complex programs involving a number of sectors are to be planned and implemented by regional administrations over time.

The first step may well be to improve regional administrative capability for effective planning and implementing of programs directed at only a few productive activities, including food crops. Attention to food crop production often seems critical since a majority of the low income population derives its livelihood from this activity. The

results of the mixed crop approach are already noticeable in the more recent integrated rural development programs. However, these have been confined to a few regions.

The sequential approach implies efforts to improve indigenous institutional and technical capability in several regions. If per capita agricultural production is to increase, the first phase of sequential development may involve an objective of achieving an overall annual growth rate of 4 to 5 percent. The time required to achieve such an annual growth rate may of course, vary between regions, depending on their potential and on the effectiveness with which the necessary steps are implemented. However the first phase of development may be planned for 4 to 7 years. In a few cases, where an effective technical and institutional capability to coordinate and deliver the necessary services already exists, the first phase of development may be skipped.

Increased intensity in agricultural services of the type undertaken in integrated programs, including improvement of the overall farming systems through rotational improvement, integration of crop and livestock production, soil conservation and land registration, may constitute the second stage of development. Realistically, the overall growth rate of production may not exceed 4 to 5 percent per annum

even during the second phase. However, consolidation of the growth rate through a more diversified agricultural productivity may require an intensive effort.

In this case, the bridge between the first and the second stages of development is land use planning. The intensive effort needs a considerable technical and administrative input both at the planning and implementing stages.

To plan a strategy for intensive agricultural development, data are needed on factors such as agroclimatic zones--including soil conditions, rainfall patterns, present yields, existing farming systems, erosion and fertility problems, density of settlement, sociocultural factors and on opportunities for expansion of cultivated area and grazing land, required investments in road, and water development, soil conservation, and the optimal farming systems, (i.e., crops, management practices, rotations, etc.).

The data gathering and planning of this second phase may be combined with the implementation of the first phase. Phased planning has several advantages which were not derived in many of the programs reviewed. It may allow greater first-hand knowledge of the specific technical, administrative and socio-cultural constraints. It may also permit greater indigenous participation in planning.

Both these factors are important for improving effectiveness of strategy. The phased approach may also facilitate training of indigenous manpower geared specifically to planning and implementing regional programs. Equally important, it may allow a relatively balanced national coverage of services in the foreseeable future.

For a variety of reasons discussed earlier, planning and implementation of services such as community centers, drinking water supply, health clinics, promotion of smallscale processing and servicing, women's extension programs, etc., require considerations substantially different from those in agricultural planning. It seems necessary to allow greater scope for social choice and for local participation in the organization and delivery of these services. In many cases such planning may have to wait until the second phase, i.e., until income and demand for such services increase, local administrative capability for planning and coordinating such programs is developed, mechanisms for raising fiscal resources are instituted, and local institutional capability to plan and implement programs is fostered through an explicit emphasis on the necessary pre-planning in the first phase.

Given the substantial shortage of trained manpower and administrative capacity, in each phase only those

components which are not likely to be undertaken without planned public intervention may be provided. These, of course, may vary substantially between regions, depending on what does and does not exist in the form of institutional development. Therefore no blueprint for planning is possible. However, in the first phase provision of technology, extension, inputs, manpower training and a feeder roads network may be the most frequently needed components. A facilitative role may be provided in fostering other activities. For example, encouraging cash or group purchases of inputs may be desirable where the savings potential in the traditional society is demonstrated to be significant. Once intensity of cultivation increases and manpower and institutions are developed, credit may become the major thrust of the programs. Marketing services may also fall in the category of a facilitative development at an early stage.

The initial emphasis may be on providing intermediate forms of interventions and on improving the bargaining position of the farmer, as for instance through construction of public facilities for seasonal storage, improvement of roads and market information systems, and standardization of weights and measures. Introduction of high cost administrative marketing monopolies or hurried development of farmers' marketing organizations should perhaps be avoided in the early stages. Such organizations are likely to develop more spontaneously once the preconditions for their development are established.

Given the extreme constraint of trained manpower, even with the establishment of priorities in provision of services, mass participation rarely seems feasible in the short run through delivery systems oriented towards individual farmers. Therefore, some delegation of responsibility to the rural people is necessary. Many recent programs have already made a beginning in this direction. They have shown a considerable potential for success, provided local involvement is promoted gradually and is accompanied by a genuine delegation of responsibility to the rural people.

Considerable emphasis is needed on the training of field and administrative staff so that the intensity of services and the number of services may be increased gradually over time. Manpower training is critical to achieve production targets, as well as to broaden participation.

Finally and importantly, the past programs indicate that if the process of rural development is to be viable there is not only the need for expansion of administrative coverage but also for emphasis on improvement in the performance of the indigenous administrative systems. Technical assistance may be needed not mainly to manage projects, but to assist in developing local, regional and national capability to plan and implement rural

development programs. To realize this objective it seems necessary that nationals be actively involved from early stages of project formulation and implementation. It also seems desirable that expatriates not be highly concentrated in project authorities in which effective interaction with local staff and indigenous administrative institutions is frequently inhibited, hampering the development of the latter.

Wherever possible technical assistance needs to be provided to develop administrative systems which incorporate clear definitions of objectives and targets, ways of implementing and evaluating these targets, and incentive systems which will encourage improved administrative performance as measured by the realization of these targets.

The sequential approach attempts to reconcile several desirable features from among the programs reviewed. First, it points out the frequent need for broadbased development of the subsistence sector. Second, it underscores the crucial role of indigenous manpower and institutional capability, not only in the effectiveness with which interventions are implemented, but in planning rural development programs to take account of variability. It therefore points out the need for emphasis on manpower and institutional development in the early stages of program

implementation so as to evolve programs in scope over time. Third it views increase in productivity of the subsistence sector as frequently constituting a major, but only the first, step in improvement of the welfare of subsistence rural populations.