

South Africa's Expanded Public Works Programme: a case study in government sponsored employment creation and poverty alleviation focusing upon the infrastructure component

R McCutcheon¹ and F Taylor Parkins²

Abstract: South Africa has high levels of unemployment and poverty. In 2004, as one of its strategic components for generating employment and alleviating poverty, the government initiated the Expanded Public Works Programme. The goal of the Programme was to alleviate unemployment for at least one million people between 2004 and 2009. This goal was to be achieved by generating work opportunities in four sectors of the economy: infrastructure, environment, social and economic. Labour-intensive methods were to be used in the provision of public goods and services. The 2004 budget was R21 Billion;³ by 2009 R40.8 Billion had been spent.

Following a brief outline of the objectives of the EPWP the paper outlines the conditions that were originally set, particularly for implementation in the infrastructure sector. These factors provide part of the frame of reference for assessment of results. Having mentioned four of the 30 conclusions from two national studies, the paper summarizes selected results from a meta-analysis of data across all sectors. Focus then turns to the infrastructure sector, which not only accounted for 83% of national expenditure and but also provided the greatest opportunity for the generation of a significant increase in employment per unit of expenditure. High levels of labour-intensity, up to 50% of direct construction costs, have been achieved elsewhere in South Africa and other countries in sub-Saharan Africa. This fact provides another part of the frame of reference for assessment. The paper discusses the low level of labour-intensity, 11%, achieved during the EPWP. Several reasons are mooted.

The paper continues with estimates of the considerable scale of the opportunity foregone in generating employment opportunities during the provision of infrastructure, particularly amongst the rural poor.

During the next 5 years the government intends to expand the Programme about fourfold. Thus, the paper concludes with the warning that if attention is not paid to the shortcomings experienced in the EPWP's infrastructure sector, then the next phase will be just as inefficient in generating work opportunities for the poor and unskilled. In particular there is need for the establishment of a developmental programme based on labour-intensive methods. Recommendations are made regarding enforcement of legislation, regulations and contract conditions, and the need for a national training college for labour-intensive construction. A serious small contractor development component should form an integral part of the college's curriculum.

Introduction

In South Africa, the problems of unemployment (approximately 40% unemployed according to the broad definition and close to 25% using the narrow definition) and poverty alleviation are of national strategic importance.

The Government of South Africa has made a nationally significant response to this problem through the largest development programme in the country's history. The Expanded Public

Works Programme (EPWP) is a visionary component of the South African Government's multi-pronged strategies towards poverty alleviation, job creation and skills development. The goal of the EPWP was to alleviate unemployment for at least one million people between 2004 and 2009. This goal was to be achieved by generating work opportunities in four sectors of the economy: infrastructure, environment, social and economic. Labour-intensive methods were to be used in the provision of public goods and services.

The first five years of the Expanded Public Works Programme (EPWP) started in April 2004 and ended in March 2009. At the start of the programme, the EPWP Public Sector Budget Allocations totaled R21 billion; R15 billion being allocated to infrastructure and the balance to the environmental and social sectors (the budget for the economic sector had not yet been determined).

In May 2008 the Minister of Public Works announced that the goal of creating temporary work opportunities for a minimum of one million people had been achieved a year ahead of schedule.⁴

In December 2008 McIntosh Xaba and Associates (MXA) were appointed to carry out a Meta-analysis of over 100 documents related to the national EPWP since its inception in April 2004, including 19 Quarterly Reports published on the EPWP website. It was intended that the findings of the study should guide approaches and strategies across all spheres of government in order to inform policy reviews of the programme. At the same time focus group discussions were held with communities in which the EPWP had been implemented and assets created. The authors were members of the team that performed the studies.⁵ During 2007 and 2008, they were also members of the team that directed and coordinated the monitoring and evaluation of the EPWP component implemented by Gauteng Province's Department of Public Transport, Roads and Works.⁶

This paper is not a summary of these studies, as they deserve fuller attention in their own right. However, it draws on their findings. Using other points of reference, this paper goes beyond the conclusions reached in the studies. In particular we focus on one sector: infrastructure.

The paper begins with a brief outline of the objectives of the EPWP and proceeds to outline the conditions which were originally set, particularly for implementation in the infrastructure sector. These factors provide part of the frame of reference for assessment of results.

Having mentioned four of the 30 conclusions of the national studies, the paper summarizes selected results from the meta-analysis across all sectors. Focus then turns to the infrastructure sector, which not only accounted for 83% of national expenditure and but also provided the greatest opportunity for the generation of a significant increase in employment per unit of expenditure. High levels of labour-intensity have been achieved elsewhere in South Africa and other countries in sub-Saharan Africa. This fact provides another part of the frame of reference for assessment. The paper discusses the low levels of labour-intensity achieved during the EPWP. Several reasons are mooted.

The paper continues with estimates of the scale of the opportunity foregone in generating employment opportunities, particularly amongst the rural poor. It closes with suggestions regarding enforcement of regulations and contract conditions, and the continued need for a national training college for labour-intensive construction. A serious small contractor development component should form an integral part of the college's curriculum.

Objectives of Expanded Public Works Programme

According to the Consolidated Programme Overview and Logical Framework, June 2004, the goal of the EPWP was:

*To alleviate unemployment for a minimum of one million people in South Africa (at least 40% women, 30% youth and 2% disabled), by 2009.*⁷

To achieve this goal the Government would:

- Over the first five years of the programme create temporary work opportunities and income for at least one million unemployed people.
- Provide needed public goods and services, labour-intensively, at required standards, through mainly public sector resources and public and private sector implementation capacity.
- Increase the potential of (at least 14% of public works) participants to earn a future income by providing work experience, training and information related to local work opportunities, further education and training, and small, medium and micro enterprise (SMME) development.⁸ (14 % = infrastructure 8%, environment 10%, social 40%, economic 30%).

This would be achieved by creating work opportunities in the following four ways:

- Increasing the labour intensity of government-funded infrastructure projects
- Creating work opportunities in public environmental programmes (e.g. Working for Water)
- Creating work opportunities in public social programmes (e.g. community care workers)
- Utilising general government expenditure on goods and services to provide the work experience component of small enterprise learnership / incubation programmes.⁹

Of the one million temporary work opportunities, 750 000 would be created in the infrastructure sector and 250 000 in the environmental, social and economic sectors. These work opportunities would be created during the normal provision of public assets and services. In the infrastructure sector 37 000 kilometres of road, 31 000 kilometres of pipelines, 1 500 kilometres of stormwater drains, and 150 kilometres of sidewalks were to be constructed using labour-intensive methods.¹⁰

In May 2008 the Minister of Public Works announced that the goal of creating temporary work opportunities for a minimum of one million people had been achieved a year ahead of schedule.

Frame of Reference

Two pieces of legislation provide a frame of reference for assessment: The Amendments to the Basic Conditions of Employment Act 2002, and the Division of Revenue Act 2004.

On the 25th January 2002 the Government Gazette (No. 23045) of South Africa published the following:

*No R63 Basic Conditions of Employment Act, 1997
Ministerial Determination: Special Public Works Programmes*

and

*No R64 Basic Conditions of Employment Act, 1997
Code of Good Practice For Employment And Conditions Of Work For Special Public Works Programmes.*

Full details may be found in the Gazette. Here we wish to highlight a few of the principal features.

In the Ministerial Determination (R63), *inter alia*, it was stated:

-“Special public works programme” means a programme to provide public assets through a short-term, non-permanent, labour-intensive programme initiated by government and funded from public resources...

-“task” means a fixed quantity of work;

- “task-based work” means work in which a worker is paid a fixed rate for performing a task;

-Workers on a SPWP are employed on temporary basis.

- A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.

-Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

-A task-rated worker will only be paid for tasks that have been completed.

-An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.

The Schedule “Code of Good Practice” (R64) included, *inter alia*:

*-Reducing unemployment is one of the greatest challenges facing South Africa. Government has undertaken a number of initiatives to address unemployment and poverty, including the promotion of labour-intensive Special Public Works Programme (SPWP). A SPWP is a short-term, non-permanent, labour-intensive programme initiated by government and funded either fully or **partially**,¹¹ from public resources to create a public asset.*

-On the task-based system, a worker is only paid for each task completed

*-A “no work – no pay” rule must apply except in the following circumstances:
.... Illness Injury*

-Training is regarded as a critical component of SPWP. Every SPWP must have a clear training programme that strives to:

-Ensure programme managers are aware of their training responsibilities

-Ensure a minimum of 2 days training for every 22 days worked

-Ensure a minimum of the equivalent of 2 % of the project budget is allocated to funding the training programme...

The training components were the *quid pro quo* demanded by COSATU to allow (1) payment to be made on a task basis (2) ‘no work, no pay’ and (3) relaxation regarding the definition of ‘temporary’ from 3 months to 24.

Another crucial piece of legislation was enacted in 2002: Division of Revenue Act. In 2004 the Division of Revenue Act made it **mandatory** to use labour-intensive methods for specific categories of infrastructure funded through the formal channels through which public infrastructure is funded: the Provincial Infrastructure Grant (PIG) and the Municipal Infrastructure Grants (MIG). It is important to stress that the funding allocated for the Expanded Public Works Programme formed part of normal government expenditure and must follow normal procedures as specified by National Treasury under the Division of Revenue Act. These procedures include an annual audit. Thus, the funding is not an “add-on” for emergency / poverty / drought relief. This marks a significant difference between the Expanded Public Works Programme and all previous programmes of this nature in South Africa. Thus, labour-intensive construction had been brought into the normal budgetary procedures and, at face value, was therefore part of the major economy.

The specific categories for which it was mandatory for public bodies use labour-intensive methods were: low-volume roads, stormwater drainage, sidewalks and trenches. Public bodies were required to implement these categories using the “Guidelines for the Implementation of Labour-intensive Infrastructure Projects under the Expanded Public Works Programme,”¹² which were specifically produced for the EPWP.

It was stated that in the infrastructure sector, the 750 000 work opportunities would be **additional**, without detriment to the fiscus,¹³ because labour-intensive methods would be used.

On the 31st of January 2005, in a speech to the Limpopo provincial and municipal government representatives by the Deputy Minister of Public Works, Ntopile Kganyago said:

“We need to remember the law of the country as stipulated in the Division of Revenue Act (DoRA) requires that provinces and municipalities must use the Guidelines for Labour Intensive Infrastructure when using the PIG and MIG budgets for certain types of projects. These guidelines require that provinces and municipalities amend their existing contracts to ensure that certain activities are designed to maximise the use of labour instead of machines.”¹⁴

Additional conditionalities were enumerated in the Guidelines. These included:

- Consultants responsible for labour-intensive projects must have completed accredited training; the consultants who would design infrastructure and prepare contracts would have accredited training -- specific to the person and not to the firm. The intention was that in relation to design they would be equipped to design in such a way as to optimize the use of labour.
- The EPWP Guidelines contained “copy and paste” clauses for integration into standard contract documentation.
- Standard clauses would be included in the contracts, which would compel / ensure the use of labour-intensive methods.
- In particular, the contract would identify those items which had to be constructed labour-intensively and would compel their subsequent use by stating that if labour-intensive methods were not used for the specified items, the contractor would not be paid
- Company owners, managers and supervisors of labour-intensive sites would also have to have accredited training. The contractors would receive accredited training in the following ways: the contractor would be trained to run a company; each contractor would have two site supervisors who would be fully conversant with the organization of teams of labour-intensive workers.

The Consolidated Overview stated that a National Training College for Labour-intensive construction would be established.

Implementation would be audited to see if the specific categories of work had been constructed labour-intensively. Site operations would be audited, as would provincial and municipal expenditure to see whether the institution had complied with EPWP regulations.

Furthermore, future allocations of funding were to be dependent upon the extent to which an authority had complied with these conditionalities. For example, if the institution had not constructed the specific types of infrastructure labour-intensively, then they would not be given funding in the future. Treasury took on the role of monitoring the work in terms of compliance with the legislated “conditionalities”. This allowed for public accountability, again in contrast with previous programmes that had attempted to promote the use of labour-intensive methods.

The above elements provide the legislative and regulatory framework required for labour-intensive construction.

The factors mentioned above also comprise part of the frame of reference with which to evaluate the results of the EPWP.

Major Conclusions from National Studies

A number of conclusions were reached from the review of over 100 documents. These were categorized into three levels:

- Policy and Programme
- Issues requiring attention above the level of programme Management
- Programme and Project management.

Here we will only mention four related to Policy and Programme.

- The direct and indirect beneficiaries of the EPWP clearly (and desperately) welcomed the short-term job opportunities, and those that had worked on the EPWP were eager to get further work opportunities. They wanted more, much more.
- In relation to infrastructure, the EPWP is currently not a development programme¹⁵ but rather an ad hoc collection of existing and new projects.
- There was very little compliance with the requirements as set out in the Division of Revenue Act. To the best of our knowledge there has been little or no enforcement to date with respect to labour-intensity, type of project or component of project, related contractual documentation and training.
- Another major conclusion, which resulted in part from the lack of adherence to the DoRA requirements, is that the 1 million job opportunities have been generated at between 2 and 3 times the original budget estimate. In relation to the Infrastructure Sector for instance, the first five years of EPWP it has cost about R34 billion¹⁶ instead of R15 billion projected in 2004.¹⁷ Thus, no additional employment has been generated per unit of expenditure, as envisaged at the start of the EPWP. This will be dealt with in greater detail below.

The first conclusion is of critical importance because so many decision makers and theorists with comfortable, well paid jobs, state with confidence that in South Africa the poor are not prepared to do this type of work, or if they do it will be done badly.

Analysis of data in Selected Categories

The EPWP has generated a considerable amount of data. The quantity may be judged by the fact that 19 quarterly reports contain over 3287 pages of data. By contrast, the 19 reports contain only 315 pages of text. In itself this reflects the overreliance on numerical data and lack of attention paid to words.¹⁸ Furthermore, from about halfway through the EPWP increasing attention was paid to one item: the number of temporary job opportunities. To a lesser extent the amount of training was mentioned. Unfortunately, the amounts of physical assets produced were not contained in the summary reports and not mentioned in the text. A great deal of investigation would be required to extract this information. And the text of the report repeatedly warns that the data needs to be treated with circumspection

A meta-analysis was carried out of the data contained in the two summary tables annexed to each report. In some instances, this was supplemented by more detail contained elsewhere in the many annexures.

Below, we will briefly record and comment upon the main findings with respect to four sets of data namely:

- EPWP budget versus actual expenditure by sector
- EPWP budget versus actual expenditure by Province
- Labour intensity in the EPWP
- Labour intensity versus average project cost

Having provided an overview we will then deal in more detail with the indications of the findings especially with respect to labour intensity in the infrastructure sector.

The EPWP budget versus actual expenditure by sector

The 2004 budget for the whole EPWP was R21 Billion; by 2009 R40.8 Billion had been spent. The infrastructure sector had by far the greatest share, R33.8 or 83% of the total expenditure between 2004 and 2009. Expenditure amounted to more than twice the 2004 budget estimate of R15 Billion. This in itself indicates a difference between the South African economy and most of the countries in sub-Saharan Africa: the additional expenditure was generated internally without reliance upon donor funding. However, it does mean that the one million job opportunities were generated for double the anticipated cost; more of this below.

Furthermore the actual 2004-09 budget allocations amounted to more than four times the original budget, or twice the actual expenditure. Although this indicates a severe inability to spend the allocated budget, it again indicates the scale of internal resources available to South Africa.

While the dominance of the infrastructure sector would inevitably influenced overall averages, similar discrepancies exist for the other three sectors between original budget, budget allocation and actual expenditure.

Comparison between allocated budget and actual expenditure shows that over the period 2004-09 the trend was for the EPWP to spend a lower proportion of the budget allocated.

The economic sector was the worst affected of the four sectors. This is more than interesting, given the amount of attention and emphasis placed upon the role of small, medium and micro entrepreneurial development by government in general and EPWP in particular.

EPWP budget versus actual expenditure by province

Gauteng Province and the Eastern Cape accounted for nearly half of the actual expenditure, while the remaining seven provinces shared the other half. Five provinces, namely Free State, Limpopo, Northwest, Mpumalanga and the Northern Cape, combined, made up less than one quarter of total expenditure. All five of these provinces have significant rural populations, parts of which have been termed “deep rural”. With the notable exception of the extremely poor Eastern Cape, the above distribution of funding shows the general lack of focus on the rural areas within the EPWP; as does the fact that over 25% of expenditure took place in Gauteng, which is the most urbanized province in South Africa. Mitchell (Mitchell 2008) has also concluded that there was a lack of emphasis upon the rural. This is a severe

shortcoming in programme design, Moreover, we will see below that there is a need to focus greater attention upon the rural because of the linkages between the type of infrastructure and potential for poverty alleviation in the construction and maintenance of specific categories of infrastructure.

Labour intensity in the EPWP

There was a steady decline in labour-intensity from 26% at the start of 2004 to nearly 11% at the end of the third quarter of the 2008 2009 financial year. Even the social sector fell from 85% to less than 50%. This is interesting: unlike the other sectors of the EPWP, the social sector was not expected to generate a significant increase in employment per unit of expenditure. After all, the social sector is not expected to produce a physical product. The decrease in labour intensity in the social sector indicates that administrative costs rose considerably over time.

Labour intensity in the infrastructure sector fell from 26% in 2004/05 to 9% in 2008/09. Therefore, the amount of employment generated per unit of expenditure fell by two thirds. This will be dealt with in more detail below. The economic sector fell from 11% to 7% with minor oscillations in between. In a nutshell, the labour-intensity in the infrastructure and economic sectors reflects “business as usual” through the use of conventional capital/machine intensive construction.

Labour intensity versus average project cost

The average project cost was derived from the division of the total actual expenditure by the total number of projects. Labour-intensity dropped significantly over time as the value of the projects increased. As project values doubled, labour-intensity decreased by two thirds. Fast tracking the nominal incorporation of larger and more sophisticated projects into the programme, in order to increase expenditure and numbers, intensified the use of “business as usual”.

Infrastructure and Labour Intensity

It is important to concentrate upon the infrastructure sector not only because it is the largest. More importantly, it is the main sector in which it was originally planned that a significant increase in productive employment would be generated per unit of expenditure.

As mentioned earlier, hitherto in South Africa measures related to poverty alleviation and labour-intensive construction of infrastructure were funded by allocations sourced from outside the normal processes for the construction and maintenance of infrastructure. They were “add-on”, “tack-on” or “emergency/relief” funds. This was not to be the case for the EPWP. In fact this approach amounted to a fundamental difference between previous attempts linked to poverty alleviation, by insisting that the allocations form part of formal processes. Expenditure on labour-intensive methods was to have been part of normal expenditure on the construction and maintenance of infrastructure and thus subject to formal procedures regarding accountability.

In the Consolidated Programme Overview of June 2004 it had been estimated that 45 billion rand would be spent over five years in the formally planned provision of provincial and municipal infrastructure throughout the country. In the normal course of events, all of this infrastructure would have been constructed using conventional, machine-intensive methods.

However, it was estimated that R15 billion of this R45 billion would be spent on four categories of construction:

- Low-cost, low-volume roads
- Stormwater drainage
- Trenches
- Pedestrian and cycle paths

These four categories of infrastructure are eminently amenable to being constructed using highly labour-intensive methods. Using techniques and procedures that have been well tried and tested elsewhere in sub-Saharan Africa and indeed in South Africa, it could reasonably be expected that at least 40% of direct construction costs would be earned by the labourers. In Botswana and Kenya labour-intensities of over 50% were achieved using relatively low wage rates (if higher wage rates had been used, higher levels of labour intensity would have resulted).

Furthermore, as we have noted above, insufficient attention has been paid to the rural areas. It means that less money was spent in those areas on the types of infrastructure, which are particularly amenable to being constructed using labour-intensive methods. Also, successful models from elsewhere in sub-Saharan Africa could be replicated. For example, the Kenyan Rural Access Roads Programme¹⁹ constructed and maintained over 12 000 kilometres of low-cost, low-volume gravel road. At its peak the Programme employed, at the same time, over 10 000 people on construction and 5000 on maintenance. Similar programmes existed in Botswana, Lesotho and Malawi.

These facts form another part of the frame of reference for assessing the infrastructure component of the EPWP.

In relation to South Africa the demand for work is as great among the urban as the rural poor. In both cases proper community relationships are required to be established well before the start of a project. For various reasons matters are more complicated in the urban areas and greater sensitivity is required in initiating projects. Thus, experience has shown that people in rural areas are much more willing to work and to do so without the disruptions that are experienced on a regular basis in urban areas.

Prior to the EPWP attempts had been made to replicate the Kenyan Rural Access Roads programme through the Zibambele Programme in Kwazulu-Natal and Gundo Lashu in Limpopo. After April 2004 both were incorporated into the EPWP. But Zibambele is a pale shadow of the Kenyan programme as it is only concerned with maintenance and does not touch construction. And Gundo Lashu focuses, with mixed results,²⁰ upon small contractor development in relation to a relatively high standard of road.

There are many reasons for the low levels of labour-intensity achieved in the infrastructure sector. Above it was mentioned that the summary data in the Quarterly Reports do not provide information regarding the amounts and quality of infrastructure constructed.

However, Gauteng province accounted for 25% of expenditure on infrastructure. Fortunately, the authors have had direct experience of the inner workings of Gauteng.²¹ Very little of expenditure on infrastructure Gauteng was devoted to the four categories that were supposed to be the main foci of the EPWP infrastructure sector. The majority of expenditure in Gauteng was on a much higher standard of road. That standard of road could have been constructed using labour-intensive methods. Prior to the EPWP over 400 km of the standard

of Road (residential and urban bus route) have been constructed in various parts of South Africa.²² But the effective use of labour-intensive methods necessitates a re-engineering of the whole design, contract and construction process.²³ This had not taken place. The extent of the re-engineering required for low-cost roads is extensive but not to the extent required for higher standards of road and the whole process takes place in a different socio-technical environment.

Thus, the major expenditure in Gauteng was related to a standard of infrastructure, which was not as amenable to the use of labour-intensive methods of construction, as the specific categories for these methods were supposedly mandatory. Furthermore, no large-scale programme exists elsewhere, which could have provided a model for South Africa.

In addition, several things occurred, some extremely curious:

- Projects were simply labeled labour-intensive, but conventional methods were used
- Some of the contract included clauses that indicated that labour-intensive methods would be used, but the clauses were ignored.
- Contracts were awarded to small contractors who were not able to use labour-intensive methods.
- Not only were contracts implemented using conventional capital-intensive methods: in some cases extra people hired to set under a tree alongside the site where the equipment was working in order to raise the numbers; mostly even this tokenism was not considered.
- These essentially machine-intensive, conventional methods resulted in costs varying from two to four times the costs, which would have been achieved during the same period using machine-intensive methods but outside the umbrella of the EPWP
- Given that these contracts generally use the same amount of labour as conventional, the extremely high total costs meant that the proportion of expenditure going to labour was even less than under conventional construction/normal conditions.
- No enforcement of contractual clauses was made.

Part of the reason for this sorry state of affairs is that there is very little in-house capacity or competence within most public bodies to assess technical matters. This is out sourced to consultants. Unless the consultants have been thoroughly trained, they cannot design labour-intensive projects, or prepare appropriate contract documentation, or assess the effectiveness of implementation. The same applies to the need for contractors and site-supervisors to be properly trained.

Added to these factors is the prevailing prejudice in the civil construction industry against labour-intensive construction.²⁴

Opportunities Foregone in Infrastructure

Here we deal first with the opportunity foregone in generating longer periods of employment, the potential link to rural employment, and the need to link small contractor development to

labour-intensive methods. We then estimate the scale of wage opportunity that was foregone, and will be foregone in the next phase of the EPWP, if current procedures are not seriously revised.

Temporary Job Opportunities and Rural

Above we have mentioned that the goal of generating 1 million temporary job opportunities was achieved a year ahead of schedule, at double the original budgeted cost and at a labour intensity across all four sectors of 11%.

In 2004 it had been envisaged that 750 000 of the million would be generated in the infrastructure sector. By May 2008 it was reported that 926 339 had been generated.

The focus upon temporary job opportunities is distracting. In the EPWP a temporary job opportunity was defined as being of any duration even a single day. This makes it difficult to derive data that is nationally and internationally comparable. In the infrastructure sector it had been anticipated that the average duration of employment would be 80 days, whereas an average of only 62 days was achieved over $4\frac{3}{4}$ years.

The emphasis upon ‘temporary’, exacerbated by increased concern about meeting a numerical target, distracted attention from seriously considering ways and means of achieving longer durations of employment and its associated benefits. And we have seen above that in allowing ‘temporary’ to be redefined 2 years, the Amendments to the Basic Conditions of Employment Act had allowed for a much longer duration of employment than 80 days. Although very grateful for some opportunity to earn money, there were repeated complaints about the shortness of the duration and lack of continuity. The workers accepted the shortness of duration with reluctance.

Two years of steady work would have a far more beneficial effect for both individual and family. It would have also allowed for a much greater depth of training.

Continuing in this vein, in relation to the construction and maintenance of infrastructure, it would be possible for public bodies to plan 10-year programmes of construction and maintenance based on anticipated allocations received from the Provincial Infrastructure gondola and the Municipal Infrastructure Grant. The public body would be able to calculate the quantity of infrastructure per year and plan that there would be employment for a certain number of people. In urban areas there would be easy opportunities for continuous employment in both construction and maintenance. In rural areas people would have to move during construction, or be replaced because of distance, while maintenance could be more permanent because the stretch of road to be maintained could be relatively close to the home of the maintenance worker.

It is particularly important to emphasize that the types of infrastructure, which are supposed to be built labour-intensively, are particularly needed in the places where the poorer people live. This amounts to another opportunity foregone.

Small Contractor Development

The use of labour-intensive methods should be of considerable assistance to an aspirant small contractor. Considerably less start-up and operational capital is required. This factor was one of the prime considerations for the promotion of labour-intensive small contracting in East and West Africa.

Wages foregone

For the reasons given above, in this sub-section we will concentrate upon person-years of employment.

As mentioned above, if proper labour-intensive methods were used for specific categories of infrastructure, a labour intensity of at least 40% of direct construction costs should have been achieved. In Botswana and Kenya labour-intensities of over 50% were achieved using relatively low wage rates.

In 2004 it had been envisaged that the equivalent of 250 000 person years would be generated in the infrastructure sector for an expenditure of R15 Billion. In itself this estimate is lower than could be anticipated. It is supposed that the planners were erring on the side of caution. In the event, by the end of third quarter of the fifth year (December 2008)²⁵ 255 000 equivalent person years had been generated at a cost of R33.78 Billion. Thus the person years are of the right order of magnitude as the estimate but it has cost more than double the budgeted amount.

More disturbingly, wages amounted to only R3.67 Billion or 10.86% of expenditure.

We have argued above that using labour-intensive methods for the 4 specified categories of construction would result in some 40% of direct construction costs going to labour. This would have amounted to some R13.5 Billion. Thus, an additional R10 Billion should have reached the poor.

There will be some dissension as to whether this could realistically have been expected during the first five years. As noted above, the planners adopted a more conservative position. This would have made sense at the time, given the lack of large-scale experience. However, if these processes had been started in 2004 proportions such as these could definitely be anticipated for the next five years during EPWP Phase Two. The Second Phase has been initiated.²⁶ At the moment it is projected to be about four times larger than Phase 1, with infrastructure accounting for half the expenditure.²⁷ If radical steps are not taken to improve labour-intensity, then based on the proportions achieved to date, many billions of rand will not be earned by accrue the poor. Where are there similar opportunities to generate employment opportunities for the poor and unskilled using money that has already been allocated for expenditure?

In Conclusion

EPWP's total expenditure of R40.8 Billion amounted to almost twice the 2004 budget. This in itself indicates a difference between the South African economy and most of the countries in sub-Saharan Africa: the additional expenditure was generated internally without reliance upon donor funding. However, it does mean that the one million job opportunities were generated for double the anticipated cost.

The infrastructure sector had by far the greatest share, 83%, of the actual expenditure between 2004 and 2009. Here, expenditure of some R34 Billion amounted to more than twice the 2004 budget of R15 Billion. Labour-intensity decreased from 26% in 2004 to 9% in 2009, averaging 11%.

In the infrastructure component of the EPWP nowhere near as much employment was generated per unit of expenditure, as could have been achieved using proper labour-intensive methods within the context of a well-planned development programme.²⁸ In relation to labour-intensive construction and maintenance, a development programme consists of a

planned series of related projects, directly and integrally linked to specific training programmes; the human resources required to implement the programme are largely produced through the programme itself. Successful large-scale models have existed in at least 4 countries in sub-Saharan Africa. Through such a programme, many billions of rand could be earned by the poor and unskilled. Where are there similar opportunities in the economy to generate employment opportunities for the poor and unskilled using money that has already been allocated for expenditure?

If a proper programme is not established the second phase of the EPWP will be just as inefficient in generating effective work opportunities during the provision of public infrastructure amongst the poor, particularly the rural poor.

Even without the establishment of a fully coherent programme a significant number of work opportunities could be generated if existing legislation and regulation were enforced. If the measures outlined in Section 3 were indeed enforced, then clients, consultants and contractors would be compelled to move away from entirely machine-based methods. While the industry often portrays itself as being slow to change (except when mega projects are concerned), it has been known to change its modus operandi quickly to follow the money, as has been done recently with respect to one mega project. A few high profile cases of enforcement and the industry would indeed transform its methods of implementation.

A related conclusion is that it should be recognized that when R34 Billion is being spent we are dealing with a mega-project. The current estimate for Gautrain is some R28 Billion. Depending upon the actual specifications a new power station costs of the order of R45Billion, and takes at least 10 years to plan and construct.

It is the necessary for a programme of the scale of the EPWP to be treated as a mega project; not as an assemblage of 10 000 odd projects as at present. At the very least components should have been seriously modeled on the programmes, which have been implemented successfully elsewhere in sub-Saharan Africa.

As importantly, it is essential as part of a developmental programme to establish a National Training College for Labour-intensive Construction. This could comprise a small national base responsible for setting common standards and curricula, with actual training decentralized to Provincial and major Metropolitan authorities. An important component of this college would be sound small contractor development.²⁹

References

- Council for Scientific and Industrial Research / Gautrans (2009) "Job creation, skills development and empowerment in road construction"
- EPWP Quarterly Reports from First Quarter 2004 to Third Quarter 2008 i.e. from EPWP First Quarterly Report, Financial Year 2004/05, 1 April-30 September 2004, 9 September 2004 to EPWP Annexures A-E, Third Quarterly Report-Year 4 For the period 1st April to 31 December 2007, Financial Year 2007/08, 30 March No text for these Annexures. Publication dates for all Quarterly Reports can be provided. They were taken from the EPWP website: www.epwp.dpw.gov.za
- EPWP Unit (2004) "Consolidated Programme Overview and Logical Framework Version 6", South Africa, Department of Public Works, EPWP Unit, June.
- EPWP Unit (2009). Expanded Public Works Programme Phase 2: Consolidated Programme Overview Version 1; January.

- Hattingh, J., McCutcheon, R.T., and Richardson, A.E. (2007) "Practical implementation of a philosophy towards increased job creation for the construction industry as a whole". Department of Public Works / International Labour Organisation. 12th Regional Seminar for Labour-Intensive Construction. 8th to 12th October 2007. Durban. South Africa. 10pp.
- International Labour Organisation (ILO) / EPWP. (2007) "Internal Survey of Gundo Lashu Contractors: Initial Results," 1st March; 12pp. (79a)
- ILO / EPWP (2007) "Internal Survey of Gundo Lashu Contractors: Initial Results," September; 15pp (79b)
- McCord, A. (2005) "A critical evaluation of training within the South African National Public Works Programme," *Journal of Vocational Education and Training*, Vol 57 No 4; 24pp. (31)
- Hattingh, J and McCutcheon, RT (2005)"Labour-Based Macadam Black top Surfacing" Papers of the 11th Regional Seminar for Labour-based Practitioners convened by the Government of Kenya, Ministry of Roads and Public Works and the International Labour Organisation (ILO) Advisory Support Information Services and Training (ASIST) Africa Programme, Mombasa 2nd- 7th October 2005: 125 to 135
- McCutcheon, R.T. 2001c. "Employment generation in public works: Recent South African Experience", *Journal of Construction Management and Economics*, Vol.19: 275-284.
- McCutcheon, R.T. 2001d. "Using employment-intensive methods to construct and maintain infrastructure", *Proceedings of the Institution of Civil Engineers, Municipal Engineer*, Vol. 45, Issue 4, December: 273-284.³⁰
- McCutcheon, R.T (2008) "The generation of productive employment opportunities for the unskilled: principles, potential and pitfalls of labour-intensive construction." Keynote Address:10th Path to Full Employment Conference / 15th National Unemployment Conference 4-5 December 2008, Centre of Full Employment and Equity (CoffEE) University of Newcastle, Australia; 12pp
- McCutcheon, R.T. and Taylor Parkins F.L.M. (eds.). 2003a. *Employment and High Standard Infrastructure*. Johannesburg: University of the Witwatersrand, Research Centre for Employment Creation in Construction, pp. 423.
- McCutcheon, R.T., Crosswell, J.A., Taylor Parkins, F.L.M. and Fitchett, A. (2007) "Challenges facing the implementation of the South African Expanded Public Works Programme", Durban, ILO / DPW 12th Seminar, October; 40pp. (18)
- McCutcheon, R.T., Hattingh, J., and Crosswell, J.A. "Re-engineering high standard heavily trafficked roads to achieve the objectives of the Expanded Public Works Programme.". Institution of Municipal Engineers of South Africa 71st Conference, Durban. 22-28 October 2007. 10pp.
- McIntosh, Xaba and Associates (Pty) Ltd (2009) (Principal authors and editors: F Taylor Parkins, RT McCutcheon and M Cole), Review of Selected Reports and Focus Group Discussions: Meta-analysis and Systematic Review of Selected EPWP Reports and Research: April 2004 to March 2009; and: Social Impact Survey of EPWP Beneficiaries and Stakeholders in Selected EPWP Projects, 1st September, 245pp
- Meyer, L, Denga,S and Kamman, E. (2007) "Findings of the first Cross-sectional Survey undertaken on the Implementation Expanded Public Works Programme, FINAL REPORT", Development Research Africa/Take Note Trading, 31 August; 192pp. (7)
- Mitchell, W. (2008) "Revised BRIEFING NOTE (March 18, 2008), Poverty and unemployment: challenges for policy coherence; The role of the Expanded Public Works Programme in South Africa", ILO, March; 24pp. (3b)
- Philip, K. (2008) "Review of Second Economy Programmes, Executive Summary", January;
- R.T. McCutcheon, J.A. Crosswell and J.Hattingh, "Re-Engineering Construction for Employment and Development: Labour-intensive construction of access and high-standard roads in the Expanded Public Works Programme", Keynote Address, 3rd IRF/SARF Regional Conference for Africa: ROADS FOR THE AFRICAN RENAISSANCE, 10th to 12th September 2006: ICC, Durban, South Africa. ISBN No: 0-620-37105-6. IRF / SARF: 392-415.

Republic of South Africa (RSA). 2002. *Government Gazette* No 23035 25th January 2002 “No. R63: Basic Conditions of Employment Act, 1997. Ministerial Determination No: 3: Special Public Works Programmes.” And: “No. R64: Basic Conditions of Employment Act, 1997. Code of Good Practice for employment and conditions of work for Special Public Works Programmes.” 17pp. (26)

¹ RT McCutcheon is Professor Emeritus of Civil and Environmental Engineering at the University of the Witwatersrand, South Africa, and also Director of the WORK Research Centre for Employment Creation in Construction located within the School of Civil Engineering at WITS University.

² Independent development consultant

³ Between 2004 and 2009 the rand varied between 8 and 12 to the US\$.

⁴ Announced during the EPWP Kamoso Awards event held in Sandton and repeated many times since, including EPWP Unit 2009:4

⁵ MacIntosh Xaba and Associates 2009.

⁶ LITEworks (Pty) Ltd 2008.

⁷ EPWP Unit 2004: 2 and 14.

⁸ Ibid.

⁹ EPWP Unit 2004:14. This was repeated in the Quarterly Report that was published in May 2008.

¹⁰ Ibid EPWP 2004: 7.

¹¹ Emphasis added.

¹² EPWP conditions have been placed on the PIG and MIG via the 2004 Division of Revenue Act. EPWP First Quarterly Report, Financial Year 2004/05, 1 April-30 September 2004, 9 September 2004

¹³ The EPWP creates work opportunities with no or little additional funding. (EPWP Unit, 2004)

¹⁴ Additional:

Presentation by of Provincial and Local Government Minister, FS Mufamadi, on behalf of the Social Sector One Cluster, 25 May 2004,

RURAL DEVELOPMENT AND URBAN RENEWAL

“In the infrastructure sector, the conditions placed on the Municipal Infrastructure Grant (MIG) and Provincial Infrastructure Grant (PIG) have been finalised and published through the Division of Revenue Act 2004 (DORA). According to DORA, provinces and municipalities are required to implement a portion of their infrastructure projects in 2004-05 financial year, using labour intensive construction methods.

Guidelines have been finalised for the implementation of the EPWP.”

SPEECH BY R Z NOGUMLA DURING A PUBLIC WORKS BUDGET VOTE DEBATE 10 June 2004

“In the infrastructure sector the conditions placed on the municipal infrastructure grant (MIG) and provincial infrastructure grant (PIG) have been finalised and published through the Division of Revenue Act 2004 (DORA). As indicated above province and municipalities are required to implement a portion of their infrastructure projects using labour intensive construction methods.”

¹⁵ In relation to labour-intensive construction and maintenance, a development programme consists of a planned series of related projects, directly and integrally linked to specific training programmes; the human resources required to implement the programme are largely produced through the programme itself.

¹⁶ This is according to the EPWP M&E Unit’s own Quarterly Reports’ data sets.

¹⁷ To put this expenditure in perspective: it is of the order of magnitude required to build a 3600MW power station. From another perspective: about 10 years of planning and construction is required to produce such a functioning power station.

¹⁸ This, and other management aspects, will be the focus of another paper.

¹⁹ And its successor the Minor Roads Programme.

²⁰ ILO 2007

²¹ LITEworks 2008

²² Hattingh et al 2007; McCutcheon and Taylor Parkins 2003;

²³ McCutcheon et al 2007a

²⁴ McCutcheon et al 2007b

²⁵ The data for the fourth quarter, which was the official end of the first five years of the EPWP, is not yet available.

²⁶ STATE OF THE NATION ADDRESS BY HIS EXCELLENCY J G ZUMA, PRESIDENT OF THE REPUBLIC OF SOUTH AFRICA, JOINT SITTING OF PARLIAMENT, CAPE TOWN 03 JUNE 2009

Another important element of our drive to create job opportunities is the Expanded Public Works Programme (EPWP). The initial target of one million jobs has been achieved.

The second phase of the programme aims to create about **four million job opportunities by 2014**.

Between now and December 2009, we plan to create about 500 000 job opportunities.

Since the implementation of our programme will take place in the face of the economic downturn, we will have to act prudently - no wastage, no rollovers of funds - every cent must be spent wisely and fruitfully. We must cut our cloth according to our size.

²⁷ EPWP 2009

²⁸ McCutcheon 2008

²⁹ Small contractor development is of major concern to governments and donor agencies. Failure rates are extremely high and the whole field requires re-thinking.

³⁰ Winner of the James Hill Prize 2002, for the best paper published in the 2001 Municipal Engineer ...awarded by the Institution of Civil Engineers