Citizens, the state and employment:
Public works as the core of a
rural development strategy
by
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"A man must eat and drink. He should enjoy the fruits of all his labour. It is the Will of God."

Ecclesiastes

"The man who can talk about the honour of his country, at a time when its millions are in a state little short of famine; and when that is too, apparently, their permanent state, must be an oppressor in his heart."

Matthew Cobbett.
INTRODUCTION

Public Works Programmes have been used for centuries in time of famine and disaster to provide work and income to the destitute. Often items of conspicuous consumption were built, palaces and tombs, particularly when there existed a close identity between the state exchequer and the person of the ruler. In modern times public works have emerged as large national programmes building economic and social infrastructure. The programmes have other explicit aims; rural welfare, labour mobilization and income distribution, administrative decentralization, and as part of an anti-cyclical policy to stabilize aggregate demand.

This paper examines some of the theoretical arguments that lie behind a concern for labour mobilization in the countryside, it reviews differing philosophies that have governed the purpose and design of public works programmes; and it concludes with an assessment of the potential role and cost of public works in Zimbabwe and in South Africa. The latter exercise illustrates the awesome backlog and concentration of poverty built up in South Africa and compares that to the manageable eradication of poverty possible in Zimbabwe within an economic development strategy that has at its core a fully developed public works programme.

THE CENTRAL ISSUE

There is a need to confront the fact of rural poverty. New roles, new activities, new sources of income and of security need to be realised quickly. National programmes that together act upon the underlying long term issues of low human and agricultural productivity, of improper land use, of inefficient access to resources, of the threat posed by growing unemployment, and of equity and security must be seen to be in place. Moreover, in this and the next few decades, policy and practice must accommodate the new fact that most developing country populations are not only growing at an historically rapid rate, but that the number and proportion of young people has caused high dependency ratios. In Africa some 44% of the population is under 15 years and the agricultural population of developing countries is expected to double in the next twenty-five years.
Malnutrition, poverty and the pressure on poorly funded social services are closely linked to these facts.

Poverty and unemployment, and the press of a desperate humanity upon the formal economic sector and the urban areas are political and economic issues. The issue therefore is whether we can bring together the need to underwrite human welfare in the countryside in terms of economic security and the dignity of family independence through work with an efficient economic development strategy. And what, we must ask, if we cannot?

In Zimbabwe the conditions exist to explore and to act upon solutions to rural poverty. The recent exaggeration of urban first policies is now being rapidly rethought, under the exigencies of drought and recession, to accord the countryside a primary place in a productive rural/urban development strategy.

South African has institutionalized an amazing panoply of controls over the rights of her people to participate fully in the national economic and social space. As we know, that system has become the worm that threatens all, largely because it offers no moral, political, social or economic solution to an enormous and an official concentration of poverty and wasted human lives in the countryside.

Public works tend to be highly-visible programmes, usually administered in a decentralized fashion, and can command significant resources in relation to GDP. They are therefore capable of having a marked and potentially constructive political impact.

**TYPES OF PUBLIC WORKS**

Public works are aimed at redressing unemployment and at infrastructure creation using labour intensive methods of construction, invariably in the countryside.

Unemployment and underemployment are difficult to define and to measure satisfactorily. The usual difficulties are compounded by the nature and seasonality of agricultural production, by extended family relations and by urban migration and urban-rural money transfers.
The World Bank has defined three broad types of unemployment that have influenced the design of public works programmes: 1/

- **Recurrent crises:** instability in agriculture caused by extreme weather patterns as drought and flood. In Maharashtra State in India, in the last year of a three year drought period, 1971–1973, over 4.9 million people worked on public works in the peak off-season month, May; or some 26% of the labour force and 9.8% of the total population of the state. 2/

- **Long-term structural unemployment:** often associated with monoculture agriculture, as with sugar on islands like Mauritius, combined with land shortage. Mauritius has a persistently high rate of unemployment calculated at 16% in the 1972 census.

- **Seasonal unemployment:** found where land shortage and small holdings cause people to share limited work and output. This leads to low productivity per capita (though often high output per unit of land) and extremely high rates of underemployment during agricultural slack seasons. Agriculture, under those circumstances, may not be able to absorb all new recruits to the labour market.

Public works consequently address:

- **Relief requirements for the annual cycle following poor crop seasons preparatory to a full successor season;**

- **The absorption of long-term structural unemployment;**

- **The augmentation of low agricultural incomes, usually by mobilizing the seasonally underemployed;**

- **Low-cost infrastructure creation by material rather than wage support to self-help type activities.**

In time of prolonged drought, relief merges into the two main categories, structural unemployment and seasonal underemployment. The latter two typify


2. ibid
the problem in Zimbabwe and in South Africa with the distinction between one and the other varying from region to region and from time to time.

Public works programmes in the countryside commonly undertake:-

- **land development**: reclamation, conservation, small irrigation, afforestation
- **Road works**: maintenance and construction of feeder roads and tracks, culverts, light weight bridges;
- **irrigation**: maintenance and construction of dams, canals, drainage ditches, land levelling;
- **economic infrastructure**: markets, brick making for public buildings or for local sale;
- **Social infrastructure**: building material for housing, clinics, schools.

Often public works form part of a regional spatial strategy, including creation of rural service centres within a national urbanization strategy.

**THEORETICAL UNDERPINNINGS**

The history and evolution of public works follows the movement away from the interest in the 1960s with capital investment, not job creation, to the current concern that a large unemployed labour force has arisen in many developing countries. The resulting poverty, inefficiency and instability now threaten orderly economic growth and need direct attention.

The contemporary theory and practice of public works is not much older than one generation. The well-known works of R. Nurkse and W.A. Lewis in the early fifties, examining the use of large rural labour surpluses as an investment medium, though challenged, remain the basis and inspiration for many planners in developing countries. No doubt they in turn were influenced by the Great Depression, by Keynes and by public works under Roosevelt a generation before, through the concerns differ.
Nurkse pointed out that under conditions of small family farms with underemployed labour, it would be possible, at least seasonally, to divert labour to infrastructure creation without increasing the consumption requirement of that population. In other words, underemployment concealed a potential source of savings which could be turned into investment. In practice, Nurkse admitted, all would not "remain equal". Those left behind on the land would likely increase their consumption, as may those transferred to infrastructure projects. Other costs, in the form of leakages, would arise: for instance transporting food from farm to work site and the costs of establishing those sites.

The earlier concern in developed societies was to stabilize aggregate demand around an equilibrium realizing full employment and the full use of capital. Nurkse sought a means to create, as quickly as possible, despite the capital scarcity of developing countries, a productive capacity able to absorb the available labour. Labour intensive public works are designed to create the infrastructure for development at the least opportunity cost of the scarce resource, capital.

Lewis, in somewhat similar vein, developed a model of unlimited labour which accords with the reality of developing countries in so far as unskilled labour is concerned. The supply of unskilled labour to the modern sector from the countryside is perfectly elastic because the relative size and growth of the formal sector cannot absorb the growth in population. At the same time, the marginal productivity of labour in the countryside is below a subsistence standard of living. Consequently, rural surplus manpower can be used to make capital goods with little recourse to the scarce factors, land and capital.


2. Lewis, W. Arthur, "Economic Development with Unlimited Supplies of Labour", the Manchester School of Economic and Social Studies, May 1954, pp. 139-191
Myrdal, amongst others, has challenged these views. He believes that a larger and more intensive labour input will always improve income and levels of living and that the rural labour market is not so fluid as supposed; that unemployment and underemployment are involuntary.

The extraordinary Chinese labour market of the 1960s and 1970s is the only experience that believes Myrdal's first concern. There an already intensive agriculture was intensified by massive construction and maintenance activities of a public works nature. In the 1960s some 10% and during the 1970s some 30% of the rural labour force was involved in winter, or off-season, public works.

An average of 40 days employment per person per year was created. The absorption between 1957 and 1975 of 100 million workers into an already intensive agriculture faced with an unfavourable man/land ratio without reducing average annual labour productivity is China's great development achievement. However, output per man-day fell sharply, from 15 to 26 percent depending on the indices used. Average annual works days climbed from 190 to 275, removing most of the seasonal idleness common in the 1950s. Restrictions on urban migration and on private plots left increased collective labour as the only means for rural Chinese to protect or improve existing living standards. Since the mid-1970s a shortage of consumer goods has undermined the popular acceptance of increased labour input and led to reversals in policy.

Myrdal's second proposition is belied in a host of countries by a common phenomenon, the voluntary participation of hundreds of thousands and, in India and China, of millions of people in public works programmes. A substantial mobilization of the labour force is possible.

2. ibid, vol II p. 1092.
3. ibid, vol II p. 962
Although not ruled out by either Nurkse's or Lewis' arguments, wage payments have become part and parcel of all public works programmes.

Myrdal's caption, the "real waste of labour" $\frac{1}{2}$ adds the social concern of human development to economic imperatives, and broadens theoretical concern to include income distribution and the costs of poverty.

The Potential of Public Works Programmes to Alleviate Unemployment and Poverty

The ability of public works programmes to absorb unemployment is significant, though each programme has to be judged in relation to the nature of unemployment in that country and to the resources committed to it. Earlier we referred to China. The Employment Guarantee Scheme started in Maharashtra State in India absorbed 75% of available mandays in the countryside in 1977; that is three years after it was launched as a reformulation of the conventional relief programmes designed to mobilize rural labour in construction activities on a regular basis. $\frac{2}{2}$

Maharashtra State finances the Employment Guarantee Scheme in two ways. Half is taken from the normal Capital Budget and half is raised special taxes aimed at those most likely to benefit from less crowded cities, from thriving rural demand for manufactured goods and from a greater supply of agricultural surpluses. Items taxed include entertainment, professional registration, property and luxury goods. The total cost of the Scheme comes to 9% of the State's Capital Budget. The Scheme represents a socially and politically acceptable additional mobilization of resources for investment. About one third of the outlay is recouped in the form of loan repayments and betterment levies from identified beneficiaries of economic investment, such as irrigation and land levelling. A recent paper by the Indian Planning Commission calculates an all-India programme as costing 12%-13% of the combined Central and State Capital Budgets.

Public works absorbed 21% and 38% of the unemployed in Tunisia and Mauritius and between 3% to 7% in Morocco, Korea and East Pakistan respectively. Tunisia and Mauritius spent 2,4% and 3,6% of GDP respectively and the other three countries between 0,4% and 0,6%. Tunisia and Mauritius faced high unemployment rates, 15% and 16% respectively, with seasonal underemployment around 40% in Tunisia. The latter three countries have a mix of unemployment of between 9%-15% and seasonal underemployment of 25%-50% depending on crop production. $\frac{3}{3}$

1. G. Nyrdal, op cit Vol. II. P. 999  
3. IBRD op cit, pp. 20 - 25.
One must conclude that, unlike China, India, Tunisia and Mauritius, the latter three countries ran partial public works programmes.

In poorer regions and amongst poorer groups wages from public works have contributed up to two-thirds of family incomes \(1/\). While the average is clearly much less, it must be remembered that the extra family income comes in the slack agricultural season and can therefore have a greater value than is suggested by its proportional increase over a year.

Other benefits include habituation to regular and sustained work, improved nutrition and health levels (the two clearly connected), an upward push on agricultural wages, which can be linked to a more productive labour force, and an opportunity to renegotiate from greater strength in income and degrading social contracts with employers, money lenders and landlords. A further plus is the creation of a forum for effective local participation and decision making.\(2/\).

Annual programme expenditure figures should vary, reflecting, as would be expected, the instability of agricultural production. Yet most programmes are budgeted with little account taken of present rural conditions. The ability to avoid socially inefficient lags in expenditure is one criteria for programme design: public works programmes should respond quickly to depleted income and activity levels in the countryside, thus underwriting agricultural risk and providing a modicum of economic security. Not all public works programmes have been so designed. Most have been isolated capital projects, appendages to unchanged development policies and programmes. Consequently any concern with labour intensive construction and with the redistribution of income and of assets has usually lived at variance with general policy which favoured capital against labour absorption. A set of policies consistent with the thrust of a public works programme, poverty and unemployment, would include:

- Care not to undervalue capital and over price labour. In many

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countries, at least until the recent round of historically high interest rates, capital was undervalued and incentives to mechanise agriculture, construction and industry existed. Minimum wages tend to cause labour to be shed from simple agricultural and construction tasks in favour of crops that can be machine managed and of construction equipment.

- Foreign exchange rates have been consistently overvalued during the 1960's and 1970's in many developing countries, attracting capital intensive investment and the importation of labour replacing technology and equipment.

- The terms of trade have often favoured industry and commerce against the interest of a dynamic, labour absorbing agriculture, leading to the adoption of a capital intensive agriculture.

- Until recently few developing countries could boast of effective research; extension, marketing and credit systems that served the mass of small farmers, and of sensitivity to pricing policies aimed at keeping the urban-rural terms of trade favourable to rising rural living standards.

The Role of Public Works in Zimbabwe and in South Africa

Large scale on-going public works programmes are little known in southern Africa. The oldest is in Lesotho. Supported by the World Food Programme for over a decade, it has a strong itinerant character so that, in a broken topography, families cannot predict whether work will be available in their vacinity from one year to the next. Consequently it has been unable to reduce the reliance of men on migrant work. Some 95% of the participants are women.

Families in the communal Areas of Zimbabwe enjoy average incomes roughly half that of workers on the lowest minimum wage scale (agricultural labour and domestic workers) or about $20 per month. Most Communal Areas
are poorly served with physical, economic and social infrastructure though new initiatives have followed Independence. They are characterised by low human and land productivity and in many areas by physical degradation from overstocking and land pressure under existing technologies. The Communal Areas have proven their ability to compete with the large commercial farms on crops when services, climatic conditions and prices are favourable. The prolonged drought has worsened degradation, has placed many families in dire financial and physical straits and the accompanying recession has added a significant component of the unemployed waiting to secure jobs in the formal sector. A backlog of formal job creation of 117,000 has arisen over the last several years.

Surveys exist for a few parts of the country giving family income and labour profiles. Those surveys indicate how much free labour families have and in what time blocks, sometimes with reference to family size. They cannot predict likely participation levels in a public works programme since those are essentially a response to a new labour and income opportunity not previously provided. A variety of factors, not least of which is confidence that work is indeed available, which can only be gained by experience, will affect participation.

Zimbabwe's 800,000 plus rural families have a slack labour period of roughly four and a half months, or a period of 90 week days between May and mid-September. Based on other country experience, an estimate of 40 mandays sought on public works per year for half the rural families appears to be a basis for initial planning. This is because labour, albeit operating as a group under piece rate management, should be required to commit itself to project completion, usually designed to take from 30 - 60 working days.

The wage component should claim 60% of total cost, with materials and engineering and supervisory costs forming the balance. At a presumed average wage earned of Z1,50 per day, that is below the legal minimum wage of roughly Z$2,00 per day, an annual programme would cost Z$ 40 million, or 1% of GDP in 1982/83. The loan component should form 30%, reducing the cost on the budget, at least over time as repayments are made.
The initial cost equals about 4% of Zimbabwe's Capital Budget compared to 9% for the Employment Guarantee Scheme in Maharashtra State. The comparison suggests that a fully developed scheme in Zimbabwe would up another $10 million or so per annum but given the fact of easier access to land and Zimbabwe's greater relative wealth should not go much higher except in years of severe drought.

Transcribed into income, on average the 400,000 participating families would earn Z$60 per annum from a programme of the size envisioned. In practice that would mean that some families, a minority, might earn considerably more. Z$60 equals one month's legal minimum wage but three month's average rural income.

In Zimbabwe there is a concentration of the poor in the Communal Areas. They are for the greatest part active agriculturalists enjoying the freedom to optimize family well-being between employment in town and an increasingly well serviced countryside. Nonetheless, there are disturbing trends caused by rapid population growth and unaltered land tenure systems. Roughly half the families have no cattle, a figure which relates closely with the 20% of families who do not have access to crop land. The present three year drought has driven many more small cattle owning families to the wall, worsening the supply of oxen for traction. At the same time, unreformed communal grazing systems contain the threat of rapid herd build up beyond carrying capacities, leading to further rounds of families dropping out of cattle ownership in drought years and thereby being impaired as crop producers because of their inability to control the supply of traction. Skewed cattle ownership is leading to marked inequalities within once relatively egalitarian communities. This is in turn leading to the underutilization of crop land when families cannot muster all the resources needed. New community based approaches to grazing and land use are seeking to optimize production and investment levels. 1/

With a public works programme funding people's participation in the further development of on-going economic and social programmes and services, the Communal Areas can become a vibrant component of the national economy and society. There is still a chance that poverty can be banished in quite short order. By 2010AD there is a chance that the modern, largely urban sector, will be a significant net importer of labour from the countryside; a position China hopes to achieve by 1995. When that happens, real rural incomes will tend to improve as man/land ratios start to rise.

In South Africa, on the other hand, there is an astonishing concentration of poverty in the countryside. This is so not only in the "Black" areas but also on white farms. Around the world some 85% of the poor live in the countryside. 1/ In South Africa a staggering 93.7% of poverty is contained in the 'homelands' and on white farms. One says 'contained' for the panoply of racial legislation has prevented the natural movement of people to where employment services and a settled family life is possible - the towns.

Table I: Growth of Urban Population (% of total population)

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>1970</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>46.7</td>
<td>47.8</td>
<td>47.3</td>
</tr>
<tr>
<td>Predicted 2</td>
<td>49.6</td>
<td>55.3</td>
<td>56.7</td>
</tr>
</tbody>
</table>


Table I shows how Government policies since the 1960's have stifled the normal process of movement to urban areas in the process of economic development. Urban growth in the last two decades has been artificially retarded from a near normal position in 1960 to a divergence of 10% in 1980. In the same period the proportion of the black population 'locked up' in the homelands grew from 40% in 1960 to 53% in 1980. The result in large part of the massive relocation of people that took place, it has left a third of the homelands' population in closer settlements and therefore dependent on wage transfers. 2/ The general poverty of such areas means that the local market is tiny and does not represent a source of gainful employment to all but a very few.

A recent survey of three resettlement schemes in the Ciskei reveals a condition abject poverty; in the main of poor, elderly people with no real economic activity looking after children who, for the most part, are grandchildren unable to live with their parents. 3/ One third of homeland families presumably live under similar conditions:


- 91% of the children cared for are not the respondent's own children; 70% of those are grandchildren;

- An average of six children are cared for in a pattern that is highly variable over time;

- 52% of the adults are over 50 years old;

- Only 29% of households have a worker who works in the area;

- 18% of households rely on migrant remittances;

- 49% of households rely on pensions of merely R22 per month paid bi-monthly;

- The mean household income is merely R55 per month;

- Only 6% of families have an income greater than R100 p.m.;

- 7% of households have no identifiable source of income;

- Half have a vegetable garden, but, of these, more than half have no water source throughout the year;

- Only 4% have crop land;

- Only 3% have access to common land and own between 1 - 3 cattle Conversely 97% own no cattle.

- Half have no wood for fuel, and have to purchase paraffin with which to cook;

- The great majority have insufficient food; hunger is a daily companion;

- 80% of children are malnourished at some stage in their lives and roughly 66% were deemed to be malnourished at the time of the survey.
Not surprisingly, recent research has discovered a new phenomenon, a form of enforced apartheid.1 People have become socially isolated, have lost contact with kin through relocation. Dependence on external wage earners has left many communities without the material or organizational base to work together, to become actors exploring and developing local resources and markets. The old cement of mutual insurance, in which cattle played an important role, has broken down. Few can join into any mutual commitment as few have the wherewithal to provide the premium. Instead, short term acts of reciprocity and of charity occur, much as between prisoners denied a larger canvas of exchange beyond cigarette and soap rations.

Large parts of the homelands are rural slums. That means that their conditions is more analagous to urban, not rural poverty. This is important for, unlike the normal countryside with its seasonal unemployment, urban unemployment is open and year round. The need is primarily for full-time jobs which are harder to create than additional part-time work under public works programmes.

Under urban conditions the unemployed tend to be a heterogenous population making it difficult to design a works programme able to incorporate many. In South Africa's rural slums that may not be the case. Rather, the complication is likely to be the majority of children and of the aged, weakened community organization and young people beset with an increasing cynicism about official action.2

1. See, for instance (i) John Sharp and Andrew Spiegel, "Vulnerability to Improverishment in South Africa Rural Areas: Locating the Failure of Kinship" in papers submitted to Annual Conference of South African Anthropologists, University of Port Elizabeth, 1983

Simkins has calculated that the army of the unemployed in South Africa has risen, in full-time job equivalents, from 11.8% in 1970 to 20.8% in 1980 of the labour force. One must presume that, if applied to blacks only, the percentage unemployed would exceed 22%, a figure of catastrophic proportions and intolerable in any open society on welfare and social stability grounds. The number of unemployed persons was 1,925,000 in 1980. If we assume that 80% were blacks, or 1,540,000, that figure can be compared with number of black families below the poverty line, 2,181,000 (see Table III). It suggests that some 30% of poor families would not benefit directly from the full employment of all blacks. In other words, that for many present employment or meagre pension payments provide less than a minimum standard of living. In fact the bulk of the poor families, numbering approximately 1,546,000, live in the homelands where the real level of employment in agriculture is pathetically low, 228,400 in 1980.

One must further presume that the majority of the 645,000 young black entrants to the labour market who failed to find employment between 1970-76 live in the homelands. By 1980 the figure of young unemployed may have risen to near 1,000,000 of which 600,000 may have lived in the homelands.

A hypothetical table is presented below which attempts to capture the character of poverty and of labour available in the homelands and on white farms.

**Table III: Character of Black Poverty and of Manpower: 1980**

<table>
<thead>
<tr>
<th>Unemployed</th>
<th>Total</th>
<th>Urban</th>
<th>White Farms</th>
<th>Homelands</th>
</tr>
</thead>
<tbody>
<tr>
<td>New entrants to labour market</td>
<td>1,000,000</td>
<td>200,000</td>
<td>200,000</td>
<td>600,000</td>
</tr>
<tr>
<td>Older workers</td>
<td>500,000</td>
<td>100,000</td>
<td>100,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,500,000</td>
<td>300,000</td>
<td>300,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Families in Poverty</td>
<td>2,181,000</td>
<td>242,000</td>
<td>393,000</td>
<td>1,546,000</td>
</tr>
</tbody>
</table>


2. Simkins, ibid.
The table suggests that, as unemployment has risen, so the number of active people imprisoned in the homelands has risen rapidly in recent years. One must presume that, despite removals and the effects of influx control, many work seekers are in the urban areas and on white farms because they have legal rights to reside but no job, or are willing to take risks to jump the official employment queue, or simply to gain part-time work.

The position in South Africa would appear to be one of massive open unemployment in the countryside. Life at home for many workseekers can offer little to most except a sense of being an additional burden to the family. If statistical evidence is weak as to the residence, age and sex of the unemployed, that would not be surprising as many young male and some young female unemployed are likely to adopt near itinerant life styles within the homelands and between town and country. What it does say to the analyst is that a large component of training under a public works programme is highly desirable and would bring high rates of return to the programme, the individual and society. Several models exist. A suitable model would be a right extended under the programme to one or more free days of training for those who complete, preferably as a group, four or eight consecutive work days or maintain an agreed schedule under piece work. Peripatetic training teams can use the group organization achieved under public works to reach trainees efficiently. Group mutual assistance, with local teachers assisting, would help ensure that 'homework' was done.

Table III estimates the shortfall of income amongst black South Africans. It shows the rough distribution of families and of the income shortfall in urban areas, on white farms, and in the homelands. The table illustrates the concentration of poverty in the countryside and the large total income shortfall per year. The shortfall in the homelands, R185 million per month, if provided through wages on a public works programme with wages at 60% of total cost, would require a programme expenditure of R3.7 billion in 1980. That equals 6.1% of GDP, or roughly 32% of the Gross Domestic Fixed Investment of Public Authorities and of Public Corporations in that year. The latter can be compared to the Capital Budgets of Maharashtra and of Zimbabwe.
Table III  Black Poverty in South Africa: 1980

<table>
<thead>
<tr>
<th></th>
<th>No. of Blacks</th>
<th>No. of families (5.5 persons per family)</th>
</tr>
</thead>
<tbody>
<tr>
<td>urban</td>
<td>5,320,418</td>
<td>967,349</td>
</tr>
<tr>
<td>white farms</td>
<td>4,323,545</td>
<td>786,099</td>
</tr>
<tr>
<td>homelands</td>
<td>11,338,308</td>
<td>2,061,511</td>
</tr>
<tr>
<td></td>
<td>20,982,271</td>
<td>3,814,959</td>
</tr>
</tbody>
</table>

b. Taking Poverty Datum Line at R 200 p.m. per family:

<table>
<thead>
<tr>
<th></th>
<th>Average Income Shortfall per month</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>urban: 25% or 242,000 families,</td>
<td>R50 p.m. = R12.0m</td>
<td>6.5</td>
</tr>
<tr>
<td>farm: 50% or 593,000 families,</td>
<td>R80 p.m. = R31.4m</td>
<td>13.6</td>
</tr>
<tr>
<td>homelands: 75% or 1,546,000 families,</td>
<td>R120 p.m. = R185.5m</td>
<td>80.1</td>
</tr>
</tbody>
</table>

or R2,749 billion per year.


Once a country reaches such levels of poverty, the problem cannot be handled by a conventional public works programme alone. Many poor, as appears to be the case, are employed or receive pensions and yet live below the poverty line. The Indian Planning Commission excludes the poorest 10% from the benefit of public works as their poverty requires social remedies. While instructive, we must ask two questions. Given the backlog of unemployment amongst active people, how do social remedies weigh against other forms of expenditure? The indigent, the widowed and other "social" cases live within communities, however presently weakened. Can they not be incorporated into a renewed network of relationships offering economic security within family kinship and community systems if those networks in turn find the means to realise a modicum of gainful employment in ways which also develop their material, human and institutional basis? A part of that question would ask if the number of dependants in the country side is not artificially high because of restrictions on movement to town, what benefits an easing of those restrictions would bring, and what local arrangements would help - for instance the provision of meals at school, school-holidays that coincided with peak work periods in the fields, and the effect of developed infrastructure and services on opportunities for part and full-time activities.

18/...
The role of training has been highlighted earlier. Designing a public works programme that promises to handle much of the unemployment and poverty requires a willingness to rethink many other areas of policy and programme. The same holds for all countries if large sums of money are not to be wasted. Finding sufficient useful resources to develop capable, under public works, of handling the potential labour mobilization in the homelands would quite quickly demand consideration of resources now deemed white.

A picture is emerging of social breakdown in the homelands. Desperate people, beyond a viable system of social incorporation and support, resort to petty and serious crime against neighbours. At least 70% of black families are now members of or exposed to membership in a pool of structurally unemployed people in the homelands to which no effective economic policy is addressed. The magnitude of the human and economic crisis in South Africa recalls the words of Lord Byron addressing the House of Lords on the Luddities,

"Are we aware of our obligation to a mob? It is the mob that labour in your fields and serve in your houses - that man your navy and recruit your army - that have enabled you to defy the world, and can also defy you when neglect and calamity have driven them to despair. You may call the people a mob; but do not forget that a mob often speaks the sentiments of the people." 1

The Design of a Public Works Programme

The World Bank has concluded that public works programmes have yielded good rates of return. If shadow wage rates are applied that reflect the value of mobilizing labour, as should be done in Zimbabwe and in South Africa, economic efficiency improves further. The Bank adds that labour intensive programmes can be as efficient as other forms of construction of the same types of assets. The same report stresses the vital point that returns rise when public works complement other dynamic forces. The concomitant of the latter is that well designed and run public works programmes have benefits that cannot be captured by cost benefit analysis. Soil and water conservation works may have quantifiable benefit streams in the form of enhanced crop production and the extended life of dams before siltation occurs. Not easily identified and beyond quantification are the savings of top soil before irreversible soil depletion occurs or the slow build up in a region of resistance to the effects of drought.

As important as the physical results are the elements of programme design that build people and communities. It is possible to translate constitutional and other society provisions around the right to work and the dignity of labour into a programme in which the decision for more work and income than is ordinarily available in the countryside rests largely upon individuals and groups operating within programme rules. Appendix I contains brief model rules for a public works programme drawn in large part from Maharashtra's Employment Guarantee Scheme. In effect the rules set out a form of "social contract" between citizen and state which promotes individual and group economic security, the basis of dynamic local development processes.

1. IBRD, op cit, p 37
The World Employment Programme (W.E.P.) of the International Labour Organization has adopted "special labour-intensive works programmes" as of particular value in many third world countries. It has helped to design, manage and elicit international financial support for such programmes in several countries in the last decade. The W.E.P. guidelines place considerable weight on the prior collection of information upon which to design a works programme. The aim is to "target" the programme, to select eligible workers. While a fascinating and problematic conceptional and survey field, the demand for prior information contains within it serious weaknesses. Firstly, it presumes too much for the efficacy of survey data and analysis. Secondly, and more serious, it leads to a position in which the main point of a well designed works programme is missed; that social and economic conditions in the countryside will only alter for the better when rural people gain a sense of control over work offered. The key variable is not the quantity of labour demanded (ex-ante through survey data) or budgeted for in the programme. It is the evolution of a "social contract" which varies. In other words the elements of such a contract; the terms of the agreement reached with groups and communities as to the loan/subsidy ratio, provisions for the management and the maintenance of the assets, the effect of investment on asset distribution, the ratio of savings to be committed, and the terms of training to be provided.

The W.E.P. approach presumes to choose between people, to deny them a means to predict their total family income and savings over a year as weather patterns change, and for communities to find that they are thereby invited to look closely at their physical and institutional environment and to presume to join with Government in becoming actors upon it.

Unfortunately, the lessons of the Employment Guarantee Scheme in Maharashtra appear to have been ignored although the W.E.P. regard it highly. Proposals to run a partial programme under ex-ante analysis are bound to lead to disappointment as many important secondary benefits fall away.

The Employment Guarantee Scheme produces regular and useful information from the field. It documents those who seek work and for how long. It matches demand for work with the resource characteristics of local areas. And it provides the basis for more careful analysis of family, farm and community functioning.

One early result in Maharashtra was the preparation of a special programme to move people from a rain shadow area with a poor resource base to a nearby degraded coastal belt with high rainfall which could provide them not only with seasonal work but with permanent jobs as the new forests and plantations they helped to create developed. Training and other details followed the initial decision to relocate people in order to keep the works programme efficient. The population involved played a major role in decision making. Similar approaches can be foreseen in both Zimbabwe and South Africa. Resettlement in the former would gain from an outgrowth of local community building and participation. In the latter, while raising the land issue, it would enable that issue to be looked at more dispassionately, in human and development terms rather than racial and provide a scale against which to measure agricultural technology.

International experience suggests that expenditure on public works leads to a multiplier effect of between 5 and 8 times. One quarter or so of the final demand created would be for basic food items and up to 60% for all food items. Some two-thirds of the derived demand would occur in the first year. If food aid finances much of the expenditure and meets all the additional food demand, as has often been the case and could be the pattern in Zimbabwe this year, then the multiplier can be dampened markedly, from 1.2 to 1.9. In Zimbabwe high levels of sales tax on non-essentials and a large Government deficit to fund recurrent consumption would act as further dampeners on the multiplier.

In normal years, when Zimbabwe and South Africa are not exporters of foodgrain, the multiplier would be up around 5 or 6. That poses the question of inflation, a question dealt with in the literature. If inflation pressures are not serious, then a large on-going self-financed public works programme becomes possible and desirable.

Inflation arises to the degree that the demand for food, other commodities and services cannot be met.

1. N. Reynolds and P. Sundar, op cit, pp 23-25
2. S. Maxwell, op cit, pp 6-9
3. Ibid p 11
In both countries, enjoying developed agricultural and industrial sectors, the multiplier should act to stimulate the economy by taking up the present under-utilized capacity. The use of credit or betterment levies on economic investments, the judicious use of taxes on luxury goods and as a means of part funding the programme, as in Maharashtra, and the introduction of a compulsory saving element to wage payments of perhaps 10% in three year bonds or into blocked accounts with local savings societies would be prudent, and have beneficial effects within the programme and upon the economy.

A related and a thorny African issue is how to avoid wage income from public works being channelled into the purchase of cattle, exacerbating the tendency to overgrazing under traditional management systems. In Zimbabwe the National Land Use Programme, clothing the concern that communities in the Communal Areas become asset managing rather than largely asset using, is addressed to defining individual rights within a communally managed system. Upward pressure on livestock prices, already ruling after the severe depletion of numbers in the drought years, should help gain voluntary community agreement to reworked grazing rights and rules and to group quest for economic efficiency. Sustained technical and institutional servicing will be vital, as is intended under the Land Use Programme. The same programme, and others listed earlier, should ensure that not only income is redistributed in the short run, but that assets and benefit streams are held and distributed within renewed egalitarian community systems. Kept close to its aims, a public works programme should not cause much 'leakage' to other economies, thereby having little direct and a manageable indirect impact on the foreign exchange account.

As an investment programme, particularly if on-going and therefore amenable to constant review and upgrading of investment choice, rules and procedures, public works would lead to increases in supply, notably of agricultural commodities and even help to lower prices. Moreover, by placing wages into people's pockets where they live, it can boost local market activity, giving-rise to many part-time production and trade activities (in contrast to Southern Africa's presently sterile local markets). That is a usually inescapable step on the way to regional specialization, regional exports and full-time job creation. An easing of present monopoly marketing and transport licence systems is highly desirable.
The literature supports an expectation that, on average, for every 4 to 5 days worked under public works, 1 day of full-time employment will follow. On irrigation and drainage reconstruction in Bangladesh, 1 day invested led to 2.2 days of annual employment. 1/ There is clearly room to improve the international average on employment creation by a willingness to develop the programme capacity to identify and develop economic rather than social resources within efficient operating rules for users and communities. If that is pursued for a number of years, as now appears possible in Zimbabwe, then a public works programme could have a sustained impact on employment and poverty. A commitment to a fully evolved public works programme is the prime requirement. That issue remains an open question in South Africa.

Few of the by now conventional public works programmes had an impact on community functioning. However in several countries it has been instrumental. For instance, in the early days of the East Pakistan programme people did become involved and,

"The Thana level organization which has evolved through the works programme has provided the East Pakistan Government with a means of influencing and involving its rural inhabitants in the process of development." 2/

Similar statements exist related to Colombia, China and Maharashtra. Others, related to a centrally budgeted and determined programme which extend no 'right of work' resulted in such negative effects as, in Morocco,

"The prime example of an undertaking which stifles the spirit of democracy in rational planning." 2/

Policy on wage levels has varied considerably as have programme aims and size. The evidence appears to support a single recommendation, that works be executed under piece rate conditions which utilize community and group managerial skills and that normative wage rates be real but below governing or legal minimum wages for full-time employment (see Annex I).

1. see IBRD, op cit, pp 27-31
2. Thomas, 1971 quoted by Maxwell, op cit, p 36
3. Oualalou (1969), quoted Maxwell, ibid, p 37
Daily wages pose enormous supervision problems over hundreds of local works. If the daily wage set is deemed to be mean it can lead to low output and even corruption between workers and supervisors. Too low wages represent a regressive tax on the poor. Table III above suggests that to meet the minimum cash needs of poor families in the homelands of South Africa would require a daily wage of R6 for 20 working days per month for 12 months.

There must be a programme expectation that work seekers can aim at a considerable additional family income per annum. Levels of saving above subsistence needs are often high. Consequently savings can match programme, market, transport and other infrastructure and service improvements and, by oiling official expenditure, raise the returns to it. Savings are, moreover, the means to build family and community strength.

While self-help is admirable, there is ample evidence to suggest danger; that is that those who work for little or no pay have been subject to unwanted pressure from the more powerful who will usually reap the benefits generated. Credits, user taxes and reconstituted community systems help to redistribute benefits and achieve equity. The payment of a discounted wage for work done is capable of eliciting individual and group self-help by accepting responsibility for loan-repayments, internal re-ordering of grazing rights, and the like. Self-help appears to be a wasting asset unless defined within a broader public works context.

Many public works programmes, because they pay a daily wage, exclude the elderly, the weak and the young. This places them in an inactive dependent state and is as unfortunate as it is unnecessary. Under piece rate management, groups can undertake units of construction and be paid accordingly. In the theory of diminishing marginal returns, at point X when 10 men dig a hole, the marginal return equals the wage rate and no more are hired. Under group management by piece rates that constraint can be broken by the group rewarding other non-active people to fetch water, cook and supervise babies. In that way the group is strengthened, everyone is incorporated and given a valued role and the expense is born by greater productivity and income. In the same way simple tools, spades and wheelbarrows, can pay for themselves in a short period, making it possible to fully equip the countryside. The programme or local stores should extend credit for the same.
In countries in which public works programmes are supported by food aid, food-for-work schemes have developed. Payments in food alone are not liked as all work seekers have food and cash needs. How, for instance, is a worker to carry home many kgs of food and dispose of some of it for cash if his neighbours are in the same boat?

Payment by food raises administrative costs considerably, from 25% - 50%. It also places an additional strain on official transport, storage and distribution whilst ignoring and undermining existing channels. Lewis captures the issue perfectly; it "clutters up the attempt to monetize and rationalize markets." 1/

Public works should be seen as a flexible, responsive financing mechanism capable of enhancing local decision making and of reinforcing national programmes of rural renewal, soil conservation and improved production and market systems. By mobilizing communities it turns them into actors, expressing and organizing themselves, bringing local knowledge into play. Central government partakes as a partner, holding the rules and improving them through negotiation backed by monitoring and evaluation exercises. Local management flows within broad principles. When these do not fit the need, quick consultation with and decision making by the centre is needed. No special agency is required. Rather an officer, perhaps termed Commissioner, with suitable powers to keep the responsive nature of management alive and to oversee agreements reached with beneficiaries is needed situated in the heart of Central Government.

The national political leadership must espouse the importance of the programme and the rights it extends. That same leadership must also realise that programme operation is essentially created by a series of locally drawn social and financial contracts. They should not interfere in programme operations, only partake in the review process.

As a diverse locally implemented programme information flows are as important horizontally between communities seeking shared experience, as between field and centre.

Government will investigate the legal, institutional, social and economic aspects of the traditional communal system with a view to its modification to achieve the following:

(i) membership of a local community expressed principally in terms of management of common assets; the individual right to a share in the communal assets, separated from individual, group or communal exploitation of them;

(ii) establishment of equal membership rights for men and women;

(iii) a control system, overseen by Government but managed by the members, to prevent over-exploitation and misuse of natural assets; and

(iv) realization of an agrarian system able to optimize land use patterns and maximize group and individual investment and effort.

1. **AIM:** to provide additional employment opportunities in the countryside to those seeking temporary work in order to augment family income. The programme is to respond to demand for work within programme rules.

2. **THE STRUCTURAL ROLE OF PUBLIC WORKS:**

i. underwrite rural incomes;

ii. raise average incomes by affecting particularly families with little or no access to productive resources;

iii. raise rural savings and investment, thereby easing the processes of change in the countryside and raising returns to other public investment;

iv. remove the basic source of malnourishment—low and variable incomes;

v. create conditions conducive to holding active family members in the countryside, reducing pressure on the cities;

vi. realise an organic "minimum wage" in the countryside that eases the management of the legal minimum wage for the formal wage sector if not actually removing its raison d'être;

vii. strengthen community and local government functioning within strong technical control and accountability systems held by the central Government and Parliament;
viii. reinforce traditional social security systems;
ix. ease the likely introduction of a national fee system for schools and clinics; infact recycling such monies through capital investment of a labour intensive nature;
x. effect a development strategy that has a low use of foreign exchange and which generates demand for goods and services that have little direct foreign exchange. Food, clothes, farm investments, school and health costs.

3. METHOD

i. Local public works funded at the District level by means of a District Fund created and subsequently replenished by Government;
ii. Public Works managed by the District Administrator on behalf of the State which sets and reviews overall rules;
iii. District Administrator assisted by an Advisory Committee composed of District Council and nominated members;
iv. Work Seekers register for work at local office.

4. BUDGET:

Parliament to vote monies annually into a National Public Works Fund. That Fund to be managed and replenished so as to be able to extend a 'Social Contract' to citizens seeking work within Programme Rules. Each District to open a Public Works Account which is replenished automatically from the National Fund.

5. WAGES

All work would be laid out, supervised and rewarded on a "piece rate" basis. This favours group action and responsibility and eases supervision. It also reinforces traditional forms of social security thereby reducing pressure on official welfare. Normative tables can be constructed giving a value to work completed. The value can be related to a "normative" daily wage: that wage should be :-

- in periods of economic activity in the area, 25% below ruling wages;
- in periods of no economic activity, a wage set by Parliament.

It should be less than the legal minimum wage since the Programme offers additional, not permanent employment;
- withhold 20% of wage due until work is completed to avoid waste, and to reinforce the citizens' end of a mutual social contract between state and citizen.
6. **IMPLEMENTATION**

The District Administrator manages the scheme on behalf of the State. He is advised by the District Council or by an Advisory Committee appointed by Government within guidelines set by Government.

The District Administration prepare a "shelf of local projects" with community help but subject to technical and financial sanction of the Administration.

The Government creates a National Fund from which District Funds are automatically replenished.

All field Ministries complete for local activity under the Public Works Programme. Being locally held, the District Fund can finance integrated works across technical hierarchical administrative demarcations.

7. **FINANCE**

Public Works produce benefit streams, where these can be identified, are strong and the beneficiaries know, a credit component should be included.

8. **MODEL RULES**

Individuals register for work at a local office which reports to the District Administrator. Work is obtained if:

- there is an existing worksite capable of accommodating extra labour efficiently.
- if 40 people have registered for work within the locality (probably a sub-ward), a work site will be opened within one month.
- if 40 people are registered and no new worksite is opened within a month, those registered receive a dole for a month or until a worksite is opened. Thereafter they can register again for work.
- work seekers agree to complete a work or section of a work.

Work sites are to be found, if worthwhile, within walking distance of work seekers residence. If not, the State provides transport or a camp site with basic facilities (shelter, potable water, latrine).
Training

A right to receive training under the programme should be extended to all workers upon completion of specified periods of continuous work or of laid down construction targets. For most workers training on one day a week at or near the work site by peripatetic training teams would be the most convenient. For others, the accumulation of training days to be spent in formal training centres might be preferred, depending on the subjects taught and local conditions.

Training recognises the self identification of the poor and their willingness to help themselves through work on public works. Training acknowledges the skill needs of an increasingly efficient decentralized public works programme. Training confronts the nature of unemployment, that many lack marketable knowledge and skills. It also recognises the fact that for many self employment rather than formal sector employment is the reality and hence the more productive use of available resources is the key to a better life.
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