



**EXPANDED PUBLIC WORKS PROGRAMME  
CONTRIBUTING TO A NATION AT WORK**

**Department of Public Works**

**Framework for Monitoring and Evaluation of the  
Expanded Public Works Programme**

**28 January 2005**

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## **EXECUTIVE SUMMARY**

### **1. INTRODUCTION**

The purpose of this report is to set out a framework for monitoring and evaluation of the Expanded Public Works Programme (EPWP). The purpose of evaluation should be to improve the basis for decision-making and assist with policy review of the EPWP, as well as to assist project managers and participants as to their own performance; hence the need to place more emphasis on process evaluation. Monitoring data and information should logically feed into process evaluation. Given the urgency of the implementation of the EPWP, it is crucial that data and information be collected that could inform decision-makers and project stakeholders about the process, so that corrective action could be taken (where appropriate) – and correct practices reinforced for replication.

The research methodology included a review of domestic and international literature and close interactions with government departments tasked with implementing the various programmes that comprise the EPWP.

### **2. CONTEXT**

The goals, objectives and targets for the EPWP are set out in the Logframe (Annexure 1). This will be the basis for monitoring and evaluation of the programme.

The immediate goal of the EPWP is to alleviate unemployment for a minimum of one million people, of which at least 40% will be women, 30% youth and 2% disabled, by 2009 (see Annexure 1 – Logframe). This goal will 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)
- Utilizing general government expenditure on goods and services to provide the work experience component of small enterprise learnership / incubation programmes.

### **3. SCOPE OF THE MONITORING AND EVALUATION FRAMEWORK**

The scope of the monitoring and evaluation (M&E) framework is informed by international experience, the policy objectives the EPWP has set for itself and the specific programmes that comprise it. Ultimately, the identification of the programme impacts that require evaluation is guided by the central objectives of redressing unemployment and poverty. They are summarised in Table 1.

**Table 1: EPWP Objectives to be Monitored and Evaluated**

Objective	Measure
Over the first five years to create temporary work opportunities and income for at least 1 million unemployed South Africans	Number of total, women, youth and disabled job opportunities  Person days of work  Average income of EPWP participants per sector
To provide needed public goods and services, labour-intensively, at acceptable standards, through the use of mainly public sector budgets and public and private sector implementation capacity.	Cost of goods and services provided to standard in the Infrastructure, Environment and Culture and Social Sectors  Cost of each job created
*To increase the potential for at least 14% of public works participants to earn future income by providing work experience, training and information related to local work opportunities, further education and training and SMME development.	% of participants at point of exit to secure <ul style="list-style-type: none"> <li>• Employment</li> <li>• Education or Training</li> <li>• A SMME</li> </ul>

\*It is estimated that the breakdown of work opportunities for the various sectors would be as follows: Infrastructure - 8%; Environment & Culture - 10%; Social - 40% and Economic - 30%)

The criteria against which these objectives are evaluated will vary within sectors and programmes and must therefore be located within the specificities of each programme. For example, the Social Sector is expected to yield a much higher level of skill formation than the other two sectors as it has a much more ambitious training programme.

#### **4. PROPOSED MONITORING AND EVALUATION FRAMEWORK**

The development of the M&E programme for the EPWP has been guided by three factors: international best practice in the evaluation of public works programmes, the areas to be evaluated, and the cost associated with different evaluation techniques. A balance between these three factors will yield an effective and affordable M&E framework.

The monitoring of the EPWP is captured in the Logframe (Annexure 1). The information needed to populate the identified indicators is captured every quarter by reporting agencies in a reporting template (Annexure 2) and aggregated by the EPWP Unit.

The proposed framework is summarised in Table 2, which indicates the various evaluation techniques against the specific areas that they will measure. It includes a variety of techniques that will jointly yield the quantitative and qualitative information required to evaluate the various facets of the programme outlined in Table 1.

**Table 2: Summary of Evaluation Techniques**

Technique	Implementation	Areas Measured	Timeframes
Cross-sectional Surveys	Surveys of contractors/ implementing agents, beneficiaries, communities & government departments	Profile of beneficiaries & their households; impact of income transfers; impact of assets created; relevance & quality of training, role of contractor (targeting, training etc.); community perceptions of the benefit of the project; efficacy of design & implementation	Years 1, 3 and 5, surveys to be conducted at the end of the project cycle
Longitudinal Surveys	Surveys of beneficiaries 6 months after exiting the EPWP & 6 months thereafter	Whether employment or self-employment occurs after exiting the EPWP; Longer-term impact of income transfers & training; Offsetting effects (displacement and substitution).	Years 1, 3 and 5, surveys to be conducted 6 months after beneficiaries exit the EPWP & 6 months thereafter
Case Studies and Completion Reports	In-depth studies of selected projects by researchers, spread across sectors and provinces  Assessment of Quality of assets and services. Evaluation of the quality of infrastructure and services against accepted benchmarks	All measurement areas excluding employment prospects of beneficiaries after exiting the EPWP. Quality of assets.  Implementation process  All forms of infrastructure and services	Years 1 – 5
Poverty Impact Analysis	Secondary data & data derived from surveys utilised	Impact of income, assets and services transferred to poor households on poverty & vulnerability	Years 3 & 5
Aggregate Impact Analysis	Utilise a computable general equilibrium (CGE) model to measure broader impacts	Linkages between EPWP and broader macroeconomic variables such as aggregate demand, net jobs created, income redistribution and inflation	Years 3 & 5

These techniques and measures will be implemented at different stages as the EPWP is rolled out. The *cross-sectional* and *longitudinal surveys* will be conducted in years 1, 3 and 5 and will commence once the initial projects near completion. The *poverty impact analysis* and *aggregate impact analysis* will take place twice over the 5-year period, in years 3 and 5.

Stats SA has included questions on the EPWP for the next General Household Survey (GHS). Negotiations are under way for the inclusion of EPWP questions in the March 2005 Labour Force Survey (LFS). The information gleaned from these surveys would assist to paint a picture with regard to the reach of the programme on a national basis.

If it is assumed that approximately 800 000 people will work on the EPWP at some point during the 5 year period of the programme, it can be expected that 1800 of them will be included in the LFS sample. This is a sufficiently large sample to permit analysis of the impact of the EPWP on employability, as well as to provide information about the household income and structure of beneficiaries.

Due to budgetary constraints it is estimated that the cost of implementing the M&E framework should be between R10 million to R15 million over the five-year period. This is perhaps not the ideal situation, but it is argued that purposely sampled case studies would suffice to take the lessons learned forward to improve and replicate best practices over the five year period.

## **5. IMPLEMENTATION OF THE EVALUATION FRAMEWORK**

The following actions will be taken to implement the M&E framework:

- **Processes will be developed to evaluate the quality of goods and services provided within Social Sector.** Norms and standards will have to be established for the HCBC and EDC Programmes.
- **Establishing an interdepartmental M&E Expert Committee.** This committee will serve as a one-stop channel of communication between the researchers and government departments.

## **6. CONCLUSION**

Undoubtedly, a number of additional considerations and areas that require evaluation will come to light as the EPWP is rolled out. It is therefore essential that the approach to the framework is flexible to allow for their inclusion.

## **FRAMEWORK FOR EVALUATING THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP)**

### **1. INTRODUCTION**

The purpose of this report is to set out a framework for monitoring and evaluating the Expanded Public Works Programme (EPWP). The mechanisms for monitoring the programme are outlined in the attached Logframe (Annexure 1).

There is currently limited information available on projects to be included in the EPWP. Sector plans are available only for the Infrastructure, Social and Environment and Culture Sectors. The Economic Sector Plan is currently being developed in conjunction with sector departments. Within these limitations, this report provides a comprehensive and integrated approach to evaluating the impact of the EPWP on alleviating employment, poverty and service delivery.

Section 2 provides a context within which to evaluate the EPWP by locating it within the framework of South Africa's unemployment crisis and analysing its impact from a theoretical perspective. In section 3, the scope of the evaluation framework is outlined in terms of both the areas to be evaluated and the sector-specific considerations that it must incorporate. Section 4 sets out the techniques for evaluating the programme over a five-year period and outlines the costs and timeframes associated with the evaluation exercise. In Section 5, issues pertaining to the implementation of the framework are highlighted.

### **2. CONTEXT: THE EPWP AS A POLICY INSTRUMENT TO ALLEVIATE UNEMPLOYMENT**

It is imperative that the evaluation of the EPWP as a short to medium-term measure to mitigate the adverse social, political and economic consequences of high and growing levels of unemployment is located within an understanding of the magnitude and nature of the unemployment crisis.

There is substantial agreement that the cause of unemployment is structural rather than cyclical. In particular, the skills composition of the labour force, the capital-intensive nature of the South Africa's development trajectory, and the rapid loss of lower skill mining and agriculture jobs have reinforced the inability of the economy to absorb unskilled and semi-skilled labour, which account for the vast majority of the unemployed.

It is essential that the EPWP is evaluated against this backdrop. Critically, while it provides an important avenue for labour absorption and income payment to poor households in the short to medium-term, the EPWP is not designed to be a policy instrument to address the structural nature of the unemployment crisis. That would require a more forceful and sustainable intervention to place the economy on a labour-absorbing development path.

The world over, public works programmes (PWPs) are seen as a short-term measure to alleviate poverty and unemployment. Stated differently, the objective is not to create sustainable employment opportunities. Rather, public works programmes are a means of creating a high volume of employment in the short-term

in a context of chronic unemployment that is a consequence of natural disasters (such as drought and famine) and acute social and political crises. It is also appropriate where marginalized groups that have difficulty accessing labour market opportunities are identified – often the youth, disabled, retrenched, or long term unemployed.

It is also imperative that the monitoring and evaluation (M&E) framework situates the EPWP within the broader spectrum of government interventions to alleviate unemployment. The EPWP is one of the programmes agreed to at the Growth and Development Summit (GDS). Critically, the evaluation must be framed in a way that takes cognisance of the fact that the programme is merely one element within a broader government strategy to alleviate poverty. Government's medium-to-long term policy approach to halving unemployment by 2014 (i.e. in line with the Millennium Development Goals) includes an array of measures to increase economic growth, improve skills levels through education and training, and improve the environment for business, particularly through the microeconomic reform strategy.

The EPWP's targets are set for the 2004/05 – 2008/09 financial years. Although the programme is not by definition a five-year programme, targets have been set for the first five years. It is defined as a nation-wide programme to draw significant numbers of the unemployed into productive work accompanied by training so that they increase their capacity to earn an income. The overarching objective is to create 1 million short-term job opportunities for the unskilled unemployed over the first 5 years. In order to create jobs in a short period of time, the approach is to expand both existing best-practice PWP's that are labour-intensive and to introduce labour-intensive production techniques by, for example, replacing machines with labour in civil construction.

The EPWP comprises four sectors: Infrastructure, Environment and Culture, Social and Economic<sup>1</sup>. Each of the sectoral programmes is focused on unemployed, under-skilled and under-qualified persons. The key objectives of the programme are to:

- Draw significant numbers of the unemployed into productive work to enable them to earn an income.
- Provide unemployed people with education and skills.
- Make an effort to assist beneficiaries of the EPWP to either set up their own business/ service or become employed once they exit the programme.
- Utilise public sector budgets to alleviate unemployment.
- A further objective is to create social and economic infrastructure and provide social services as a means of meeting basic needs. This is a critical objective from the perspective of evaluating the programme's impact.

The objective of **utilising public sector budgets to alleviate unemployment** will be evaluated against the resources applied to the EPWP and the efficacy of the various programmes in creating employment. The M&E framework will quantify the cost to the fiscus per employment opportunity and person-year of employment created on an ongoing basis. The planned budgetary allocation for the EPWP over the next 5 years (R15 billion for the Infrastructure Sector over 5 years, R2.7 billion for

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<sup>1</sup> The Economic Sector plan is currently being developed in conjunction with sector departments.

the Environment and Culture Sector over the next 3 years, R600 million for the Social Sector over the next 5 years and with no budgets yet allocated to the Economic Sector) is small in relation to aggregate government expenditure. The matching up of other budgets, the possible extension of labour-intensive methods to new construction line items and the concurrent expansion of Social Sector programmes will be the elements required to ensure the ambitiousness of the EPWP. It should be noted that the fact that these allocations are not made directly by the EPWP – spending should thus be monitored closely to ensure maximum impact. Compliance will be monitored also through audits by the Auditor-General's Office.

The overarching objective of **poverty alleviation** must be framed within the broader policy framework for redressing poverty, including social grants. The EPWP redresses poverty at the household level through both the income paid to beneficiaries in the form of wages and the assets and services provided to poor communities. The ability of the EPWP to target beneficiaries from the poorest households will be a key marker of its impact on poverty.

The scope of the monitoring and evaluation (M&E) framework is informed by international experience, the policy objectives the EPWP has set for itself and the specific programmes that comprise the EPWP. Ultimately, the identification of the programme impacts that require evaluation is guided by the central objectives of alleviating unemployment and poverty.

Although not explicitly stated as such, the EPWP programme is clearly part of an active labour market policy to promote economic participation amongst marginalized work seekers. Many of those targeted by the EPWP will be categorised as 'long-term unemployed' – this is probable as evidenced by the fact that in 2003, 59% of the unemployed had never worked, with this indicator increasing to 70% for those in the 18 – 34 age group (Stats SA, 2003). Hence the EPWP does aim to provide beneficiaries with exposure to the world of work as a means of enhancing their prospects for finding employment once they exit these programmes. This is underpinned by the training that each beneficiary is entitled to receive.

Second, the overwhelming majority of the unemployed are not supported by a social welfare net as they do not qualify for benefits in terms of the Unemployment Insurance Fund (UIF), which is itself limited in scale and scope. Hence a key objective of the EPWP is to alleviate poverty by providing beneficiaries with some income, albeit for a relatively limited period of time. As is the case in other developing economies, the extent to which the EPWP alleviates poverty both through the income it pays to beneficiaries and the assets and services it provides to the poor becomes a key area of evaluation. In particular, the extent to which the most vulnerable are targeted and the impact of the income, assets and services they receive on the poverty profile of households is a key area to be evaluated.

In this regard it is worth noting that research has demonstrated that income earned by women is more likely to alleviate household poverty than income earned by men. For example, in the case of pension income, a recent study found that the relationship between transfer receipt and a reduction in child malnutrition is particularly strong where the pension recipient is female, but almost negligible where the recipient is male.

This suggests that targeting women as the beneficiaries of employment creation initiatives may be the most effective way of improving household welfare. The primary mechanisms by which these positive changes are achieved are improved nutrition, improved sanitation, and the reduction of psychosocial stress associated with extreme poverty. As the EPWP is rolled out the relationship between the characteristics of beneficiaries and the impact of the income paid on household poverty will have to be measured in order to evaluate its impact on poverty alleviation.

### 3. SCOPE OF THE MONITORING AND EVALUATION FRAMEWORK

Together with the objectives the EPWP has set for itself, the broad parameters that determine the scope of the evaluation framework are summarised in Table 1.

**Table 1: EPWP Objectives to be Monitored and Evaluated**

Objective	Measure
Over the first five years to create temporary work opportunities and income for at least 1 million unemployed South Africans	Number of total, women, youth and disabled job opportunities Person days of work Average income of EPWP participants per sector
To provide needed public goods and services, labour-intensively, at acceptable standards, through the use of mainly public sector budgets and public and private sector implementation capacity.	Cost of goods and services provided to standard in the Infrastructure, Environment and Culture and Social Sectors Cost of each job created
To increase the potential for at least 14% of public works participants to earn future income by providing work experience, training and information related to local work opportunities, further education and training and SMME development.  (14% = Infrastructure 8%, environment 10%, social 40%, economic 30%)	% of participants at point of exit to secure <ul style="list-style-type: none"> <li>• Employment</li> <li>• Education or Training</li> <li>• A SMME</li> </ul>

The criteria against which these objectives are evaluated will vary within sectors and programmes and must therefore be located within the specificities of each programme. For example, the Social Sector is expected to yield a much higher level of skill formation than the other two sectors as it has a much more ambitious training programme.

The evaluation of programmes that operated within the framework of the Special Poverty Relief Allocation commissioned by National Treasury forcefully made the point that "... a one size fits all monitoring and evaluation system can be inflexible and mechanistic. Monitoring and evaluation systems should be tailored to the

particular objectives and activities of each activity stream, while at the same time being able to provide overarching generic information for comparative purposes” (National Treasury, 2004:44).

For this reason, the scope of the programmes that fall within the 3 broad sectors is outlined below in order to identify the specific challenges and issues that each will confront in relation to the policy objectives to be evaluated.

### 3.1. Infrastructure Sector

The Infrastructure Sector has been identified as the largest employment generator within the EPWP, targeting the creation of 900,000 jobs over the next 5 years. Government has already committed itself to a massive expansion in its capital budget, from about R 58 billion in 2002/3 to R 74 billion in 2003/4, and maintaining that level in real terms over the Medium Term Expenditure Framework (MTEF). Approximately R 28 billion more will be spent in *real terms* over the 3 year period between 2003/4 – 2005/6, than was spent between 2000/1 – 2002/3 – this is an increase of 30%. A large portion of this increase will be allocated to civil construction, which is typically capital-intensive. So it is anticipated that this spending, in combination with a programme to intensify labour use should together have an important impact on employment.

Given that government’s aggregate infrastructure budget has been expanded significantly since 2001, the means by which employment will be created is through shifting from machine-intensive to labour-intensive construction techniques in the construction and rehabilitation and maintenance of public infrastructure - and not necessarily by further increasing budgetary allocations.

Low-volume roads, trenching, storm water drains and sidewalks have been identified as areas where labour-intensive methods are to be applied. The use of labour-intensive techniques is also encouraged in the construction, maintenance and rehabilitation of other forms of infrastructure. The majority of job opportunities will be created within the framework of the Provincial and Municipal Infrastructure Grants (PIG and MIG, respectively) to which specific conditions will be attached. Within these conditional grants, an amount of R15 billion has been earmarked for labour-intensive projects.

In addition to the MIG and PIG, the Infrastructure Sector has targeted the **maintenance of public buildings** as a means of creating 150,000 job opportunities over the next five years. The number of work opportunities is based on an annual budget of R 200 million, representing 20% of the total maintenance budget for National and Provincial Public Works Departments, thus adding an additional R1 billion to the Infrastructure Sector’s budget for the EPWP. The Independent Development Trust (IDT) will act as the Programme Implementing Agent for the National and Provincial Departments of Public Works.

Finally, civil works through the Department of Housing, trenching in electrification projects through Eskom, and some remaining CMIP projects have been identified as areas where labour-intensive methods can be applied. However, targets have not yet been set and it is anticipated that these will become known once the planning of these projects is at a more advanced stage.

From the perspective of evaluating the infrastructure programmes, it is important to note that the success of the Infrastructure Sector plan rests upon two critical factors: the ability to capacitate the construction industry to utilise labour-intensive construction techniques and the capacity of provincial and local governments to implement the PIG and MIG.

As regards the former, DPW has identified the need for training in labour-intensive construction at all levels and has therefore developed NQF accredited training at levels 2, 4, 5, 6 and 7. Consultants and contractors working on labour-intensive infrastructure projects will be required to take the relevant training courses if they are to be eligible to win tenders.

As regards public management capacity, while the MIG and PIG are designed in a way that places the bulk of the responsibility for implementation on the private sector, through the key roles played by consulting engineers and contractors, provincial governments and municipalities nevertheless have a key role to play. In order to enhance their capacity to implement the programmes, DPW had developed guidelines for implementing labour-intensive infrastructure projects and is training municipalities in the use of these guidelines. In addition, the Department of Provincial and Local Government (dplg) intends to establish a dedicated Project Management Unit (PMU) to assist municipalities to implement the MIG.

### **3.2. Environment and Culture Sector**

This sector is coordinated by DEAT and involves DWAF, NDA, DST and DAC. Unlike the Infrastructure and Social Sectors, the programmes that comprise this sector have been implemented in the past within the framework of the Special Poverty Relief Allocation. Hence they are unlikely to experience the initial implementation problems that are expected in the case of the other sectors.

The overarching objective of this sector is to **create 200,000 job opportunities during the 2004/05 to 2006/07** financial years while at the same time generating useful outputs in the areas of environment, heritage, biodiversity and land care. In addition, the programmes support the creation of land-based livelihoods and community-based natural resource management. If the number of jobs is **projected for the full 5 year period**, it is reasonable to expect that something in the order of **330,000 job opportunities** will be created. As these jobs would not exist in the absence of the programme, unlike the Infrastructure Sector a baseline is not available against which to evaluate net employment creation. Some consideration could therefore be given to constructing a hypothetical baseline (e.g., the number of jobs created if the financial resources were to be allocated to other government programmes) when the programme is comprehensively evaluated.

In addition to the creation of job opportunities and the training of beneficiaries, the sector has set the following objectives for itself:

- Linking people in the marginalised “second economy” with opportunities and resources to enable their participation in the developed “first economy”.
- Integrating sustainable rural development and urban renewal
- Creating land-based livelihoods
- Promoting community-based natural resource management

- Developing natural resources and cultural heritage
- Rehabilitation of natural resources and protection of biodiversity
- Promoting tourism

A comprehensive evaluation of these objectives will be complex and extremely costly given the large number of programmes that fall within this sector. While the evaluation techniques proposed in section 4 will capture information on the extent to which these objectives are being met, the less quantifiable objectives such as linking the “second” and “first” economies are unlikely to be comprehensively evaluated. Although case studies will yield in-depth information about qualitative aspects of the programme, budget constraints will not permit case studies of each specific programme and the findings will not be generalizable. It should be noted that the lessons learned from evaluations conducted by implementing bodies should be fed into the M&E initiatives of the EPWP. Possibilities for partnerships to conduct evaluations will also be explored.

Notably, a recent evaluation of the programmes within this sector that are evaluated by DEAT, highlighted the fact that that specific targets or time-bound activities against which to measure the success of projects have not been established. This suggests that benchmarks need to be developed as a matter of urgency if the value of the projects and their quality is to be properly assessed.

The programmes that will form part of the EPWP, as well as the budgetary allocations over the MTEF and the job opportunities to be created are summarised in Table 2. At present, implementation takes place primarily at the level of provincial government although national departments play an important role in the selection of eligible projects.

**Table 2: Core Environment and Culture Sector Programmes, to be transferred under the EPWP umbrella**

Core Programme	Description	Planned Expenditure: 2004/5 – 2006/7, R' Million	Jobs	Person Years	Training Days
Sustainable Land Based Livelihoods	Working for the Land, Working for Water, Working for Wetlands, Working on Fire, removal of alien vegetation, the application of science and technology to create high value commodities, and measures to combat desertification	R 1,649.50	145 252	72 626	1 597 768
Working for the Coast	Uses the resources of SA's coast for the development of coastal communities, while protecting and rehabilitating these resources.	R 119.20	17 740	8 870	195 136

Core Programme	Description	Planned Expenditure: 2004/5 – 2006/7, R' Million	Jobs	Person Years	Training Days
People and Parks	Involve communities in conservation, and maximise the benefits to communities of SA's parks and protected areas.	R 254.10	9 391	4 696	103 303
Working for Tourism	Uses the rapidly growing eco-tourism sector to generate revenue for local communities and to involve them in the tourism economy.	R 627.50	20 452	10 226	224 968
Working on Waste	Uses waste management and recycling as entry points for building SMME's and creating local jobs	R 72.90	8 869	4 435	97 651
<b>TOTAL</b>		<b>R 2,723.20</b>	<b>201 703</b>	<b>100 852</b>	<b>2 218 735</b>

Expenditure targets, disaggregated by department, are summarised in Table 3. DWAF and DEAT account for the highest proportion of the budget of R2.7 billion over the MTEF. In real terms the budgetary allocation for this sector has not increased relative to what was spent over the 2001/02 - 2003/04 financial years, when it formed part of the Special Poverty Relief Allocation. So, effectively, this is a transfer of reporting and monitoring of programmes from the Poverty Relief Programme to the EPWP “umbrella”.

**Table 3: Expenditure by Department, R' Million**

YEARS	NDA	DEAT	DWAF	DAC	TOTAL
2004 / 5	R 60 m	R 350.5 m	R 370 m	R 75 m	R 855.5
2005 / 6	R 64 m	R 369.1 m	R 391 m	R 83 m	R 907.1
2006 / 7	R 68 m	R 388.6 m	R 413 m	R 91 m	R 960.6
TOTAL	R 192 m	R 1,108.2 m	R 1,174.0 m	R 249 m	R 2723.2

The sector plan explicitly acknowledges the need to look beyond the MTEF poverty relief allocation and identify additional programmes and projects that lend themselves to EPWP principles. To that end, the following areas have been identified for potential expansion:

- Integration of a greening programmes with housing programmes.

- Landscape rehabilitation integrated with community nurseries.
- Assessment of non-endemic species invasion in catchment areas to aid long range planning and quantification of the problem to support sustainable roll-out of an invasive species control programme.
- Developing a scientific base and development of SMMEs in the area of freshwater fisheries alongside with mariculture.
- Establishment of municipal waste programmes linked to SMME development.
- Community benefit sharing models and BEE equity acquisition in the areas of hospitality services in and around protected areas.
- BEE acquisition through high value tourism products and SMME development.
- Tourism route development

Once implementation plans have been developed for these areas, they should be incorporated in the evaluation framework.

### 3.3. Social Sector

The objective of the Social Sector is to create employment within the framework of 2 programmes: Home Community Based Care (HCBC) for people infected with HIV/AIDS and Early Childhood Development (ECD) for children in the 0–6 years age group. The Departments of Social Development and Health are responsible for implementing the former and the Departments of Education and Social Development the latter.

There is still considerable work required to actually design the EPWP Social Sector programmes, if the training opportunities are to translate in subsequent employment opportunities. The infrastructure and environmental projects already have large budgets and programmes attached, and so are ready to be implemented. This is not the case for the social programmes. Given the huge unmet demand for these services, they represent an opportunity for employment creation if the programmes are taken to scale.

As is the case with the Environment and Culture Sector, the jobs created by this programme would not exist in the absence of the programme. Hence a baseline is not available against which to evaluate net employment creation.

#### 3.3.1. Home Community Based Care (HCBC)

At present, the target is to create **120,000 work opportunities, 17,000 of which will be through learnerships, over the next five years**. These work opportunities are to be created through three initiatives:

1. Drawing **20,000** existing volunteers who receive no remuneration at all into paid work opportunities by paying them a stipend. These volunteers will also receive accredited training and will work full time.

2. A further **90,000** jobs will be created by expanding the pool of employed volunteers. This will be done by rolling out a bridging programme to the CHW programme and working in partnership with Umsobomvu to create 17,400 learnerships.
3. Expanding the programme beyond the current HCBC sites with the establishment of 300 new sites per annum and 3000 HCBC work opportunities to create a further **12,000** job opportunities.

In contrast to the infrastructure and environmental programmes, these job opportunities will be provided for relatively long periods, ranging from 12 to 24 months. Hence a high number of person years (170,000) will be created from the 120,000 work opportunities.

Given the high employment coefficients associated with this sector<sup>2</sup>, if successfully implemented it is likely to yield the highest number of employment opportunities per rand of expenditure. Moreover, in contrast to the other sectors, if the programme is taken to scale through the provision of additional government grants, the jobs created are likely to be sustainable.

From the perspective of timing it is important to note that implementation of the programme is unlikely to commence in the first two quarters of the 2004-05 financial year. Given that the minimum period of the job opportunities is 12 months, project sampling through surveys and case studies are likely to commence only in 2005-06.

### 3.3.2. Early Childhood Development

There is clearly an enormous unmet need for ECD services for poor and vulnerable children in the 0 –6 years age group. This age group is targeted because older groups are catered for through the expansion of these services for Grade R by the Department of Education and the schooling system.

The aim of the ECD programme is to create 60,000 job opportunities over 5 years. In particular, the following initiatives have been proposed by the Social Sector to generate job opportunities within the framework of the ECD programme:

1. **Learnerships.** In partnership with the EDTP SETA, **6,500 NQF level 1** and **9,000 learnerships at NQF level 4** are planned. In addition there is a plan to train **4,500 grade R teachers** under the DoE.
2. **Job opportunities** for **9,000** unemployed people accompanied by a skills programme in sites receiving the DSD indigent subsidy. A further **14,000** job opportunities in the remaining ECD sites in poor areas through additional subsidies.

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<sup>2</sup> This sector generates 46 jobs per million rand of expenditure and hence has the highest employment coefficient in the SA economy (Lewis, 2001).

3. **Parents Informing Parents (PIP).** The creation of 3 month employment opportunities for **3,000 unemployed parents** through existing schools and local authorities.
4. **ECD support staff.** This entails the creation of **4,000** job opportunities for gardeners, cooks and administrators in 4 000 target schools.

If the programme is effectively implemented it will create a significant number of sustainable job opportunities, alleviate poverty by meeting a critical basic need of poor households and contribute to social and economic development by developing the nation's children.

#### 4. MONITORING AND EVALUATION FRAMEWORK

The development of the evaluation programme for the EPWP has been guided by three factors: international best practice in the evaluation of public works programmes, the areas to be monitored and evaluated, and the cost associated with different evaluation techniques.

From a broad conceptual perspective, international best practice is to use *target-oriented*, rather than *programme-oriented* evaluation techniques. While programme-oriented approaches measure the impacts of a particular programme along the dimensions of its immediate pre-specified objectives, the target-oriented approach takes as its point of departure broadly defined policy goals or targets. Hence the latter approach analyses which policies and policy combinations are most appropriate for achieving pre-defined policy objectives under different socio-economic conditions and within different policy regimes.

In the case of the EPWP, a programme-oriented approach will be adopted as the objective is to understand the impact of the programme itself, rather than to locate such impact within the context of other policy interventions.

Two broad categories of evaluation studies can be identified. The first are microeconomic studies, which try to evaluate the impact of a programme on the participants. The second are macroeconomic studies, which evaluate the aggregate impact of programs on, for example, unemployment or earnings.

The central area of impact that the combination of microeconomic and macroeconomic evaluation techniques endeavour to assess is the number of jobs created by a policy intervention net of offsetting impacts, as illustrated in the box below.

$$\text{Net Impact (i.e. Net Jobs Created)} = \text{Gross Jobs Created} - \text{Deadweight} - \text{Substitution Effects} - \text{Displacement Effects}$$

The three major potential major offsetting impacts are defined as follows:

- **Deadweight** refers to a situation where the impact would happen without the policy intervention anyway. Consequently, the human and financial resources utilised to implement the intervention are a deadweight loss to society. An example would be when an unemployed person entering employment after participating in a programme or undergoing training would have found the same job without these interventions anyway.
- The **substitution effect** occurs when the effect of a measure is at the expense of a non-target group. For example, a participant in a programme gets a job that would have otherwise gone to another person.
- The **displacement effect** refers to a situation where the programme's effect is to displace non-participants because it creates market distortions. For example, where concessionary finance is provided to create an SMME, which then leads to the closure of another enterprise in the same industry and consequently job losses.

Not surprisingly, these offsetting impacts are difficult to measure. The most widely used technique is a combination of micro and macro-level studies. The macro studies, because they measure the aggregate impact of a programme, are able to quantify offsetting effects by contrasting gross and net employment impacts. As they are unable to explain which of the three offsetting effects account for the difference between gross and net employment, qualitative micro-level studies in the form of surveys and case studies are necessary to evaluate the relative weight of the three effects.

In the case of the EPWP, there is little reason to believe that there will be substantial offsetting impacts in relation to the short-term job opportunities created, as most of these jobs would simply not have existed in the absence of the programme. It is once beneficiaries exit the programmes and either enter formal employment or become self-employed, that these effects are likely to become relevant. Although it is complex and costly to measure them at that stage, the longitudinal studies proposed below will pick up some of these effects, as will the aggregate impact analysis.

A critical area of evaluation that is not explored in the context of the OECD countries - largely because they provide relatively generous unemployment benefits – is the impact of public works programmes on poverty alleviation. As alluded to earlier, this is the central objective in developing countries - and South Africa is no exception. A recent analysis of the efficiency with which public works programmes generate income and assets to the poor in the Western Cape, provides an important framework for evaluating the impact of the EPWP on poverty.

The EPWP attempts to alleviate poverty through two mechanisms: a cash payment to participants and the provision of assets and services, which have indirect effects on household and community well-being. In the case of income paid, beneficiaries of the EPWP will earn wages that flow into households and affect the poverty status of the household. In addition, the payment of a known monthly income (albeit for a short period) induces a stabilization effect by enabling household consumption smoothing and reducing vulnerability to shocks.

Furthermore, to accurately capture the full impact of the EPWP on poverty alleviation, it is vital to evaluate the dynamic poverty impact by examining the participating households' ability to manage risk and move out of poverty over time.

Against this background, the proposed framework for evaluating the EPWP is summarised in Table 4, which indicates the various evaluation techniques and tools against the specific areas that they will measure. It includes a variety of techniques that will jointly yield the quantitative and qualitative information required to evaluate the various facets of the programme outlined in Table 1 (EPWP objectives to be monitored and evaluated).

**Table 4: Summary of Evaluation Techniques**

Technique	Implementation	Areas Measured	Timeframes
Cross-sectional Surveys	Surveys of contractors/ implementing agents, beneficiaries, communities & government departments	Profile of beneficiaries & their households; impact of income transfers; impact of assets created; relevance & quality of training, role of contractor (targeting, training etc.); community perceptions of the benefit of the project; efficacy of design & implementation	Years 1 - 5, surveys to be conducted at the end of the project cycle
Longitudinal Surveys	Surveys of beneficiaries 6 months after exiting the EPWP & 6 months thereafter	Whether employment or self-employment occurs after exiting the EPWP; Longer-term impact of income transfers & training; Offsetting effects (displacement and substitution).	Years 1 - 5, surveys to be conducted 6 months after beneficiaries exit the EPWP & 6 months thereafter
Case Studies and Completion Reports	In-depth studies of selected projects by researchers, spread across sectors and provinces  Assessment of Quality of assets and services. Evaluation of the quality of infrastructure and services against accepted benchmarks	All measurement areas excluding employment prospects of beneficiaries after exiting the EPWP. Quality of assets.  Implementation process  All forms of infrastructure and services	Years 1 – 5
Poverty Impact Analysis	Secondary data & data derived from surveys utilised	Impact of income, assets and services transferred to poor households on poverty & vulnerability	Years 3 & 5
Aggregate Impact Analysis	Utilise a computable general equilibrium (CGE) model to measure broader impacts	Linkages between EPWP and broader macroeconomic variables such as aggregate demand, net jobs created, income redistribution and inflation	Years 3 & 5

These techniques and measures will be implemented at different stages as the EPWP is rolled out. While the cross-sectional and longitudinal surveys will be ongoing and commence once the initial projects near completion, the poverty impact analysis and aggregate impact analysis will take place twice over the 5-year period, in years 3 and 5. This M&E Framework will place more emphasis on case studies and completion reports, i.e. process evaluation. This will enable all stakeholders in the EPWP to take the lessons learnt into account over a much shorter period, and is also more cost-efficient. The audits that will be conducted in all provinces by the Auditor-General's Office on an annual basis will play an important role to ensure compliance with the EPWP Tender and Design Guidelines. A more detailed account of the various techniques, their cost implications and application to the EPWP is provided below, starting with Stats SA's Labour Force Survey (LFS).

#### **4.1. Surveys**

##### **4.1.1. The Labour Force Survey (LFS)**

Questions on the EPWP have been included in the LFS questionnaire. This survey is conducted every six months (in April and September). The LFS sample includes roughly 30 000 households and their members and is conducted twice a year: in March and September. In the September 2002 LFS approximately 62 000 people of working age (16-65) were interviewed. This represents 0,23% of South Africans in this age group – i.e. approximately 1 in 400 people are interviewed.

If it is assumed that approximately 800 000 people will work on the EPWP at some point during the 5 year period of the programme, it can be expected that 1800 of them will be included in the LFS sample. This is a sufficiently large sample to permit analysis of the impact of the EPWP on employability, as well as to provide information about the household income and structure of beneficiaries. It should be noted that deep analysis of the programmes will not be possible through the LFS, as the survey is not geared to that purpose. It will enable high level, macro-impact analysis.

Not only will the inclusion of employment on EPWP projects in the LFS enable users of this data to clearly identify this category of employment, thereby preventing distortions of time series data, it will also be a cheap method of collecting information about the beneficiaries of EPWP projects and their households. Ultimately, once the scope and coverage of data collected in this way is assessed, it may be possible to reduce the scope of the other evaluation techniques, or even replace them with data from the LFS.

##### **4.1.2. Cross-sectional and Longitudinal Surveys**

Cross-sectional and longitudinal surveys are the principal evaluation techniques used to evaluate public works programmes the world over. The surveys proposed for evaluating the EPWP will contain elements of both *descriptive* and *explanatory* approaches. The descriptive approach will be used to gather information related to the stated objectives of the study, while the explanatory approach will be used to investigate the nature and extent of the relationship between the programme and

specific outcomes such as the probability of obtaining employment after exiting the EPWP and its impact on poverty at the household level.

The purpose of the cross-sectional surveys is two-fold: to provide **a sample of project level information for detailed monitoring** of the EPWP as well as to provide information that will contribute to the evaluation of the programme's impacts. The former is deemed necessary because only a small number of key indicators will be collected on an ongoing basis for the purpose of monitoring the EPWP. The principal purpose of the longitudinal surveys is to access information about the employment prospects of beneficiaries once they exit the EPWP.

The surveys will be conducted towards the end of the project cycle in order to obtain optimum information about the project and its impacts. The estimated sample sizes for the cross-sectional surveys are presented below, as these will determine the cost implications for this aspect of the evaluation framework. It must be emphasized that they are based on the limited information in the sector plans. Moreover, with the exception of the Environment and Culture Sector (which has been in existence under the auspices of the Special Poverty Relief Allocation for some years), the sample population will only be known once implementation commences. No sector plan is currently available for the economic sector.

Against the background of the detailed discussion of the sector plans presented in section 3, *the proposed sample size and sampling approach is presented in the next sections for the cross-sectional and longitudinal surveys*. As some proportion of the beneficiaries interviewed in the cross-sectional surveys will be the subjects of the longitudinal surveys, the approach to sampling is spelt out only for the former.

#### **4.1.3. Cross-sectional Surveys**

The first issue to be addressed is the approach to sampling. The target population is the entire population of projects, from which a sample of projects or individuals will be drawn. The Infrastructure and Social Sectors are particularly complex, because the population of projects to be sampled and their key characteristics (which determine the sample stratification) will remain unknown until implementation commences. Therefore an orthodox approach to sampling is ruled out.

Consequently, projects will be stratified by key variables such as **type, geographical location** and **size**. Purposive sampling techniques will be used to ensure that the projects selected are most informative for review and planning of the EPWP. Monitoring data and completion reports should highlight the need for more in-depth investigation of selected projects.

Ideally the following information should be available for sampling:

- The number of projects
- The size of the projects
- The location of the projects
- The types of projects

The purposive sampling will be based on available data that will change as more projects are included across the various sectors. As projects commence and the information is registered at the EPWP Unit, it will be possible to systematically identify those projects that will be sampled on a representative basis. Given the complexity of sampling, many of the projects reflected on in the annual evaluation report will not have been completed.

In practical terms, the sampling and surveying process will unfold as projects are implemented. Until the end of the fiscal year, the difference between the hypothetical and actual sample frame will not be known.

In order to capture the information required for evaluation purposes, the following categories of people will be interviewed in each project:

- Beneficiaries
- Implementing agents;
- The provincial or local government officials responsible for implementing the project;

The specificities associated with each of the three sectors, as well as the budgetary implications of the cross-sectional surveys are outlined below. The Economic Sector will be included as projects are registered.

#### 4.1.3.1. Infrastructure Sector

Given that the implementation of the Tender and Design Guidelines for labour-intensive methods in civil construction is a new programme at the level of national government, little is known of the number of projects to be implemented and how they will be stratified across provinces and type of infrastructure. As stated earlier a purposive sampling approach will be followed for evaluation purposes. The required sample size is then estimated on the assumption that 10 beneficiaries will be sampled per project. It should be noted that 1 444 Infrastructure Sector projects submitted reports to the EPWP Unit for the Apr-Sept 2004 reporting period. A more reliable figure for a sampling frame would only become available after finalisation of the third quarterly report. The indicative figures in Table 5 will then be adjusted accordingly.

**Table 5: Number of Infrastructure Projects to be sampled per Province**

Province	05/06	07/08	09/10
Gauteng	4 PIG 4 MIG	8 PIG 8 MIG	9 PIG 9 MIG
KZN	4 PIG 4 MIG	8 PIG 8 MIG	9 PIG 9 MIG
Western Cape	4 PIG 4 MIG	8 PIG 8 MIG	9 PIG 9 MIG

Province	05/06	07/08	09/10
Eastern Cape	2 PIG 2 MIG	4 PIG 4 MIG	5 PIG 5 MIG
Limpopo	2 PIG 2 MIG	4 PIG 4 MIG	5 PIG 5 MIG
Mpumalanga	2 PIG 2 MIG	4 PIG 4 MIG	5 PIG 5 MIG
Free State	2 PIG 2 MIG	4 PIG 4 MIG	5 PIG 5 MIG
North West	2 PIG 2 MIG	4 PIG 4 MIG	5 PIG 5 MIG
Northern Cape	2 PIG 2 MIG	4 PIG 4 MIG	5 PIG 5 MIG
Total	48	96	114

The estimated budget required for the cross-sectional surveys for this sector – on the assumption that 1% of beneficiaries are surveyed in years 2, 4 and 6 are presented in Table 6. As was noted, these figures will have to be adjusted according to the actual number of projects reflected in the EPWP quarterly reports.

The number of cross-sectional surveys in the Infrastructure Sector will be selected on the following basis:

- 2 PIG and 2 MIG surveys in the Northern Cape, Mpumalanga, Eastern Cape, Limpopo, North West and the Free State in 2005/06
- 4 PIG and 4 MIG surveys in Gauteng, KZN and the Western Cape

**Table 6: Estimated Budget for Infrastructure Sector Cross-sectional Surveys**

	2005/06	2007/08	2009/10	Total
No. Projects	48	96	114	258
No. Interviews	15	15	15	45
Total Interviews	720	1440	1710	3870
Cost per Interview *	500	500	500	1500
Total Cost of Surveys	360,000	720,000	855,000	1,935,000
Questionnaire Design (once-off)	27,200	0	0	27200
Analysis & Report	110,400	110,400	110,400	331,200
<i>Sub-total</i>	<i>497,600</i>	<i>830,400</i>	<i>965,400</i>	<i>2,293,400</i>
VAT	69,664	116256	135156	321,076
<b>Total</b>	<b>567,264</b>	<b>946,656</b>	<b>1,100,556</b>	<b>2,614,476</b>

These estimates are based on the further assumptions that each interview will cost R500 to undertake and that 15 beneficiaries will be interviewed at each project site and will comprise the following:

- 9 beneficiaries;
- 2 community members in which the project is located or from which the beneficiaries are derived;
- 1 site staff who has completed CETA-accredited unit standards training;
- 1 contractor;
- 1 consultant; and
- 1 provincial or local government official.

#### 4.1.3.2. Environment and Culture Sector

The determination of a sample frame for the environmental projects is disaggregated by implementing department – i.e. DEAT, DWAF and NDA – as this is the primary level for stratifying them. Given the relatively small contribution made by DAC projects to employment creation and the complexity associated with surveying them, it is recommended that these programmes are not subjected to surveys. Some of these projects could be covered by completion reports and cases studies.

- **Department of Environment & Tourism (DEAT)**

The DEAT estimates that there will be a total of about 700 projects during the 2004/05 fiscal year. The 700 projects constitute the population of projects from which to sample. The sample size calculation approach will be based on assuming a 20% success rate (i.e. 20% of the projects meet *all* the objectives outlined in section 3) and a 20% margin of error. The margin of error is relatively large due to budgetary constraints that make it necessary to contain the number of projects to be surveyed. The results of the final sample will enable us to report findings within a 95% confidence interval and significance levels of 5%.

This yields a **sample size of 14 projects** for the 2004/05 financial year. It is assumed that the same number of projects will be sampled for subsequent years for the purpose of costing the surveys, although it is likely that the sample size will be altered annually as the programme evolves and changes.

The final sample size will be allocated across provinces and specific project types to ensure that the various strata within the population are proportionally represented.

- **National Department of Agriculture (NDA)**

The total estimated number of projects is 166 for the 2004/05 fiscal year. Applying the same criteria as for the DEAT projects (i.e. a 20% success rate and 20% margin of error) yields a **total sample of 8 projects**. The projects will be proportionately distributed over all provinces based on the total number of anticipated projects within each province. The sample size will be sufficient to report the results at 95% confidence limits.

### **Department of Water Affairs and Forestry**

The total estimated number of projects is 278 for the 2004/05 fiscal year. Applying the same criteria as for the DEAT projects (i.e. a 20% success rate and 20% margin of error) yields a **total sample of 12 projects**. The 12 projects will be proportionately distributed over all provinces based on the total number of anticipated projects within each province. The sample size will be sufficient to report the results at 95% confidence limits. In the Environment Sector reports were received from 826 projects for the period Apr-Sept 2004. A more reliable figure will be available after the third quarter of EPWP implementation. This figure will determine the sampling frame for this sector.

It is assumed that the sample size will remain the same for the Environment and Culture Sector over the 5-year period. The estimated budget for the cross-sectional surveys for all departments is summarised in Table 7, on the assumption that 1% of beneficiaries are interviewed.

**Table 7: Estimated Budget for Environment and Culture Sector Cross-sectional Surveys**

	2004/05	2006/07	2008/09	Total
No. Projects	35	35	35	105
No. Interviews	14	14	14	42
Total Interviews	490	490	490	1470
Cost per Interview*	R 500	R 500	R 500	R 1500
Total Cost of Surveys	R 245,000	R 245,000	R 245,000	R 735,000
Questionnaire Design	R 27,200 (once-off)	0	0	R 27,200
Analysis & Report	R 110,400	R 110,400	R 110,400	R 331,200
<i>Sub-total</i>	<i>R 382,600</i>	<i>R 355,400</i>	<i>R 355,400</i>	<i>R 1,093,400</i>
VAT	R 53,564	R 53,564	R 53,564	R 160,692
<b>Total</b>	<b>R 436,164</b>	<b>R 408,964</b>	<b>R 408,964</b>	<b>R 1,254,092</b>

These estimates are based on the further assumptions that each interview will cost R500 to undertake and that 14 beneficiaries will be interviewed at each project site and will comprise the following:

- 10 beneficiaries;
- 2 community members in which the project is located or from which the beneficiaries are derived;
- 1 implementing agent; and
- 1 provincial or local government official.

### 4.1.3.3. Social Sector

Within the Social Sector there are two types of projects: *early childhood development* and *home community based care*. In contrast to the Infrastructure and Environment and Culture Sectors, where *projects* will be sampled, in the Social Sector, *individuals* associated with the projects will be randomly selected and this will determine the sites to be sampled. This is the case because with a few exceptions, beneficiaries will be attached to existing NGOs and CBOs providing these services. The sampling frame for this sector will only be determined when reports have been finalised for the third quarter (i.e. Oct-Dec 2004).

- **Home Community Based Care**

The HCBC sample will be stratified by implementing department or institution. These are the Departments of Social Development and Health and the Umsobomvu Youth Fund. The estimated number of beneficiaries associated with these strata are 4 280, 9 000 and 3 000 respectively. Within each stratum, a 1% sample of beneficiaries will be randomly selected. Table 8 illustrates the estimated sample size for those individuals that will enter these job opportunities in the 2004/05 financial year. It is, however, unlikely that the majority will be surveyed during that year, as they would not have been on the programmes for a sufficiently long period of time to elicit optimum information from them. This is reflected in the budget presented in section 5.

**Table 8: Estimated Sample Size for the HCBC Programme.**

	<b>Plan A: Current plan</b>	<b>Plan B: Short term expansion</b>	<b>Plan C: Medium term expansion</b>
NQF LVL 1	60		
DoSD		43	
DoH		90	
Umsobomvu		30	
NQF LVL 4		5	
NQF LVL 1 & 3			0
<b>TOTAL</b>	<b>60</b>	<b>168</b>	<b>0</b>

The sampling will take place at the implementing agencies (NGOs and CBOs) at which the beneficiaries are based. For purposes of costing it is assumed that 5 beneficiaries are based at any specific site.

- **Early Childhood Development**

As is the case with HCBC, the sampling element will also be beneficiaries rather than projects. These individuals will be surveyed at the sites to which they are

attached. A 1% sample of individuals will be drawn from each Stratum, i.e. the four plans: Current plan, Short-term expansion, medium-term expansion and long-term expansion. The proposed sample is illustrated in Table 9.

**Table 9: Estimated Sample Size for the ECD Programme**

	<b>Plan A: Current plan</b>	<b>Plan B: Short term</b>	<b>Plan C: Medium term</b>	<b>Plan C; Long term</b>
ECD basic certificate				
ECD National certificate	45			
ECD Diploma				
ECD skills program NQF 1-3		4		
ECD Skills program				
ECD support staff & PIP				
<b>TOTAL</b>	<b>45</b>	<b>4</b>	<b>0</b>	<b>0</b>

Unlike HCBC, in most cases a maximum of 2 beneficiaries will be based at each site; hence more sites will be sampled, but fewer interviews will be conducted per site.

The estimated budget for the cross-sectional surveys for both programmes is summarised in Table 10, on the assumption that 1% of beneficiaries will be interviewed. The cost estimates are based on the assumption that each interview will cost R500 and that 9 interviews per site will be conducted for the HCBC programme (i.e. 5 beneficiaries, the implementing agent, 1 provincial government official and 2 community members) and 6 interviews per site will be conducted for the ECD programme (i.e. 2 beneficiaries, the implementing agent, 1 provincial government official and 2 community members).

**Table10: Estimated Budget for Social Sector Cross-sectional Surveys**

<b>HCBC</b>	<b>2005/06</b>	<b>2007/08</b>	<b>2009/10</b>	<b>TOTAL</b>
No. Projects	10	20	22	52
No. Interviews	9	9	9	27
Total Interviews	90	180	198	468
Cost per Interview*	500	500	500	R 1500
Total Cost of Surveys	R 45,000	R 90,000	R 99,000	R 234,000

<b>HCBC</b>	<b>2005/06</b>	<b>2007/08</b>	<b>2009/10</b>	<b>TOTAL</b>
Questionnaire Design	R 27,200 (once-off)	0	0	R 27,200
Analysis & Report	R 110,400	R 110,400	R 110,400	331,200
<i>Sub-total</i>	<i>R 182,600</i>	<i>R 200,400</i>	<i>R 209,400</i>	592,400
VAT	R 25,564	R 28 ,056	R 29 ,316	82,936
<b>Total</b>	<b>R 208,164</b>	<b>R 228,456</b>	<b>R 238,716</b>	<b>675,336</b>
<b>ECD</b>	<b>2004/05</b>	<b>2006/07</b>	<b>2008/09</b>	<b>TOTAL</b>
No. Projects	5	13	20	38
No. Interviews	6	6	6	18
Total Interviews	30	78	120	228
Cost per Interview*	500	500	500	R 1500
Total Cost of Surveys	R 15,000	R 39,000	R 60,000	R 114,000
Questionnaire Design	R 27,200 (once-off)	0	0	R 27,200
Analysis & Report	R 110,400	R 110,400	R 110,400	R 331,200
<i>Sub-total</i>	<i>R 152,600</i>	<i>R 149,400</i>	<i>R 170,400</i>	R 472,400
VAT	R 21,364	R 20,916	R 23,856	R 66,136
<b>Total</b>	<b>R 173,964</b>	<b>R 170,316</b>	<b>R 194,256</b>	<b>R 538,536</b>

#### 4.1.4. Longitudinal Surveys

The only technique available to ascertain the employment or self-employment prospects of beneficiaries once they exit the EPWP is longitudinal surveys. In terms of this technique, individuals from the sampling units are followed over time in order to ascertain the long-term impact of a policy intervention.

In the case of the EPWP, the sample will be drawn from beneficiaries surveyed in the cross-sectional surveys. This cohort will be surveyed 6 months after exiting the programme and a further 6 months thereafter. These timeframes are based on the theoretical assumption that if beneficiaries are not in employment or self-employment 12 months after exiting the programme, their participation in the EPWP is unlikely to influence their employment prospects in subsequent periods.

The main complexity associated with longitudinal surveys is tracing the beneficiaries in order to interview them after they have exited the programme. Many will move to other areas in search of jobs.

To properly assess the impact of the EPWP a control group is required. Given the expense and complexity associated with using the experimental and quasi-experimental methods and the high risk of contamination (i.e. that some members of the control group become EPWP beneficiaries during the period in which the surveys are conducted), the control group will be drawn from secondary data, in particular, the LFS conducted twice a year by Stats SA.

The cost associated with the longitudinal surveys for the entire five year period are summarised in Table 11. Given the long duration of Social Sector projects and the fact that it is unlikely that 6 months would have elapsed after exiting the programmes in 2004/05 in the Environmental and Infrastructure Sector projects, it is anticipated that few longitudinal surveys will be conducted in the first year.

**Table 11: Cost Estimate for the Longitudinal Surveys, 2005/06 – 2009/10**

Sector	Sample	No. Interviews	Cost per interview	Total Cost
Infrastructure	750	1500	700	1050000
Environmental	344	688	700	481600
Social	630	1260	700	882000
Sub-total	1724	3448	700	2413600
VAT				337904
<b>Total</b>				<b>2751504</b>

Given the costs involved with longitudinal surveys, a limited number of participants would be tracked over the five year period. Each selected participant will be surveyed twice over the 2005/06 to 2009/10 period. A further assumption is that the cost per interview will be R700, inclusive of the incentive provided to the interviewees.

#### 4.1.5. Case Studies and Completion Reports

In order to properly evaluate the impact of the EPWP from the perspective of policy design and implementation and the alleviation of poverty, it is necessary to undertake select case studies, as this technique will provide in-depth information and analysis that is not accessible through surveys.

In combination with the other research techniques the case studies will prove to be a valuable instrument to evaluate the EPWP. In particular, they will serve to verify and validate the findings of the surveys and other techniques, while at the same time yielding information that cannot be accessed through the other methods. A good example is the problems with programme design and implementation that pose an obstacle to achieving its stated objectives.

The case studies will be selected on the basis of their representivity in terms of sectors and geographical location. Ten case studies will be conducted annually over the 5-year period (except for year 5) at an estimated cost of R40 000 each per annum. As the EPWP is rolled out it may be deemed necessary to expand this number.

The following categories of case studies are proposed:

- 3 for the Infrastructure Sector: 1 provincial roads project, 1 municipal roads project and 1 water reticulation project;
- 3 for the Environment and Culture Sector: 1 administered by DEAT, 1 administered by DWAF and 1 administered by NDA<sup>3</sup>.
- 2 for the Social Sector: 1 HCBC site and 1 ECD site.
- 2 for the Economic Sector (to be informed by the sector plan)

In conjunction with the case studies, 36 completion reports will be conducted (one in every sector in each province) in the 2005/06 at a total estimated cost of R720 000 (i.e. R20 000 each). In the remaining four years the number of these reports will be increased to two per sector in each province, i.e. a total of 72 at a total estimated cost of R540 000 annually (except for year 5). These reports will be in a set format and project managers will get assistance from a small team of experts. The completion reports will be reviewed and lessons learnt fed into planning for other evaluation studies.

As part of the case studies an assessment of the quality of assets and services provided. Mechanisms for ensuring that assets and services comply with some quality standard (including the contractual commitments of implementing agents) will have to be developed where they do not exist for a particular sector. It is suggested that these records are used as a basis for quality assessment. A verification exercise, targeting a sample of projects across provinces will then be required. In some cases (for example, National Treasury in relation to the PIG) such verification mechanisms are already in place.

Benchmarks, against which to assess the quality of assets and services, will have to be developed. For the Social Sector, standards of service for home community based care and early childhood development services will have to be defined as precisely as possible in order to serve as benchmarks.

#### **4.1.6. Poverty Impact Analysis**

The central objective of the EPWP is to alleviate poverty through training of poor unemployed people. The creation of short-term job opportunities through the provision of assets and services is a means to that end. The evaluation would therefore be meaningless without an analysis of the impact the programme has on the poor.

The EPWP addresses poverty through two mechanisms: a cash payment to participants and the provision of assets and services, which have indirect effects on household and community well being. Given that the beneficiaries are members of households that at least partially share risk and resources, it is important that the poverty impact analysis be conducted at the household level.

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<sup>3</sup> Given the small contribution made by DAC projects to employment creation and their complexity, these programmes will not be subjected to either case studies or surveys

In the case of income paid, beneficiaries of the EPWP will earn wages that flow into households and affect the (money-metric) poverty status of the household. In addition, the receipt of a known monthly income (albeit for a short period) induces a stabilization effect by enabling household consumption smoothing and reducing vulnerability to stochastic shocks.

The technique for measuring the direct and indirect impact of the EPWP on poverty is drawn from a recent study of public works programmes in the Western Cape, as it is an example of international best practice and has been tested in the South African context. The analytical frame is summarised in Box 1 below.

**Box 1: Analytical Framework for Measuring Poverty Impact of the EPWP**

Variables:

**G** = government spending on public works,

**W** = wage bill to poor workers on public works project,

**L** = wage bill leaked to non-poor workers on project,

**IB** = non-transfer or indirect benefits to the poor, and

**IBNP** = non-transfer or indirect benefits to the non-poor.

**P\*** = the probability of the poor worker getting a job, in absence of project,

**P** = the probability of a poor worker finding work while working on the project, and

**W\*** = the wage rate of poor workers in the absence of the project.

The wages earned by poor workers in the absence of the project are  $P^*W^*$ . In the presence of the project, poor workers earn  $(1-P)W + PW^*$ .

The **net wage gain to the poor**, *NW*, is

$$(1-P)W + PW^* - P^*W^*$$

or

$$(1-P)W - (P^* - P)W^* .$$

The total benefits to the poor, *B*, become  $NW + IB$ , and the total non-transfer or indirect benefits,  $SB = IB + IBNP$ .

Using these components, we can define

labour intensity =  $(W + L)/G$

percent of earnings to poor =  $W/(W + L)$ ,

the benefit to cost ratio =  $SB/G$ , and

the rands (from government) cost per unit of rand benefit to poor =  $G/B$ .

The lower the  $G/B$ , the more efficient transfer mechanism the public works project is for the poor, at least in terms of government outlays. In general, one might expect  $G/B$  to decline with (1) increased labour intensity (high  $(W + L)/G$ ), (2) improved targeting performance (high  $W/(W + L)$ ), (3) large new wage gains (large  $NW/W$ ), (4) a large proportion of the indirect benefits to the poor (large  $IB/SB$ )

The model essentially tests the efficiency of public works programmes in generating income and assets to the poor. It does this by assessing the net wage (i.e. net of opportunity costs) and assets generated for the poor. The ratio of government expenditure to the benefits transferred to the poor is then the measure of efficiency.

In addition to measuring the anti-poverty impact of the programme in terms of this model, the dynamic poverty impact should also be assessed by examination of participating households' ability to manage risk and move out of poverty over time.

Socio-economic profiling of EPWP participant households through ongoing survey work would enable the household and community impact of the programme to be modelled, to complement the cost effectiveness analysis.

Table 12 summarises the information required to conduct the poverty impact analysis and indicates where it will be sourced.

**Table12: Information and Sources for Poverty Impact Analysis**

Information Required	Measures	Sources
Demographic composition of households	Age, gender and race composition of household and household structure	<ul style="list-style-type: none"> <li>▪ Cross-sectional and longitudinal surveys</li> <li>▪ LFS for control group</li> </ul>
Employment status of household members	Full-time/ part-time, self-employed, formal/informal, unemployed, length of time unemployed.	<ul style="list-style-type: none"> <li>▪ Cross-sectional and longitudinal surveys</li> <li>▪ LFS for control group</li> </ul>
Levels and sources of household income	Wage income, remittances, grants, capital income, subsistence farming.	<ul style="list-style-type: none"> <li>▪ Cross-sectional and longitudinal surveys</li> <li>▪ Income and Expenditure Survey (IES) for control group</li> </ul>
Expenditure patterns of households*	Perceived changes in consumption of goods and services	<ul style="list-style-type: none"> <li>▪ Cross-sectional and longitudinal surveys</li> <li>▪ Income and Expenditure Survey (IES) for control group</li> </ul>
Health status of households	Perceptions of health changes before and after the intervention	<ul style="list-style-type: none"> <li>▪ Cross-sectional and longitudinal surveys</li> </ul>
Nutritional and educational status of children in households	School attendance before and after the intervention and the incidence of going hungry before and after the intervention.	<ul style="list-style-type: none"> <li>▪ Cross-sectional and longitudinal surveys</li> </ul>

Information Required	Measures	Sources
Households' ability to manage poverty and risk over time	Whether access to credit and financial services has changed as a consequence of the intervention and acquisition of assets	<ul style="list-style-type: none"> <li>▪ Cross-sectional and longitudinal surveys</li> </ul>
Correlation with other income generating or subsistence activities	Whether beneficiaries or other household members enter employment or self-employment after exiting the programme.	<ul style="list-style-type: none"> <li>▪ Longitudinal surveys</li> </ul>

\*Note: this information will be more qualitative (i.e. based on perceptions) than quantitative, since the household's expenditure patterns cannot be observed before the intervention.

The budget for this aspect of the evaluation is summarised in Table 13.

**Table13: Estimated Cost of a Poverty Impact Analysis**

Activity	Cost
Creation of merged dataset (i.e. from surveys, LFS & IES)	R 48,000
Development of Analytical Frame	R 54,400
Analysis of data	R 64,000
Report	R 81,600
<i>Sub-total</i>	<i>R 248,000</i>
VAT	R 34,720
<b>Total</b>	<b>R 282,720</b>

It is recommended that the poverty impact analysis is conducted twice over the next five-year term of government: in years 3 and 5. This will ensure that the critical mass of data required to adequately perform this analysis is available, as well as providing information to policy-makers.

#### 4.1.7. Aggregate Impact Analysis

The orthodox Keynesian rationale for implementing public works programmes is that their impact is much greater than the government expenditure used to implement them, as a result of the multiplier effects that are generated. Indeed, it is often the multipliers and not the initial expenditure that has the greatest impact. It is therefore important to know the nature and magnitude of the multipliers in order to evaluate the second round effects of the EPWP.

From a theoretical perspective it is therefore reasonable to expect that the implementation of the EPWP would have a positive impact on South Africa's macro economy and growth path. The main mechanism through which increased demand

for unskilled labour would impact on national economic growth would be the stimulation of aggregate demand. This is particularly important in the South African context given the identification of constrained domestic demand as a key factor underlying low levels of investment and poor economic growth.

In addition, it has been argued that stimulating demand among the poor would shift the composition of demand towards labour-absorbing sectors of the economy. This would be the case if increased consumption by the poor increases demand for basic consumer durables and agricultural products - goods which tend to be produced domestically, and absorb a greater proportion of labour in their production, compared to goods consumed by the rich. In this way the stimulus of increased demand would promote second round labour demand multipliers.

Against this background, it is essential to assess:

- the impact of increased demand on employment and output;
- whether increased consumption demands can be met without the risk of negative inflationary pressures;
- the impact of a decrease in the import of equipment (that would have been used in machine-intensive construction) and fuel;
- the impact of the EPWP on the distribution of income and concomitant measures of poverty and income inequality.

The estimated cost of conducting such an analysis is summarised in Table 14.

**Table 14: Estimated Cost of an Aggregate Impact Analysis**

Activity	Total
Adapting HSRC model & database to incorporate EPWP activities	R 112,000
Creating a consistent database	R 112,000
Report	R 56,000
Sub-total	R 280,000
VAT	R 39,200
<b>TOTAL</b>	<b>R 319,200</b>

An aggregate impact analysis will be undertaken once over the 5 years that the EPWP is being rolled out, namely in year 5.

## 4.2. Summary of Timeframes and Costs

### 4.2.1. Timeframes

The timeframes for the implementation of the various evaluation techniques are summarised in Table 15. They are based on the following assumptions:

- Cross-sectional surveys of the Infrastructure Sector will commence in the 2004/05 financial year;
- Cross-sectional surveys of the Environment and Culture Sector will commence in the 2004/05 financial year;
- Cross-sectional surveys for the Social Sector will commence in 2005/06, given the long duration of the job opportunities and the need to conduct the interviews towards the end;
- The longitudinal surveys will be conducted in 2005/06 will be for Environment and Culture Sector projects, as there are unlikely to be many beneficiaries for whom 6 months has elapsed after exiting the programmes in the Infrastructure and Social Sectors;
- Case studies and completion reports will commence in the 2005/06 financial year, as there should be projects in place across all sectors by that time; and
- The poverty impact analysis and aggregate impact analysis will be undertaken in years 3 and 5.

**Table 15: Estimated Timeframes for the implementation of the evaluation techniques**

	2005-2006				2006-2007				2007-2008				2008 - 2009				2009 - 2010			
<i>Evaluation Techniques</i>	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>CROSS-SECTIONAL SURVEYS</b>																				
Infrastructure																				
Environmental																				
Social																				
<b>LONGITUDINAL SURVEYS</b>																				
Infrastructure																				
Environmental																				
Social																				
<b>CASE STUDIES</b>																				

	2005-2006	2006-2007	2007-2008	2008 - 2009	2009 - 2010
<b>COMPLETION REPORTS</b>	■	■	■	■	■
<b>POVERTY IMPACT ANALYSIS</b>			■		■
<b>AGGREGATE IMPACT ANALYSIS</b>			■		■
Annual Evaluation Reports		■	■	■	■
Comprehensive 5 year Report					■

#### 4.2.2. Costs

Table 16 summarises the estimated costs for M&E over a five-year period.

**Table 16: Estimated Costs for the Implementation of the Evaluation Techniques**

Evaluation Techniques	2005/06	2006/07	2007/08	2008/09	2009/10	
<b>CROSS-SECTIONAL SURVEYS</b>						
Infrastructure	567,264		946,656		1,100,556	
Environmental	436,164		408,964		408,964	
Social: HCBC	208,164		228,456		238,716	
Social: ECD	173,964		170,316		194,256	
Sub-total	1,385,556		1,754,392		1,942,492	
<b>LONGITUDINAL SURVEYS</b>						
Infrastructure					1,050,000	
Environmental					481,600	
Social					882,000	
Sub-total					2,413,600	
<b>CASE STUDIES</b>						
Infrastructure	120,000	120,000	120,000	120,000		
Environmental	120,000	120,000	120,000	120,000		
Social: HCBC	40,000	40,000	40,000	40,000		
Social: ECD	40,000	40,000	40,000	40,000		
Economic	80,000	80,000	80,000	80,000		
Sub-total	400,000	400,000	400,000	400,000		
<b>COMPLETION REPORTS</b>						
Infrastructure	180,000	180,000	180,000	180,000		
Environmental	180,000	180,000	180,000	180,000		
Social: HCBC	90,000	90,000	90,000	90,000		
Social: ECD	90,000	90,000	90,000	90,000		
Economic	180,000	180,000	180,000	180,000		
Sub-total	720,000	720,000	720,000	720,000		
<b>POVERTY IMPACT ANALYSIS</b>					282,720	
<b>AGGREGATE IMPACT ANALYSIS</b>					319,200	
<b>TOTAL</b>	<b>2,505,556</b>	<b>1,120,000</b>	<b>2,874,392</b>	<b>1,120,000</b>	<b>4,958,012</b>	<b>12,577,960</b>

## **5. IMPLEMENTATION OF THE EVALUATION FRAMEWORK**

The following steps will be followed to implement this framework:

- The M&E Framework will be submitted to the four sector committees for comment
- The different surveys will be put to tender as per set time frames for the various evaluation instruments
- Case studies and completion reports will be conducted first in order to get quantitative and qualitative information that could serve as a baseline (flawed as it might be) and to inform the broader M&E processes
- Different surveys will be awarded to different contractors
- An interdepartmental forum will be established to serve on an M&E Reference Group that will serve as a channel for communication between researchers and government departments

## **6. CONCLUSION**

This document has outlined a comprehensive and integrated framework for evaluating the economic impact of the EPWP on employment and poverty. During the financial year 2004/05 the focus is on collecting quarterly monitoring data as per a reporting template, based on the Logframe.

Undoubtedly, a number of additional considerations and areas that require evaluation will come to light as the EPWP is rolled out. The lessons learned from selected completion reports and case studies will inform the nature and extent of evaluation studies to be committed within budgetary constraints. There is a clear need to place particular emphasis on process evaluation, given the time and costs involved with impact evaluation. It is therefore essential that the approach to the framework is flexible to allow for the inclusion of issues that will be identified as a result of process evaluation. Critically, the need for the various aspects of the framework should be re-evaluated once the possibility of capturing beneficiaries of the EPWP through the LFS is ascertained and the extent to which they are captured is verified. A key challenge for evaluation of the EPWP would be to answer the question of the impact of the mandated shift from equipment based construction methods to labour-intensive ones, as well as the extent to which the latter produces the same assets as would have been done without the EPWP.