PUBLIC WORKS PROGRAMMES IN SOUTH AFRICA: EXPERIENCE AND THE PROBLEM OF THEIR LIMITED USE

Mduduzi Biyase*, Norman Bromberger**

Abstract

South Africa is experiencing high (and possibly rising) levels of unemployment and poverty despite government efforts to reduce them. Public works programme (PWPs) is one of the strategies used by the government to tackle unemployment and poverty. The aim of this paper is to provide a survey of alternative specifications, or design options, which may be adopted --with some illustrations from cross country experience and some evidence about the comparative desirability of some of the options. And to shed some light on the South African experience in recent years with PWPs. The interesting question here will be what prospects there are for a successful expansion of the scale on which they are run and why these prospects are not better than they appear to be.

Key Words: Public Works, Unemployment Rates, Government Policy

** University of Johannesburg*
*** University of Kwazulu Natal*

Introduction

Despite allegations that employment has been rising, there is undeniable evidence that South African unemployment and poverty are very high by international standards. The unemployment rate using a broad definition is sitting at 40% while poverty is somewhere between 40% to 46%. Different strategies (i.e. GEAR and New Growth Path) have been used in tackling these problem. More recently, the South African government has placed a lot of emphasis on a Public Works Programme. For example, in 2004 the government introduced the Extended Public Works Programme. The focus of this paper will be on PWPs. It is consoling that South African government is doing something about poverty and unemployment, but is it doing enough? Put it another way, is the scale and impact of PWPs at comparable levels with those of successful schemes elsewhere. If not, why? Can the success of these other schemes be attributed to the economic structure and political framework within which they are organized? What are the prospects for the use of PWP in South Africa? This paper will attempt to pursue the above questions and other related issues.

Public works programmes (PWPs) are worth investigating because there is evidence that they have had some success. Lipton (1998:73) writes: "Third World experience with public works to reduce poverty via employment income is quite hopeful", but he follows this with the warning: "However, care is needed" In the discussion that follows an attempt will be made to explain the two sides to Lipton's judgment. Initially (in section 1) public works programmes will be described in general terms. In the following Section 2, some terms will be defined which are necessary for stating (and measuring) the effectiveness of public works programme. There will then (in Section 3) be a survey of alternative specifications, or design options, which may be adopted --with some illustrations from cross country experience and some evidence about the comparative desirability of some of the options. In Section 4 the discussion will shift to South African experience in recent years with PWPs. The interesting question here will be what prospects there are for a successful expansion of the scale on which they are run and why these prospects are not better than they appear to be.

1. Public Works Programmes: Their character and objectives

What are PWPs? They have employment creation as their immediate target. Public funds are used to pay volunteer workers (from the unemployment pool, or perhaps from those not at present in the labour force) a relatively low wage to work on (usually) infrastructure -- creation projects in areas where unemployment or low labour force participation, or both are concentrated. This description is repeated with one additional feature in McCord's statement (2002): "The primary purpose of PWP is poverty alleviation through labour absorption, and this is frequently achieved through the creation of public assets using labour intensive methods". Examples of the type of "works", or projects, frequently

undertaken may be inferred from the statement that the Employment Guarantee Scheme (EGS) in Maharashtra State in India is multi-sectoral with "the main sectors…irrigation, agriculture and soil conservation, forestry and rural roads". (Joshi and Moore, 2000:35).

2. The effectiveness of a PWP: Some conceptual issues

Given its objectives, we say that the effectiveness of a PWP depends on the benefits (direct and indirect) it confers on the poor, on the costs of participation it requires, or imposes, and on the way it is financed. We take notice of the direct/indirect benefit distinction but do not make much of it because little seems to have been done to measure the indirect benefits. They consist of multiplier effects and capital effects (Lipton, 1998:75-6). The former are the employment and labour income due to spending out of the incomes created by the PWP. The latter are net extra incomes earned from employment in using and maintaining new assets or skills created by the programme. Below we shall note that the direct or indirect distinction also applies to costs.

We now concentrate on direct benefits and introduce a distinction between two types –transfer benefits and stabilization benefits. Both types derive from the receipt of wage income from work. Transfer benefits refer to the increase in income which is earned from the employment created by the scheme. Stabilization benefits are received if the timing of the work and income provided is such as to offset (to some extent at least) the anticipated and or unanticipated declines in local non-scheme economic activity, or increases in spending needs. Such income offsets stabilize incomes over time and make possible consumption - smoothing--without the need for such emergency adjustments as "distress selling of productive assets in bad agricultural years" (Subbarao, 1997:3). The transfer benefits perform a distribution function, and the stabilization (or risk) benefits have an insurance function. In some environments, presumably where the poor face particularly severe risks, "the risk benefits … can be as important as the transfer benefits to the poor" (Subbarao, 1997:3). By emphasizing the insurance function of PWPs we are reminded that in developed economies, the use of PWPs in the twentieth century was closely associated with counter-cyclical policy aimed at stabilizing employment (and incomes) over the business cycle.

We now turn to examine the possible costs that individual poor and (in some sense) unemployed persons incur in pursuit of the benefits the PWP provides. We may distinguish between (1) participation costs, such as the cost of transport to the project site, extra food-intake, possibly payments (bribes) to obtain access and (2) foregone earnings in cases where some participating in the project would (in the absence of the project) undertake less desirable or lower-paid work, or work on own account on small farms or craft enterprises etc. Using the distinction introduced above we might say that participation costs are direct and foregone earnings indirect. The latter in some contexts may be substantial: 20-30% of direct benefits (Lipton, (1998:76), in discussion of the Employment Guarantee Schemes (EGS).)

An obvious question that arises at this stage is whether anything useful and general can be said about the determinants of these benefit and cost variables. Particularly on the benefit side there are some factors that can be identified, and it seems worth listing them here so that we can be on the lookout for them later when considering cross-country evidence and South African experiences and prospects. For the individual participant the transfer benefits will approximate to (1) the programme wage multiplied by (2) the duration of work performed. Net transfer benefits will of course be less than these since we would expect participation costs and foregone earnings to be non-zero. (It has been argued that in some contexts where the impact of the programme on the local labour market will be to raise the market wage, the net transfer benefits may be higher then the programme wage. We ignore this possibility here).

For the programme (or more narrowly, the project) as a whole the transfer benefits will be obtained by aggregating the benefits of individual participants. The results will depend on (3) the scale on which the programme is operated, measured by the number of persons, or person-hours, employed per reference period. Alternatively, if we measure scale by total monetary expenditure on the programme, for a given wage the transfer benefits will vary directly with expenditure and (4) the share of wages in total expenditure – which in turn is related to technical and organizational features which determine the shares of material input costs and management costs.

Individual and aggregate stabilization benefits will be related to (5) the timing of the programme and (6) whether, and to what extent, employment on the programme is rationed, or whether it is readily available either because of excess supply or legal guarantee. There are some further factors influencing benefits and costs which Subbarao (1997:3) refers to as (7) "design features". He appears to be referring to "the institutional framework and the type of implementing agencies (e.g. line-ministries of the government, private contractors, non-governmental agencies or a combination of the above"). His point is that for a given expenditure, share of wages, wage-rate, duration, timing and availability/rationing there will be a maximum potential net benefit (of both types) which might accrue to the poor / unemployed. However, the design / institutional framework details may have an effect on the benefits the programme in fact transfers. On the one hand, benefits may be

reduced in the presence of leakages (payments to officials, contractors or politicians; or avoidable participation / transactions costs). On the other hand, design features may be such as to benefit particularly vulnerable groups: "payment of wages in-kind or piece-wage payment may attract more women than men to worksites" (Subbarao, 1997:4).

The previous paragraph referred to benefits accruing from the programme to "the poor/unemployed." What guarantees that the beneficiaries of a PWP are in fact from this category (or categories)? Clearly if the PWP is (to some extent) transferring workers from existing jobs to more attractive jobs (wage, conditions, location etc.), and failing to meet the needs of the chronically poor (aged, disabled, sick, malnourished) its effectiveness will be less than it appears to be. This brief discussion introduces a further determinant of net benefits viz (8) targeting: the extent to which the actual beneficiaries are the intended beneficiaries.

At the beginning of this section (2) we listed benefits, costs and financing as determinants of the effectiveness of a PWP. So far we have considered benefits and costs. We now turn to financing. The discussion will be brief – for lack of discussion in the literature or of available quantitative evidence.

Of the aggregate net benefits accruing to the participants of PWP it is always in principle necessary to ask the question: What alternative uses were there for the resources used to finance the programme? If employment creation is entirely aid-financed, it is possible to regard the benefits as straight-forward and not subject to opportunity–cost deductions at the indirect economy-wide level. If however the PWP is financed from domestically generated tax revenues then the question of alternative uses does arise. Subbarao (1997:3) pursues this issue by asking two questions: a) Would the participants have received greater benefits from some alternative expenditure of budgetary resources? b) Has the PWP expanded at the expense of other activities which produce "non-labour income for the poor" (e.g. educational or hospital services)?

It is not entirely clear what the difference is between these two questions. Assuming that (b) is relatively self-explanatory, we focus on (a). Some comments of Dasgupta (1993:535) may shed light on the meaning of Subbarao's question. "Public works", says Dasgupta", can be (and often have been) a potent route to the prevention of hunger and destitution, but they retard growth in net national product if the investments are unproductive. And all too often they have not been productive: the projects have been ill-conceived and badly managed, yielding little….This is a constant problem in poor countries". From the point of view of the aggregate economy, slower growth of NNP is a clear loss or cost. From the point of view of the poor / unemployed (and those who would wish to prioritize their needs) slower growth of NNP may amount to little less, depending on the poor's marginal share in NNP growth and the labour-absorptive character of growth.

However, this theoretical discussion does not help very much at this stage. After raising these questions, Subbarao complains: "Rarely does one find empirical evidence on either issue" (1997:3). And so we leave them at this point.

3. Programme and design features: available options, cross-country experience, and the conditions for PWP success

As indicated in the previous section, planners and managers of PWPs need to make choices between alternatives. Do they set the programme wage-rate below, equal to or above the market wage for similar work? Do they attempt to target their job-offers at the poor? If they do, how should the targeting take place i.e. how should the selection of workers be made so as to ensure a large proportion is drawn from the poor? Can PWPs be organized so as to involve a substantial share of the labour force? What of duration? What of training during the year, or between years and so on? This is not a complete list, but it illustrates the sorts of features to be discussed below.

Two further introductory points (to this section 3) need to be made. (1) The survey of alternative ways of designing and managing PWPs that will be undertaken here is not intended to be seriously comprehensive. For instance, Lipton (1998) presents a 30-page discussion of 13 rules for "success in reducing poverty … through employment": To follow him through all of this detail would make this paper far too long and disturb its balance.

(2) Much written on public works relates to economic environments rather different from that to be encountered in South Africa. The largest PWPs are to be found in India and Bangladesh where levels of "open unemployment" are lower than our 30% to 40%. Also they possess rural sectors which may accurately be described as based on peasant agriculture. The absence of such a small-scale agriculture which has market linkages but is imperfectly integrated into the market economy is in fact thought to be a major contributing factor to the high levels of "open unemployment" recorded in South Africa. It is possible then that a certain amount of the analysis and discussion of optimal anti-poverty PWP design in the literature may not apply fully in the South African case. And to decide for certain whether it is, or is not, relevant is particularly difficult at this early stage of experimentation with PWPs in present day South Africa. We shall come back to aspects of this matter in section 4.

3.1 Scale

Is there evidence which suggests that PWPs can be, and have been operated on a scale sufficient to involve a substantial proportion of the labour force and so reduce aggregate unemployment and poverty significantly? Evidence is clearer in answer to the first question than the second. We present it schematically for South America and Africa (1980s and 1990s); and employ a separate table for Asia (mainly India).

Table 1. Public works programme in South America and Africa

Country	Date	Employment (person; worker-days)	%Labour Force	Effects
Bolivia	Mid-1987	30 000 workers	3%	Average earnings raised by 45%
Chile	1976		6%	
	1983		13%	
Honduras	1990-1993		5%	20% cut in open unemployment
Costa Rica	1991-1994	8,9m. person-days		
Cape Verde	1983		30%	Checks mortality in face of prolonged drought
Botswana	1985-1986	74000 workers (3m. person – days)	20%-25%	Also relief in drought context
Ghana	1988-1991		0,5%	
Kenya	1992-1993	1m.person-days annually	0,5%-0,6%	

Source: compiled from Subbarao 1997 and Lipton 1998

Table2. Public works programmes in Asia

Country	Date	Employment (person; worker-days)	%Labour Force	Other scale indicators	Effects
Philippines	1990		0,3%		
Maharashtra State (India) employment Guarantee Scheme(EGS)	1975-76 to present	1975/76 to1997/98: average annual workdays - 132m. Peak:190m.(1986)		1986 peak: 15% State budget; 10-About 20% 132m. State govt capital spending budget	Reduces rural unemployment by 10-35%. In survey villages about 50% participants' wage employment from EGS (20—35% of total income)
India National Employment Programme (NREP)	1980-1989	320/370m. person-days per year			
JRY (includes expanded NREP etc)	1989/90 to 1992/93	830m. Person – days per year			
"Intensified JRY"	1993-1994	>1b.persondays			
All major employment schemes in India (including EGS)	Mid 1990s(still expanding)	2.2m. "fulltime equivalent working years"	Well below the 2% rural workforce		(Not all additional employment)

Source: compiled from Subbarao 1997 and Lipton 1998

Unfortunately the data presented above in tables 1 and 2 is not uniform and information is not complete in several cases. The effects of PWPs on poverty- and unemployment reduction are by and large not available. But at least it is clear that work-creation has been achieved in various countries on a large scale-- although even there problems arise in assessment. India in the mid-to-late-1990s was annually creating about 2.2 million working years but this was equivalent to less than 2% of their rural workforce; On the other hand in Cape Verde and Botswana in the 1980s the effects of drought were combated by creating public works employment for 20% to 30% of their labour forces –but in absolute numbers the jobs created were few (74 000 in Botswana and these do not seem to have been full-time equivalents; measuring in FTES reduces employment created to less than 3.3% of the labour force, so that the proportionate scale contrast with India disappears).

It would be interesting to know more about why the scale of PWP activity has varied across countries to the extent it has. {Subbarao (1997: 5) does not take things very far when he says, "Depending upon historical circumstances and source of financing, scale of operation varied across countries"}. Presumably there is a "demand" side to this (or supply of poor and underemployed would be workers), a "supply" side related to political will and available financing and possibly technical factors such as the backlog of infrastructure, population density and so on. It would be particularly interesting to know more about the Botswana case – given its proximity to South Africa.

What can be concluded from tables 1 and 2 is that at least in some cases it has been possible to reduce unemployment and poverty significantly (see final column in the tables); and that at least in Maharashtra State in India substantial fiscal resources have been employed in the E.G.S. (15% of the state budget at the peak). On the basis of much the same evidence as we have set out here Lipton (1998:77) concludes (1) that India's public works schemes since the early 1980s " represent a significant success in poverty reduction" ; and (2) that "on scale, several works schemes, in a wide range of developing countries, have created very many workdays since about 1980. There has been great improvement on the dismal earlier record (World Bank 1976). This is mainly because schemes are much better pre-planned, reducing real cost (especially non-wage cost) per job and per unit of real assets created."

3.2 Wage and Targeting

If state (or other) agencies concerned with the incidence of poverty and employment in the population , use public funds to design programmes of relief which offer attractive employment on public works (with good wages and conditions) what will ensure that the relief reaches those whose poverty is severe and those without employment? If the employment is attractive enough what is to prevent some of those with social and economic status and capacity from acquiring a significant share of the employment and income on offer? These questions raise the issue of targeting.

An apparently simple answer to these questions is to say: "you determine who are the poor are, and how poor they are, and you establish who are unemployed." Allocation of jobs is then made to those applicants who are in these categories. If there is a need for rationing, perhaps depth or severity of household poverty can serve as the ultimate criterion. Such procedures would constitute what is known as direct targeting.

There are however major difficulties to be encountered if one proceeds in their way .First, the informational requirements are huge and there are incentives for people to provide inaccurate information. Secondly, using proxies to reduce the informational requirements (such as landlessness as a proxy for poverty) involves the risk of considerable imprecision -- more so, of course, in some rural contexts than in others. Thirdly, such direct targeting often in practice puts power into the hands of managers, officials and politicians and this makes leakages (bribes or taxes of one or another sort) more likely.

It is in this context that the argument for indirect targeting becomes more compelling. The trick is to set wages (and possibly working conditions) at a level such that the poor will self select -- and more well-favored inhabitants of the project areas will drop out of the pool of applicants. A straight forward version of this approach would be to set the programme (project) wage below or at about the level of the market wage for similar, usually unskilled work. If there is a minimum- wage applicable to the sort of work undertaken in the programme, the wage setting issue becomes more complicated. As Subbarao says (1997: 5) "political and legal constraints may make it difficult to maintain the programme level at levels less than the minimum wage" -- assuming that for there to be some point to a minimum wage it must be set above the market wage ; though of course over time , if it left unadjusted , it may fall below the market level.

There is a further serious limitation to self-selection by the poor when the wage is set at (or below) the prevailing market wage for unskilled work. For certain groups among the poor whom it may be wished especially to target – women in general the ill and the weak, and those with major child-care obligations – manipulation of the wage alone will not ensure participation. Programme design may help – such as availability of transport, crèches, payment by task (piece-rates) and other devices to make work hours flexible.

In addition to this limitation to what the wage can do to ensure desired indirect targeting, Lipton insists that wage effects are complex (1998:83-6). For one thing, transfer benefits are lower with a lower wage -- an obvious point not yet stressed. Secondly it is obviously not sensible to lower the wage without limit. At a very low wage only the weakest and least competent may be attracted. Thirdly if programme resources allow it, setting the wage slightly above contemporary market levels may pull up private wage rates -- a good secondary outcome for the very poor.

A final point to be made about the appropriate level at which the programme wage is to be set, concerns conditions under which self-selection by the poor (thus removing the need for rationing) does not take place. The relevant conditions exist when unemployment and poverty levels are severe and the scale of PWPs is small. McCord quotes Devereaux to this effect in Zambia: "self-targeting in Zambia s cash for work programe was undermined by the massive scale of rural poverty (estimated at 86%)."As we shall see in the next section (4) this seems to apply also in the South African case. This is not an argument for not setting the wage at or below the prevailing wage rate, but a recognition of the need under conditions of mass unemployment for additional interventions (involving presumably some type of more direct targeting).

3.3 Duration and timing of employment

If PWPs are composed mainly of short-term projects each lasting for only a few months their main effect may be "only to churn the unemployed , replacing one cohort of the unemployed with another in short term employment projects removing them temporarily from the pool of unemployed labour, rather than addressing either the underlying problem of unemployment or having a significant or sustained impact on the livelihoods of participants…. In this context prolonged public works schemes are needed that will offer sustained employment". This statement by McCord (2003:28-29 draws attention forcefully to the importance of the duration of PWPs.

Exactly how to formulate the point she is making is not as easy as it might seem, however. Suppose that a substantial part of unemployment in a particular region of some economy is seasonal. Surely 3-6 months projects in such a context, provided their timing within the year is synchronized with the agricultural slack season, will confer valuable stabilization benefits. What does prolonged or sustained mean in this context? Presumably that these relatively short term projects are available for an uninterrupted sequence of years. Presumably availability must have some spatial dimension as well, but we are unable to probe these details any further now.

3.4 Other programme and design features

In section 2 some further design features (including the share of wage costs in total on expenditure) were referred to as determining the effectiveness of PWPS as means of the transfer of benefits to the poor and unemployed. It would be possible to continue this section 3, accumulating information on these further features as they have appeared, or failed to appear, in cross-country experience. But this survey of experience has already become somewhat over-extended, and it is necessary to turn at this point to a consideration of the use of, and prospects for, PWPs in South Africa.

4. PWPs in the South African case: Experience and prospects

This investigation will require (1) some assessment of the experience with relatively small scale public works that has accumulated locally in recent years, and (2) a consideration of the cost (and hence likehood) of public works programmes being launched here – with the appropriate features and on the scale required if a significant impact is to be made on the high levels of poverty and unemployment in South Africa.

4.1 Experience

It is perhaps worth noting that public works were employed in South Africa during the 1920s and 1930s as part of the response to the so-called "Poor White" problem – which was produced by a combination of short- and long-term factors. Interestingly, expenditures on such projects reached close to 16% of the total State budget at their peak (McCord, 2003: 17).

An interest in public works programmes in South Africa began to re-emerge during the last quarter of the 20th century as the rate of growth of GDP declined in the 1970s and 1980s and overall income per capita began to decline. The Second Carnegie inquiry into Poverty and Development convened in 1984 (the first had focused on the poor white problem). More than 200 papers were presented many of them dealing with aspects of poverty in Southern Africa and they included a study by Norman Reynolds attempting to apply the experience of the Maharashtra Employment Guarantee Scheme (MEGS) to the South African realities.(Reynolds,1984). Extensive further research was undertaken by Abedian and Standish (1989).

In the early 1990s negotiations took place between organized labour, the construction industry and government over issues arising from the use of labour intensive construction methods. These generated a temporary Framework Agreement, the principles of which later became part of the Code of

Good Practice for Special Public Work Programme formally gazette later in 2002 after further negotiations. After a substantial investigation into the feasibility of labour intensive PWPs they were included in the Reconstruction and Development Programme under the name "National Public Works Programme" (NPWP) as a critical element of job creation efforts (Phillips, 2004:3).

a) National Publics Works Programme

According to Phillips (ibid) the NPWP had two strategy thrusts. The first was a community based public works programme (CBPWP). Initially funds were allocated to community based organizations (CBOs) to undertake projects, but once democratic local government elections have been held, municipalities received the funds and became responsible for organizing the projects. The second strategic thrust of the NPWP was an attempt to reorient mainstream public infrastructure projects towards the use of more labour intensive techniques. Unfortunately reports Phillips (2004: 3), the "NPWPs goal of achieving a major reorientation of public expenditure was not realized." We shall make some kind of return to this issue when discussing prospects for the future including the currently planned Extended PWP which includes a renewed attempt at increasing the labour intensity of techniques across a broad front.

(b) Community Based Public Works Programme

As implied above this was the main programme used in the 1990s and first years of the new century for job creation with public funds. It was certainly not the only programme of this kind. There was a range of others under the Special Public Works Programme – some of which were environmental PWPs such as Working for water- but these other programmes are " considerably smaller" than CBPWP, apart from Working for Water. Some provinces and municipalities have also launched their own programmes and we will note some of them later.

What was the scale of CBPWP? What success did it have with job creation? Phillips (2004:3) says as its peak it was allocated roughly R350m p.a. and it created approximately 130 000 work opportunities between 1998 and 2004. McCord (2003:10-13) provides somewhat more detail. After discussing problems of measurement (What is a "job" in terms of days worked? It is often not clear in data what is being assumed) she compares the days of work created with unemployment also measured in days for the period 1996/97 to 2001/2 (6 years). Her results are that:

- work days created as % of total official (narrow) unemployment range between 0,24% and a maximum of 0,48%; and .
- workdays created as % of total broad unemployment range between 0,11% and a maximum of 0,27%.

"This suggests that the scale of job creation over this period been negligible in terms of the magnitude of current employment and does not offers a significant response to the problem of mass unemployment", (McCord, 2003:13). A "significant" response offered by way of illustration is MEGS. In the 1980s and 1990s job creation was greater than 100m workdays per year which constitute 10-30% of total unemployed workdays in the state of Maharashtra. (see Table 2).

(c) 2 provincially-initiated infrastructure PWPs

As noted above there are and have been, programmes additional to CBPWP although by and large their scale has been small. Phillips writes, despite this, of their "rich diversity and innovativeness" (2004:4) and produces 2 examples viz. the Gundo Lashu Programe in Limpopo and the Zibambele programme in KwaZulu Natal.

Gundo Lashu

This was initiated by Limpopo provincial government in 2001. It is concerned with road upgrading and construction. 24 aspirant small contractors (each with 2 higher-level supervisors) were chosen in an open competitive process and sent for a 3 year full- time training programme in labour intensive construction-run in Lesotho by the Minister of Works Labour Construction Unit training school. The intention is for them to compete on the open market for "tenders specifying the use of labour intensive construction methods" (2004:4). Contractors move from project to project with their supervisory staff -- employing 60-100 local workers on a task-based payment system (on average for about 4 months per upgrading project).

Zibambele

This was initiated by the KZN Department of Transport in 2000. Its objectives are to carry out routine maintenance on province's "rural access roads and provide poor rural households which have no other source of income with regular income" (2004:5). The programme is based on the 'length person' contract system. In return for 8 days of work a month spent carrying out maintenance work to an agreed standard on an agreed length of roads, households receive a transfer of R334 per month. Each household is a contractor, and so no employer-employee relationships exist. This gives freedom from some of the constraints involved in the agreement with organized labour. The continuous nature of routine road maintenance makes it possible to create longer term work opportunities. In 2002/3

there were 10 000 contractors (working on approximately 1/3 of the rural access road network). Plans were to increase them to 14 000 by the end of 2002/3 financial year and ultimately to a maximum of 40 000 poor households.

(d) Targeting in South African PWPs.

It is clear from the above that within the first ten years of experience under the new political regime in S.A., the scale on which public works have been operated has been small -- certainly small in relation to reported levels of unemployment and poverty. At the same time there has been a certain amount of innovativeness in the field.

Is there evidence that expenditure on PWPs has at least been reaching the poor and creating employment for the unemployed? In so far as programmes are producing infrastructure are they siting it in areas with severe infrastructural deficits, or not? It appears that there are no straightforward answers to such questions, because at this stage of things South African monitoring is lagging behind programme development. Early national evaluations carried out in 1996 and 1997 are said to "find little evidence that the neediest within communities are being targeted" (Adato and Haddad, 2002). The authors just cited themselves carried out a study of 101 public works projects run by seven programmes in the Western Cape Province and which were initiated and completed between 1993 and 1997. Socio-economic and infrastructural information was also gathered on a magisterial district basis for this part of the country. One conclusion of their study was that "Between districts, the 101 public works are not well-targeted in terms of poverty, unemployment, and infrastructure" (Adato and Haddad, 2002:31). Some districts with very high poverty and unemployment had no labour-intensive public works projects, and some districts with low poverty rates had several.

As regards targeting within districts and within communities "jobs went to the poor and unemployed, though not always the poorest, and did well in reaching women despite local gender bias. Targeting guidelines of the state are mediated by diverse and sometimes conflicting priorities that emerge in programmes with multiple objectives, by local perception of need and entitlement, and by competing voices within civil society" (Ibid:1).

In brief explanation of this judgment it is possible to point to some of the following factors: Adato and Haddad take the view that the "multiple objectives" of PWPs in South Africa are "without precedent elsewhere in the world" (p4). In particular, the stress on "trainings and on "community capacity building" imply probable trade-offs with simple job-creation for the poor. The very poor may not have the basic training or skills necessary for training of the kind that will fit then for the labour market and which is supposedly on offer as an integral part of programme employment. The community emphasis (present in the very name of the main programme) led in contexts they studied to considerable involvement by CBOs not only in setting up the projects but in the selection (directly targeting) of participants. Frequently the view was taken that the leadership of the CBOs (and their families) deserved employment. Moreover equality of opportunity was often given high priority, and achieved by using a random selection procedure.

The use of the wage rate -- set at, or below, local unskilled market rates --as a device for promoting self – selection by the poorest was beset with obstacles. (i) Given the small scale of most projects and programmes and given the high estimated levels of unemployment and poverty (though lower for the Western cape than for S.A. as whole), there appears to be excess demand for jobs on typical projects even at below-market wage-rates -- requiring rationing. (ii) The authors report that 78% of projects studied set wages below market wage levels but since selection of participants was made by "the community" the wage-level presumably promoted wider coverage rather than targeting on the poor. Anyhow, it seems also to have been the case that setting below-market-level wage-rates faced opposition. Many of the Western Cape projects were in relatively urban areas and comparisons with formal sector wages were easily made. "Often workers accept the offered public works wage, but later strike for higher wages. Many of the projects in our study started at a low wage, but wages were raised at a later point". (Ibid:32). (iii) There were a few cases where wages were lowered--given an understanding of the benefits from the project and/ or of the connection between the wage and increased coverage.

(e) Other design features in S.A. PWPs

In section 3 we noted some design and programme features of PWPs, which would be most pro-poor and produce most effective programmes. In this section (4), where we are examining South African experience, we have so far considered scale and targeting on the poor--but have not written much about duration, timing, ways of reducing participation costs, the share of non-wage costs in programme expenditures and so on. In fact since overall survey-based information is not readily available on these matters, we shall not attempt to tackle them here. We wish to point in passing however to admirable work done by McCord (2002). She includes a case study of Zibambele and is able both to report comparative figures for cost per job and cost per rand transferred, and also to say something (based on interviews with participants) about how benefits are perceived by them. The micro section of her joint work with van Seventer (2004) contain similar report on the Gundu Lashu programme. We turn now to the future and consider what role PWPs may have, and perhaps

ought to have, in the struggle against poverty and unemployment in this country.

4.2 Prospects for the use of PWPs in S.A.

Government is now committed to an Expanded Public Works Programme (EPWP). The President referred to it in his State of the Nation speeches in both 2003 and 2004. On the latter occasion he announced that the programme was planned to create "one million work opportunities in its first five years". (Phillips, 2004:7) In the next subsection we shall look at the Expanded Public Works Programme in a little more detail and consider what contribution it may be expected to make to poverty- and unemployment—reduction given its project scale and on the other hand the scale of the problems it is aimed at.

4.2.1 The Expanded Public Works Programme

This account will depend on a presentation by Sean Phillips, Chief Operations Officer, National Department of Public Works (Phillips, 2004:1-14). Despite the importance of such matters in practice it will try to avoid discussion of administrative detail.

(i) The EPWP is a broad framework in order to allow for the diversity of existing programmes and provide flexibility for future expansion.

(ii) It is a "programme of the whole of government-- it is not just a Public Works Department programme". It aims "to utilize public sector budgets to alleviate unemployment by creating temporary productive employment opportunities coupled with training". As indicated by the underlined phrase, a switch is being made from financing poverty relief through a special fund to funding it through the normal budgeting process. In addition Departments should only undertake poverty relief programmes in their "core functional areas". Thus funds for the CBPWP which were originally allocated to the DPW have been reallocated to the Department of Provincial and Local Government for transmission to the municipalities as part of their Municipal Infracture Grant allocations. So the EPWP is funded "by earmarking funds on the budgets of line-function departments, provinces and municipalities".

(iii) The following sectors have been identified as likely to be able to create EPWP employment opportunities

- Infrastructure (increasing labour intensity of government funded infrastructure projects)
- Environment (public environmental improvement programmes)
- Social (public social programmes- e.g home-based care, and early childhood development)
- Economic ("e.g. income generating projects and programmes to utilize government expenditure on goods and services to provide the work experience component of small enterprise learnership/ incubation programmes").

(iv) Scale: R15 billion of the conditional infrastructure grants going to provinces and municipalities over the next 5 years will be earmarked for the EPWP. Similarly R4 billion for environmental EPWP programmes over the same period, and at least R600 million to social sector EPWP programmes i.e approximately R20 billion in total. Approximately one million work opportunities--perhaps (given the varying durations) equivalent to about 500 000 person-years of employment (or an average of 100 000 person-years per year)

(v) Phillips stresses that "The EPWP is not a solution to the unemployment problem….. The employment creation which will result from the EPWP is small in comparison to the scale of the unemployment problem". (Ibid:13). The averaged figure for annual employment creation over the first five years just reported above was 100 000 person years, whereas in 2003 4.6 million people were unemployed in terms of the strict definition and 8.3 million in terms of the broad definition.

(vi) Phillips calculates that if EPWP is to reduce unemployment by 30%, it would need to create at least 8 million person-years of employment over its first five years (apparently using the strict definition of unemployment). If funds were allocated to sectors in the same proportion as currently planned, and if capacity constraints were not a problem, such a scale would require expenditure of R 64 billion per annum.

(vii) Figures in the same kind of range are estimated by McCord, 2003:22. She puts the cost of a 30% reduction of the official measure of unemployment by creating 3,2million part-time jobs at between R16.8 billion and R 28.0 billion per year (using 2002/3 wage levels). 3,2 m full-time jobs would cost in the range of R37 billion to R61.60 billion- the upper bound of which range is close to Phillips's figure of R64 billion, but would produce double the reduction in official unemployment levels (66%). (It does not seem profitable here to dig more deeply into the probable costs of PWP schemes operated on a scale large enough to reduce unemployment by 30% or more).

(viii) What we can say is that these costs would constitute a substantial share of the total government budget in recent years. On McCord's estimates, for the 3,2m full-time jobs annually costs would constitute 11-18% of the total 2003/4 government budget. If costs are scaled by comparing them with the anticipated total Social Security and Welfare budget allocation of approximately R46 billion in 2004/5, it emerges that the whole of that budget allocation in its entirely would be absorbed by PWP expenditures. Noting this fact and also that the sum involved is of a similar order to the estimated net cost of a universal basic income grant, McCord (2003:22)

writes of fears about " the potentially negative fiscal shock" that would result.

4.2.2 Institutional constraints to Large Scale Employment Creation using PWPs.

In addition to doubts about the "fiscal feasibility" of PWPs on a required scale to reduce unemployment by say 30%, there are obstacles in the way of large scale versions of such programmes which are caused by "institutional constraints". McCord (2003:22-25) lists and explains three such constraints as follows: (i) Limitations of Institutional capacity and project management skills at government and community levels. What these problems amount to is the "lack of a strategic or programme approach to public works, which results in a multiplicity of individual project-based interventions". The proliferation of small projects is inefficient because it.

- intensifies the shortage of management skills; and
- makes identification of appropriate projects difficult in the absence of an overall coherent programme, and so makes spending of allocated funds difficult.

Under these circumstances employment--creation per unit of expenditure is lower than is in principle feasible, and this is reinforced by the short time-scales of many (small) projects- which involve high set-up costs but terminate before the benefits of optimal scale (linked to duration) are reached.

(ii) Lack of credible incentives for provincial ministries to use labour-incentives techniques. McCord's discussion of this hinges on the choice of techniques private sector companies are likely to make when tendering for projects financed by provincial ministries. At the time of writing (2003) her view was that there was a considerable "degree of skepticism…within the civil engineering sector regarding labour-intensity". Despite evidence produced by McCutcheon and others about the competitiveness in cost terms of labour-intensive methods, many figures in the industry regarded conventional methods as cheaper and less arduous for workers. Moreover a common view has been that road construction (say) should be expected to contribute to employment-creation through the use of the roads (once constructed) rather than through the processes of construction. Furthermore, labour intensification was thought likely to involve "the incorporation of a social development agenda into the construction work plan"- and thus to lead to increased management complexity, delays and costs. This being the case, substantial and credible incentives would have to be developed to swing the industry round (at least to some extent) to the desired methods.

(iii) Lack of skills and experience in labour-intensive construction within the industry. Presumably this lack is at least part of the reason for the views about labour-intensity reported in the previous paragraph. The view of McCutcheon and Taylor Parkins (2003) about the competitiveness of labour intensive method depends critically on "training in labour intensive construction…at all levels of management, from consultants to contractors…", site supervisors and community liaison staff" The current lack of people trained in this way was, and is, a major obstacle to the rapid expansion of PWPs.

4.2.3 Reducing institutional constraints to PWP expansion

Since these constraints seem plausible--and serious--it is encouraging that the discussion by Phillips (2004) of the Extended P.W.P provides evidence that these constraints have been noted and that efforts are being made to relax them.

In the first place, the limits on the capacity to manage, co-ordinate and sustain programmes over time are being addressed by removing PWPs from the status of special add-on activities-with their own special funding--and making them the responsibility of line-ministries, provinces and municipalities which receive funding in the normal way. Some part of this funding will be earmarked for PWP activity. There will be a sector-coordinating Department for each of the 4 sectors involved and the Department of Public Works (which co-ordinates the infrastructure sector with an EPWP unit with 15 professional positions) will be responsible for overall co-ordination.

In the second place, the problem of anti-labour-intensive bias is being confronted by the introduction of conditions imposed on the use of earmarked funds received via the Provincial Infrastructure Grant (PIG) and the Municipal Infrastructure Grant (MIG). These conditions are specified in the 2004 Division of Revenue Act (DORA) which requires provinces and municipalities "to execute all low-volume roads, storm water drains, and trenching work (funded through PIG and MIG) in a labour-intensive way, in accordance with guidelines produced by DPW, and approved by SALGA and National Treasury :"(Phillips, 2004:11)

Finally, the absence of experience and training in the use of labour – intensive methods is being addressed in various ways. The DPW is providing special training for provincial and municipal officials on the use of the guideline. The guidelines require that only contractors and consulting engineers may be appointed to undertake these projects who undergo training in "the design, supervision and management of labour intensive works"- in line with standards and skills programmes put in place by the Construction SETA.

Also, a "labour intensive contractor and supervisor learnership programme" has been launched by the DPW and the Construction SETA-with the intention of expanding the use of the approach adopted in the Gundo Lashu programme to

other provinces. Over 1000 learnerships had been applied for by October 2004.

4.3 PWPs in South Africa: a preliminary summing up

It seems clear that PWPs have a contribution to make to the reduction of unemployment and poverty in South Africa. However- contrary to what one might initially imagine-the contribution is unlikely to be immediate and, even in the long-run, it is doubtful that it will amount to a major reduction in unemployment. (Less can be said about the poverty impact). During the next 5 years the EPWP is intended to create half a million person years of employment (over against annual unemployment rates of between 4.6 million and 8.3 million). Correctly Phillips refers to this as a "modest" contribution. Even this however will require R4 billion worth of expenditure per annum-ten times bigger than the CBPWP at its peak. And to make a 30% cut in unemployment (8 million person-years created) would require R64 billion per annum, sixteen times the current planned annual expenditures. Such a scale of operation is not fiscally feasible at present, nor does the institutional capacity exist to make an effective job of so large and complex an undertaking. That of course is not a reason for abandoning PWPs, but perhaps a reason for building programmes and capacity steadily and (if possible) in an innovative manner. As Phillips (2004:14): writes "The immediate challenge is to ensure that the programme's current targets are met. Once the programme is established and is shown to be economically effective, then motivations can be made for increased funding levels to take the programme to a larger scale.

References

1. Adato and Haddad (2002) "Targeting poverty through-Community Based Public Works Programme: experience from South Africa" , the journal of development studies vol. 38 no 3
2. Dasgupta (1993) An inquiry into well-being and destitution, Oxford: Clarendon Press.
3. Joshi, A and M. Moore (2000), "Enabling Environments: Do Anti-Poverty Programmes Mobilise the Poor?", The Journal of Development studies. Vol. 37, No.l, pp.25-56.
4. Lipton, M. (1998) "Public Works to Create Employment for the Poor", chapter 5 in Michael Lipton et al, Successes in Anti-poverty, International Labour Office.
5. McCord, A. (2002) "Public Works as Response to Labour Markert Failure in South Africa", SALDRU/ CSSR working paper No.19, University of Cape Town
6. McCord, A. (2003) "An overview of the Performance and Potential of Public Works Programmes In South Africa", SALDRU, Paper prepared for the Dpru/Tips Forum September 2003
7. McCord, A. and van Seventer, D. E. (2004) "The economy-wide impacts of the labour intensification of infrastructure expenditure in South Africa". Paper presented at the DPRU, TIPS & Cornell Conference on African Development and Poverty Reduction, the Macro-Micro Linkages, Somerset West, South Africa, 13-15 October 2004.
8. Phillips, S. (2004). "The Expanded Public Works Programme (EPWP)". Presentation to the UNDP, HSRC & DBSA Conference on Overcoming Under-development in South Africa's Second Economy, Pretoria, South Africa, 29 October 2004.
9. Reynolds, N. (1984) "Citizens the State and employment: Public Works as the core of a rural development strategy", Carnegie Conference Paper no. 234.
10. Subbarao, K. (1997) Public Works as an anti-poverty program: an overview of cross country experience" paper presented at ASSA annual meetings