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9. ABSTRACT

This manual is designed for policy makers and program administrators; it organizes the lessons of international experience with rural works programs so that they can be applied to the policy making and implementation process of specific countries. It attempts to establish the potentials and limitations of such programs, to provide guidelines for deciding the effectiveness of a program in a particular area, and to consider the major issues surrounding these programs. It also suggests organizational arrangements that will enhance the chances of success for such programs, and it provides criteria for judging their performance. There are two major sections. The first deals with planning rural works programs and the second with the implementation of programs. The research was based on an analysis of twenty-four existing programs, and this report summarizes that experience in ways which apply to new and existing programs. This report holds that rural works programs are useful instruments of development policy and should be considered by any country concerned about rural unemployment and poverty.

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Creating Rural Employment:

A Manual for Organizing Rural Works Programs

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Chapter I

Introduction

Unemployment is a major concern of people and governments in many countries around the world.[1] High levels of unemployment signify the existence of serious poverty that presents problems that are primarily human but have serious economic and political implications which require remedial action. Government initiatives to alleviate the problem are essential Such initiatives take many forms. The choice for the policy-maker ranges from indirect action attempting to alter the price structure to encourage additional employment, or providing incentives to public and private sectors to encourage more labor intensive activity, to direct action to establish public sector employment creating programs. Such direct intervention has been attempted in over twenty countries and is being considered by many more. Rural works programs with decentralized forms of organization require new policies and forms of administrative organization. In creating these, potential users of rural works may benefit from the experience of other countries. The purpose of this manual is to facilitate that process.

A Definition of Rural Works Programs

Rural works programs are defined as public sector activities undertaken with labor-intensive techniques with two primary objectives: 1) generating new employment opportunities among low-income groups, and 2) creating productive assets. There are, in addition, important sub-

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[1] The term unemployment is used to cover both underemployment and open unemployment.

sidiary objectives such as slowing rural-urban migration and generating popular participation in national development. Such programs are typically, but not necessarily, carried out through small-scale projects in scattered locations. Within this definition there are many variations of the basic program concept.

This manual focuses primarily on rural rather than urban public works for two reasons. First, the rural works programs undertaken so far have been predominantly rural. To be effective in an urban environment, rural works programs must be completely redesigned. There is little experience with such programs specifically tailored for urban areas. Second, in quantitative terms, in most countries where total unemployment is acute, it is predominantly a rural phenomenon.

Purpose of the Manual

This manual is designed specifically for policy makers and program administrators in those countries considering or already implementing rural works programs as a means of alleviating unemployment. Its purpose is to organize the lessons of international experience with these programs so that they can be applied to the policy making and implementation process of specific countries. The manual attempts to establish realistically the potentials and limitations of such programs, to provide guidelines for deciding whether a program can be effective in a particular area, to consider the major issues surrounding these programs, to suggest organizational arrangements that will enhance their chances of success, and to provide criteria for judging their performance. The users of this manual will know more about their own areas and the particular environment in which they are expected to implement a rural program than the authors

of this manual. While local knowledge is essential to good program design, close examination of other rural works programs and the compilation of experience and accumulated knowledge about this special type of development program can be employed to benefit similar programs in other countries.

Since rural works are a rather different form of development program, requiring new and often highly decentralized administrative systems, and because they affect political interests more tangibly than some kinds of programs, their performance has been more varied than some development programs. This manual attempts to convey the lessons of experience and the guidelines which may be drawn from that experience. With this type of information, the capacity of program administrators to alter the course and results of a program will be greatly enhanced. The ability of the administrators to manage the program effectively requires their viewing it as dynamic and evolving. Administrators must learn from experience as conditions change. The changes result in part from the impact of the program.

Design of the Manual

The manual is divided into two major sections.

The first section deals with planning rural works programs. Chapter II, Deciding on a Rural Works Program, provides a conceptual approach to thinking about rural works programs. Chapter III, Evaluating the Potential of Rural Works Programs, provides criteria and suggests the data needed for judging the potential effectiveness of programs in terms of their basic objectives. Chapter IV, Major Issues in Rural Works Programs, discusses the major areas of controversy that surround these programs and attempts to summarize the evidence that bears on the issue.

The second section of the manual deals with implementation of programs. Chapter V, Program Organization and Operation, specifies the crucial aspects of managing a program and the points of leverage on program performance that the policy maker can exploit. Chapter VI, Program Monitoring, provides broad performance, cost and physical standards against which the performance of a program may be judged. The conclusion summarizes our views as to the role and limitations of these programs. The appendix presents an annotated bibliography, by country, of some of the basic books, articles, and papers on the subject.

The manual is based on the authors'experience with rural works programs as advisers and analysts over a considerable number of years. More recently, we undertook an international comparative study of the performance of rural works programs. This study, funded by the World Bank over a two year period, included all the major rural works programs. In the course of the study, the authors visited fourteen countries, and collected detailed information on programs in six more was included. This study culminated in a report entitled, Employment and Development: A Comparative Analysis of the Role of Public Works Programs.[1] This manual is based in part on the research and information developed in the course of that study, supplemented by extended field experience both before and after the study. It differs from the study in that its objective is to provide operational guidelines and relevant information to help officials

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[1]John W. Thomas, Shahid Javed Burki, David G. Davies, Richard M. Hook, Employment, Etc. Report to the World Bank, mimeo, April 1975. The World Bank has Published a summary of the report entitled Public Works Programs in Developing Countries: A Comparative Analysis, World Bank Staff Working Paper No. 224, February, 1975. Some parts of this manual, (several tables, Appendix) are drawn directly from the report to the Bank.

in deciding whether a rural works program would be useful in a specific situation, and in implementing such a program.

Perspective

For nations facing acute unemployment, rural works programs are frequently seen as an attractive means for attacking the interrelated problems of unemployment, income distribution and economic growth. However, in operation some programs have failed to live up to their potential and some have proven vulnerable to misuse.

It is the view of the authors of this manual that rural works programs are an important instrument of development policy, but one with limitations that must be recognized. They provide an excellent means of alleviating unemployment and of promoting rural development, but they are not final solutions to these problems. They cannot effectively reach all the unemployed. Rural works can stimulate and augment agricultural and rural development programs, but they are not a substitute for them. Therefore, the objectives of particular programs, the environment in which they operated, whether they are consistent and integrated with other policies, are some of the factors that determine the impact they will have in a particular area or country.

The authors of this manual are grateful to USAID for financial support to enable us to write this Manual. Peter Thormann of the USAID staff, who served as project monitor and commentator, assisted us in many ways both substantive and administrative. Shahid Javed Burki, a co-author of the earlier study, and Richard Patten, contributed ideas and concepts which helped form the structure of the work. In addition, we are particularly indebted to many officials around the world who have worked or are now working in the implementation of rural works programs. Their shared in-

sights, experience and data have made this work possible. Shirley Foster's editorial and production skills have done a great deal to improve the quality of the Manual.

Chapter II

DECIDING ON A RURAL WORKS PROGRAM

A country experiencing widespread rural unemployment must consider a rural works program as one of the available options to deal with the problem. As Chapter I suggested, rural works programs have many common characteristics, but are not a uniform instrument. They must be designed specifically for the environment in which they will operate, and have been more successful in certain kinds of situations than in others. Before thinking about program design and organization, administrators or planners must consider carefully whether a rural works program can meet the objectives they have in mind, and whether the specific country conditions suggest that a program will have a high probability of reaching these objectives.

Program objectives are closely related to the kinds of unemployment a country is experiencing. After considering the relationship of objectives to the nature of unemployment, this chapter suggests a typology of programs based on their dominant employment purposes. It reviews the information required to assess the need for a program and to structure it to reach its objectives, and concludes with a review of the conditions in which rural works programs have been effectively used.

Program Objectives

Rural works programs have multiple objectives, and are often seen as an attractive means for attacking the interrelated problems of unemployment, income distribution and economic growth. The primary attractions of rural works programs are as follows:

1) They have the potential to create employment without sacrificing productivity.
2) They can be implemented quickly.
3) They frequently attract foreign aid.
4) They can have a rapid and visible impact.
5) They provide benefits to a wide range of rural groups as well as to the unemployed, thereby becoming politically attractive.
6) They are very flexible as to location and timing, allowing them to be operated when and where they are needed most.

Stated major program objectives can be ranged along a spectrum from exclusive concentration on employment creation to exclusive emphasis on asset creation. The great variation in objectives reflects the variation in underlying problems, and the fact that countries do not perceive their problems identically or order their priorities in the same way. A single country may establish several different rural works programs in order to achieve different purposes and to reach different target groups.

In addition to employment and asset creation goals, there is another group of social and political objectives almost always present in the decision to start a rural works program. Slowing of rural/urban migration is a frequent goal. There is often a desire to broaden participation in development efforts and to provide a vehicle for mobilizing such participation. For almost any regime[1] the opportunity to undertake broad-based rural improvement has implications of creating or consolidating rural political support. Some rural works programs have been started in an attempt to meet overtly political needs. One major national program was initiated after the

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[1]The term regime is used here without intending the negative implications which usually accompany it, but rather to identify the top leadership within a government, both political and bureaucratic, that makes basic policy decisions.

ruling party, traditionally backed by rural groups, suffered a series of unanticipated losses in by-elections. While the stated objectives for the program were employment creation and rural assets, it was very clear that political considerations played a major role in the initiation of the program.

A group or coalition of people within a government will support the idea of a rural works program for rather different reasons. The different motivations must be understood by program administrators and in some way harmonized in the program's formulation. Political benefits are one appropriate result of a well operated rural works program. As discussed in a later section, a problem arises when dominating political objectives interfere with the program's progress toward its economic and social goals.

There are great variations in objectives, national ideologies and development models, nature and severity of underlying problems and the seriousness with which governments view these problems. As a result, rural works programs have been used as part of three distinct strategies:

1) A strategy of "tokenism" in which the contribution of rural works is more cosmetic than substantive, where the size of the program, the choice of technology and project selection and the general blend of government policies prevent the program from having any important or lasting effect on problems of employment or equity.

2) Rural works programs can be used to "buy time" as an interim strategy to improve welfare of target groups until slower acting but potentially stronger forces generate employment.

3) Rural works programs can serve as reform measures where there is a real concern about rural poverty and unemployment but an inability or unwillingness to undertake thorough structural reforms, including a broad

redistribution of relevant scarce resources. In such cases, substantial rural works programs can be extremely useful in alleviating some of the effects of crisis situations, economic fluctuations, seasonal unemployment, and rural poverty. Coupled with a coherent blend of policies directed toward employment creation and some degree of income redistribution, this would appear to be the most fruitful and realistic use of this policy instrument. In such an environment, rural works programs can serve to initiate rural organization which may be the precursor of more comprehensive rural development programs. They can potentially link landless labor and marginal farmers to broader rural development efforts and, if implemented in a decentralized participatory manner, bring disadvantaged rural groups together in organizational ways that may help them develop the capacity to influence policy in their own interest.

In theory, rural works programs can usefully accompany a thorough program of basic structural reform, including fundamental land redistribution, perhaps providing an institution for the radical organization of peasants. There are no current examples of rural works programs being used in this way.

Types of Unemployment

Unemployment and underemployment are difficult to define and measure satisfactorily in any country. The difficulties increase in most of the countries using rural works programs because of the high proportion of employment provided by the agricultural sector and the combination of seasonal production patterns with extended family or other types of work-sharing arrangements. Nevertheless, three broad types of unemployment can be distuinguished that have influenced the kinds of works programs adopted.

1. Crisis unemployment. More than one-third of the programs studied were introduced in response to conditions of extreme instability in agriculture caused by such recurrent crises as flood or drought.

2. Structural unemployment. The island economies of Mauritius, Jamaica and Trinidad-Tobago represent this form of unemployment, which tends to be open, long term, and frequently urban. Mauritius, as an example, is a monoculture with 40% of total employment in the sugar industry. Sugar production is already labor intensive with no additional land available for sugar cultivation. Unemployment was estimated at 16% of the labor force in 1962. Trinidad-Tobago has comparable structural problems. Overall unemployment was estimated at 15% in 1972, and 26% for males between 14 and 24.

3. Seasonal rural unemployment. In some of these cases, typified by Bangladesh, and parts of India and Java, agricultural land is divided into many small holdings, intensively farmed, with an increasing population sharing the work and output. The agricultural sector has a limited capacity to absorb new entrants to the rural labor force, resulting in unacceptably low income per capita and extremely high agricultural underemployment in slack seasons.

A Program Typology

The following typology classifies programs according to their dominant employment purpose and their intended effects on target groups. In three of the four categories, the classification also reflects the nature of the underlying employment or poverty problem.

1. Relief Programs. These programs respond to emergency conditions by supplementing or replacing incomes reduced or destroyed by natural calamity. They must be planned to cover at least one full crop cycle,

although provisions should be made to permit some slowdown of activity during planting seasons. Relief programs are a useful approach to emergency situations. They avoid the psychological problems of overt relief handouts and produce assets that may accelerate the recovery process and diminish the prospects of subsequent disasters. The major accent of the program, however, is on income distributed rather than assets produced. Inevitably, resource constraints limit the duration of programs where relief is the exclusive focus, and projects are sought which have a higher economic payoff.

In such programs, a backlog of simple, highly labor intensive projects is important because there is little time for planning or establishing administrative systems. Projects themselves should be those that need the smallest inputs of material and technical supervision. Roads are usually the most common projects.

2. Long term employment programs. These programs respond to problems of structural unemployment. There is a necessity for long term support of the target group since the agricultural sector cannot absorb available labor. In theory, long term employment programs should accent training for new vocations, possible resettlement schemes, land reclamation where possible, and give special attention to high levels of urban unemployment. In practice, a large part of the target group consists of unemployed youth who are frequently partially educated, with high employment aspirations and a reluctance to participate in the manual labor of conventional works programs. Such programs have tended to be high cost, urban, "make-work" efforts, with low levels of physical productivity, sustained to deflect political dissent among a young and potentially explosive segment of the population. Long term unemployment programs have generally been the least satisfactory form of rural works programs.

3. Income augmenting programs. This category is the most common and the most satisfactory in terms of meeting the dual goals of employment and asset creation. Such programs supplement normal activity on the part of the target group and, if phased properly, can obtain labor at a relatively low opportunity cost. The target group is generally the small freehold or tenant farmer plus landless agricultural labor, and workers in services or processing industries related to agriculture. The need for seasonal implementation suggests the importance of short term projects or ones that can be conveniently interrupted during peak seasons.

4. Low cost infrastructure programs. The target groups for these programs are the same as for long term employment or income augmenting programs, but the accent is on the assets created rather than the income provided. Most of these programs pay very low wages.[1] Chapter VI discusses the uses and limits of the self help concept . In most low-cost infrastructure programs, as opposed to true self-help projects, the target groups do not receive the benefits from the assets created. In such cases, low-cost infrastructure programs paying sub-standard wages represent a regressive form of taxation and should not be undertaken.

These distinctions between types of programs are not permanent; programs can and do start off with one predominant set of objectives and move to another over time. For example, many programs start as relief, as did Morocco and Tunisia, but in time shift to the income augmenting category.

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[1] Pico y Pala in Colombia is an interesting exception. It is a low cost infrastructure program that pays premium wages in a road building program in mountainous parts of the country.

Planners should be aware that a national rural works program, once started, will probably become permanent. No country which started this activity in the 1960s has ended it. Program titles and purposes change, but the basic involvement continues as rural expectations are aroused, bureaucratic procedures and staffs are established and interest groups recognize the value of the program to themselves.

Assessing the Need for a Rural Works Program

In order to assess the need for a rural works program and to help determine the type of program that is needed, administrators require detailed micro information on a number of questions.

1. Data on the extent, location, and seasonality of under- and unemployment is required to plan the size, timing and location of the program.

2. Information on the economic and social characteristics of target groups. The reasons for their unemployment, the pattern of their non-agricultural activities and employment, and other factors affecting their ability and desire to accept rural works employment must be known. Designations such as "the unemployed" or "the rural poor" are inadequate for rural works planning. The more accurately target groups can be specified, the greater the chance of establishing a program that will in fact reach them.

3. Information on the existence, location and condition of rural infrastructure assets, and the potential for developing them using primarily unskilled labor is required to determine whether there is scope for rural works and to predict program economic returns.

4. Information on administrative and technical competence, public and private, at local and intermediate levels is essential for the administrative design.

Table II-1

Classification of Programs

Employment Creation ⟵⟶ Asset Creation

Relief

Afghanistan
- Provincial Dev. Program

Brazil
- Departamento Nacional de Obras Contra as Secas

India
- Scarcity Relief

Long term Employment

Jamaica
- Special Employment Programs

Mauritius
- Relief Workers Program
- Travail Pour Tous
- Rural Development Project

Trinidad-Tobago
- Special Works Program
- Prime Minister's Special Works Program

Income Augmentation

Bangladesh
- The Works Program

India
- Crash Scheme for Rural Employment
- Drought Prone Areas Program

Indonesia
- Kabupaten

South Korea
- Self Help Work Program

Morocco
- Promotion Nationale

Pakistan
- Rural Works Program

Tunisia
- Lutte Contre le Sous Developpement (LCSD)

Low Cost Infrastructure

Colombia
- Pico y Pala

Indonesia
- DESA
- Padat Karya

Ethiopia
- Tigre Development Org.

5. Data on the nature of income and asset distribution (particularly land) in areas where rural works are planned is needed to predict the distribution of benefits.

6. Information on density of population, incidence of unemployment on a disaggregated basis and labor supply response at given wage rates is necessary to determine whether sufficient numbers of workers will be available for projects.

Situations Where Rural Works Have Been Effective

Rural works programs can be useful instruments in many, but not all, developing countries which experience problems of rural unemployment and poverty. It may be helpful to the planner who is considering such a program to look at the common characteristics of countries that have used works programs successfully. There is no clear-cut "rural works" profile, but a number of generalizations can be made.

1. High Population Density. The clearest characteristic of countries using these programs on a national basis is their high population density in relation to cultivable land and a resulting heavy pressure on agricultural resources. Pressure on cultivable land is particularly true in the countries of South and South East Asia which have used these programs effectively: Indonesia, for example, with a population of about 600 per cultivated km^2, or Bangladesh and the Republic of Korea, with over 1,000 people per cultivated km^2. With the exception of Tunisia and Morocco, countries with national programs are all among the most crowded one-third of the developing nations, and these two exceptions share with the others high ratios of population to cultivable land.

High densities in relation to resources often result in fractionated land holdings and spreading available work among members of an increasing labor force with low levels of average income and productivity. Coupled with seasonal agricultural patterns, these conditions assure a need for seasonal income supplements and a large potential labor force. The latter is very important if a rural works program is to follow the typical pattern, a large number of small projects with workers recruited from local residents. For example, assume that a small project requires a work force of forty people, and workers are willing to go as far as five kilometers to get to the work site. If the labor force participation rate is 35%, and the program can reach 2% of the labor force (both are typical figures), the required population density is over fifty people per km^2.

In sparsely populated areas, typical of much of Africa and the mid-East, population densities are too low to implement programs of this sort. In such areas, it would be necessary to transport workers to and from projects or to provide them with housing, food and other amenities at the work sites. This can be done, but it is more costly, requires a high level of organization and supporting inputs, and is more disruptive of existing employment and social patterns. If a country has sharply differing regional patterns of population density and pressure, it may be preferable to limit the program to the more populous areas or to set up two types of programs -- the traditional small projects in the regions of dense population, and larger centralized projects with workers brought to, or kept at, the work site in the less populous areas. Experience with the latter approach in Tunisia suggests that workers tend to form a permanent rural works force, moving from site to site. While this provides employment, it defeats the common purpose of organizing a program that supplements rather than supplants existing patterns.

2. Agricultural Dependence and Instability. National public works programs are typically used by countries with high dependence on agriculture in terms of proportion of labor force and contribution to G.D.P. These programs work best in agricultural settings. As discussed in Chapter IV, public works programs have been generally ineffective in urban areas.

There is a strong positive correlation between instability of agricultural output (particularly food crops) and the use of rural works programs. This is not surprising since many programs originate in conditions of crisis, following crop failure or threat of famine. In North Africa, for example, the programs in Tunisia and Morocco arose in the context of fragile economies where year-to-year declines of 30% or more in cereal grain output have been experienced.

3. Per Capita Income. The countries that have used rural works programs are poor, but measured on a per capita income basis they are not the poorest of the developing countries. Of the thirty poorest countries, only two, Bangladesh and Afghanistan, have national programs. This reflects the interaction of several factors. Many of the poorest countries, the majority of which are in sub-Saharan Africa, have very small populations relative to agricultural area. They often have a large shifting or nomadic population, making it difficult to implement the typical rural works project.

A related factor is administrative competence. Setting up a large number of work sites across a country requires a basic bureaucratic and administrative competence at local levels. Most countries with effective rural works programs have inherited or built up such competence. Where

it is lacking -- Afghanistan's experience with its Provincial Development Program in 1971-72 is a good example -- programs have suffered from poor administration and low quality projects.

A country considering such a program should make sure it has the needed capabilities, at a level at least as decentralized as the District in South Asia or the Gouvernorate in North Africa, for planning, implementation and control. If not, rural works programs should be introduced only in those areas where such capacity exists, and deferred elsewhere until staff and institutional structures can be developed to identify local ne organize work forces, arrange for the timely delivery of inputs, and insure execution in accordance with reasonable technical standards.[1]

The composite picture of a country or a region that is a likely candidate for a successful rural works program looks like this: a high dependence on agriculture, heavy population pressures on agricultural resources, settled population patterns, a record of instability in production of food crops, and an administrative capacity sufficiently developed to provide the needed decentralized skills.

[1]The issue of speed vs capability is discussed in more detail in Chapter IV.

Chapter III

EVALUATING THE POTENTIAL OF RURAL WORKS PROGRAMS

Once a planner or administrator has decided that conditions favor the adoption of a rural works program, what realistic expectation can he have as to the program's potential contribution? This chapter will discuss the extent to which a rural works program can be expected to provide benefits in the areas of employment, asset creation and distribution. As a starting point, it is useful to introduce two sets of distinctions that will be used in much of the discussion that follows: first, between the construction and the operation of projects, and, second, between categories of projects.

Construction and Operating Phases

During the construction phase, the principal benefit is the direct employment provided to the people working on the project. During the operating phase, the principal beneficiaries are the recipients of the services flowing from the completed assets, plus the workers employed in the operation and maintenance of the projects.

Categories of Projects

The type of project that is selected is also an important determinant of the contribution a rural works program can make to employment, growth and equity goals. It is helpful to divide projects into the following three groups:

1. Directly Productive Projects. These are projects which lead directly to increased production, generally in agriculture. Irrigation, drainage which allows additional crops to be grown, and land reclamation, are examples of directly productive projects.

2. Economic Infrastructure. These are projects which do not directly produce additional output, but which provide necessary supporting infrastructure to promote output and growth indirectly. The most common of such projects is road construction. Conservation projects and market development also fall into this category.

3. Social Infrastructure. Schools or health clinics or community buildings are the type of social facilities easily developed through rural works.

Most rural works programs have included projects in all three categories, but economic infrastructure assets have clearly dominated, as shown in Table III - 1. This dominance reflects the high priority given in many programs to the construction and repair of secondary and feeder roads. While accurate figures are not available in all cases, such projects probably account for at least 50% of total rural works activity.

The Employment Goal

Employment creation is one of several goals of rural works which are pursued simultaneously.[1] A planner needs to know how to estimate realistically the employment contribution that a well operated program can make, both in the construction and in the operating phase. Unemployment can take many forms, ranging from permanently unemployed urban workers to rural landless laborers who may find paid employment in only four or five months of the year. There are the educated unemployed, the seasonally underemployed, and informal sector workers putting in long hours every day at extremely low levels of income. Rural works programs can deal quite

[1] The issue of conflicts and tradeoffs between goals is examined in Chapter IV.

Table III-1

Profile of Rural Works Project Expenditures

Country	Directly Productive[1] (% of total expenditure)	Economic Infrastructure[2] (% of total expenditure)	Social Infrastructure[3] (% of total expenditure)
Afghanistan (1971-72)	12	82	6
Bangladesh (1963-72)	7.2	76.6	16.2
Brazil (1909-1959) (est.)	50	50	0
Colombia (1972-present)	0	100	0
Ethiopia (Tigre Province) (1971-72)	15.7	84.3	0
India (Drought Prone Area) (1970-present)	47.4	50.5	2.2
(Crash Scheme) (1971-present)	14	77	9
Indonesia (Kabupaten) (1970-present)	14.3	71.2	14.5
Mauritius (1971-present)	25.4	41.3	33.2
Morocco (1961-present)	30.2	50.7	19.1
Pakistan (1963-72)	23.2	30.5	46.4
Peru (CORPUNO) (1962-65)	27	35	43
South Korea (NCS)(1961-63)	46	48	6
(Self Help Work) (1964-72)	58.3	32.5	9.2
Tunisia (1958-present)	23.9	44.5	30.7
Unweighted average	26.2	58.1	15.7

Notes:

1 These include irrigation, drainage, land reclamation and bench terracing projects and fisheries and veterinary centers development.

2 These include construction of roads, culverts and bridges, flood control, market development, rural electrification, reforestation and land conservation.

3 These include construction of schools, clinics, community buildings, low cost housing and parks and drinking water systems.

effectively with some of these groups and are unable to have significant impact on others. The planner needs detailed information on the size, location and nature of the unemployment problem, including information on the characteristics of the un- and underemployed groups.

1. Construction Phase Employment. In the construction phase, a rural works program is most effective in reaching the rural, seasonally unemployed who are already members of the agricultural labor force. The groups most frequently employed are landless laborers, small tenant farmers and small proprietor farmers whose holdings are insufficient to provide adequate levels of employment and income. There are other groups that can be quite difficult to reach directly through such programs. These groups include the very young, the very old, the ill, the malnourished, and frequently, women. Rural works employment is usually physically demanding, thus eliminating persons incapable of hard physical labor. If an employment criterion is used, there are large numbers of underemployed people whose time is fully occupied in agricultural or service activities and who are therefore not available. In some countries, traditional employment arrangements for landless laborers bind them to a patron on an annual basis. Such laborers may not be permitted to take rural works employment even if their patron does not need them. If they are employed, they may be required to give their earnings to their patron. In some countries, caste or other social distinctions make it impossible for certain unemployed persons to accept rural works employment. Potential employees for rural works programs must possess four qualifications: 1) they must be poor enough to need and want supplemental income, 2) they must be available in the sense of having time free for construction phase employment, 3) they must be

willing to accept this type of employment, and 4) they must be physically capable of doing the work. Those not having these characteristics will not benefit from construction phase employment.

With these limitations in mind, how effective can a works program be in reducing unemployment? Table III - 2 shows the number of days of work per member of the labor force represented by total construction phase employment in a number of rural works programs. Working from those figures, and using official estimates of unemployment, the largest program, Tunisia's, absorbed about 20% of total unemployment during the 1960s. In Morocco, a similar approach suggests that the program there absorbed about 14% of estimated unemployment in the 1960s. Major programs in other countries had smaller, though still substantial, impact: about 7% of total unemployment for Korea in the late 1960s, and 3.4% of agricultural unemployment in East Pakistan in 1968. On balance, it appears that a well financed and effectively administered program might realistically succeed in absorbing as much as 10% of estimated unemployment. To go far beyond that figure would frequently strain the budgetary and administrative resources that are available, and would encounter the limits of available workers.[1]

The type of assets built under a rural works program will also influence the amount of construction phase labor that is created. While technologies and labor intensities vary between programs and within programs (building roads in rocky versus soft terrains, for example), some

[1]However, full recognition must be given to the income effect of this employment. In East Pakistan, it was calculated that rural works employment provides a 75% to 100% increase in annual income for large numbers of underemployed small farmers.

Table III-2

Relative Significance and Cost of Rural Works in Creating Employment

Country	Program	Dates	Annual Average Worker Days Employment Generated by Public Works (in millions)	Annual Average Worker Days Generated per Member of Labor Force (in days)	Cost per Worker Day Employment Created (direct) (in U.S. $)
Afghanistan	Provincial Develop.	1971-72	4.7	1.3	$ .98
Bangladesh (East Pakistan)	Works Program	1962-present	28.8	1.5	.97
Colombia	Pico y Pala	1972-present	1.		3.87
Ethiopia	Tigre Development Organization	1971-74	0.3	0.2	.32
India	Crash Scheme for Rural Employment	1971-present	178.	1.0	.50
	Drought Prone Areas Program	1970-present	37.9	0.2	.67
Indonesia	Kabupaten Program	1970-present	37.0	0.9	.71
Jamaica	Special Employment Program	1974	2.5	3.5	9.15
Mauritius	Travail Pour Tous	1971-74	1.4	5.5	1.85
Morocco	Promotion Nationale	1961-present	15.9	3.1	.88
Pakistan (West)	Rural Works Program	1963-72	4.4	0.3	3.17
South Korea	Self Help Work Program	1964-72	29.1	2.9	.57
Trinidad-Tobago	Special Works Program	1965-present	.5	1.3	7.80
Tunisia	LCSD	1958-present	28.8	20.7	.75

generalizations can be made. Economic infrastructure assets are often the most effective creators of construction phase employment. Such activities as flood protection, water conservation and soil conservation can be carried out with minimal use of materials and highly skilled labor. Secondary and feeder roads, the greatest single type of rural works expenditures, can also use highly labor intensive techniques. To the extent that bridges and culverts are required, the proportion of unskilled labor used will, of course, decline.

Directly productive projects generally create less employment in the construction phase. Material costs for many of these projects, such as cement and pipes for minor irrigation works, are higher than in projects which are solely earthmoving. In addition, more skilled labor is frequently required in relation to total labor costs. Since social infrastructure projects are generally the construction of buildings, they have the highest skilled labor and materials components of the three categories.

2. Operating Phase Employment. Employment creation during the operating phase of projects is difficult to predict since it depends on a number of variables including the mix of projects, their productivity, the degree of coordination with other development activities, etc. However, a number of useful generalizations can be made.

It is important to recognize that there are substantial long-term employment benefits in the operating phase which must receive attention. In none of the rural works programs studied was there any specific forecast of long-range employment creation suggesting that important opportunities for long term employment creation have been lost.

The type of project with the greatest potential for employment generation is the repair and restoration of obsolescent directly pro-

ductive assets, such as irrigation and drainage systems. In some cases, one worker day in the construction phase has resulted in more than two days of annual employment during the operating phase (see Table III - 3). Since such projects also have high economic returns, in terms of increased production, they should be sought out and given a very high priority. Directly productive projects creating new assets also have a high operating phase employment payoff. As shown in Table III - 3, irrigation and land reclamation projects in the Republic of Korea and in India have produced one worker-day of agricultural employment for each 2.5 to 5.2 worker-days during the construction phase. If the life of these projects is estimated conservatively at 5 years, one worker-day of construction phase employment creates more than one worker-day of agricultural employment over the life of the project. These calculations understate the total number of employment opportunities resulting from the operating phase of projects since they ignore the implications of expansion in non-agricultural activities associated with the increased agricultural output.

Economic infrastructure projects also create jobs in the operating phase, but in ways that are difficult to quantify. Roads mean more vehicles, and with them, construction, operation and maintenance requirements. They enlarge markets and promote a monetized economy which inevitably means more employment. Social infrastructure assets have the lowest operating phase employment potential of the three types of projects, creating little direct employment other than the need for skilled teachers or medical personnel. In the long run, improved education and health facilities may increase productivity or employability of workers, but the impact is so difficult to measure that it cannot be easily included in the benefits of rural works.

Table III -3

Long Term Employment Creation

From Rural Works Irrigation and Drainage Projects

Country	Area Benefited (acres)	Cost (in 000 $)	Total Construction Employment (worker days) (in 000)	Long Term Agricultural Employment Created (worker days per year, in 000)	Employment Ratio -- Construction worker days/ Permanent worker days
Reconstruction					
Bangladesh (1967-68)[1] (drainage)	84,728[a]	532	723	1,526	1/2.1
Indonesia (1971-72)[2] (irrigation)	264,000	3,078	4,348	9,240	1/2.2
New Construction					
South Korea					
Irrigation (1961-63)[3]	187,000	39,500	19,000	6,545	2.5/1[b]
(1964-68)[4]	33.528	2,442	4,522	1,173	4.1/1[b]
Land Reclamation (1964-68)	35,802	2,968	5,498	1,248	4.3/1
Tidelands - Bench Terraces	30,120	2,936	5,437	1,054	5.2/1
India (Mysore State)[5]					
Irrigation (1972)	600	62	93	21	4.5/1

Sources:

[1] Government of East Pakistan, Performance Report: Works Program 1967-68, p. 320-21.

[2] Falcon, Walter, Dapise, Belinda, and Patten, Richard, "An Experiment in Rural Employment Creation: Indonesia's Kabupaten Program," mimeographed, 1973, pp. 8, 13c and 14a.

[3] Lee, Daniel Kie-Hong, "National Construction Services: Korea's Experiences in Utilization of Underdeveloped Manpower Resources," mimeographed, 1969, p. 97.

[4] Ministry of Health and Social Affairs, Republic of Korea, "Self Help Work Program," 1968, p. 5-8.

[5] Donovan, Graeme, "Rural Works and Employment: Description and Preliminary Analysis of a Land Army Project in Mysore State, India," Occasional Paper #60, Employment and Income Distribution Project, Cornell University, pp. 33, 41.

Notes

a Area benefited is reduced by a factor of 2.3 since J.W. Thomas, "Rural Works Program in East Pakistan", 1971, pp. 229-230, found that irrigation benefits are generally overestimated by a factor of 2.3.

b Evidence from Falcon et. al., Thomas, and Donovan suggest that the labor input for one crop of irrigated rice in Indonesia, Bangladesh and India ranges from 60 to 100 worker days per acre. On the basis of this, 75 worker days per crop, per acre, was taken as an average. Irrigation was assumed to produce 35 worker days additional labor per acre and drainage 18 worker days.

Overall, a rural works program with a balanced profile of projects should be capable of producing long-term employment in a proportion of one long term job opportunity for each 5 or 6 worker-years of construction phase employment. There is an important potential contribution and should be considered when eligible project types are selected.

Asset Creation and Development Goals

Most countries cannot undertake rural works projects strictly as transfer payment mechanisms; they must also contribute to development through the creation of useful assets. Therefore, it is essential to analyze the degree to which rural works contribute to the goal of growth and development. For a rural works program to be successful in meeting its mixed economic objectives, there must be scope for labor-intensive construction projects that can be carried out at acceptable rates of return. If there are very limited opportunities for such projects, there is little hope of a sustained works program.

1. Existing Economic Analyses. Table III - 4 shows the results of analyses of rural works projects in five countries: Bangladesh, Ethiopia, Indonesia, Mauritius and Morocco. In these five, benefit-cost ratios or internal rates of return were calculated and the results indicate quite reasonable returns in pure economic terms.

The Morocco study is particularly interesting.[1] The author calculated returns on ten Promotion Nationale projects in three categories: small and medium scale irrigation, and soil conservation. Wages were not shadow priced. Small scale irrigation projects, constructing distribution

[1] Rajaona Andriamananjara, "Labor Mobilization: The Moroccan Experience," CRED Occasional Paper #15, University of Michigan, Ann Arbor, 1971.

Table III-4

Benefit-Cost Analyses of Rural Works Programs

Country	Type of Projects	Internal Rate of Return	Benefit-Cost Ratio	Is Labor Shadow Priced?	Comments
Bangladesh	Roads, drainage, flood control		3.4	No	B-c ratio for total program 12% discount rate
Ethiopia	Terracing and reforestation	18.4%		Yes	
	Irrigation		2.0	No	12% discount rate
Indonesia	Roads		3.6	No	Discounted, but rate not known
Mauritius	Land improvement and irrigation	13.8% 14.3%		No Yes	
Morocco	Irrigation	18.2%		No	Also contains comparisons to non-public works projects
	Conservation	6 %			

systems for existing water sources, show an internal rate of return of 24.4%; medium scale irrigation projects, building water control structures to harness flood waters, show a rate of 12.9%; and soil conservation projects show a rate of 6.0%. The study also compares rates of return on 8 Promotion Nationale projects with 11 generally similar projects carried out by other governmental departments, without the specific use of the Promotion Nationale labor intensive approach. The P.N. projects showed an average internal rate of return significantly higher than the departmental projects.

The number of cost-benefit studies of rural works programs is limited. However, the studies that exist show that rural works can be productive in rigorous economic terms; if they become inefficient makework programs, it is as a result of poor planning and implementation.

It should be noted that cost-benefit analysis cannot capture all the benefits of some types of projects. Those focused on social infrastructure creation, cannot be adequately assessed using this technique, since the benefits cannot be as easily quantified as with directly productive projects. Returns on economic infrastructure projects are difficult to quantify in detail, but if the projects are carried out with relative efficiency they should yield acceptable returns. Feeder or farm-to-market roads can make important contributions to increased production and the development of agriculture-related services and small scale industries.

Conservation and reforestation projects and flood embankments may not produce immediate income for people, but tend to promote increased economic activity and returns over a longer period of time, and do more to prevent future losses than to provide immediate benefits. This may

be just as important a function as creating assets with new benefit flows, and the long-term benefits may conceivably exceed those of either roads or directly productive projects.

2. Availability of Productive Projects. Not all projects can be carried out appropriately by means of a labor intensive rural works program. Depending on the existing state of rural infrastructure and the opportunities for directly productive projects which can be performed with a labor intensive technology, there may or may not be an adequate supply of potentially attractive projects. Therefore, the program planner must know in some detail the nature and adequacy of the existing infrastructure, and the need for projects which can be undertaken efficiently by labor-intensive means.

The productivity of projects is also influenced greatly by the general objectives of the program. Projects that are primarily relief-oriented and which stress employment creation will frequently produce lower returns than projects which aim at income augmentation within a larger development strategy. If opportunities for labor intensive projects exist in large supply, one of the preconditions of a rural works program is satisfied. However, the potential for such projects must also be viewed from the perspective of population, location, and stage of agricultural development. Economic returns to rural works programs will be higher in areas where agriculture is growing rapidly. It is obvious that where agriculture is productive, new technologies used, and economic activity brisk, facilities such as roads, drainage or irrigation will have high returns. However, a country may want to use a public works program in the opposite way, as a stimulus to regions that are not growing. Economic infrastructure, particularly, can be of great importance in generating new activity in back-

ward regions. Thus, a rural works program can be used for regional development in an area that is poorer than the rest of the country.

It is therefore necessary for the program planner to view returns and project selection in the perspective of other development considerations.

Distributive Effects

Rural works programs are increasingly seen as possible vehicles for raising income levels of the poor, and perhaps redistributing assests, toward the economically disadvantaged portions of the population. By themselves, these programs are generally not capable of any major redistribution, but can have moderately redistributive effects. Planners and administrators should be aware of the variables that determine the distributive impact of a program in order to increase the probability of achieving its distributional goals.

1. Importance of Labor Payments. Employment of labor in the construction phase of projects is the most directly income augmenting aspect of rural works programs, particularly in respect to unskilled labor. Table III - 5 shows the proportion of program costs represented by wage payments for sixteen programs in fourteen countries. In some cases we have adjusted the reported percentages downward where we believe that official program reports overstated labor payments, or ignored substantial amounts of non-labor expenses. Labor intensity will differ by project type, wage scale and technology, which accounts for the extremely wide range of figures reported.

We conclude that even the most labor intensive famine relief programs cannot be expected to surpass labor intensities reflected by allocations of 75% of program costs to wages. Income augmenting programs producing assets of acceptable quality should be spending 55% to 65% of program funds

Table III-5

Wage Payment as a Percentage of Total Rural Works Expenditures

Country	Program	Percentage	Notes
High Employment Creation (60% or over for wages)			
Colombia	Pico y Pala	66%	
East Pakistan	Works Program (1962-67)	63%	No data available from 1967-71. Bangladesh (post-1971) listed separately below.
India	Crash Scheme for Rural Employment	76%	
South Korea	National Construction Service	69%	
	Self Help Work Program	70-75%	The official figure of 85% is suspect. Field interviews suggest local contributions of land and labor are not included in official totals. The addition of local contributions suggests the lower amount shown here.
Medium Employment Creation (40% to 60% for wages)			
Afghanistan	Provincial Development	55%	Calculated from 1973-74 estimates of program resource requirements.
India	Drought Prone Areas Program	50%	Official estimate.
Mauritius	Travail Pour Tous	53%	
Morocco	Promotion Nationale	50%	Official figures of 83% highly suspect. Substantial local and intermediate level contributions are not included in total cost. This estimate based on observation and comparison with other programs.
Trinidad-Tobago	Prime Minister's Special Works Program	51%	Estimated on the basis of total wage payments
Tunisia	Lutte Contre le Sous Developpement	50%	Official reports state that 90% of program expenditures go to wages. These exclude contributions at the Governorate level. Data on three projects in different Governorates show the labor component of expenditures to be 51%, 36% and 61%.
Low Employment Creation (less than 40% for wages)			
Bangladesh	The Works Program (excluding Test Relief)	16%	From author's survey, 1973
Brazil	Northeast Drought Relief	25%	
Ethiopia	Tigre Province, Food for Work	25%	Estimate
Indonesia	IMPRES or Kabupaten Program	28%	The analysis of Falcon, et. al. (p. 14) points out that materials used in this program are also labor intensive. Accordingly, if the wage component of the cost of materials used were included, wages would represent 60.1% of total program expenditures.
Pakistan	Rural Works Program People's Works Program	35%	Figure incorporates all costs, including land which is generally not included in other countries' costs.

on wages. If less than 50% of program expenditures are devoted to wage payments, important questions are raised as to the seriousness of the employment creation goal and the appropriateness of the technology and/or wage scale that is being used.

2. Wage Rates. Wage rates, along with the use of labor intensive techniques, determine the extent of benefits to the poor i the construction phase of projects. Many programs reflect the view that self-help contributions from the local community which obtains the benefits should be part of the program. As a form of recapturing some of the cost of the programs, by taxing the benefits, this is perfectly legitimate. However, it is only in a minority of the cases that the program's target groups, unemployed, generally unskilled labor, receive a substantial share of the benefits from projects. Therefore, the wage mechanism is crucial to the program's objective of assisting low income groups. The use of wages at substantially less than market rates is in effect a tax on low income groups and should be avoided.

3. The Operating Phase. In the operating phase, it is much more difficult to insure that benefits reach target groups than it is in the construction phase. The division of benefits will tend to follow the division of relevant scarce resources, particularly land. Directly productive projects, such as minor irrigation works, which allow an additional crop, will create additional job opportunities, provided production is carried out in a labor intensive fashion. However, the returns to landowners will be larger than the benefits to workers through additional employment. In a typical irrigation project allowing an additional crop of rice to be cultivated in a labor intensive fashion, it was calculated that the additional benefits flowing to landowners and benefits accruing to

labor were in a ratio of 3.5 to 1.[1] The more concentrated the ownership of the land, the narrower the distribution of benefits. The benefits to labor can still be important, however. In the irrigation scheme just mentioned, up to eighty worker days of additional labor per acre were created.

If a program can be designed so that the assets created benefit low income groups directly, the impact on rural poverty will be greatly enhanced. If productive assets are created (terraces or reclamation) and the assets can be distributed to low income groups, their income potential will be greatly increased. In addition, if projects can be carried out in areas inhabited primarily by low income groups, it is clear that their share of the benefits will increase.

Similarly, economic infrastructure projects will direct most of their benefits to landowners where the project is located. But benefits, while difficult to quantify, will not be limited to land holders. Feeder road systems or enlarged markets inevitably mean more jobs. In theory, the distribution of benefits from social infrastructure projects is quite wide. A new school or clinic can benefit an entire community. However, one cannot always assume this wide distribution and in some cases action must be taken to insure that it will occur. Discrimination against low income groups may take many forms, intentional as well as intentional. Cost is the most obvious. School fees or clinic charges may exceed what some individuals are able to pay. Among the poorest groups, children have to work in the fields or assist at home during peak labor seasons and may drop out of school during this period. Special supporting services may be required if the full distributive potential of social infrastructure projects is to be realized.

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[1] See Thomas et al. Employment and Development p. 119 for the calculation of this figure.

Table III - 6 compares the three categories of projects in terms of their economic returns, social returns, redistributive effects and employment creation.

4. Sharing Benefits with Non-Target Groups. Almost inevitably some program benefits will go to non-target groups. Within limits, this can be an advantage. The provision of rural assets that stimulate development across a broad range of the rural populace is obviously desirable. Most rural works programs are decentralized in administration and need the capacities of local officials and sometimes the active cooperation of local craftsmen, contractors, etc. This mobilizing of local talent is much easier to achieve if a broad base of the population is benefiting in some degree from program activities. In addition, benefits to non-target groups help develop political support for a program that has some redistributive content and is otherwise likely to encounter strong political opposition. Carefully managed, this breadth of distribution of benefits can be an advantage.

Table III-6

Performance of Different Types of

Projects in Meeting Program Objectives

Type of Project	Economic Returns	Social Returns	Redistributive Effects	Employment Created
Directly Productive (Irrigation, Drainage, Land Reclamation, etc.)	high	low	highly variable (depends on who owns land benefitted)	in construction - medium in operation - high
Economic Infrastructure (Roads, Conservation, eforestation, Flood Control, Markets)	medium	medium	medium	in construction - high in operation - medium
Social Infrastructure (Schools, Clinics, Community Buildings)	low	high	high (if low income groups have access to schools, clinics, etc.)	in construction - low in operation - low

Chapter IV

MAJOR ISSUES IN RURAL WORKS PROGRAMS

There are a number of basic issues which surround rural works programs, and which influence the decision as to whether such a program should be adopted. It is important for planners and administrators to be aware of these issues in shaping the decisions to proceed and in anticipating questions and criticisms that will be directed toward existing programs. Rural works programs have given rise to extensive controversy, with exaggerated claims made on both the positive and negative side. They have been attacked as wasteful and inefficient. On the other hand, excessive claims have been made as to their potential for eliminating unemployment and developing the rural areas. The purpose of this chapter is to raise several fundamental issues, summarize the arguments and evidence on both sides and provide a balanced view as to how the issue should influence the decision to undertake a program, and how it might shape its priorities, size, design and operation.

Economic Efficiency

How efficient are labor intensive rural works projects in benefit/cost terms? In Chapter III, a number of studies of these programs were reviewed briefly. The conclusion was reached that a well planned and implemented rural works program with a variety of projects in all three categories of directly productive, economic infrastructure and social infrastructure, should show benefit/cost ratios and internal rates of return that are comparable to those expected from good projects in other types of development programs. The question is sometimes restated to ask

whether labor intensive projects show higher returns than projects using other technologies. This approach fails to emphasize the employment and distributive aims of rural works programs. If the question is to be asked in that form, it is also appropriate to develop a framework for evaluation that assigns distributive weights to benefits going to different groups of beneficiaries. There is a considerable volume of recently completed and continuing research regarding the optimal mix (in terms of lowest cost combination of inputs for a given output) of labor and capital in the construction of facilities, particularly roads, in rural areas. While the evidence available so far does not permit firm conclusions as to the relative efficiency of labor intensive techniques, it does suggest that labor intensive construction techniques can be efficient.[1]

In four of the six benefit cost studies referred to in Chapter II, shadow wage rates were not used. In countries where unemployment is extremely high, it is likely that shadow pricing on the basis of social opportunity cost would result in higher rates of return. The Bangladesh and Morocco studies were carried out *ex post* and showed lower returns than the four *ex ante* studies. This difference suggests that the failure of individual projects and programs to achieve their economic aims is a

[1]See, for example, International Bank for Reconstruction and Development Staff Working Paper No. 172, January 1974; Deepak Lal, "Men and Machines: A Philippines Case Study of Labor-Capital Substitution in Road Construction," International Labour Office, Geneva, mimeographed, 1973; and I.L.O., "Roads and Redistribution: A Social Cost-Benefit Study of Labour-Intensive Road Construction Methods in Iran," International Labour Office, Geneva, 1973, Chapter IV.

result of implementational failures rather than an inherent weakness in the application of labor intensive technology to small rural projects. Important factors contributing to the ability of projects to reach their potential include the following:

1. Planning and Technical Adequacy. The best protection against failures in this area is to insist on a limited list of eligible projects, using standard specifications and simplified operating manuals, and to establish specific project preparation techniques as suggested in Chapter VI.

2. Labor Efficiency. Adequate wage scales, comparable to seasonal minimum agricultural wages, incentive systems based on standardized work norms, and supervisory techniques which take into account traditional forms of labor organization can help raise standards of labor efficiency. In many countries, for example, workers will arrive at the work site in groups based on village, family or clan relationships. Such work groups frequently include a mutually acceptable leader who can assign tasks within the group, promote efficient time use and supplement scarce supervisory talent.

Individual instances of gross inefficiency were encountered in most programs. This is not a problem which is unique to rural works programs, although it is accentuated by the stretching of supervisory staff to cover large numbers of small dispersed projects. The steps suggested above will help eliminate the stereotyped image of rural works employees being paid to lean on their shovels or sit in the shade.

3. Seasonal Employment Patterns and Opportunity Costs. Seasonal patterns of demand for agricultural labor vary widely between different areas. For example, in the rice growing areas of Bangladesh, where irrigation permits three crops per year, the rural labor force approaches

full employment for about 135 days. In the irrigated areas of Pakistan, where two crops are possible in a year, periods of full employment total about 110 days.[1] If rural works activities are not planned to take account of such local variations the opportunity cost of labor may rise sharply.

In general, most programs did an effective job of coordinating rural works activity with seasonal needs, concluding, deferring or interrupting projects in order to avoid conflicts during periods of peak seasonal employment. There were individual instances of poor coordination in almost all programs. Farmers in Tunisia, Morocco and Trinidad-Tobago have complained about the diminution of agricultural labor supply as a result of rural works programs, and in the Padat Karya program in Indonesia, workers themselves have suggested a better phasing of projects so as to avoid competition with their primary income earning activities in agriculture.[2] In Morocco it was reported that insufficient labor was available for certain rural works projects which were not phased to take account of agricultural seasonality.

Long term employment programs offering year-round jobs can present problems of seasonal adjustment if they are combined with high wage scales. In Trinidad-Tobago, for example, it was decided to pay all program employees the government minimum wage of US $4.00 per day which, based on urban industrial wages, was almost twice the agricultural wage rate. In this case,

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[1] Hussain, Syed Mushtag, "Strategy of Agricultural Development with special reference to Pakistan," Pakistan Institute of Development Economics, Karachi, mimeo, 1970.

[2] Checci and Co., Food for Peace: An Evaluation of PL480 Title II, Washington D.C.; 1972, Vol. K, a study contracted for by USAID. See also Government of Indonesia, Manpower Department, Labor Intensive Research Team, Labor Intensive Research in Java and Madura, mimeographed, 1972.

because the works program was not seasonal, it was able to outbid the agricultural sector for labor in peak seasons and resulted in a labor shortage in agriculture.

These examples point up the necessity for a close analysis of seasonality and alternative employment opportunities in order to avoid undesirable increases in opportunity costs. From the program planner's and administrator's view, they suggest the importance of short or interruptible projects, the necessity for adherence to a well defined annual schedule of project approvals, funds allocations, coordination with worksite delivery of complementary inputs, and the potential risks involved in using contractors who may be unable or unwilling to accommodate their operations to seasonal agricultural patterns.

4. Project Choice. As suggested in Chapter III, directly productive projects and infrastructure projects, both economic and social, can all yield good economic returns. Make-work projects such as leaf raking and sidewalk sweeping should be avoided. Such wasteful projects have been reported in a number of programs, including the early efforts in Mauritius, and the Special Employment Program in Jamaica (referred to at times as the "Christmas Program" because of employing people in non-productive jobs to provide income for the holiday season).

While acceptable benefit/cost performance must be expected in any continuing rural works program, there is a danger that excessive concern with economic performance can impede the successful functioning of a program. When feasibility studies are done preparatory to starting a program, benefit/cost analyses of typical project types are essential. Similarly, periodic evaluations of program effectiveness are desirable,

including an effort to analyze on an ex-post basis, the extent to which anticipated benefits have been achieved. On a day-to-day basis, however, these programs consist of the rapid implementation of a large number of small projects drawn from a limited range of eligible project types and using standardized technologies. There is neither time nor talent available for formal benefit/cost analysis of each project, and efforts to do so will result in costly delays in approval and implementation. Scarce technical and administrative skills can be better used to solve the practical problems of implementation, coordination with cooperating ministries, and inclusion of public works projects in a coherent system of local planning.

On a macroeconomic level, it would theoretically be possible to analyze, through a macro-modeling linear programming exercise, the effect of a rural works program on the national economy. Such an approach was suggested in a study of "Promotion Nationale" in Morocco.[1] Given the realities of data limitation and the relatively small size of most rural works programs, it would appear more practical to limit evaluation efforts to the project level.

Do Distributive and Development Goals Conflict?

Given the multiple objectives of employment, asset creation and redistribution both in the construction and operating phases, must there be important sacrifices of one goal to achieve the other? As suggested in Chapter III, there are differences between categories of projects in relation to each of these goals. The differences, particularly in

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[1]Andriamananjara, op. cit.

relation to distributive goals, are strongly influenced by socio-economic variables such as land holding patterns and access to social infrastructure assets. Directly productive projects, partly due to ease of measurement, show the highest economic returns and are effective creators of employment in both the construction and the operating phases. As pointed out in the previous chapter, there are numerous ways to increase the proportion of operating phase benefits that will go to target groups, for both directly productive and economic infrastructure assets, although the patterns of land ownership will remain the basic determinant of the distribution.

Accepting the fact that these programs will have only moderately redistributive effects in the absence of basic structural reforms, there is a broad consistency between employment, developmental and distributive goals in a program of diversified projects. Important sacrifices of one goal are not necessary to obtain reasonable levels of other objectives. A possible short term exception exists in the form of crisis relief programs, where it may be necessary to place maximum weight on construction phase employment. But even in such cases, increased efforts can be made to relate the program, as it continues, to other developmental aims, while preserving high levels of labor intensity.

Program Size

What yardsticks are available as guides to determining the optimal size of a program? In theory, an upper limit might be set by the estimated size of rural unemployment. Such an approach is unrealistic for a number of reasons. As pointed out in Chapter II, many members of

the program's target group cannot be reached because they will not or cannot accept employment of this sort. Other constraints include shortages of administrative and technical skills to mount a program of massive size, a possible shortage of eligible projects of sufficiently high quality in the regions where they are required, the political realities of the competitive struggle for allocations in the light of other pressing national needs, and the gross financial constraints that would be encountered by any program attempting to "solve" in the short run the problem of large scale rural unemployment. By international standards, any program absorbing as much as 10% of rural unemployment must be considered large, and most programs fall well below that level.

1. What are the financial implications of programs of typical size? Table IV - 1 shows the percentage of GDP represented by program expenditures in 21 programs in 14 countries.[1] The GDP proportion tends to understate total costs since official figures usually exclude local and regional contributions, and those portions of administrative costs that are included in other departmental budgets. The range of understatement is generally in the area of 10% to 25%

In terms of program purposes, long term employment programs make the greatest claim on resources, reflecting the size and visibility of the problem of such structural unemployment, and the decision in two of the three such programs to pay the standard government wage for urban workers.

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[1]The single measure of program size in relation to GDP was chosen to facilitate comparison. Ratios of program expenditure to development budget, total government expenditure and capital formation, which would give additional insights into the importance of public works programs in their national settings, were discarded due to differing definitions and incomplete data.

The income augmenting programs show the greatest range in GDP proportions Three programs, Bangladesh, Morocco and Tunisia, all represented expenditures of more than .5% of GDP. The four low cost infrastructure programs, while they may have important local effects, were extremely small in relation to their national economies.

The Tunisian program is an extreme case. At its peak in the early 1960s, expenditures on LCSD totalled almost 5% of the GDP and represented almost 24% of gross fixed capital formation. Rural works expenditures on this level are clearly insupportable for extended periods and reflect the absence of alternatives available to Tunisia at that time, and which hopefully does not now exist elsewhere. Since 1963, this program has been much smaller and it seems unlikely that future rural works programs will reach a comparable size.

Table IV-1

Relative Size of Special Rural Works

Programs in Terms of Employment and Resources

Country	Program	Dates	Average annual worker-days of employment per member of the labor force	Average annual program expenditure as a % of GDP
		Relief Programs		
Afghanistan	Provincial Development Program	1971-72	1.1	.43%
Brazil	DNOCS	1958	14.0 (est. regional)	.38 (nat'l.)
India	Scarcity Relief	1969/70-1973/74	2.2	.33
		Long Term Employment Programs		
Jamaica	Special Employment Program	1974 (proposed)	3.5	1.4
Mauritius	Relief Workers' Program	1974	6.0 (est.)	.76 (est.)
	Travail pour Tous	1974	4.0 (est.)	1.12 (est.)
	Rural Development Project	1974	5.2 (est.)	1.76 (est.)
			15.2	3.64
Trinidad-Tobago	Special Works Program			
	Prime Minister's Special Works Program	1970-71	2.6	.89
		Income Augmenting Programs		
Bangladesh/ E. Pakistan	The Works Program	1962-68	1.5	.57
India	Crash Scheme for Rural Employment	1972	1.0	.15
	Drought Prone Areas Program	1970-72	0.2	.05
Indonesia	Kabupaten	1972-73	0.9	.24
Korea	Self Help Work Program	1964-70	2.9	.41
Morocco	Promotion Nationale	1961-72	3.1	.60
Pakistan	Rural Works Program	1964-72	0.3	.19
Tunisia	LCSD	1959-69	20.7	2.4
		Low Cost Infrastructure Programs		
Colombia	Pico y Pala	1972-73	0.2	.05
Indonesia	Padat Karya	1973	0.4 (est.)	.03 (est.)
	Desa	1973	n.a.	.12 (est.)
Ethiopia	Tigre Development Organization	1971-72	0.2*	.01

*of provincial rural population

Working from Table IV - 1, the following figures suggest the cost in relation to GDP of providing one day of employment for each labor force member (using government labor force estimates for the early 1970s):

Bangladesh	0.38%	Korea	0.14%
India-CSRE	.15	Mauritius	.24
India-Relief	.15	Morocco	.19
India-DPAP	.25	Pakistan	.63
Afghanistan	.39	Tunisia	.12
Indonesia	.27	Trinidad	.34
Jamaica	.40		

An unweighted average of these figures is 0.27%. These figures are purely illustrative, and take no account of multiplier or other effects connected with large scale wage payments. Assume that un- and underemployment in a country is estimated at 15% of the labor force. To "solve" such an unemployment problem on the basis of the average cost obtained above would require an expenditure of approximately 10% of GDP. Even the absorption of 10% of the estimated unemployment would cost 1% of GDP, a level approached or exceeded by only four of the countries shown in Table VI-1.

2. <u>What is the tendency shown by program size over time?</u> Table IV-2 gives details for the five income augmenting programs for which statistics are available. With the exception of Morocco, the programs, all of which are of the income supplementing category, show a tendency to decline. In addition to program-specific factors, the tendency to decrease in size reflects the stabilization of program expectations after the initial enthusiasm of the beginning years, and may also reflect the ending of P.L. 480 support in some countries and its decreasing availability and higher cost (sharing of ocean freight, etc.) in other countries.

Table IV-2

Trends in Program Size Over Time

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
BANGLADESH/EAST PAKISTAN														
Worker-days/member of labor force					2.8	2.8	.9	1.1	.9					
Program expenditure/GDP-%				.52	.98	.72	.39	.42	.67					
Program expenditure/development budget %				9.1	13.3	8.3	6.2	6.7	7.1	5.7	5.4	4.9	5.3	3.2
PAKISTAN/WEST PAKISTAN														
Worker-days/member of labor force					.45	.43	.25	.24	.23	.22	.21	.17	.17	
Program expenditure/GDP-%					.34	.37	.32	.06	.16	.15	.16			
Program expenditure/development budget %					5.6	4.5	5.6	0.1	2.5	2.2	3.0			
SOUTH KOREA														
Worker-days/member of labor force		3.2			2.3	3.3	2.9	3.2	2.6	3.1	1.4			
Program expenditure/GDP-%		1.6			.41	.55	.61	.45	.36	.27	.20			
Program expenditure/development budget %		20.2			11.3	12.8	13.6	7.9	5.8	2.8	2.8	1.9	1.4	
MOROCCO														
Worker-days/member of labor force		3.0	2.9	1.0	3.1	2.8	4.2	3.8	3.6	3.6	3.8	3.1	2.1	
Program expenditure/GDP-%		.43	.72	.55	.57	.48	.83	.75	.62	.59	.64	.50	.24	
Program expenditure/gross fixed capital formation-%		3.3	6.0	4.2	4.6	3.9	6.2	4.8	4.3	3.8	3.7	3.1		
TUNISIA														
Worker-days/member of labor force	23.9	42.1	43.3	25.9	20.2	18.3	11.4	14.0	11.2	12.3	11.0	5.5	4.5	
Program expenditure/GDP-%	2.9	4.6	4.9	2.9	2.1	2.0	1.6	1.9	1.4	1.5				
Program expenditure/gross fixed capital formation-%	16.5	24.7	24.0	14.9	9.0	7.4	6.2	7.9	6.5	6.7				

3. Claim on Resources. It is clear that any program attempting to make a substantial impact on unemployment will require a heavy commitment of government resources -- the average for the three programs in Table IV-2 for which such information is available is 6.4% of the development budget. Moreover, none of these programs would be classified as "large" in terms of their overall impact on unemployment. If a country's development budget represented 10% of GDP, then a program reaching 10% of unemployment, on the assumptions above, would also absorb 10% of the development budget. On a realistic fiscal basis, continued funding at this level will mean severe competition with other development programs, and will require a strong level of political and bureaucratic support.

Inflationary Potential

What is the potential inflationary effect on wage goods prices, particularly basic foodstuffs, of a large rural works program? It is sometimes argued that in the absence of commodity wage payments a large scale rural works program will run the risk of causing serious price inflation, thus reducing or perhaps eliminating the anticipated benefits to target groups. The question is certainly valid when one sees programs that absorb substantial portions of national resources, as with Tunisia in the 1960s and the proposed level of operations for Mauritius in 1974.

To take an extreme case, we can look at Tunisia's L.C.S.D. program for 1966. In that year the program provided the equivalent of over eleven days of employment for each member of the labor force and represented about 1.5% of GDP. If the entire program cost were raised

by taxes in urban areas and spent entirely on labor and materials supplied by rural households, net consumption of cereals, using 1966 prices and government income elasticities, would rise by about 9,000 tons. This represents only 1.5% of total Tunisian cereal output in 1966.[1]

Had the entire program been financed externally, implying no decrease in urban consumption, the increase in total demand for cereals would be about 13,000 tons, or 2.2% of Tunisian cereal output. This suggests that on a macro-basis the increase in demand for wage goods resulting from a rural works program of this size in relation to GDP is likely to be slight, and thus that the program's inflationary effect should be small.

In the early 1960s this program was much larger. In 1962 for example, when program expenditures were almost 5% of GDP, the net additional demand for cereal grains on the same basis as above should have been about 31,000 tons or 6.3% of total production. Depending on the proportion of output that is marketed, a program of this size might well have strong inflationary effects in the absence of food aid or foreign food purchases. However, such a large program is exceptional.

A similar calculation can be made for Pakistan's Rural Works Program based on average expenditures for the years 1963-71. During these years the program expenditures represented .21% of GDP, making it one of the smaller, but still representative income augmenting programs. Using demand elasticities from a 1968-69 consumer expenditure survey, and assuming that all program funds came from middle and upper income urban families and all expenditures went to poor rural families, the greatest net change

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[1] Figures on production and program costs are taken from Grissa, Abdessatar, Agricultural Policies and Employment: Case Study of Tunisia, OECD, Paris. 1973

would have been 0.2% in the demand for cereals. Assuming complete external finance, with no reduction in urban consumption, the increase in cereal demand would have been approximately 0.3%

Given the size of most income augmenting programs, there should be no important wage goods constraints or strong inflationary pressure on food prices. However, such problems may be faced by income augmenting programs if they should reach the size of Tunisia's LCSD in the early 1960s or by others which concentrate their activities in a small geographic area. In Maharashtra for example, where in 1973-74 scarcity relief works generated an estimated 290,000,000 worker/days of labor[1], not only were short-term supply elasticities low, but successive crop failures had produced strong upward pressure on cereal prices. Using the same method as in the Tunisian case, it may be estimated that in this year the scarcity relief program generated an additional demand for 135,000 tons of cereals. Fortunately, good transportation arrangements and outside food supplies offset this potential pressure on prices.

Rapid Implementation v. High Quality Standards.

There is frequently tension between the professional engineering desire for high quality standards in the execution of projects and the need for rapid implementation. Questions are sometimes phrased in terms of allocating scarce administrative and technical resources to low priority activities. Sometimes it is suggested that rural works activity should be deferred

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[1]Author's Estimates. Official figures for employment generation are not accumulated.

until all the necessary engineering and supervisory staff are available, in order to assure high quality projects. Both lines of argument are basically negative on the value of projects carried out by labor intensive rural works programs, and may mask a bias on the part of the questioner in favor of capital intensive techniques.

The information summarized earlier on the economic efficiency of well operated works programs, and the high priority in most development plans placed on improving living standards for the rural poor, should help to answer these arguments. Training of personnel requires time. If rural works programs were delayed until fully trained professional staff were in place, years might pass without action.

Much can be done to start programs before all the desired technical staff has been trained and still achieve a satisfactory level of economic efficiency. The use of a brief pilot program is discussed in Chapter V. There are frequently administrative and technical capacities outside of the government bureaucracy which can be tapped by a rural works program. This is particularly true in Asian countries where traditional arrangements exist for communal labor intensive activities. Grass roots knowledge is available and can be utilized in a rural works program, particularly if it is organized on a participatory decentralized basis. An innovative approach, coupled with a continuing effort to simplify and standardize procedures, can locate many substitutes for scarce technical skills and stretch the available talent pool to permit the most rapid expansion of implementation consistent with minimum acceptable quality standards.

Appropriate Wage Rates.

Levels of worker compensation have an important effect on program performance. Wage rates on public works projects should approximate market rates and should be based on an incentive system for labor efficiency. Achieving reasonable labor intensity and paying wages that approximate market rates will ensure positive distributive arrangements in the construction phase of projects.

Table IV-3 summarizes the mode and level of wage payments in fourteen countries in the late 1960s and early 1970s. The trends we observed were clearly away from commodity wages and toward a wage scale that approaches the existing agricultural wage. Since the data of Table IV-3 were released, Tunisia and Morocco have gone to a straight cash payment approximating the official minimum agricultural wage.

Table IV-3

Wage Rates in Public Works Programs

Country	Program	Mode of Payment	Wage Scale
Afghanistan	Provincial Development Program	Food/cash	Approximately ½ agricultural wage
Bangladesh	Works Program	Cash	Agricultural market rate
Brazil	DNOCS	Cash	?
Colombia	Pico y Pala	Cash	High incentive wage (higher than agr. wage)
Ethiopia	Tigre Development Org.	Food/cash	Approximately 2/3 agricultural wage
India	Crash Scheme	Cash	Slack season wage rate
	Drought Prone Areas	Cash	Varies
Indonesia	Kabupaten	Cash	Agricultural wage rate
	Padat Karya	Food/cash	½ agricultural rate
Jamaica	Special Employment Program	Cash	Government minimum wage
Mauritius	Travail Pour Tous	Cash	78% government minimum wage
	Rural Development Program	Cash	78% government minimum wage
Morocco	Promotion Nationale	Food/cash	Approximately 3/4 agricultural wage
Pakistan	Rural Works Program	Cash	Agricultural wage rate
South Korea	Self Help Work	Food/cash	Approximately 2/3 agricultural wage
Trinidad-Tobago	Special Works Program	Cash	Government minimum wage
Tunisia	LCSD	Food/cash	Approximately 3/4 agricultural rate

Misuse of Funds

How can corruption and misuse of funds be kept within tolerable limits? Rural works programs involve local or regional decisions on hiring, purchasing, awarding contracts, and selecting and locating projects, and it is at these levels, rather than at the center, that misuse of funds is likely to occur. Though firm data are obviously not available, it appears that financial corruption in most of the programs studied does not divert a high proportion of benefits away from intended target groups. In the two cases (Northeast Brazil and Bangladesh in the early 1970s), where widespread misuse of funds did reduce program effectiveness, political influences were clearly involved. Systems of reporting, public information, etc., that will help reduce possible corruption are suggested in Chapter V.

The Role of Women

Women have played a very limited part in rural works programs. Only one program, Jamaica's, makes special reference to providing employment for women, but to date relatively few have been employed. Many reasons are cited for excluding or limiting the participation of women, ranging from physical incapacity for manual labor to religious, social, caste and tribal views on the proper role of women in the economy. There is evidence that these views may be exaggerated and that there are important reasons for attempting to include women much more fully.

In Bangladesh, a Muslim country where purdah is widely observed, the assumption of the rural works program was that women would not be willing or permitted to participate in projects. None ever did, and

those associated with the program assumed this to be a situation that would continue indefinitely. However, in 1974-75, during the acute food shortages, one local government decided, together with UNICEF, to hire "destitute" women to carry out agricultural projects. In part the work consisted of establishing small gardens, but it also involved digging irrigation and drainage channels which entailed heavy earth-moving. When the crisis period was over, UNICEF announced its intention to withdraw support on the assumption that with reduced need, the women would no longer be willing to do this type of work. Contrary to expectation, the women demanded that the program be continued and expanded. These requests were granted and the program has steadily grown. In addition, it has provided the organizational focus which enabled the women to begin a functional education program.

This experience suggests that the assumptions about women's disinterest in programs may be incorrect and ought to be tested. In addition, there is growing evidence in the literature of development related to family size, nutrition and family health, which suggests that women's work may alter their behavior in important ways and may lead to reduced family size and improved nutrition and health practices in the home. This will be particularly true if programs such as functional education are built upon women's participation in rural works.

Encouraging the participation of women will require special efforts and the modification of some program designs or the establishment of parallel activities. The potential benefits however seem to justify such efforts as may be required to incorporate women in rural works programs.

The Scope for Urban Works

Existing programs have concentrated their activities in rural areas. Where programs do operate in towns and cities, they are generally unadapted extensions of rural programs, and little attention is paid to the distinguishing characteristics of urban unemployment or the special needs of the urban environment. In only one case, that of Jamaica, was specific attention given to the problem of urban unemployment when public works activity was started. As shown in Table IV-4, almost half of the countries' programs gave no evidence of having any urban projects.

Part of the bias against urban public works stems from the location of unemployment in the countries adopting these programs. With the exception of Mauritius and Jamaica, the countries listed in Table IV-4 have an average of only 8.7% of their population in urban areas. For these countries unemployment is primarily a rural phenomenon.

While the magnitudes of unemployment are much larger in rural areas, rates of unemployment and rates of population growth are usually higher in towns and cities. There is a concern, both economic and political, with the consequences of rapid urbanization in most developing countries. The lack of an urban focus may be attributed in part to a desire not to stimulate additional in-migration to cities. Slowing the rate of rural-urban migration was an explicit objective of Pakistan's Rural Works Program, Morocco's Promotion Nationale, and Indonesia's Kabupaten Program, and it is an implicit objective in such programs as Tunisia's LCSD and India's Scarcity Relief operation. However, the available evidence suggests that it is easier to encourage migration to cities by

increasing urban employment opportunities and raising wages than to curb it by improving employment conditions in rural areas.[1] While the evidence is not conclusive, it can be inferred that rural public works programs are unlikely to have an appreciable effect on rural-urban migration and that the introduction of urban public works might increase migration flows.

Migration issues aside, the evidence suggests that conventional public works have not performed well and are not well suited to urban areas. In Jamaica's Impact Works, the one program with a substantial urban component, productivity has been notoriously low. Evidence from the other programs with urban components, while not definitive, shows lower percentages of program expenditures on wages for unskilled labor and lower productivity than in rural projects, as well as the construction of non-essential assets.

The characteristics of urban unemployment imply that if a public works program is to ensure an adequate income for its employees, more scarce resources will be needed than in rural areas:

- Urban unemployment tends to be open and year-round, and thus a program to alleviate it must provide regular long-term jobs from which employees can realize a full income;

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[1]See Harris, John R. and Michael P. Todaro, "Migration, Unemployment and Development: A Two-Sector Analysis," The American Economic Review, Vol. LX, No. 1, March 1970, pp. 126-142; Bank Staff Working Paper, Internal Migration in LDCs: A Survey of the Literature, September 1975 (forthcoming): Kraft, J.D., "Slum Development in South and Southeast Agia," paper delivered at the Conference on Town and City Planning, Colombo, 1971; Rosser, C., Urbanization in India, International Urbanization Survey, the Ford Foundation, New York, n.d.

Table IV-4

Percentage of Rural Works Funds Allocated to Urban Areas

and Percent of Population Residing in Urban Areas

Country	Period	Types of Urban Projects	Percentage of Total Funds for Urban Areas	Percentage of Population Residing in Urban Areas	Comments
East Pakistan	1963-68	Roads, drainage, community centers	8%	5.6%	Funds allocated to municipal councils limited to the same activities as in rural areas
Jamaica	1974-76 (planned)	Urban cleanup, urban housing improvement	40% (Kingston)	37.4%	Previous programs stressed urban cleanup
Mauritius	1971-74	Industrial estate and housing site preparation	9%	44.7%	For school, roads, and artisan workshops no urban differentiation is available. Inclusion of these would increase the urban component.
Morocco	1961-72	Sewers, housing, drainage	11%	18.9%	All in small towns
South Korea					
NCS	1961-63	Drainage, sewers, roads, redistricting	7%	22.7%	
Self Help Work	1964-68	housing site preparation	6.8%		
Tunisia	1960-70	Housing	10% or more	15.6%	All in small towns. No official statistics differentiate urban expenditures. Our survey suggested Tunisia was spending more in urban areas than Morocco.

The following countries' programs gave no evidence of having urban projects:

Afghanistan	2.7%
Ethiopia	2.7%
India -- Scarcity Relief Crash Scheme for Rural Employment Drought Prone Areas Program	9.7%
Indonesia -- Kabupaten	9.7%
Pakistan (West)	9.7%

Source: Figures for urban activity from program reports. Data on urban population is for 1960 because expenditures figures are for the 1960's except Jamaica. Data from Taylor and Hudson, World Handbook of Political and Social Indicators, New Haven, 1972, and for East Pakistan, Jamaica and Mauritius from national statistical publications.

- urban costs of living are generally higher than rural, and if public works employees are to be permitted reasonable consumption levels, the cost per worker day of employment created will be higher than in rural areas;
- the urban unemployed are typically heterogeneous, from a wide range of backgrounds and with a wide range of skills and education levels. Designing a program for people of diverse capacities and skills is highly demanding of administrative resources, a capacity always in short supply.

All of these factors mean that an effective urban public works program must differ from a rural program. There is little scope in urban areas for the large scale labor intensive earth-moving work that characterizes rural projects. There is a great need for programs to provide social infrastructure to benefit low income urban groups, but such programs are difficult to organize and to administer, and more difficult to defend on a benefit-cost basis. There is a need for research and small experimental pilot programs to find ways in which works programs can be specifically adapted to urban environments. We conclude that without a specific urban design, public works programs should remain rural.

Consistency With Other Programs

Even a relatively large works program will be unable to solve the problem of substantial rural unemployment by itself.

Clearly, a major improvement in the employment situation will require other government policies that promote employment creation and reinforce the works program.

In only two of the existing countries which have rural work programs does the policy mix clearly favor labor absorption. In all other cases the blend is neutral at best and tends to work against employment creation. Unless greater policy coherence is obtained, rural works programs can continue to provide helpful supplements to disadvantaged groups, and will continue to create economically useful assets in the countryside, but they will be marginal in their impact on the underlying problems of employment and poverty.

There are many policy areas and programs that affect employment. They can be grouped conveniently as outlined below. Administrators should think about each of these areas to see if existing policies are consistent with public works:

1. Agricultural mechanization. Do government programs encourage substitution of machinery for labor in agriculture? Are farmers offered financial incentives to mechanize? Is the impact of extension services conducive to labor displacement?

2. Manufacturing technology. Is there a capital bias in the incentives offered to foreign or domestic investors? Do domestic interest rates subsidize capital? Are special incentives offered for labor intensive investments? Is there a sharply dualistic wage structure?

3. Foreign exchange rate. Is this consistently overvalued so as to attract capital intensive investment and imports of labor-replacing machinery?

4. Pricing policies. Do agricultural policies produce incentives by offering protection against price declines or providing profitable prices? Are subsidies or special incentives offered for labor intensive production either for domestic markets or for export? Are agricultural inputs made available at rates and in programs that encourage their application in a labor intensive manner?

5. Other government programs. Is there an efficient small farmer credit program? Are extension workers trained and conditioned to advocate labor-intensive techniques? Are rural infrastructure and agricultural development programs outside the public works program designed to promote labor intensive practices? Does the pattern of tax incidence and the rural-urban terms of trade improve or worsen rural living standards.

Broadening Participation in National Development

For most countries, a rural works program will broaden participation in national development programs substantially. The capacity to stimulate participation in many different forms is seen by most, including the authors, as one of the real advantages of rural works. In designing the administrative system to govern such a program, full consideration must be given to what forms of participation are encouraged and how that participation is structured. The administrator must make the following critical decisions which will determine the degree of participation invoked:

1. What role should be assigned to local government in project decisions, work supervision and planning? Involving local government bodies in this aspect of the program is an important way of obtaining participation and of developing local capacity.
2. Who should participate in decision making for project selection? Allowing the local community to participate in this aspect of the program makes them much more aware of what is going on and also gives them a "stake" in the program.
3. Should public information as to amounts of money and accomplishments be used as a means of checking on misuse? This too will make the local populace much more aware of what is going on and involve them in the program.
4. Should employment opportunities be spread as widely as possible within a target group? One effect of a seasonal program is that it spreads a limited wage fund more broadly.
5. Should target groups be organized formally through cooperatives or small farmer/farm laborer associations as a means of increasing and channeling their participation?

The program administrator should be aware that programs that have invoked participation have incurred political interference much more frequently than non-participatory ones. Participation inevitably has political ramifications. If a regime sees that participation generated through rural works is building rural support for the government, as a successful program inevitably will, the program will be insured strong political support. In East Pakistan, this type of support was one of the

program's great assets in its early years, but it eventually became a crippling liability, as efforts to use the program for direct political patronage eroded its impact.

Other programs that have invoked participation, such as the Korean Self Help Work Program, or the Workers' Brigades in Ghana, have generally not survived a major change of government or have done so only in an altered form. On the other hand, programs which have not invoked participation, and as a result may have achieved much less in the way of mobilizing the populace or creating new capacity for development at local levels, have had a more stable history. Promotion Nationale in Morocco has been an administratively managed program with a minimum of citizen participation and its performance has been one of the most stable over time.

Despite these drawbacks, the authors feel that the benefits of participatory programs are greater than those achieved when minimum participation is generated. Non-participatory programs frequently fail to generate local capacity for other development efforts or to achieve their potential multiplier effects. The long term employment programs, which are both centralized and non-participatory, have proven to be high-cost and inefficient. As a result, we recommend broadening participation and will suggest in later sections means of reducing the dangers of political interference through adjustments in scale, appropriate procedures, and integration with other rural development efforts.

Decentralization and Levels of Responsibility

Most rural works programs share a basic organizational characteristic:

work sites are numerous and scattered. This inevitably requires some decentralization of administration. The issue of which levels of government should have responsibility for implementing a rural works program is a complex one, and international experience varies widely. In Mauritius the Development Works Corporation, a national agency, hires all the program workers on its year-round payroll, decides on projects, and then assigns workers to them. Indonesia, Pakistan and Bangladesh have substantially decentralized programs, with a basic framework decided at the Center and implementing authority delegated to the local bodies. Pakistan's decision to place responsibility at the District level ultimately resulted in the program becoming biased toward the needs of large farmers, and not the majority of the population. It is essential that the program designer carefully consider the groups who will influence the decision makers and to ascertain that such influence is consistent with program objectives.

Decentralization follows one of two patterns. It can be bureaucratic, with project decisions and implementation carried out through existing departments, or participatory, with the public sharing in the decision making through councils or local representative bodies. The former approach may simplify adherence to centrally defined guidelines; the latter approach offers the possibility of greater public interest and mobilization in support of the program, but carries with it the risk of excessive politicization and divergence from standard procedure. The appropriate choice in a given country depends on the relative competence, honesty and staffing of local government and local branches

tion. The authors feel that if local conditions permit, some participatory decentralization is highly desirable. A number of countries, including Bangladesh and Indonesia have discovered unused and unrecognized capacity at the local level. It is important to develop and exploit these capabilities.

Although it may seem paradoxical, the most important requirement for effective decentralized administration, particularly of a participatory nature, is strong central control. Such control is needed to enforce the adherence to national priorities and procedures, and to insure that all interests of target groups are protected at the local level. Decisions concerning the form and extent of decentralized administration depend on the importance attached to mobilization goals, the relative honesty, competence and staffing of local government and local bureaus of central ministries, the existence and competence of local representative councils, and the degree to which they reflect the interests of the intended target groups as opposed to those of local elites or entrenched special interest groups.

An interesting dimension of the decentralization question is its relationship to foreign aid. Fourteen programs were ranked on a scale of decentralization on the basis of the level of government at which critical program decisions were made. Of the seven most centralized, six were supported by aid. This suggests that aid donors may impose requirements for accountability and reporting that favor centralization or may even have an outright preference for more centralized programs. While this should not be interpreted as an argument against aid for

rural works programs, it should warn the administrator that special vigilance may be needed to make sure that the desired level of decentralization is obtained.

Chapter V

ORGANIZATION AND OPERATION

The details of organizing and operating a rural works program are just as important as the program's concept and design. This chapter moves from basic concepts of design to the detailed organization and operation of a program.

The program administrators must understand that the original design will condition the way the program develops. They must think carefully about the objectives and the techniques to be used to achieve these objectives. Directions from the center will be interpreted and applied by many people in the field, most of whom will have limited knowledge of overall program aims. In order to minimize misunderstandings and unforeseen results, it is essential that instructions are expressed in simple unambiguous terms. This chapter provides detailed guidelines for the actual administration of programs. In using these guidelines the administrator must be aware of the need to modify them to fit a particular situation.

New Systems of Administration Required

As indicated in Chapter I, rural works is in many respects a unique type of development program. It requires organization at many levels of government. It frequently involves the participation and cooperation of non-government people. As a result, it requires forms of organization and concepts that may not be familiar to the government officer. The starting point for developing an administrative system is a full

understanding of the program's objectives. A second step is thinking through which agencies and what levels of government have the capacity to share in administering the program. Central government control has not proven an adequate concept around which to design these programs in the past. The administrator must therefore consider the capacity for implementation which is available outside the central government. This means that there will be a need to develop new procedures and activities, with relatively untested groups taking on new responsibilities. In innovating, the administrator must be aware that it is necessary to test new procedures in pilot programs on limited areas before committing a whole program. He must insure that there is good communication and feedback in the program, establish a system to generate critical data indicators of performance, and have a continuing objective evaluation system which will highlight problem areas or ineffective procedures. In summary, the administrative system must be innovative, must insure good internal communication, and be highly flexible.

Alternative Implementing Agencies

Systems for national level administration of rural works programs can be placed in three broad categories:

1. Special Executive or Autonomous Agencies - When programs are established on a priority basis, frequently with the specific endorsement of the head of state, they are often located in the executive offices or in a special autonomous agency. So long as they retain the backing of the head of state, such arrangements give a program great

power. However, if there is a change of government or if the head of state loses interest, programs administered in this way find themselves relatively weak and outside the mainstream of power. Their special status frequently engenders the animosity of regular line agencies. If the power conferred by the head of state is removed, the regular agencies can quickly reduce the role and effectiveness of such an agency.

2. Within Regular Ministries or Administrative Hierarchies - This is a logical place to locate programs, and over the long term the most effective. The program is incorporated in the regular procedures of government and occupies a relatively stable place in the government hierarchy. Another pattern is followed in India, where state level governments have responsibility for implementing programs and the regular Civil Service field officers are used. This too seems a relatively effective arrangement. The one exception is where a rural works program is a peripheral part of the activities of a ministry, in which case it is apt to be weak and neglected.

3. Programs Administered Jointly by More than One Agency - This pattern exists in several of the large programs: Tunisia, Indonesia, and Jamaica. Lacking an existing ministry into which the program logically fits, a regime will create an inter-ministerial committee to give the program overall direction and to supervise implementation by a number of agencies. While this arrangement appears to have the advantage of cabinet level support and would seem to provide access to multiple skills, it can also lead to a situation in which rural works

become everybody's second priority. On balance the most reliable form of organization is one which places responsibility for the program in an existing ministry at the national level, preferably one which has responsibilities for local government in the rural areas.

At the field level the choices are more difficult. Some relevant considerations have been mentioned in our consideration of participation and decentralization. The four most common implementing agencies are: central government agencies acting through their own officials, government administrative officers already posted at the local level, local elective bodies such as local councils, and private contractors. Many countries use some combination of these agencies. The decision should reflect the strengths and weaknesses of each potential implementing agency in the particular environment. For example, in East Pakistan, contractors were rejected because of their traditionally corrupt relations with government in carrying out projects. Instead, local elective councils shared implementation responsibility with a generalist administrative officer at the county level. In Indonesia exactly the opposite was true. Local councils were considered unreliable, while contractors functioned with general competence and honesty. In this case local governments did the program planning, but the contractors did the actual implementation.

The use of private constractors in implementing projects raises some special questions. Contractors are attractive for administrative simplicity and they provide access to existing supervisory and engineering capacities. The disadvantages can include a tendency to move toward

capital intensive technologies, the use of imported labor rather than local residents, and in some cases an increased risk of financial corruption, politicization, and a lessened ability to use the program to supplement seasonal employment patterns. In general, the use of contractors should be discouraged in the absence of compelling reasons to employ them.

The criteria to be used in deciding on the best implementing arrangement should include the following:

1. Does the agency have the administrative capacity to carry out programs?
2. Does the agency have the technical capacity to implement projects?
3. Is there past experience that demonstrates these capacities?
4. What agencies have been traditionally responsible in the use of government funds?
5. Which agencies have contact with the local population and can be effective in mobilizing participation in both the planning process and the project implementation stage?

With these criteria, it is possible to make some judgment as to the most appropriate local implementing agency

Estimating Needs

Before a public works program is started, it is important to determine in general terms the needs that can be met by such a program, the sorts of projects that should be considered, and the desirable forms of organization based on bureaucratic or governmental capabilities. These general guidelines can best be determined by a micro survey of a limited number of representative villages or rural areas. If the rural economy includes

distinct regional variations in the basic parameters that influence program effectiveness, such as agriculture systems, seasonal patterns, population densities and local government systems, a series of studies will be needed to highlight the differences between regions. Such analyses are in effect feasibility studies and should be based on close analysis of representative areas, involving consultation with village and local leaders in order to obtain a clear picture of the most pressing needs and problems.

Developing Tentative Program Outlines

As a result of these detailed local studies, tentative program outlines should be developed, including profiles of eligible project types, appropriate technologies, timing schedules to take advantage of seasonal patterns, and an estimate of the appropriate scale of the program, based on the extent of unemployment, the relative incidence of poverty, and the apparent availability of potential projects. These guidelines are at this stage still tentative and will be refined in the next stage, which is the establishment of a pilot program.

Pilot Programs

In all rural works programs except crisis situations which require immediate action, a pilot program is essential. The purpose of the pilot program is to test the ideas developed as a result of the micro studies and make necessary adjustments before a full scale national or regional program is launched. A vital part of the pilot program is a continuing evaluation to take advantage of feedback in such areas as

refinement of operating manuals, reporting systems, suggested technolgies, and implementation. It also provides the opportunity to test local capabilities. The capacity of local government institutions at various levels, the feasibility of particular technolgies, and the ability of local groups to employ them are examples of issues that need to be explored through a pilot project. If possible, the pilot program should be closely evaluated by a research institute, rural development academy or university in addition to the bureaucratic organization that will be responsible for the operation of the program.

The pilot program is not an excuse to defer broader action until all questions are answered and staffing needs are fully met. A one year period should provide the necessary time to make needed adjustments and prepare for a full scale program.

Deciding on the Appropriate Size of a Program

Size has an important bearing on the performance of a rural works program. Small programs have frequently functioned more effectively than large ones. Colombia's Pico y Pala was small and limited to road construction in mountainous areas. In Pakistan the land development projects of the Daudzai Rural Development Program were far more successful than the nation-wide People's Works Program. There are numerous reasons for this:

1. Administrative and technical capacity are always in short supply. Small programs require fewer administrative and technical inputs than large ones.

2. Small programs may be tailored more closely to the local environment.

3. Certain problems which may accompany large programs, such as inflationary pressures, shortages of materials, or constraints on total fiscal resources, do not occur in small programs.

4. Because of their exposure, large programs often incur opposition, emanating either from a bureaucracy that sees rural works as a program operating outside the normal administrative channels, or from local elites who oppose the progress because they cannot control them.

On balance rural works perform better as small programs, and this manual takes the position that smaller programs or those integrated with other activities generally have a better chance of success. However, there are some advantages to larger programs which should be noted and the final decision must be based on specific national needs and capabilities.

1. If employment is widespread, as it is in many countries, a large program is required to make any significant impact on the problem.

2. There are some economies of scale in administering rural works. Although large programs may need administrative and technical talents in greater quantities than are available, they may also get more accomplished for a given input than the small programs.

Types of Projects to be Included in the Program

Since rural works projects are the heart of the program, careful consideration must be given to their selection. Chapter III has already dealt with the characteristics of various types of projects and

how they relate to general program goals. This section deals with the operational characteristics of projects and the procedures for choosing them.

Project selection is crucial. In most programs it is desirable to allow this decision to be made at the local level. Villagers will know their needs and have a good idea of their capacities to implement projects. They will also have detailed knowledge of the local environment, such as high and low water areas, or the alignments for roads that will generate the most traffic. Involving the local community also has the important advantage of mobilizing local energies and interest behind the program. If it is "their" project the chances of success, of creating public involvement and of insuring continuing maintenance, all become much better.

Experience also suggests that the types of projects which can be undertaken should be limited. If the program administrator wishes to meet certain national objectives, such as reasonable economic return, employment creation in the long term, or some redistribution of income, then it is important to limit the choice to projects that will generally achieve these goals. There are also problems of technical capacity. Projects should not be authorized until it is known that there are sufficient technical skills to implement them effectively. For example, the East Pakistan program excluded irrigation projects from the Works Program for five years despite considerable local demand. During this period the organization techniques and technical methods were tested and refined. In 1968 when the techniques had been thoroughly tested,

irrigation works were included in the list of eligible projects and specific training for local officials was begun.

The effects of unlimited project choice are seen in the Peoples Works Program in Pakistan. Here the local community had authority to undertake any type of project it wished. It was impossible to provide adequate technical help as projects ranged from poultry raising, to playgrounds, latrines and road construction. The results were poor performance in employment creation, many projects that served private rather than public interests and little central control of any sort over program results.

In general it is desirable to allow substantial local discretion in project selection. However, the types of eligible projects should be limited, clearly defined, and reviewed from time to time to be sure they accurately reflect the priorities of the program. It may also be necessary to set minimum and maximum quotas on expenditures by project type or groupings of project types.

Chapter III pointed out the general neglect of considerations of long-term employment creation in project selection. The point is important enough to be re-emphasized here. In deciding on what projects should be included in the rural works program, attention should be given to long-term employment creation.

The administrator must also be familiar with the operational characteristics of projects. Table V-1 provides information on three of these characteristics. Column 1 indicates the general frequency of opportunity for various types of projects. Because of special environmental

factors such as availability of water, or land that can be reclaimed, there are far fewer opportunities for directly productive projects than for the other types. Technical skills required in both the construction and operating phase are listed in column 2. Here directly productive projects have requirements that make them more difficult to carry out. Finally, column 3 suggests that the level of maintenance required for each type of project is fairly similar, and that they all require regular maintenance.

Allocation Systems

Several programs, including those in Pakistan, Jamaica and Morocco, have developed allocating formulae that give increased allocations to areas of special need, defined in terms of unemployment or poverty indices. Some generally recognized and credible formula is essential. Too many public works programs have had no official allocating formula, opening the door to undesirable political pressures on the division of funds among regions.

Local Planning for Rural Works

A rural works program provides an excellent opportunity for decentralized planning, an articulated but unfulfilled objective in many developing countries. The dispersal of projects and the focus on immediate local needs offers a potential framework for basic data collection and the accumulation of information on local conditions and priorities which can

TABLE V-1

Operational Characteristics of Different Types of Projects

Type of Project	1 Frequency of Opportunity for Project	2 Technical Skills Required	3 Maintenance Required
Directly Productive (Irrigation, Drainage, Land Reclamation, etc.)	low (limited by land suitable for irrigation or reclamation)	in construction -- high in operation -- medium	high (can be responsibility of beneficiary)
Economic Infrastructure (Roads, Conservation, Reforestation, Flood Control, markets)	high	in construction -- low (equality improves with technical inputs) in operation -- low	high
Social Infrastructure (Schools, Clinics, Community Buildings, etc.)	high	in construction -- medium in operation -- high (teachers, medical personnel, etc.)	medium

be fed upstream and incorporated in regional and national planning processes. The rural works component of a provincial program in Pakistan is being used as the basis for a "bottom up" approach to integrated rural development, based on activist small farmer organization. Programs in Indonesia, Korea and India have served to initiate local planning systems. The most successful model of local planning for public works was that of East Pakistan in the mid-1960s. Each county (approximately 100 square miles and about 125,000 population) prepared a Plan Book providing a phased five year program for roads, drainage, flood control, community buildings and local irrigation projects. Organizational and cost estimates were developed for each project, with the active involvement of the county council.

Administratively, rural works must be seen as an opportunity to strengthen local government and attack high priority local problems. In this sense, a rural works program may constitute the leading edge of a larger approach to rural development. Organizing labor for simple, labor intensive projects is frequently the easiest place to begin organizing rural, low income groups. In time, as competence grows and the organizational techniques are tested and proven, more complex programs might be undertaken, or rural organizations built out of the works program structure. For example, public works might start with low cost road building projects where labor is hired to carry out specific plans that primarily involve earth moving. As organization is developed, more complicated irrigation projects might be undertaken that involve technically more complicated construction work and which also involve

organizing farmers to share water and to pay user charges.

As local governments are strengthened to handle rural works and local officials are given more responsibility, the prospects for local organization of rural development improve. The use of committees and participation of the local populace in public works decisions will develop capacity for other rural development activities. Program administrators must constantly be aware of these potential linkages and be prepared to take advantage of the new skills, capacities and opportunities that a rural works program generates.

Coordination with Other Agencies and Programs

The effectiveness of a rural works program, particularly in its operating phase, will depend to a significant degree on the extent to which it is coordinated with other agricultural and rural development activities. Directly productive projects such as minor irrigation works and land reclamation must be closely coordinated with agricultural extension services if the potential benefits are to be realized. The economic and employment benefits of secondary or farm-to-market roads will be enhanced if the improved transportation facilities are combined with greater access to marketing services, public transportation, new seeds, agricultural credit, government procurement services, etc. The creation of social infrastructure facilities must be coordinated with a variety of other governmental services if there are to be teachers for the new classrooms and medical personnel and supplies for the new dispensaries. Rural works programs produce intermediate goods and, as such, are

dependent on a variety of complementary inputs if potential operating phase benefits are to be realized. They must therefore be consciously and formally equipped with mechanisms for coordination with other departments that provide related complementary inputs. Formal coordinating arrangements at the national level can be of some help in reducing potential inter-agency jealousies and obstructions, and to provide links in Planning. However, the bulk of the effective coordination efforts must be at the regional and local levels.

A related question of coordination which was mentioned briefly in Chapter III involves the allocation of funds to areas of relatively high or low development potential. The rural works planner may be faced with difficult choices of allocation and project siting. Does he attempt to maximize returns by favoring the advantaged areas, or does he promote interregional and local equity by channeling funds to areas with high unemployment rates, and whose resource base may be inadequate for their present population? The question is complex, politically and economically. There is often a strong political and social desire to spend funds disproportionately in poorer areas, or at least to treat regions with equality. The problem of internal migration is also involved. Reducing rural-urban, and in some cases rural-rural, migration is an explicit or implicit aim in many rural public works programs. Such programs are often seen as means of improving living standards and life-chances of citizens of backward regions and reducing their desire to migrate. While the effectiveness of a works program in this connection is open to considerable doubt, many planners are convinced that it will

succeed. An investment pattern favoring the economically advantaged areas will undoubtedly produce higher benefit/cost ratios but, on balance, given the political and distributive aims of these programs, it is generally neither realistic nor desirable.

Implementing rural works programs in neglected areas presents special problems of coordination. Additional efforts to coordinate with technical ministries will be needed to assure enough complimentary inputs that reasonable levels of economic efficiency can be reached.

The Use of Project Design and Implementation Manuals

Many local construction projects will require skills which are not available at the local level. In some countries the use of simple standardized manuals provides a solution to this problem. In East Pakistan a Handbook of Construction provided directions ranging from site investigation to details of construction techniques. There were also manuals of building, bridge construction, and standard instructions for irrigation systems. Such manuals, which present in simple terms the basic techniques and procedures for construction of a few authorized types of projects, can do a great deal to improve the quality of work at the local level.

The Need for an Effective Staff at the National Level

Although rural works programs are frequently decentralized and implementation personnel are located in the field, it is necessary to have an effective staff at the national level. This staff performs several critical functions in overseeing the program's implementation.

One recurring problem in rural works programs has been the late release of funds. Sometimes the fault lies with a Ministry of Finance, but in many cases it is simply the failure of the program staff to fully realize the serious effects of the late release of funds. Where there is a limited work season, any funding problem that delays the start of projects is serious. Involvement of local people in the planning process also creates expectations. When these are not met, the credibility of local officials is affected. It is essential that prompt release of funds from the national level be an unbreakable rule of a rural works program.

A central staff must also see that reports are submitted on schedule. Once reports are received, they must be analyzed promptly. In many programs the central staff receives reports six to twelve months late and does little with them after they are received. This type of laxity in monitoring field operations is the first step in the process of program deterioration.

Project Approval

A good degree of decentralization is desirable. Small projects should be approved and funds committed at the lowest level at which there is adequate engineering capability to provide technical approval and adequate administrative capability for record keeping and supervision of implementation. For larger projects, referral to the next higher level of the bureaucratic or council structure should be adequate, with only the largest projects requiring regional or national approval. It is clearly not desirable to require central approval for all projects

because of the resulting time delays and development of an excessive superstructure. Where referrals upstream are needed, the next higher level above the implementing agency should have the authority to approve or reject, but not to substitute projects.

Technical Supervision

The standardization and limitation of eligible project types plus the preparation of detailed project manuals will help reduce the need for technical supervision. Providing adequate transportation for engineering and supervisory staff will allow a program to spread the available talent more widely, as will the conscious effort to train and use foremen. This is an area of frequent tension between the "quality" preferences of technical ministries and the need to execute many small projects simultaneously. The conflict can be reduced through continuing efforts to standardize and simplify both the projects and the technology.

Communication and Feedback

Once a public works program has been established on sound policies, and an effective administrative system built, it is not possible to leave it alone and expect that it will continue to operate satisfactorily. A successful program will need constant supervision, adjustment to changing situations, and accommodation to lessons learned in its operation. Flexible administration, capable of making corrections in the program during its operation, is as important as the initial design and the administrator must specifically design mechanisms for insuring and facilitating communication. Communication from the field up to the

administrator is the critical requirement; by comparison, downward communication is relatively easy. To insure good upward communication, several steps are recommended. First, the program administrator must do a great deal of field work himself. He must see how the program is progressing at first hand and must talk to many people involved and affected by the program. This should not be limited to program officials but should include workers, villagers, and any others who have regular contact with the program or are knowledgeable about it. Second, field administrators must be free to bring their views and problems to the administrator; he must have an "open door" policy and encourage communication between himself and the staff at all levels. The administrative system of such a program cannot be hierarchical. Third, communication between levels should be officially sponsored and structured. In East Pakistan there were semi-annual conferences of Works Program staff at the Academy for Rural Development. These conferences were always attended by the Secretary for Local Government, who was responsible for the Works Program, and his deputies. They gave field officers the opportunity through informal conversations to express their views on all aspects of program administration, and provided top administrators the chance to discuss weaknesses and problems or to present changes or new program directions. Fourth, the types of regular reporting systems already suggested, that insure the upward flow of relevant financial and performance data, are essential. The careful analysis of this data and its use in adjusting program procedures is basic. Without mechanisms to encourage and facilitate the flow of information and ideas, it will not be possible to run an effective, innovative program.

Reporting and Record Keeping

Records in a decentralized rural works program must be the responsibility of all agencies involved in the program. Special efforts will have to be made to structure and standardize record keeping procedure at the local level. Record keeping must stress simplicity and clarity so that information can be compiled and reported promptly and accurately. Individual project reports showing estimated and actual expenditures by category are essential.

The basic data that must be kept and reported include the following: total expenditures, expenditure by different types of projects, unit costs (i.e. per kilometer of road) expenditures on labor and on materials, total worker-days employment created (divided between skilled and unskilled). Data on physical accomplishments is also needed. This should be accumulated from reports of each project carried out, giving size, general specifications, and labor and material inputs.

Each year the national level administrative unit should aggregate this information and issue an annual performance report. These reports will permit comparisons of the relative efficacy of labor intensive with other construction techniques, will serve as an overall indicator of program performance, and will suggest possible trouble spots and desirable changes in program performance.

Scheduling Activities

A detailed and specific schedule or calendar is very important in the

operation of a rural works program, and assuring adherence to it is one of the most important of the program administrator's responsibilities. Failure to coordinate effectively on finances is one of the most frequently observed weaknesses in public works programs, resulting in implementation delays and failure to achieve the desired seasonal coordination. Such an operating schedule should cover an entire year and should specify the dates for such component activities as project identification, approval, allocation of funds, release of funds, interim and final reporting, etc.

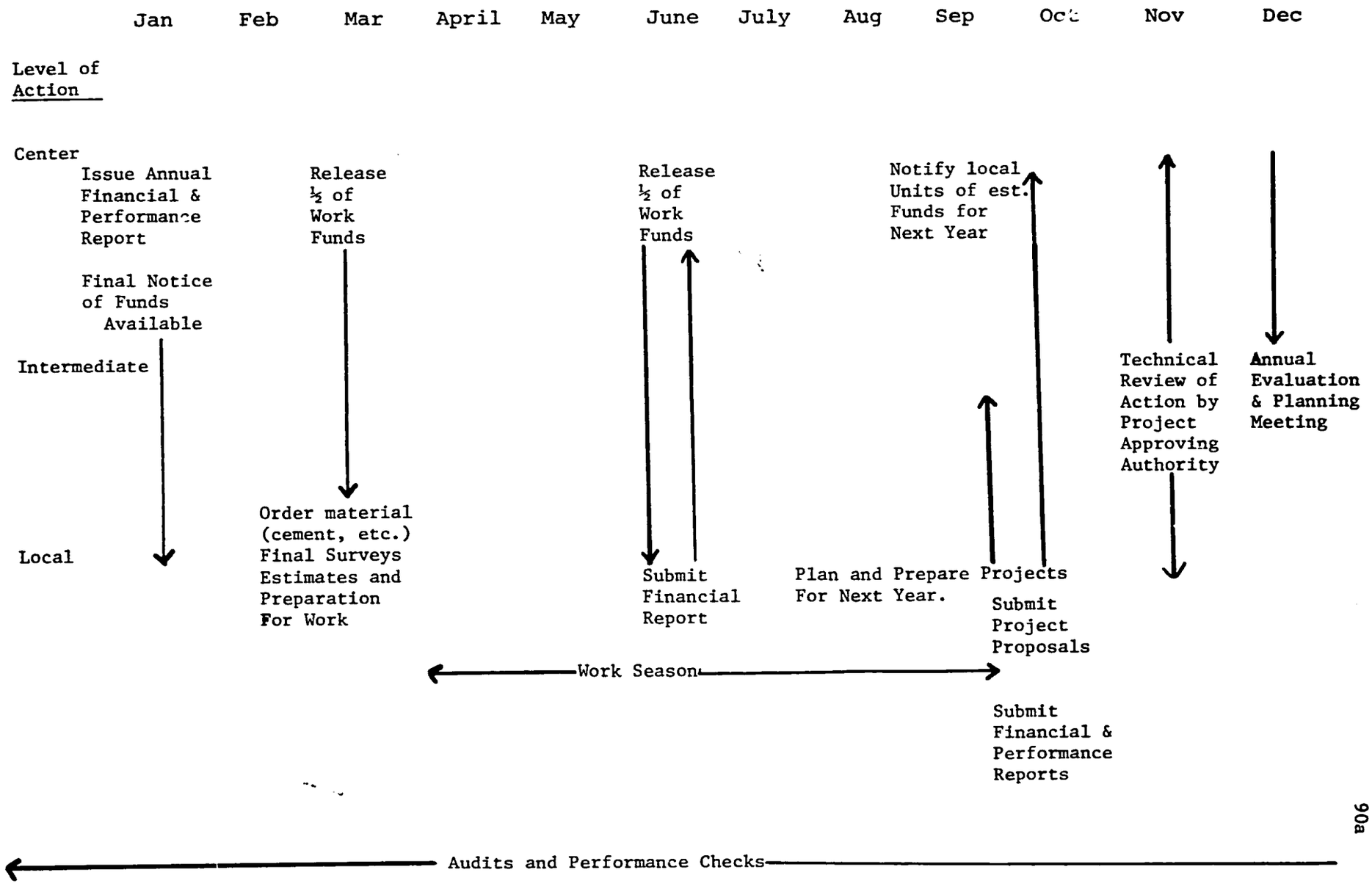
Worker-days of employment should be a basic unit of accounting, available for each project. It is disappointing to note the number of rural works programs for which no reliable figures are available on the amount of employment generated. The programs in Morocco and Tunisia, in contrast, use the worker-day as the basic accounting unit in project descriptions, allocations, and as a basis for estimating material, capital and overhead costs.

Figure 1 suggests a sample yearly schedule for a program which has a limited work season. It could be easily adapted to a year round schedule. The figure is organized according to months of the year and levels of agencies involved in implementation, starting with the Center (National or Regional) Intermediate (State, Province, District, etc.) and Local (Village, County, etc.) and suggests the functions i.e. preparation of projects, release of budget estimates, etc. that must be included in the schedule, and the approximate times needed to complete each of these functions.

Figure 1

Sample Yearly Work Schedule

(assuming a six month work season)



Public Disclosure

Maximum use should be made of public information and disclosure in order to develop public interest and support for the program and to reduce the chances for financial corruption and misappropriation. In East Pakistan in 1966, over 150,000 rural citizens served on local project committees and were actively involved in the selection, implementation and review process. Simple procedures that have proven effective include signs at each work site describing the project, giving the name of the implementing group, and specifying both the cost and the number of worker days of employment that are to be provided. It is useful to take photographs of each project at its start, mid-way through and on completion. These photographs should be a permanent part of the individual project record. At the completion of the project a summary of costs, physical achievement, employment created, purchases of non-labor inputs and the names of the group and individuals responsible should be available in printed form to anyone who is interested. Public information and the pressures that result from public interest are the most effective means of ensuring that officials do not misuse rural works program funds.

Seasonality

Rural works programs should be scheduled so they operate during peak periods of unemployment. There are two reasons for this. First, in most countries rural unemployment is a seasonal phenomenon, related to crop planting, growing and harvesting cycles. It is important that rural works programs be phased so as not to compete for labor with agricultural

activities during periods of peak demand, thereby increasing the opportunity cost of creating new jobs. The administrator will frequently be subjected to pressures to prolong the construction season, but it is essential that the program be limited in time so that it complements and does not compete with agricultural demand. Second, programs that operate year-round often attract a permanent set of workers who are completely dependent on the program for employment; such a situation makes rural works a welfare program that is difficult to reduce and whose workers acquire a relief mentality.

The Uses and Limits of Self-help

The concept of self-help is a practical and laudable one. Self-help as a voluntary expression of a community's desire for change and improvement is one of the most powerful development instruments. It mobilizes new resources for development and involves the people actively in their own affairs. It is a primary technique for local initiative. Such participation generally results in better use of facilities created and the assurance that such facilities will be maintained. Unfortunately the self-help concept has frequently been used as a means of exploitattion of the lowest income groups in rural works programs. However, distinguishing between genuine self-help and exploitation of low income labor is relatively easy.

Many rural works programs use the self-help principle to reduce the cost of the facilities built. Such low cost infrastructure programs must be examined very carefully. Self-help is not employment creation. In

many cases the term self-help has been used to disguise forced labor. In cases where labor is forced to contribute time, labor efficiency is very low and in some cases even directly counterproductive. In one case in Ethiopia, workers receiving compensation at levels substantially below the market wage rate were directed to plant trees on the property of a large landowner as part of a reforestation project. Approximately half the trees were planted upside-down, which for workers who make their living in agricultural pursuits could not have been an accident. There is a very simple test to determine when self-help should be used. If the workers are the primary beneficiaries of the projects in their operational phase, then self-help or lower-than-market wages are justified. If the workers are not the primary beneficiaries, then a market wage should be paid.

The Use of Food Commodities to Finance Rural Works

In the 1960's many rural works programs were started because of the availability of food commodities as a form of foreign aid. The U.S. Food for Peace legislation (Public Law 480) was specifically designed to encourage the rural works type of program. In such programs food commodities were used in two ways: 1) they were sold and the proceeds were used to finance the programs, or 2) they were used as wage goods and workers were paid in kind. More recently, the World Food Program has become an important supporter of "food for work" programs. The continued availability of foreign food resources for support of rural works programs poses a number of questions for administrators. It is uncontestable that

payment of wages in food commodities is awkward and adds to the administrative requirements of a program. The problems of receiving, transporting, storing and distributing commodities, of pricing, and of the acceptability of the commodities that are distributed, present serious issues with which the program administrator must contend.

There are however some offsetting advantages: commodity wages reduce inflationary potential, reduce the extent of speculative food hoarding in periods of crisis and they help to insure that wages are used to improve the nutritional intake of needy families. Most important, they represent a resource that must frequently be used in this form or foregone.

In considering these issues, ascertaining whether food can be sold to provide funds for the program is a necessary starting point. This is clearly preferable to commodity wages and solves most of the problem of food aid but is not permitted under many aid programs. If it is not possible, the positive and negative features must be weighed for the particular situation. The strongest case for commodity wages is in crisis situations where their anti-inflationary and anti-hoarding aspects are most helpful. To increase food availability in an area where normal crops have been destroyed or reduced is essential. The greatest problem of food wages in such situations is that there is not the time needed to schedule deliveries of commodities from abroad. However, in a number of countries this problem has been solved by borrowing from domestic food grain stocks and, over a longer period, replacing them with aid agency food commodities. Most food aid programs are willing to make such arrangements.

The first stage in deciding whether food commodities are feasible depends on the size, dispersion and work season of the program. Based on a standard calculation of 3 kilograms of grain per worker-day, it is possible to estimate the transport and storage capacity that will be needed. If it is assumed that commodity payments should be made within two miles of the work site, the requirements for local distribution and storage will be clear. In all cases, crisis and otherwise, an adequate state of infrastructure development is an important prerequisite for the use of food commodities. Since work will proceed on a schedule that will be determined by labor demand in agriculture and by rainy and dry seasons, it is essential that food commodities can be moved and stored in such a way as to insure their availability at times when work is progressing.

The administrator of a food for work program must consider carefully the ramifications of managing such a program. A week's wages in wheat might weigh between twenty-five and fifty pounds. Workers will need containers and will incur transportation costs if they have to transport these "wages" very far. Such problems emphasize the thought that must go into establishing an administrative system to handle commodity wages. The administrator must plan to have extra administrative talent available to handle all the details of their movement and storage. Specific scheduling of commodities becomes critical, and particular attention must be given to their valuation so that the workers' real wages are comparable to market wages. It is important to know if the commodities available are acceptable to local tastes. There have been instances where bulgar

wheat or regular wheat was distributed in rice-eating areas, or milk powder where people are unfamiliar with it. In such cases the commodities are often sold by workers in the local market for amounts much below their value. This means that workers are receiving very low wages and will probably be reluctant to work.

Finally, important nutritional questions must go into a calculation of the quantities to be paid. International comparisons suggest that a healthy young man can move between 65 and 75 cubic feet of earth a day. Nutritional studies in India and Bangladesh suggest that an adult male engaged in hard physical activity requires 3,000 to 3,500 calories per day. Cereals, both wheat and rice, provide about 100 calories per ounce. As a result, a worker needs roughly one kilogram of cereals per day. However, it is obviously necessary to pay workers more than just the food they consume, partly to provide a work incentive and also to improve the nutritional standards of the entire family. As a result, two to three kilos of foodgrain per worker per day has become an international standard. Some programs have paid lower commodity wages to women. Estimates from Bangladesh suggest that while women can move only about two-thirds as much earth per day as male workers, their caloric requirements when doing hard labor are close to those of men. This is partly because many women of work age are breast feeding their children. Opportunity costs for women workers may also be higher since many of their work responsibilities such as child care, food preparation or home maintenance, are not seasonal. It is strongly recommended that a single

food wage be paid to male and female workers.[1]

On balance, the problems that accompany commodity wages are substantial, and it is clearly better to sell food aid commodities in the market to provide funds for cash wages. However, commodity wages may be justified if sale is not permitted, if transportation and storage facilities are adequate, and if the commodities available are acceptable to the local people.

Maintenance

Maintaining works constructed by a rural works program is an important issue. Low cost rural works, such as dirt roads or unlined water channels, need considerable recurring maintenance. Many of these programs' critics attack them on the basis that this type of construction results in high continuing costs. However, given low initial costs, rural works construction is generally lower cost than alternative forms even with continuing maintenance costs, particularly if the cost stream over time is discounted.

Despite the high need for maintenance on typical rural works assets,, several programs have specifically forbidden the use of program funds for this purpose, and only one made maintenance a priority claim against continuing allocations. It is the authors' view that maintenance is a

[1] For more information on this subject, see: L.C. Chen "An Analysis of Per Capita Food Grain Availability in Bangladesh: a Systematic Approach to Food Planning", The Bangladesh Development Review Vol. III, No. 2, April 1975

normal and appropriate expenditure for a rural works program, and that a system of required maintenance of past project as a limited first charge against allocations, is highly desirable.

Most rural works programs are more interested in providing continuing seasonal employment for unskilled workers than in creating a very large employment program in a short period (Relief programs are an exception). Maintenance is generally very labor intensive and requires less technical and supervisory effort than new projects. Deferred maintenance of non-rural works projects should be considered as appropriate for inclusion in a rural works program as new construction. In Indonesia the first few years of the Kabupaten program were devoted to reconstructing the old Javanese irrigation system that had deteriorated over many years. This work provided job opportunities and excellent economic returns. Project designs should be encouraged that permit incremental upgrading in subsequent years (e.g., improving road surfaces or lining irrigation channels) if use justifies the additional investment.

Many programs have made maintenance the responsibility of the local community. While this arrangement has often resulted in under-maintained assets of low productivity, there are cases where at least some community contribution is appropriate. Some projects, primarily those that are directly productive, benefit a specific individual or group. An irrigation canal benefits those who draw irrigation water from it and it raises their incomes. In such cases taxing the beneficiaries for the full maintenance cost or, preferably, requiring them to maintain the facility, is appropriate. If maintenance is to be the responsibility of the local

community, the program administrator should insure that the community has an adequate tax base and that local taxes are sufficiently progressive that taxing for maintenance purposes does not defeat the distributive objectives of the program. For example, a head tax or a hut tax imposes a proportionately larger burden on the poor. To increase such taxes to support maintenance of a road would be to tax the poor disproportionately to maintain a facility that was of more benefit to the affluent.

Concluding Comments

This chapter has stressed specific steps that the administrator must take in implementing a program. These steps will help an effective, flexible administrator with political backing to run a successful program. The need for such a capable administrator must be emphasized. The manual is a management tool and cannot be a substitute for effective leadership. Any administrative system will have to be improved as experience is accumulated. This chapter has attempted to point out potential problem areas so that the administrator will be alerted; it has suggested ways in which problems can be reduced or eliminated. With these guidelines, the chances of a capable administrator running a successful rural works program should be improved.

Chapter VI

Monitoring Program Performance

International experience with labor intensive rural works programs demonstrates that many of them experience substantial changes over time. In some cases these changes are intentionally brought about by planners and administrators to improve the functioning of the program or to respond to changing development priorities. Other changes are unintentional and are frequently undesirable from the point of view of the program administrator. On the other hand, some programs continue relatively unchanged over long periods of time and succeed in continuing to deliver substantial benefits to their intended target groups.

This chapter discusses a number of specific changes that have been observed in programs over time, and suggests indicators that may alert the administrator to existing or potential problems. Specific organizational, recording and accounting systems must be organized to bring these changes to the attention of the responsible implementing group so that appropriate action can be taken to overcome deviations that are considered undesirable. After discussing a number of potentially important changes, their indicators, and the sort of remedial action that can be taken, the chapter concludes with a discussion of a number of broad guidelines, based on international experience, by which a particular program's performance may be judged.

Changes in The Types of Projects. One of the clearest changes that can be anticipated over time is a shift in the profile of projects toward those which are directly productive. Table VI-1 summarizes changes in four programs for which detailed project comparisons were possible over at least a five year period. These are the programs in Bangladesh, Morocco, Pakistan,

TABLE VI-1

Relative Priority Accorded to Different Types of Rural Works Projects Over Time

Country	Time Span	Type of Projects (in % of Total Funds)		
		Directly Productive	Economic Infrastructure	Social Infrastructure
Bangladesh	1963-64	6.7	72.2	21.1
	1967-68	15.5	71.5	13.0
Percent Change		+131%	-1%	-40%
Morocco	1961-62	35.6	46.3	18
	1971-72	46.3	34.6	19
Percent Change		+30%	-26%	+5%
Pakistan	1963-64	11.5	21.2	67.3
	1968-69	14.9	36	49.1
Percent Change		+29%	+70%	-28%
South Korea				
NCS	1961-62	46	48	6
Self Help	1968	61	24	15
Percent Change		+33	-50%	+150%

and the Republic of Korea. Impressionistic evidence and comments from program administrators suggest that the same tendency has been observed in a number of other programs, including those in Tunisia and India. As Table VI-1 shows, all four programs experienced a significant increase in the percentage of funds spent on directly productive assets. No similar generalizations can be made for economic infrastructure or social infrastructure expenditures, although in only one case (Pakistan) did social infrastructure expenditures increase over time.

There are several probable reasons for this increase in productive asset projects. Some of these may be desirable from the program planner's point of view, and others may represent undesirable trends and require investigation and possible remedial action. Many rural works programs start in emergency or crisis conditions. This was true of seven out of nineteen programs that existed in the 1960s and early 1970s. In several other cases, high levels of unemployment created an emergency atmosphere which gave rise to initiation of a rural works program. In such conditions, economic infrastructure projects, particularly the repair of existing roads and the building of secondary and tertiary roads, is often the easiest way to employ large numbers of people quickly. The emphasis is in quick action, and planners are attracted to projects which can be started immediately, are highly labor intensive, and require little engineering preparation.

Directly productive projects, such as irrigation schemes and land reclamation, generally require more technical planning, longer lead times, and may involve more participation by technical ministries and larger numbers of skilled workers. It therefore takes more time to identify, engineer, coordinate and implement these projects. In the Scarcity Relief programs

begun in India in the early 1970s, for example, directly productive projects began to replace road building activities such as earth moving and the breaking of rocks. As the program continued, time was available to coordinate with planning agencies and to implement projects that were already scheduled for inclusion in future development programs.

Another reason for the shift in composition of projects is the need to justify continuing appropriation on the basis of economic efficiency. As Chapter III suggested, it is easier to show specific benefits, both in terms of long term employment creation and in terms of conventional benefit-cost analysis, for directly productive than for other classes of projects. The LCSD program in Tunisia was started as a pure relief operation in 1960, but when the Planning Department was formed three years later the program was shifted to that department and the accent on economic productivity was greatly increased both in project content and in the publicity given to the program. Similarly, the Relief Workers Program in Mauritius in the 1960s stressed the provision of employment and the improvement of urban life through expenditures on social amenities. Over the years and with changes in program name, the focus has shifted to a rural development basis, stressing such highly productive projects as bench terracing.

From the program planner's viewpoint, this trend of relief programs to shift toward economically productive projects is often desirable but it may be overdone, depending on program priorities. If providing for improved rural education and health care are primary program aims, an excessive shift to directly productive projects would be undesirable. A shift to directly productive assets may also indicate a shift in the distributive nature of the program, as more and more operating phase benefits are diverted from

target groups to non-target groups. The possibility of such a reduction of benefits is greater if the pattern of land holdings is extremely unequal and if important land holders are able to dominate the project selection process through participatory or bureaucratic pressures. A study in Pakistan in the 1960s showed a clear negative correlation between the concentration of land holdings in village areas and the proportion of rural works expenditure that was devoted to social infrastructure projects.[1/]

Shifts in Program Benefits

A related change that can affect the distributive nature of the program and is more difficult to verify and control, is a change in the location of projects in order to divert benefits from target to wealthier land holding groups. District officials in Maharashtra reported that they kept project siting decisions out of the hands of the local panchayat councils for fear that both project type and location would be dominated by the larger landlords. Despite such precautions, an investigating team studying relief efforts in Maharashtra reported that the siting of percolation tanks favored the large landholders on a systematic basis. The investigators reported cases of active opposition by landlords when project location would provide benefits to small farmers.[2/] The DNOCS program in Northeast Brazil during the 1950s was a clear example of diversion of benefits by improper influences on both project type and project selection. Although drought relief was the

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1/ Burki, S.J. "Interest Group Involvement in West Pakistan Rural Works Program" Public Policy, Vol. XIX, No. 1, 1971.

2/ Godbole, Achyug, "'Productive' Relief Works for the Rich", Economic and Political Weekly, Bombay, April 28, 1973, p. 773.

objective, projects were chosen by large landowners or officials who represented their own interests. One result was irrigation systems located on private lands. Roads were built through areas occupied by very large "estates". In sum, few benefits accrued to the poor, who were the nominal target group.

Possible steps to minimize program distortion by changes in project siting include regular reporting and analysis of project decisions, inclusion in project descriptions of the land holding pattern in the areas that will be benefitted, fees or user charges where directly productive projects clearly benefit farmers whose land holdings exceed some minimum level, and adequate staff to investigate promptly allegations that undue influences are affecting project location decisions.

Pressures to Reduce Labor Intensity.

Influences that will attempt to reduce the degree of labor intensity can be expected in many rural works programs. This is a particularly destructive form of program alteration, since a high degree of unskilled labor intensity in the construction phase of projects is the greatest single source of target group benefits. Pressure for greater capital intensity may come from several sources. Technical ministries that are involved in project implementation may have continuing reservations about the use of labor intensive technologies and may try to revert to the capital intensive techniques with which they are more familiar. A shift in project composition to more sophisticated and technically complex projects may result in higher material, capital, and skilled labor costs, with a reduction in target group benefits. For example, the inclusion of hard

surfacing and more culverts will raise the material and skilled labor cost of a road, as will replacing earth with cement in retaining walls or water channels in reclamation, drainage and irrigation projects. In some programs the use of contractors has been associated with decreased labor intensity. These potential influences are strengthened by the fact that the unskilled workers, who are the nominal target group, are generally unorganized, politically weak, frequently illiterate, and in a poor position to defend their interests.

Some of the information about pressures to decrease labor intensity is impressionistic since detailed time series data on categories of costs is not generally available. No existing rural work program has experienced an increase of labor intensity over time. Of the four programs for which figures are available for eight years or more, as shown in Table VI-2, two showed clearly declining trends, one showed a sharp drop in the last three years, and one was relatively stable.

What steps can a program planner take to assure continued labor intensity? The one country whose figures show a sustained high level of labor intensity, Morocco, is the only one of the four which uses man-days of labor as a basic accounting unit for allocations and reporting. Incomplete figures for Tunisia, which also reports in man-day terms, suggest that labor intensity has remained high. In the Pakistan and Bangladesh programs, where labor intensity in the most recently reported year was estimated to be less than 20%, worker-days of employment were not a central reporting unit, and frequently had to be estimated from fragmentary information. In addition to the consistent collection of data on employment generation, program guidelines can limit permissable overhead and material expenses to fixed proportions of un-

Table VI-2

Labor Intensity Over Time

Bangladesh[1]	Morocco[2]	Pakistan[3]	South Korea[4]
68% (1962-3)	80% (1961)	29% (1963-4)	94% (1964)
60% (1963-4)	80% (1962)	31% (1964-5)	91% (1965)
59% (1964-5)	79% (1963)	30% (1965-6)	89% (1966)
54% (1965-6)	94% (1964)	29% (1970-2)	85% (1967)
54% (1966-7)	97% (1965)		88% (1968)
27% (1969)	90% (1966)		82% (1969)
16% (1973)	86% (1967)		82% (1970)
	94% (1968)		79% (1971)
	90% (1969)		70% (1972)
	87% (1970)		
	84% (1971)		

Note: Figures given are the percentage of labor costs to total program expenses.

Sources:

1. Bangladesh figures for 1962-3 through 1966-7 are adapted from Thomas, John W. The Rural Works Program and East Pakistan Development, Ph.D. thesis, Harvard University, 1968. Figures for 1969 and 1973 are based on small sample surveys conducted by Dr. Thomas.

2. Morocco figures are from annual reports of Promotion Nationale adjusted for some estimated excluded costs. The percentages are believed to be overstated, but on a consistent basis.

3. Pakistan figures for 1963-4, 1964-5, and 1965-6 are adapted from figures in Thomas, John W. "The Rural Public Works Program in East Pakistan" in Papanek, G.F. and Falcon, W.P. Development Policy II, The Pakistan Experience, Harvard University Press, 1971, p 223. Figures for 1970-2 are adapted from data provided to the authors by the Departments of Local Government in the Provinces of Punjab, Frontier and Sind.

4. South Korean figures are adapted from data provided by the Korean Development Institute. The decline in the last two years reflects the conversion of the program from land reclamation to more capital intensive paved roads. Labor intensity is believed to be overstated, but on a consistent basis.

skilled labor costs, and specify through project manuals the technology that is to be followed. In these ways, it should be possible to keep factor proportions in line with program goals.

Changes in Levels of Administrative Responsibility

Another set of indicators that can suggest possible danger signs for a rural works program, including the question of preserving labor intensity, has to do with changes in the nature and level of the project implementing agency. Local elected officials generally spread employment as broadly as possible, using a maximum of unskilled labor. Contractors, who have been used to implement projects in about one-half of the existing programs, generally preferred more capital intensive methods than local officials. This may be a result of a desire to use capital equipment already owned, or of the same price distortions, favoring the substitution of capital for labor, that aggravated unemployment in the first place. The use of contractors also makes it more difficult to collect uniform, detailed and dependable information on program costs and employment generated. A program administrator can anticipate that change in the project implementing agency will affect labor intensity and a move away from implementation by local elected officials suggests the possibility of decreased use of unskilled labor.

Changes in the administrative level at which projects are selected and implemented can also be an indication of important changes in program impact. In West Pakistan, program guidelines called for 70% of program funds to be distributed through local council projects. However, this percentage was achieved only in the first year, 1963-64. Two years later

the local council share had declined to 36%, with more and more project decisions taken at the district and divisional levels. Citizen project committees became less important, and contractors rapidly took over implementation of over 75% of the projects. The program became less responsive to local needs and failed almost totally to achieve its announced goal of invigorating local government and leadership, and mobilizing the rural population for development purposes. In contrast, during the early years of the East Pakistan program, implementation of projects shifted downstream from district to thana county levels, the use of contractors was reduced and subsequently eliminated, and the program grew increasingly responsive to local needs and local initiative.

In order to preserve labor intensity and to help achieve local mobilization aims, if such exist, program administrators should investigate thoroughly the causes and implications of any tendency to move the responsibility for implementation to higher administrative levels.

Program Politicization

A final area in which changes -- generally destructive -- have been observed in rural works programs is an increase in the degree of program politicization. Chapter III pointed out the problems of politicization in participatory programs but there are many other ways this takes place. It is important to recognize that unemployment and poverty are political as well as economic problems and that rural works programs have political as well as economic aims. Table VI-3 summarizes the non-economic circumstances in which thirteen public works programs were started and also suggests the role played by foreign advisors or foreign aid agencies in

Table VI-3

Conditions Surrounding the Adoption of Works Programs

Country	Program	Year	Political Events	Foreign Advisors or Foreign Aid
Afghanistan	Provincial Development Program	1971	1. New Government. 2. Capable powerful minister assigned to food crisis.	1. Activist AID rural development adviser helped form program; P.L. 480 food available.
Bangladesh	Works Program	1962	1. Pre-existing pilot project. 2. Active provincial political support to strengthen Basic Democracies system.	1. U.S. advisors recommended. 2. P.L. 480 food agreement signed.
Brazil	Departmento Nacional de Obras Contra as Secas (DNOCS)	1909	1. Activist Northeasterner in charge of Transportation and Public Works.	None.
India	Crash Scheme for Rural Employment	1971	1. Naxalite disturbances.	None.
	Drought Prone Areas Program Program	1970	2. Anti-poverty campaign for approaching elections.	None.
Indonesia	Kabupaten Program	1970	1. Program discussed since 1969. 2. Regime formed first political party--elections promised. 3. Effort to form new constituency base at district level.	1. U.S. advisers recommended and planned program.
Jamaica	Impact Works Program	1972	1. New government elected with clear employment mandate.	None.
Mauritius	Travail Pour Tous	1972	1. Dock strike. 2. Threat of sugar estate strike. 3. Growing political opposition -- Government lost sensitive by-elections.	None.
Morocco	Promotion Nationale	1961	None	1. USAID support. 2. P.L. food available.
Pakistan	Rural Works Program	1963	1. Regime desire to build constituency base through Basic Democracies system. 2. Approaching Presidential elections.	1. Recommended by U.S. advisers. 2. P.L. 480 food available.
South Korea	National Construction Service	1961	1. New democratic government. 2. Mobilized activist students.	1. Active USAID support. 2. P.L. 480 food available.
Trinidad-Tobago	Special Works Program	1970	1. Civil disturbances by army and youth reflecting unemployment.	None.
Tunisia	Lutte Contre le Sous Developpement (LCSD)	1959	1. Removal of French support and skilled expatriates.	1. USAID support. 2. Emergency P.L. 480 food received, more available.

their beginnings. While it is difficult to establish causal links, it is instructive to note the number of cases in which an approaching election or a threat to law and order have accompanied the decision to start a works program.

The hope of political gain is a reasonable expectation in starting a rural works program. The delivery of benefits to low income portions of the rural population, often missed by other development programs, can properly lead to increased regime support. Problems arise and programs are weakened when excessive politicization replaces performance criteria with criteria of political loyalty, opening the door for a variety of abuses, including substantial financial corruption.

The history of the East Pakistan/Bangladesh, the Pakistan, and the Morocco programs demonstrates many of the problems attendent on excessive politicization and suggests ways in which program administrators might attempt to control the effects of political influences.

East Pakistan's Works Program was started in 1962 without powerful government sponsorship. A pilot program conducted independently by the Academy of Rural Development in Comilla was already demonstrating that local councils could successfully implement a seasonal decentralized labor intensive public works program. The Basic Democracies system, created in 1959, was intended to strengthen local councils in order to provide effective government and promote local development. A history of active local government plus relatively egalitarian land holding patterns provided the basis for broad participation in these councils. The Secretary of Basic Democracies saw the Comilla program as a potential development vehicle for the local councils. Following a period of opposi-

tion by the Finance Minister at the center, the program was commenced, partly as a result of emergency conditions following monsoon floods. Presidential endorsement of the program was withheld for another year.

In its first few years, the program operated quite effectively. Public participation was active, with democratic checks on the performance of public officials. Project quality was high, with over 55% of program funds spent on wages. In the election of 1965, the government won an unexpected victory in East Pakistan, which was widely attributed to the success of the Works Program. From this point on, politicians placed increasing pressure on the program to shift the allocation of funds to reflect political loyalties to President Ayub and his party. The program rapidly deteriorated as political purposes replaced economic aims. By 1973, the proportion of program funds represented by wages was reduced to 16%. Implementation by contractors -- predominantly supporters of the regime -- had replaced implementation by local councils. Overstatement of project expenditures and direct misuse of funds were common. Some of these changes are summarized in Table VI-4, showing the clear deterioration of the program between 1967 and 1973. It was apparent that the principal beneficiaries of the program were no longer the rural poor, but contractors, large farmers and traders--the groups from which the Basic Democrats were drawn. Rural frustration over the abuse of power by the Basic Democrats, including misuse of program funds, was indicated by the many acts of violence against them on the early months of 1969.

West Pakistan. West Pakistan's Rural Works Program started in 1963 with clear support from the military regime. Unlike East Pakistan, there

TABLE VI -4

Changes in the Bangladesh Works Program
Between 1967 and 1973

Year	Works Program as % of Development Expenditure	Wage Payment as a % of Total Expenditure	% of projects Implemented by Contractors	Type of Projects Receiving Largest Share of Funds
1964	13.3	60	N.A.	dirt roads
1967	6.7	62	8	dirt roads
1969	5.7	27	N.A.	bridges & culverts
1973	3.2	16	94	paved roads

Sources: See Table VI -2, Note 1

was no history of broad political activism, and the distribution of land, income and political power was far more concentrated. By following the East Pakistan model, using local councils as the implementing agencies for the program, the regime intended to help the rural middle class solidify the political power they had gained from the 1959 land reform and from the introduction of the Basic Democracies system.

A major stated objective of the program was the creation of employment for poor and unskilled rural workers through labor intensive projects. The consistent failure of the program to fulfill this objective supports the view that none of the domestic interest groups responsible for introducing and supporting it (the national regime, the bureaucracy, and the middle and large farmers) were committed to the objective of employment creation. From 1963 to 1972 an average of only 30% of total program costs was spent on wages and over 40% of the wage bill was for skilled labor -- the highest proportion of any of the programs implemented in the 1960s. The changes that took place over time merely represented the consolidation of control by dominant interest groups. By 1964 the large landlords, who had been distrustful at first of the Basic Democracies system, made clear their desire to cooperate with the military regime. By the elections of 1965 they were once again in control of the local councils and had re-established their previous partnership with the Civil Service of Pakistan, extending to joint domination of the works program.

The Rural Works Program also had the ostensible objectives of activating broadly representative government, and mobilizing rural workers in support of general development aims. However, the realities of income and power concentration and the domination of the program by the elite bureaucracy

and the landlords meant that those goals had little chance of being realized. An earlier section mentioned the decline in local council implementation and the domination of the implementation process by contractors. In 1972 the program, renamed the People's Work Program, was redesigned to alter its shortcomings, and to meet the new government's commitment to improve conditions of the rural poor. Its basic purposes of substantial employment creation, construction of useful assets in response to locally defined needs, and the mobilization of the people through development of local initiative and leadership, were reaffirmed. Yet, despite the national government's objectives, the absence of functioning local government, the lack of central control, and the politicization of the program in the provinces, caused the program to become a vehicle for local patronage and the enrichment of private interests, some officials, contractors and politicians.[1/]

Morocco. Promotion Nationale in Morocco has operated consistently since 1961 with reasonably high labor intensity and economic efficiency, and a generally stable profile of projects. It was founded by royal decree, and the King's continuing active interest in the program helps contribute to its stability. The labor intensive approach was built into the program from the beginning by making worker days of labor the basic unit of reporting, scheduling and auditing, and for the release of food supplies for wages. Over 85% of program funds are disbursed through regional governments which control the program with advice from technical

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[1/] A frank and critical review is provided by the Evaluation of the People's Works Program, Planning and Development Division, Government of Pakistan, August, 1975.

ministries. Promotion Nationale provides important political benefits to the regional administration at all levels, from the Regional Governor to the local sheikh, and offers the regional governments their largest single source of welfare payments and unemployment relief. Since it is generally popular with its target groups, it is an important source of regime support. The technical ministries receive about 15% of program funds. While there have been some complaints within the Ministry of Agriculture and Public Works that unskilled labor and poor discipline result in unacceptably low productivity and reduced standards, and that the "welfare" function of the program conflicts with the Ministry's "technical" role, the labor intensity of the program has not been affected. The technical ministries often find the program useful since they can select their own projects and thus supplement their regular activities.

The program was never intended to alter basic economic or political relationships, but was conceived as a solution to a visible and recurrent form of crisis. Since it does not seek to change the basic distribution of scarce resources, intermediate groups such as landlords and wealthy farmers do not feel threatened by it. It was implemented through existing administrative structures, provided new forms of patronage in a system that was basically non-competitive, and produced increased support for the regime from existing clienteles. The program is not ideologically charged and makes no attempt to involve target groups in innovative organizations.

Several conclusions follow from these three examples, and from other programs studied, which may enable program administrators to avoid the worst effects of program politicization.

1. Program success in reaching its stated objectives will be influenced

by the reality of interest group structure, regime sensitivity to group interests and the nature of the surrounding social and political environment. It follows that a rural works programshould be designed to operate in a specific set of political and social conditions with the expectation that dynamic changes will continue to influence program performance.

2. A program is more likely to encounter strong political pressures if it is highly redistributive, employs decentralized decision making with broad participation of intermediate groups in the decision process and if it operates in an environment where the distribution of political and economic power, particularly land, is highly skewed.

3. The most critical factor in avoiding destructive politicization is the political will or capacity at the center to resist strong regional or local pressures. A national coordinating committee may be helpful in stressing the economic advantages of the program, insuring high level political support and reducing the risk of disruptive inter-bureaucratic political rivalries. In every program it is necessary to share benefits with non-target groups. This is a political cost if the program is to function at all. However, if the national regime comes to see the program principally in political terms, there is a high probability that rural works programs will see their original purposes eroded and new beneficiaries created.

Paradoxically, the history of the East Pakistan program suggests that the enforcement of performance standards may yield substantial support for a regime, while attempts to manipulate the program for political purposes may ingender popular antagonism. Over the long run

run, the political benefits accruing to a regime may be inversely correlated with its attempts to manipulate a program for political support.

As these sections have made clear, rural works programs are constantly subject to pressures for change in many dimensions. While program administrators must be flexible and innovative, they must also recognize these pressures and resist those that would undermine the basic objectives of the program. Within the limitations suggested above, the procedures suggested in Chapter V for organizing programs, insuring good information flow, and the continuing analysis of information, will be essential to effective administration of the program. Knowledge of precisely what is happening will enable the administrator to continually enforce the program procedures and, with political support, use his position to insure that program activities and performance remain directed toward achieving the program's basic goals.

International Guidelines.

Experience with rural works programs in a large number of countries provides the basis for a number of guidelines by which the performance of a particular program may be judged. These guidelines are necessarily general, and their applicability will differ from program to program depending on the specific mix of purposes. There are problems of data reliability and comparability. With these caveats in mind, there are still a number of general guidelines and relationships that may help program planners in an *ex ante* sense to think realistically about the potential and the limitations of programs they may be considering. In an *ex post* sense, the guidelines can help the program planner identify weaknesses in an existing program and de-

vise ways in which performance can be strengthened.

Many of these guidelines have already been suggested in earlier sections but for easy reference they are summarized here as well:

1. Employment creation. -Standards were suggested in Chapter IV for total proportions of funds that should be devoted to wages. If this figure drops below 40%, serious questions must be asked about the program. In addition, approximate labor intensities for projects in each of the three broad categories were also suggested. Finally, the issue of long term or operating phase employment was raised and the rough ratio of 5 or 6 to 1 for construction phase employment to operating phase employment was suggested.

2. Wage rates. -Wage rates vary widely between programs but in those cases where they are substantially below market levels, the productivity of labor drops noticeably. If a program is not to become a program of transfer payments to low income groups, it is important to insure reasonable wage rates.

3. Economic returns. -Rural works programs can produce good economic returns. If they do not do so, analysis of the program should be undertaken to determine the causes of inefficiency.

4. Cost of employment creation. -Table VI-5 shows the costs of creating a worker day of construction employment based on wage rates paid in the early 1970's. There are great variations between countries. Where costs are below $.75 per worker-day, it must be assumed workers are being paid wages substantially below market wages. When costs exceed $1.25, it is necessary to look for inefficiency in the program. (The exception is Colombia, where the program was designed to build higher quality roads, but still at a cost below capital intensive methods.)

TABLE VI-5

International Comparison of
Program Characteristics

Country	Cost of Creating One Worker Day Employment in U.S. $	Average Annual Program Cost in U.S. $	Expenditure As a Percent of Fixed Capital Formation	Foreign Aid As a Percent of Total Program Costs
Afghanistan	$ .98	$ 5.4	6.5% (of total Government Expenditure)	77%
Bangladesh	.97	$27.8	8% (of Development Expenditures)	45%
N.E. Brazil	.58	$36.3	3.6% (for the region not nation)	0
Colombia	3.87	$ 3.8	.25%	47%
Ethiopia (Tigre Province)	.32	$ .14	.05%	14%
India Crash Scheme	.50	$89.4	.95%	0
Drought Prone Areas	.67	$25.5	.29%	0
Indonesia (Kabupaten)	.71	$26.8	1.3%	0
Jamaica	9.51	$22.9	6.4%	0
S. Korea	.57	$15.3	1.4%	63%
Mauritius	1.85	$ 2.5	8.7% (of Public Sector Capital Formation)	52%
Morocco	.88	$15.4	4.4%	26%
Pakistan	3.17	$13.8	3.4% (of Development Expenditures)	60%
Tunisia	.75	$23.8	10.7%	19%

5. Program size. -It is difficult to make international comparisons on the question of size. It must be determined by need and the capacity to support rural works in each country. Table VI-5 shows the absolute costs of various programs and, as a proxy for relative size, the expenditure on rural works as a percent of fixed capital formation. Figures given in Chapter IV on employment created in relation to agricultural labor force provide another perspective on relative size.

6. Sources of financing. -Table VI-5 shows the percentages of foreign financing in various programs. Over half the existing programs have been supported by foreign aid and, in many of those, aid has met more than half the costs. The implications of this have been pointed out: a pressure toward administrative centralization, the need to meet donor requirements, sometimes the need to use food as wages and, where foreign aid represents a substantial percentage of the total, a dependence on foreign decisions to maintain the program.

Conclusion

This chapter has attempted to provide the rural works administrator with guidelines for monitoring the progress of a program. The administrator's task is particularly difficult since there are no established patterns to determine how a new style program such as rural works will operate. Furthermore, these programs are constantly changing and under pressure for changes that would alter performance and reduce the prospects of achieving the fundamental purposes of the program. This chapter has shown what some of these pressures are likely to be, how they will affect program performance, and to provide indicators that will alert the administrator to their existence.

With this knowledge of the pressures on the program, the administrator will be better able to evaluate actions that are required to prevent adverse effects by responding to change appropriately.

Chapter VII

Conclusion

This manual is intended to assist developing nations in using rural works programs as a tool for dealing with rural unemployment and poverty. It is based on an analysis of twenty-four existing programs and provides a summary of that experience in ways that should apply to both new and continuing programs. It takes the position that rural works programs are very useful instruments of development policy. They can promote several objectives simultaneously and must be considered by any country seriously concerned about rural unemployment and poverty. However, rural works are not appropriate for all such situations. Therefore the manual discusses the potential strengths and limitations of rural works programs, analyzing the issues that are generally raised when a program is being considered.

For the country which decides on the basis of this discussion that a rural works program would contribute to the solution of their problems, the manual has set forth the issues that should be considered when designing such a program and suggested organizational procedures for achieving the best possible results. Based on the experience of other countries which have undertaken rural works programs, guidelines for the continued monitoring and administration of a program have been suggested. This has been done with the expectation that some countries will be encouraged to attempt rural works programs and others will understand why such programs will not effectively address their unemployment problems. For those that

do attempt programs, this manual should improve their chances for success appreciably.

However, the role of the manual must also be seen in perspective. There is no magic formula for rural works, and strict adherence to the suggestions in this manual will not necessarily insure success. It is therefore important to make clear some of the factors that are outside the perview of this manual but which are nevertheless crucial to the results of a program.

1. Political commitment to program goals. The goals of employment, development and the relief of rural poverty are articulated by many countries but effective action in dealing with them requires a much deeper national political commitment. Poverty, unemployment and underdevelopment exist in part because the economic system has served some groups more effectively than others. To alter this situation is to make new commitments to previously neglected groups, redressing an existing imbalance. This will inevitably incur opposition and pressures, both overt and subtle, to restore the prior system or to alter rural works to benefit groups other than those with low income. Even with skillful management and insuring that some benefits accrue to the groups most likely to oppose rural works, opposition will emerge. Unless there is a strong political commitment to adhere to the basic objectives of the program and to reinforce the procedures that serve these objectives, the program will, over time, undergo a fundamental alteration which will change its political purposes. To understand these political pressures, it is necessary to have some perspective on rural works in relation to policies dealing with rural poverty. Rural works must be classified as moderate reform programs. They rarely redistribute

resources in sufficient magnitude to alter relative positions on the income scale, as a basic land reform does. On the other hand, since they are designed to yield benefits to low income groups, they do not reinforce the status quo. When seen in this context, the political attractiveness of rural works is clear; the fact that they will arouse opposition at some point is also clear.

2. High caliber leadership. The director of an effective rural works program will have to be an administrator of considerable talent. The administrative requirements of such a program are far greater than in most development programs. Contrary to the case with more familiar programs, a decentralized program of this type is a relatively new phenomenon in developing nations and will require great capacity to analyze program progress and to learn from experience. This takes a highly flexible administrative style and great perception on the part of program leadership. The pressures cited mean that the program's leadership will have to be determined to resist strong pressures for alteration in the program. The administrator will have to be non-hierarchical, and willing and able to deal with personnel involved with the program at all levels. He will have to encourage his subordinates to communicate very frankly about the strengths and weaknesses of the program and then be willing to act on these views when they are valid. In addition, the administrator will have to emphasize the development of the capacity of people at all levels of program administration. Training on a regular basis, particularly at the lower levels of implementation, is essential. Rural works should be seen as a skill development program for both workers and local administrative personnel and not just a job creation program. This emphasis on people is particularly important in an innovative program of this sort where the people involved will have to be committed to

the objectives of the program and must be willing to make an extra effort to have it succeed.

3. Supporting programs and policies. This manual has emphasized the point that rural works programs are not a solution to unemployment or poverty. They must be used in conjunction with other programs and must be supported by other policies. Too often there have been unrealistic expectations for rural works. Many countries have assumed, mistakenly, that if a works program is started there is no need for other efforts to correct unemployment and poverty. Such an attitude has generally resulted in limited success in reaching the intended goals and a tendency to dismiss rural works as unsuccessful. Attention must be given to other policies that affect these objectives, and additional programs must be undertaken that will reach other members of the target groups, such as the very young or the very old or the sick. If these supporting efforts are made, there is reason to expect a rural works program to operate successfully. Frequently rural works have been independent programs without formal association with other programs aimed at the same objectives. More consideration should be given to having rural works as part of a comprehensive rural development effort.

If these conditions are satisfied, the prospects for a successful rural works program are good. In the next steps of program design and implementation this manual becomes particularly important as a management tool. It should serve both as a design manual in establishing a program and as a reference work in the period of implementation.

All Development programs encounter difficulties. To overlook the types of problems that experience teaches may arise, would be to diminish the possibility of a sucessful program. This manual has therefore stressed likely areas of difficulty and has suggested means of avoiding or minimizing them. This accent on potential problems and on the high demands such innovative programs place on a nation's administrative and implementing capabilities must be seen within a basically positive framework. It is the author's view that rural works programs are a desirable policy option for many developing countries, and that they present an unusal opportunity to make realistic progress against basic problems of employment, poverty and unequal income distribution. They also present an opportunity to improve the extent and caliber of local planning, to increase the degree of grass roots involvement in the development process, and to build institutionalized capacities for participation in that process.

Appendix

ANNOTATED BIBLIOGRAPHY OF PUBLIC WORKS PROGRAMS

Bibliography

This bibliography contains materials specifically written on public works programs. It is not a general bibliography of all the materials used in this report, Instead, its purpose is to give the reader a quick guide to items written about public works, and a short evaluation of their potential use and quality.

GENERAL

Checchi and Company. Food for Peace: An Evaluation of P.L. 480 Title II. 2 Vols. Washington: Checchi and Co., 1972.

This study was prepared by a consulting company under contract to the Agency for International Development. Volume one summarizes the findings of a world-wide evaluation of the program and contains a useful summary of the legislative and programming history of P.L. 480. Included are discussions of national aid, child health care programs, school feeding programs and food for work programs. Volume two consists of eight separate country evaluations. The countries evaluated were: The Phillipines, Malaysia, Colombia, the Dominican Republic, Morocco, Ghana, Indonesia and Ceylon which, while of uneven quality, are useful.

Lewis, John P. "The Public-Works Approach to Low-End Poverty Problems: The New Potentialities of an Old Answer." Journal of Development Planning, No. 5, pp. 85-114. United Nations, 1972.

This paper advocates the use of employment-creating public works programs in rural areas as a major element of an anti-poverty strategy. The author assumes that there are a considerable number of opportunities for high yield construction projects and that there are efficient labor-intensive methods which can be used. He suggests that such programs be additive and not replace the existing development program.

Mintz, Steven P. and Higdon, Robert. "Employment Generation in Developing Countries." U.S. Department of Labor, February 1973. (mimeo,)

This report summarizes articles on public works programs in East Pakistan, India, Indonesia, Mauritius, Morocco and Tunisia.

Unless readers want only a superficial summary of these programs, they would do better to read the original items on each country.

Thomas, John Woodward. "Employment Creating Public Works Programs: Some Observations on Political and Social Dimensions" in Edgar O. Edwards, ed., Employment in Developing Nations (New York, 1974) Columbia University Press.

This article examines the political and social reasons for changing performance in public works programs in four countries, Bangladesh, Ethiopia, Mauritius and Pakistan. Noting that public works programs attempt some redistribution of income and that this immediately endows them with a political dimension, the term "mutation" is introduced to describe major changes in the characteristics of programs that result from political pressures. The article concludes with a discussion of strategies of reform that might be employed to help ensure that the original reform aims of programs are met.

AFGHANISTAN

Mitchell, Louis L. "Provincial Development" (mimeo.). USAID/ Afghanistan, February 1973.

This is a very positive exposition of the policies and plans of agencies of the Government of Afghanistan and of USAID for Provincial Development. The document outlines a strategy for a renewed public works program and for projects, projects' size, costs and administrative arrangements.

U.S. AID/Afghanistan. An Analysis. Provincial Development Department, Food for Work Program. Food for Peace Office, USAID, Afghanistan, February, 1973.

This study reviews the background of drought/crop failures that produced the Provincial Development Program and provides limited data on program costs and accomplishments. It contains good descriptive material on the management of the program, particularly the problems and dislocations that occurred because of inadequate technical and administrative supervision and the absence of effective institutions of local government.

BANGLADESH/EAST PAKISTAN

Gilbert, Richard V. "The Works Program in East Pakistan." International Labor Review, Vol. 89, No. 3, March 1964, pp. 213-226.

This is an enthusiastic early report on the East Pakistan Works Program by an adviser who was closely associated with its establishment. The article describes the program and its potential in positive terms, but provides little data or analysis.

Government of East Pakistan, Basic Democracies and Local Government Dept. Annual Performance Report on the Rural Works Programme, 1962-63 - 1967-68.

These reports provide massive quantities of data on the performance of the rural works program up to 1968. (The termination of these reports in 1968 further documents the changes and deterioration that occurred in the program after 1968.) The data provided in these reports is a compilation of official reports submitted by local government officers, and should be considered questionable or used cautiously. For example, there is considerable double counting in the performance report (i.e., flood protection embankments are frequently reported as roads as well); the man day estimates confuse man days employment created and number of men actually working. Nevertheless, this is about the best data available for any country program and is necessary for anyone wishing to study the performance of rural work in East Pakistan.

Mohsen, A.K.M. Report on Rural Public Works Programme. Comilla, East Pakistan: Pakistan Academy for Rural Development, 1962.

See also:

Rahman, A.T.R. and others. An Evaluation of the Rural Public Works Programme East Pakistan, 1962-63. Comilla, East Pakistan: Pakistan Academy for Rural Development, 1963.

See also:

Rahman, A.T.R. An Evaluation of the Rural Works Programme East Pakistan, 1963-1964. Comilla, East Pakistan: Pakistan Academy for Rural Development, 1964.

These three documents are evaluations of the Works Program, commissioned by the Basic Democracy and Local Government Department and carried out by the staff of the Academy for Rural Development. They are unusually candid for oficially sponsored reports, as to the strengths and weaknesses of the program. Issues such as the use of commodities for wages, local contributions to program costs and the appropriate level and body of government to organize public works are discussed here with considerable insight. These evaluations had a strong influence over the operation of the Works Program and illustrate the value of independent analysis of policies when the implementing agencies are prepared to accept and act on the conclusions that are reached.

Sobhan, Rehman. Basic Democracies, Works Programme and Rural Development in East Pakistan. East Pakistan: Bureau of Economic Research, University of Dacca, Oxford University Press, 1968.

This book is based on a study of the Works Program carried out by the Dacca University Bureau of Economic Research. The conclusions tend to be negative. The author sees political influence surrounding and infiltrating the Works Program and its economic benefits as minimal. The findings of this book are very different from those of John Thomas. Considerable data is presented that is useful in consideration of the problem of running an effective works program.

_____. "Social Forces in the Basic Democracies." The Asian Review, April 1968.

This article argues that the Basic Democracies system was controlled by the "surplus farmer." It suggests that the Works Program was also controlled by this group and that they, rather than the landless laborers, were the primary beneficiaries. The funds skimmed from the Works Program were used by the surplus farmers to buy more land and thereby aggravated the problem of rural poverty. The article predicted that the manipulation and abuse of the Basic Democracies system would lead to an uprising against the Government of Ayub Khan. The article is primarily theoretical, although some quantitative evidence is used to support the argument.

Thomas, John W. The Rural Public Works Program and East Pakistan's Development. Unpublished Ph.D. Thesis, Harvard University, 1968.

This thesis is based on a field study carried out in 1967 of eight Thanas in East Paksitan. It attempts to quantify the political and economic effects of the Rural Works Program and

concludes with a benefit-cost analysis of the investment in rural works. The thesis is a comprehensive treatment of the various aspects of the performance of the Works Program up to that time.

_____. "The Rural Public Works Program in East Pakistan." W.P. Falcon, G.F. Papanek, eds., Development Policy II - The Pakistan Experience. Cambridge, Mass.: Harvard University Press, 1971. pp. 186-236.

This article evaluates the East Pakistan Works Program in terms of costs and benefits. It is one of the few analyses of public works that attempts such a quantification. The impressive achievements of the Works Program reported by the author and the discounted ratio of benefits to cost of 3.4 are based on research carried out in 1967 and are now outdated. The article is useful in examining the ways in which public works programs can make an important contribution to national development.

_____. "Work for the Poor of East Pakistan." The Asian Review, October 1968, pp. 45-52.

This article was a response to Rehman Sobhan's "Social Forces in Basic Democracies." It accepts the premise that the Basic Democracies system was controlled by the surplus farmer. However, it contends that the landless laborer also received substantial benefits from the Works Program The evidence provided for this position is similar to that provided in the other Thomas works on East Pakistan; it includes comparative wage rates and the distribution of project benefits. For a very different interpretation of the same program, see Rehman Sobhan's Basic Democracies, Works Programme and Rural Development in East Pakistan.

Tipu Sultan, K.M., ed. The Works Programme in Comilla. Comilla, East Pakistan: Pakistan Academy for Rural Development, 1966.

This is a collection of articles describing the effects of the Works Program in a number of villages in Comilla District, East Pakistan. Generally, it is descriptive but provides little useful insight into the program's operations or impact.

BRAZIL

Hirschman, Albert O. Journeys Toward Progress. The Twentieth Century Fund, New York, 1963.

Chapter I of this book traces the history of drought relief programs in the Northeast, the rise of DNOCS, and its incorporation in SUDENE. The chapter accents the political circumstances surrounding the important events influencing the evolution of the program and gives relatively little program data. This is one of the few studies of a public works program undertaken from a politic l economy viewpoint.

Pinheiro, Luis Carlos Martin. "Notas Sobre As Secas." Boletim, DNOCS, Vol. 20, No. 6, November 1959, pp. 56-134.

This includes a description of and data about the operation of DNOCS during the great drought of 1958 in Northeast Brazil. (In Portuguese)

Robock, Stefan. Brazil's Developing Northeast. The Brookings Institution, Washington, D. C., 1963.

This is a case study of historical development efforts in Brazil's Northeast. The book traces the history of development efforts in the area, beginning almost a century ago, through a "fighting the drought" approach to development to the more affirmative economic development programs now being established as national policy for the region. Of particular interest in the context of this study is the book's good discussion of the history and accomplishments of the National Department of Works against the Drought (DNOCS).

COLOMBIA

Brooks, Eldon E. Building Farm to Market Roads in Colombia, Utilizing a High Degree of Labor From the Surrounding Farm Areas. "Programa Pico Y Pala." Ofice memo USAID/Colombia, 1973. (mimeo.)

This is an internal memo written by the adviser to the Pico y Pala program to his colleagues in USAID. It contains a brief background description of the need for the program, of the program's operations, and of the implementation system. A limited but useful overview of the program.

_____. "Colombians Dig Cooperation with Pico Y Pala." News for Farmer Cooperatives, U.S. Department of Agriculture, January 1973.

This is a short description of the Pico y Pala program with pictures but little analysis and is one of the few items available about this program.

ETHIOPIA

Bruce, Colin "Cost-Benefit Analysis of a Tigre Agricultural Development Unit." Addis Ababa 1972. (mimeo.)

This study provides a short benefit-cost analysis of terracing and soil conservation projects carried out by the public works program in Tigre Province, Ethiopia. It was done to demonstrate the uses of benefit-cost analysis and provides no description of the program.

Dagnewrand, Habteab and Crawford, T.W. Summary of Findings Concerning the Food for Work Reforestation Program in Tigre and Welo Provinces. Sept. 1972 (mimeo.).

This report is a detailed field study of the reforestation work carried out under a public works program in Tigre Province, Ethiopia. It defends the productivity of reforestation projects, then examines how five variables, government interest, cooperation of influential community members, the land tenure system, previous community action, and economic incentives affect the performance of the program. It provides one of the few attempts to analyze non-economic factors affecting the impact of public works programs and is a very interesting and useful study.

Thomas, John W. Report on the Prospects and Suggested Organization for a Rural Public Works Program in Ethiopia. November 1972. (mimeo.)

This is a report of a consultant to the Government of Ethiopia on rural poverty and unemployment and the potential of a rural works program for alleviating these conditions. The report focuses on two issues: 1) whether a public works program would be feasible and contribute to Ethiopia's development, and 2) how to organize and initiate such a program. It also contains a table comparing costs of construction per kilometer of road in different projects scattered throughout the country. The report has relatively little applicability outside of Ethiopia.

INDIA

Apte, D.P. "Crash Scheme for Rural Employment, Evaluation of the Programme in a District in Maharashtra." Economic & Political Weekly, Vol. VIII, No. 12, March 24, 1973.

This review describes the difficulties of implementation of the CSRE, particularly the questions of wage rates and project location as they influence the willingness of potential workers to accept employment in the Crash Scheme.

Donovan, W. Graeme. "Rural Works and Employment; Description and Preliminary Analysis of a Land Army Project in Mysore State, India." Occasional Paper No. 60. Ithaca: Department of Agricultural Economics, Cornell University, 1973.

This is a useful little study which contains an excellent discussion of an unusual experiment with public works programs in Mysore State of India which involved the establishment of a labor force for public works programs along semi-military lines. In short, youths were recruited, established in camps and fed, drilled and cared for as army recruits. The study found the "Land Army" concept to be promising as a way to handle public works projects. This is one of the best case studies available of public works programs.

Government of India. Crash Scheme for Rural Employment: Guidelines for 1972-73. New Delhi: Ministry of Agriculture, 1972.

This pamphlet outlines the objectives of the program, its allocations basis, wages standards, eligible projects, and employment targets. It is the best outline available of the program's structure and includes examples of the reporting and auditing forms to be used.

Government of Maharashtra, India, Revenue Department. The Bombay Scarcity Manual, 1966.

This fascinating volume is the latest version of a typical state security manual, whose antecedents were the Famine Relief books introduced by the British in the 19th century. Detailed instructions, some now outmoded, are given on advance preparation for scarcity, recognition and commencement of relief activities, and conclusion of relief efforts. By its formulation, the wage structure on Test Relief works should be such that "a husband and wife by working a full day shall be able to purchase, between themselves, . . . grain sufficient to maintain themselves and three non-working dependents." (pp. 50-51)

Gupta, Ranjit. "Rural Works Program: Where it Has Gone Astray." Economic and Political Weekly. Bombay, Vol. VI, No. 20, May 15, 1972.

This is a rather disjointed evaluation of India's Rural Works Program. The author begins by stating the results of an official four-year study of the Rural Works Program undertaken by the government's Program Evaluation Organization. He then proceeds to illustrate the points made in the official study with case materials from three districts. He concludes that district

level "development machinery" and detailed project plans based upon resource surveys are absolutely essential. He argues that self-help and a program of maintenance and repair must be built into a public works program. The case descriptions are interesting and instructive.

Jodha, N.S. "Special Programs for the Rural Poor: The Constraining Framework." Economic and Political Weekly, Vol. VIII, No. 13 (March 31, 1973).

This paper contains brief and inadequate descriptions of India's Small Farmer Development Agencies and the Agencies for Marginal Farmers and Agricultural Labourers. While there is supposed to be a working relationship between the operations of these agencies and public works programs, the precise nature of the relationship is left aggravatingly unclear. The article is useful in that it identifies an approach to the coordination of activities to assist poor farmers that is unique and worthy of close examination.

Jakhade, V.M. and Joshi, D.A. "An Ad-Hoc Survey Report on the Working of Pilot Integrated Area Development (PIAD) Scheme in Sangli District." Reserve Bank of India Bulletin, January 1970.

The PIAD scheme was an innovative effort in the mid-1960's by the government of Maharashtra to improve the standard of living of small cultivators through an integrated program of soil conversation, improved agricultural inputs and the introduction of subsidiary occupations such as dairying and sheep raising. This article reviews the effects of the program in one district, concluding that participating farmers enjoyed moderate gains in income but that program results were well below expectations.

Krishna, Raj. "Unemployment in India." Economic and Political Weekly. (Bombay) Vol. VIII, Nos. 4-6, March 1973.

The author introduces some relatively novel cross-classifications of unemployment according to various criteria which help to define the relevant characteristics of target groups. He makes the point that different policy instruments must be used to reach people with different employment characteristics. After examining the causes of unemployment in India, the author makes a case for the inauguration of a work guarantee program with a massive public works program.

Kurien, C.T. "What is Growth - Some Thoughts on the Economics of 'Garibi Hatao'." Economic and Political Weekly, December 23, 1972.

This study suggests that an anti-poverty program through "growth", as suggested in the Planning Commission's "Toward an Approach to the Fifth Five Year Plan," will only result in further mal-

distribution in a system where wealth and income are already distributed unequally. The article sees a drastic redistribution in concentration of physical resources as a precondition for an effective anti-poverty program.

Ladejinsky, Wolf. "Drought in Maharashtra." Economic and Political Weekly. February 1973.

This article, written during the third successive annual drought in Maharashtra, describes the functioning of the scarcity relief program, stressing the enormity of the problem and the central role of the District Collector in administering relief efforts. The article is generally positive toward the calibre of the scarcity relief projects. The approach is through sympathetic description, rather than the use of statistics.

Planning Commission, Government of India. Integrated Agricultural Development in Drought-Prone Areas. Report by the Task Force on Integrated Rural Development.

This 1973 report traces the evolution of the Drought Prone Areas Program from its original accent on labor intensive rural works into an integrated approach to reduce the vulnerability of 72 drought prone districts. It represents the best source of data on program expenditure by geographic area and by activity.

Rodgers, G.B. "Effects of Public Works on Rural Poverty: Some Case Studies from the Kosi Area of Bihar." Economic and Political Weekly, Vol. VIII, Nos. 4-6, February 1973.

This article summarizes a doctoral thesis by the author which was submitted to the University of Sussex, England. The article reports the results of three case studies in the Kosi area of Bihar, India, during 1970-1971. The major conclusions of the study are that:

(a) employment on public works is unlikely to eliminate poverty because of the very high dependency ratios of families;

(b) inadequate nutrition prevents people from undertaking strenuous public works activities;

(c) caste and status made many poor people unwilling to depart from traditional modes of activity and accept public works employment;

(d) employment of younger members of households often results in the withdrawal of the elderly from the labor force.

The major conclusion of the study is that public works employment can benefit the poor but that, for a variety of reasons, some of the poorest members of the community cannot be reached with this policy instrument. This is the most comprehensive study which exists on the characteristics of target groups of public works programs.

Visaria, Pravin and Visaria, Leela. "Employment Planning for the Weaker Sections in Rural India." Economic and Political Weekly, Vol. VIII, Nos. 4-6, February 1973.

This paper examines the experience of India's Rural Works Programs, the Crash Scheme for Rural Employment and Maharashtra's Employment Guarantee Scheme. The authors find that the critical problem in India is the productivity of available manpower rather than open unemployment. The most significant finding, primarily because it reinforces the findings of other researchers, is that substantially greater efforts must go into the improvement of the manpower and organizational capacities for formulating and implementing India's public works programs.

INDONESIA

De Wit, Y.B. "The Kabupaten Program." Bulletin of Indonesian Economic Studies, March 1973.

The purpose of this article is to describe the strategy, the organization and the results of the Kabupaten program in Indonesia. This article, together with the Patten, Dapice and Falcon article, provides the essential background information about the operation of the program through early 1973. The reader should be aware that the data in this article is not consistent with that contained in official publications.

Indonesia. Manpower Department. Labor-Intensive Research Team. Labor-Intensive Research in Java and Madura, 1972. (Mimeo.)

This is an official survey of the Padat Karya Program in Indonesia and, while it contains many insights into the problems of the program (seasonality of labor supply, recruitment, remuneration), survey results are difficult to decipher perhaps because of errors in translating the document from Indonesian into English. The document is of limited usefulness.

Partadireja, Ace. "Village Subsidy," a paper presented at the Seminar on Short-term Employment Creation Projects in Southeast Asia, organized by the South East Asia Development Advisory Group (SAEDAG) of the Asia Society, Bagerio, Philippines, August 21-24, 1973.

This paper is a short but valuable summary of all three of Indonesia's public works programs. These programs are the Desa (village) program, the Kabupaten (district) program and the Padat Karya (labor intensive) program. The paper focusses most attention on the Desa self-help resource marshalling program providing a concise description of its organization, operation and its accomplishments through fiscal year 1972.

Patten, Richard; Dapice, Belinda; and Falcon, Walter. "An Experiment in Rural Employment Creation: Indonesia's Kabupaten Development Program." Jakarta: BAPPENAS/Harvard Research Program, June 1973. (mimeo.)

This article provides a description of Indonesia's Kabupaten program which is one of the country's three public works programs. The report traces the origins of the program, illustrates how policy makers conceived of it in terms of overall economic strategy, describes in some detail its organizational and central features and draws some preliminary conclusions regarding the program's effects on employment and decentralized planning. This article is particularly valuable for its description of the Kabupaten program's administrative and managerial set-up. The article underscores the huge backlog of deferred maintenance projects in Indonesia which can sustain a sizeable public works program for many years in the future.

SOUTH KOREA

Brandt, Vincent S.R. A Korean Village, Between Farm and Sea. Cambridge, Massachusetts: Harvard University Press, 1971, pp. 192-195.

This provides a micro level study of social change in a Korean village containing useful comments on who was employed and who benefited from the Food for Peace projects in that village.

Kie-Hong Lee, Daniel. National Construction Service. A Case Study-Korea's Experience in Utilization of Underemployed Manpower Resources. Bangkok, Thailand: Asian Institute for Economic Development and Planning, United Nations, March 1961. (mimeo.)

This is the only available analysis of the South Korean experiment with the National Construction Service. The paper conveys the economic situation and difficulties that surround the initiation, operation and termination of the program after one year. The analysis of the decision to terminate the program seems only partial, and the analysis is primarily from the national policymakers' perspective. As a result there is little quantifiable evidence as to the impact in the countryside. Still the paper represents one of the few adequate reports on a nation's experience with a public works program.

Ministry of Health and Social Affairs, Republic of Korea. Instructions for Implementation of Self Help Projects. Seoul, March 1967. (mimeo.)

These are the implementation instructions for the administrative officers of the Self Help Work Program. This document provides a good description of the administrative system of the program but little else.

Republic of Korea, Government of the, Self Help Work Program (A Joint ROK-US Program under US P.L. 480-II), Seoul, Korea, August 1969.

This is a summary report of the Self Help Work Program. Its value is in the annual program data provided. It lists total cost, foreign aid, types of projects and numbers employed by year from 1964 to 1968.

NORTH AFRICA (MOROCCO AND TUNISIA)

Andriamananjara, Rajaona. "Labor Mobilization: The Moroccan Experience." Ann Arbor: Center for Research on Economic Development, University of Michigan, 1971.

This is the best existing description and analysis of Promotion Nationale, the large public works program in Morocco. Some of the distinguishing features of the study include analysis of the characteristics of Promotion Nationale workers, an evaluation of a number of projects of different kinds and the use of a linear programming model to evaluate the macro economic implications of the program. The study identifies administration and management as being a major constraint on program efficiency. The author concludes that the program is useful and worthwhile.

Ardant, Gabriel, "A Plan for Full Employment in the Developing Countries," International Labor Review, Vol. 88, No. 1, July 1963, pp. 15-51.

This article presents an optimistic view, based on the early years of the Moroccan and Tunisian programs, of the potential for "solving" unemployment through development oriented works programs using "voluntary" labor. It understates the regressive and frequently repressive nature of self help programs, and the difficulties in attempting self help programs where land or other relevant resources are very unequally divided.

Arles, J.P. "Manpower Mobilization and Economic Growth: An Assessment of Moroccan and Tunisian Experience," International Labor Review, Vol. 94, No. 1, July 1966, pp. 1-25.

This is a general review of the background, type of project, wage scale, and financing techniques in these programs and stresses the need for directly productive projects if these programs are to avoid slowing down economic growth.

Chitty, John and Graves, Walter. "I.V.S. Evaluation of Promotion Nationale" (International Voluntary Service Report), January 15, 1969. (mimeo.)

Chitty, John. "Cost-Benefit Evaluations of D.E.R.R.O. (Development Economique et Rural du Rif Occidental) Fruit Tree Plaintings in Al Hoceima Province" (International Voluntary Service Report), June 1969. (mimeo.)

Graves, Walter. "Economic Analysis of Ouarzazate's Irrigation District (O.R.M.V.A.) Type 'A' Promotion Nationale Irrigation Development Projects" (International Voluntary Service Report), April 1969. (mimeo.)

These three studies were done by the International Voluntary Service which was assisting Promotion Nationale by providing volunteers. The first is a general descriptive evaluation of the program emphasizing engineering aspects in particular. The second and third are cost benefit analyses of reforestation and irrigation projects respectively.

Grissa, Abdessatar. Agricultural Policies and Employment; Case Study of Tunisia. Paris: Development Centre of the Organization of Economic Cooperation and Development, 1973, 216 pp.

Tunisia has a long and extensive experience in using foreign food donations, in conjunction with domestic resources, in the mobilization of otherwise unemployed people for work in labor intensive public works programs. This study evaluates the

employment effects and the contribution to development of this experience. The study concludes that it is entirely possible that Tunisia's public works program placed such a heavy burden on the country's resources that it actually retarded growth. The main reasons for the lack of efficiency in projects were found to be administrative and managerial. There was insufficient high and middle-level manpower available to identify, plan and implement projects on the scale attempted. What is more, the scarce manpower which was available was poorly organized. This study is valuable because it relates its discussion of public works to the economic and social conditions which made a public works policy instrument appear to be desirable. Some of the data in the book must be used with caution. The author has used official program data which has proven to be unreliable.

Kahnert, Friedrich. "Public Works Programs and Employment in North Africa." Paris: Development Centre of the Organization for Economic Cooperation and Development, 1973. (mimeo.)

This is a comparative study of public works programs in Algeria, Morocco and Tunisia. The document provides extremely useful summary of the programs, their origins and their accomplishments. The study is marred by an evaluation of programs against criteria which do not apply and against which the programs are found wanting. To be specific, Kahnert, fails to recognize that the huge North African programs are, to a significant degree, explicit income transfer programs and evaluates them against investment efficiency criteria only.

Organization de Cooperation et de Developpement Economiques, "Notes Preliminaires sur les Chantiers Populaires de Reboisement en Algerie." Paris, October 2, 1970.

We have not been successful in locating this article.

Tiano, Andre. La Politique Economique et Financiere du Maroc Independent (Etudes "Tiers Monde: Problemes des Pays Sous-Developpes"). Paris: Presses Universitaires de France, Part I, 1973.

We did not succeed in locating this publication.

Tiano, Andre. "Human Resources Investment and Employment Policy in the Maghreb." Employment in Africa: Some Critical Issues. Geneva: International Labour Office, 1973.

This paper reviews the need for public works programs in the the three North African countries, Algeria, Tunisia and Morocco and then discusses the apparent attitudes of national leaders toward such programs. The author finds that in Morocco public

works programs are used as an instrument of development while in Algeria, for example, they are regarded as relief efforts. Further, he finds that such programs are not additive to normal investment programs but are substitutes for them. Two interesting features of this article are a proposed means for financing a public works program by employing youths between the ages of 23 and 30 without wages and a scheme of government buying up the product of industries with excess capacity and distributing the product to workers on public works projects. This is an interesting paper.

PAKISTAN

Burki, Shahid Javed. "First Year of Rural Works Programme." Basic Democracies Review, Vol. 1, No. 3, May 1965.

This article is a summary of the annual evaluation report on the Rural Works Program for 1963-64. In it the author points out three basic characteristics of the program: 1. that a large component of total program funds were donated by the local communities; 2. there was a considerable difference in the capacities of various regions to absorb and use funds for development purposes; 3. there were important differences in the types of projects needed in different regions, and, therefore, no standard formula for projects could be enforced. The article is both a good analysis and sets a standard for honest and critical government evaluations of their own programs.

_____. "Ending Rural Poverty Through People's Works Programs." Pakistan's Economy: Problems and Prospects. Pakistan Times, December 20, 1972, pp. 11-12.

This is one part in an extensive newspaper series on Pakistan's economy which focuses on the factors that will determine the success or failure of the proposed People's Works Program.

_____. "Interest Group Involvement in West Pakistan's Rural Works Program." Public Policy Vol. XIX, No. 1, 1971, pp. 167-206.

This article contains an analysis of the major groups influencing Pakistan's politics, the civil service, the political leadership, the army, the large landowners, and the foreign aid community, and their stands on the Rural Works Program. The author, who was a participant in this decision making process, presents a unique view of which conflicting and congruent group attitudes were blended into a concensus for the new program. This is the only piece available that provides insight into the politics of

the initiation of a public works program. It is valuable both from that standpoint and from the perspective of understanding the major participants in Pakistan's politics and how they interact.

_____. "West Pakistan's Rural Works Program: A Study in Political and Administrative Response." The Middle East Journal. Summer 1969.

This article analyzes response to the Rural Works Program in the administrative and political arenas. The author analyzes the conflict that developed between the small Basic Democracies and local government Department which had no development responsibilities before the Rural Works Program and other development agencies, specifically public health, irrigation and transportation and communications. The article also concludes that in the rural areas, the Rural Works Program fostered an alliance between the orthodox bureaucracy and the middle and larger landowners. This alliance was coopted by President Ayub Khan who built much of his rural support on this base. This is a very useful article that suggests some of the complexities which underlie public works programs.

Hamid, Naved. "Preconditions for the Successful Implementation of the People's Works Programme." Pakistan Development Review, Vol. X, No. 1, June 1972, pp. 43-61.

The author evaluates the potential of the proposed People's Works Program, made during its early stages. He examines the extent of unemployment, compares social organization in Pakistan to China and India and concludes that, unless the inegalitarian social structure of Pakistan is changed, the program cannot succeed. This is an interesting attempt to apply analysis of social and economic conditions to the outcome of a development program.

Inayatullah, Masih-uz-Zaman and Shahid Javed Burki. Basic Democracies, Development and Welfare. Lahore: Government Printing Press, 1965.

This book contains two articles on the Rural Works Program. The first by Masih-uz-Zaman argues that Rural Works are a continuation of the British India / Pakistan tradition of community development, and are dependent on those prior activities. In effect, he argues that rural works are nothing new. The second article by Burke argues that the Pakistan program was borrowed from East Pakistan without sufficient adaptation to local conditions. He argues for "spiraling undergeneralization" of the program to make it more appropriate for the Pakistan environment. Both articles are thoughtful critiques of the program and contain ideas relevant to any public works program.

Inayatullah, ed., Basic Democracies, District Administration & Development. Peshawar: Pakistan Academy for Rural Development, 1966.

This book is the result of the author's sample survey of 37 Union Councils in Pakistan. He looks at the conditions in each area and the backgrounds of the leaders. He concludes that the performance of the Rural Works Program is closely linked to the environment in which it functions. He sees local contributions to program costs as essential to develop local interest and involvement, without which the program cannot succeed.

Khan, Akhtar Hameed. Three Essays: Land Reform, Rural Works and the Food Problem in Pakistan. Occasional Paper No. 20, South Asia Series. Asian Studies Center, Michigan State University, May 1973.

The three essays are taken from speeches of Akhter Hameed Khan. The one dealing with rural works outlines the analysis of rural economic classes in East Pakistan and the way that analyses lead to the formulation of a program. It also stresses the links between rural works and other rural development activity. Although primarily theoretical and descriptive, this essay provides insight into why rural works are needed and what are their strengths and weaknesses. Akhtar Hameed Khan is one of the great organizers of rural development projects and his views need careful consideration.

Pickering, A.K. Report on the Rural Works Programme in West Pakistan 1963-1969. Lahore, Pakistan: Development Advisory Service, Harvard University, July 1969. (mimeo.)

This is a detailed evaluation of the performance of the Rural Works Program as of 1969. The author, who had been an advisor to the government and participated in the formation of the Program and in the first year's implementation, was reviewing its status after a gap of 4 years. The report is a good analysis of the strengths and weaknesses of the program.

_____. "Rural Development in Baluchistan: The Works Programme and Ground Water Supplies." Journal of Administration Overseas, Vol. III, No. 3, July 1968, pp. 444-453.

This is an interesting article on the functioning of the Rural Works Program in Baluchistan, the poorest province of Pakistan. In this province, much of the Rural Works allocations went into developing water supplies, from wells or the traditional kareizes

which flow underground from its mountains. The new water supplied in an area where water is the scarcest resource made both an extension of agriculture and an improvement in health standards possible This is a useful study of the positive impact a public works program can have when it is tailored to the needs of a particular area.

Shah, Khalida, ed., Reading in Rural Works Programme. Rawalpindi: The Ministry of Information and Broadcasting, 1967.

A government publication meant to attract attention and praise for the Rural Works Program. It reprints the articles by Maih-uz-zaman and S.J. Burki from their book Basic Democracies, Development and Welfare Other than these articles, available elsewhere, there is little of note contained in the book.

PERU

Dew, Edward. Politics in the Altiplano, The Dynamics of Change in Rural Peru. Texas: Latin American Monographs, No. 15, Institute of Latin American Studies, The University of Texas, 1969.

This detailed analysis of the politics of the CORPUNO program provides insights into the issues that surround income redistribution programs. The book says little about the program's economic impact; it does, however, provide the background necessary for an understanding of the performance of the CORPUNO program.